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Competitive Cities in the Global Economy



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Foreword

Across the OECD, globalisation increasingly tests the ability of regional economies to adapt and exploit their competitive edge, as it also offers new opportunities for regional development. This is leading public authorities to rethink their strategies. Moreover, as a result of decentralisation, central governments are no longer the sole provider of development policies. Effective and efficient relations between different levels of government are required in order to improve public service delivery.

The objective of pursuing regional competitiveness is particularly relevant in metropolitan regions. Cities are important generators of wealth, employment and productivity growth and often quoted as the engines of their national economies. Productivity levels are generally higher in metropolitan areas and the increased trade and capital flows give rise to increased flows of people, goods, capital, services and ideas. In many OECD countries, metropolitan regions produce a larger percentage of the national GDP than their representative population percentage. The growing economic and demographic importance of metro-regions and their increasing relations to the worldwide economy raises important policy issues. These issues are made more difficult and pressing by the fact that large concentrations of population and economic activities are associated with certain negative externalities, such as congestion, pollution, social segregation or high crime rates. Based on the work conducted by the OECD Directorate of Public Governance and Territorial Development, in particular from the series of OECD Territorial Reviews, *this report draws out key trends and factors of growth and competitiveness, and identifies some major dilemmas for policy-makers.*

Responding to a need to study and spread innovative territorial development strategies and governance in a more systematic way, the OECD created in 1999 the Territorial Development Policy Committee (TDPC) and its Working Party on Urban Areas (WPUA) as a unique forum for international exchange and debate. The TDPC and its WPUA have developed a number of activities on urban development, among which is a series of specific case studies on metropolitan regions. These studies follow a standard methodology and a common conceptual framework, allowing countries to share their experiences.

Acknowledgments

The process that led to this report has included horizontal research, a number of case studies on metropolitan regions and analysis of national urban policies across OECD countries (*OECD Territorial Reviews*) as well as several international conferences. This process was directed by Mario Pezzini (Head) and co-ordinated by Lamia Kamal-Chaoui (Administrator) of the OECD Division of Regional Competitiveness and Governance.

The report was drafted and co-ordinated by Lamia Kamal-Chaoui, with contributions from other OECD Secretariat members including Javier Sanchez-Reaza (metropolitan database and statistical trends and analysis), Guang Yang (clusters policies) and Olaf Merk (urban finance). Statistical data and methodologies were provided by Brunella Boselli and Vincenzo Spiezia (OECD Statistical Indicators Unit). Additional inputs came from Alfried Braumann (former OECD consultant, currently Economic Policy Advisor to the Green Party in the Austrian Parliament) on cross-border regions.

A major contribution to this report (both Parts I and II) was provided by Colin Crouch, Professor of Governance and Public Management at the University of Warwick Business School. Special thanks to Patrick Le Gales, Professor Sciences Po/CNRS for his comments on the draft report.

The Part II of this report includes a selection of expert papers presented at a series of conferences and workshops on city competitiveness organised by the OECD Public Governance and Territorial Development Directorate.

- City competitiveness, Santa Cruz de Tenerife, Spain, 3-4 March 2005; (in conjunction with the government of the Canary Islands).
- City attractiveness, Nagoya, Japan, 2-3 June 2005; (in collaboration with the Ministry of Land, Infrastructure and Transport of Japan, the Aichi Prefecture, the City of Nagoya, the Urban Renaissance Agency, the Chubu Economic Federation and the Nagoya Chamber of Commerce and Industry).
- Competitive cities and social cohesion, Montreal, 13-14 October 2005 (in co-operation with Infrastructure Canada, Government of Canada, hosted by the Metropolitan Community of Montreal).
- Workshop on the Fiscal Challenges of Metropolitan Areas: The Perspective of the Central Government; Paris, France, 1 June 2004 (organised at the OECD Headquarters).

Mrs Erin Byrne prepared the Report for publication.

A special thanks to Freddy Vanthuyne, who oversaw the final formatting and layout of this, his last, publication. Mr. Vanthuyne is retiring from the OECD after a long career.

Table of Contents

Part I

Competitive Cities in the Global Economy: Horizontal Synthesis Report

Executive Summary 13

Chapter 1. **The Emerging Role of Metropolitan Regions** 29

1.1. Introduction 30
1.2. Defining metropolitan areas 31
1.3. Urbanisation trends 36
1.4. Performance of OECD metropolitan regions 46
1.5. City size and income 50
1.6. Factors of competitiveness 55
1.6.1. Productivity is key... 56
1.6.2. Labour market also does contribute 63
1.7. Cities as engines of national economic growth? 63
1.8. The urban paradox 76
1.9. The dilemmas for metropolitan regions 79
Notes 82

Chapter 2. **Competitiveness, Liveability and Strategic Vision** 85

2.1. Introduction 86
2.2. Dilemma I: positive or negative spillovers? 87
2.2.1. The benefits of metro-regions 87
2.2.2. Negative externalities of metro-regions 91
2.2.3. Metro areas *versus* national growth? 93
2.2.4. Summary: dilemma I 99
2.3. Dilemma II: public strategic vision in a market context? 101
2.3.1. Why a strategic vision? 101
2.3.2. Cluster development policies 104
2.3.3. Alternative futures for non-high-tech regions 128
2.3.4. Summary: dilemma II 134
2.4. Dilemma III: Economic dynamism or liveable city? 136
2.4.1. Attractiveness and sustainability 137
2.4.2. Social cohesion 144
2.4.3. Summary: dilemma III 151
Notes 152

Chapter 3. **The Governance of Metro-regions** 155
3.1. Introduction 156
3.2. Dilemma IV: Appropriate scale or closeness to citizens? 157
3.2.1. Challenges and rationale for horizontal collaboration 158
3.2.2. Main trends in horizontal co-operation within metropolitan regions 161
3.2.3. Tentative evaluation: pros and cons of the different models 190
3.2.4. Summary: dilemma IV 200
3.3. Dilemma V: Metro-regions ***versus*** central/state government? . . . 201
3.3.1. Role of higher level of governments in metropolitan governance 201
3.3.2. New tools for vertical collaboration 205
3.3.3. Summary: dilemma V 211
3.4. Dilemma VI: Participation of private sector actors in public governance? 212
3.4.1. The state of the art 212
3.4.2. Summary: dilemma VI 215
3.5. Dilemma VII: Unequal burdens or distorting subsidies? 215
3.5.1. Functions and responsibilities of cities and metropolitan authorities 216
3.5.2. Fiscal autonomy 225
3.5.3. Financing services and infrastructure: public-private partnerships 226
3.5.4. Dealing with intra-metropolitan fiscal inequalities 227
3.5.5. Impact of national equalisation schemes 229
3.5.6. Summary: dilemma VII 233
Notes 234

Bibliography 235

Appendix 1. Definition of Metropolitan Areas in some OECD Countries . . . 245
Appendix 2. OECD Methodology for Identification of Metropolitan Regions . . 250
Appendix 3. Regressions and Correlations in Chapter 1. 272
Appendix 4. Identifying the Determinants of Regional Performances 279

Part II

Proceedings from Conferences and Workshops on City Competitiveness

Introduction 283

Mainsprings of the Creative City: Lessons for Policy-makers *Allen J. Scott*. 289

Globalisation and Urban Competitiveness: Challenges for Different Types of Urban Regions *Willem Van Winden* 303

Specialisation and Networking in Medium-sized Cities *Colin Crouch* 317

The Impact of Tertiary Education on Urban Development *Helen Lawton Smith* 329

Policies to Enhance City Attractiveness: Achievements and New Challenges *Eiji Torisu* 339

The Connections Between Social Cohesion and City Competitiveness *Ivan Turok* 353

Labour Market Integration Policies to Enhance Social Cohesion *Ian Gordon* 367

Can Distressed Urban Areas Become Growth Poles? *Claude Jacquier* 381

Cohesion and Competitiveness: Business Leadership for Regional Growth and Social Equity *Manuel Pastor* 393

Governance for Metropolitan Sustainability *Tony Travers* 407

Local Public Finance: Issues for Metropolitan Regions *Howard Chernick* and *Andrew Reschovsky* 415

Bibliography 433

Boxes

1.1. The concept of polycentric metropolitan areas 32
1.2. OECD metropolitan regions: data and definition 34
1.3. Main advantages of capital cities 54
1.4. What is city competitiveness? 55
2.1. Growth *versus* equity in successful metro areas: the examples of Helsinki and Stockholm 95
2.2. Monitoring the growth of capital regions in OECD countries 98
2.3. Examples of different metropolitan cluster approaches 110
2.4. Methodology for identifying clusters in Seoul and Melbourne 113
2.5. Metadistricts to strengthen the SME growth in Milan and the Lombardy region 117
2.6. Examples of industrial liaison programmes in OECD countries 120
2.7. Co-operation among higher education institutions in Öresund and Melbourne 121
2.8. Making higher education institutions more attractive to international students and researchers: the example of Australia and Finland 123
2.9. A well-functioning triple helix model: the example of the Helsinki Culminatum Ltd. 126
2.10. Competitiveness councils 129
2.11. Upgrading clothing and textile industry in Seoul 131
2.12. Environmental concerns in some metropolitan areas 138

2.13. Urban regeneration based on cultural assets: the cases of Athens and Istanbul. 142
2.14. Strategies for territorial branding: the example of Busan 143
2.15. Fighting urban poverty and distressed neighbourhoods in Mexico and France 147
2.16. Policies for integrating immigrants into the labour market in Stockholm 150
3.1. Metropolitan governmental authorities: the Stuttgart Regional Association, the Greater London Authority and Metro Portland . . . 167
3.2. Examples of multi-purpose inter-municipal bodies in Canada (Montreal and Vancouver) and in France 171
3.3. Association of the Lyon Urban Region (LUR) 174
3.4. Soft governance in polycentric metro areas: Regio Randstad and Rhine-Ruhr 176
3.5. The Toronto Economic Development Strategy 178
3.6. Cross-border regions: governance by mono-thematic commissions 187
3.7. Cross-border regions: governance by babushka 188
3.8. Cross-border regions: governance by a catch-all institution 189
3.9. Involving civil society in metropolitan governance 198
3.10. City-regions in United Kingdom 204
3.11. Contractual arrangement in urban areas in France, Sweden and Western Canada 207
3.12. Contractual tools used at the metropolitan level in France and Switzerland 209
3.13. Involving small firms in policy making 214
3.14. Pros and cons of local taxes for metropolitan areas 222
3.15. Metropolitan fiscal equalisation in Tokyo, Seoul and Istanbul 228
3.16. Tax base sharing in Pittsburgh and in Minneapolis-Saint-Paul. . . . 230

Tables

1.1. Metropolitan database 38
2.1. Wage levels of US metropolitan traded clusters (2002) 105
2.2. Examples of industry cluster policies in metropolitan regions 108
3.1. Institutional fragmentation and governance challenges in some OECD metropolitan regions 159
3.2. Case of metropolitan regions represented by a local/regional government 162
3.3. Examples of cross-border regions 184
3.4. Main purposes of a selection of metropolitan co-operative arrangements 194
A.2.1. Definition of metro-regions according to the OECD 255

A.2.2. Sources and years of reference for population . . . 266
A.2.3. Sources and years of reference for GDP . . . 267
A.2.4. Sources and years of reference for labour force . . . 268
A.2.5. Sources and years of reference for employment . . . 269
A.2.6. Sources and years of reference for old-age dependency ratio . . . 270
A.3.1. Correlation between income and population . . . 272
A.3.2. Correlation between income and population in mega cities . . . 272
A.3.3. Correlation of growth rates at the metro and national levels . . . 273
A.3.4. Results for regressions using intercept and control variables . . . 275
B.1. Taxonomy of kinds of relationships between tertiary education and business . . . 330
B.2. Simple model of the determinants of per capita income growth in US metropolitan areas, 1990-2000 . . . 399
B.3. Some signals and strategies for competitiveness and cohesion . . . 404
B.4. Summary of elected government arrangements in five major world cities . . . 412
B.5. Differences in tax assignment in OECD countries . . . 417

Figures

1.1. OECD regional typology (Europe) . . . 35
1.2. OECD regional typology (North America) . . . 36
1.3. OECD regional typology (Asia and Oceania) . . . 37
1.4. Worldwide population projections (1950-2030) . . . 41
1.5. Population growth according to the types of regions (1990-2000) . . . 42
1.6. Urbanisation growth in OECD countries . . . 43
1.7. Distribution of the total population among types of regions (1990 and 2000) . . . 44
1.8. Ranking of metro-regions by population size . . . 45
1.9. Ranking of OECD metro-regions by income . . . 47
1.10. Average annual growth rate among OECD metropolitan areas (1995-2002) . . . 48
1.11. Productivity differentials across OECD metro-regions (2002) . . . 49
1.12. Correlation between population size and income in OECD metro-regions . . . 50
1.13. Correlation between population size and income in metro-regions with fewer than 10 million inhabitants . . . 51
1.14. Relations between population and income in metro-regions of over 6 million people . . . 52
1.15. Capital cities and income . . . 52
1.16. Main explanations of GDP differentials between OECD metro-regions (2002) . . . 57
1.17. Cluster composition in the Stockholm Region (NUTS 2) . . . 58

1.18. Share of population of 15 years and more with tertiary education 62
1.19. Differences in per capita GDP of metro-regions and their national level (2002) 64
1.20. Relation between national and metropolitan growth rates 65
1.21. Economic growth at the national and metro-regions levels 66
1.22. Productivity differences between the metro-regions and their national level (2002) 67
1.23. Productivity growth differentials between metro-regions and their national level 68
1.24. Employment differences between the metro-regions and their national level (2002) 70
1.25. Employment growth rates in metro-regions and their countries . . 71
1.26. Employment growth by type of regions (1996-2001) 72
1.27. Old-age dependency in metro-regions with respect to the national dependency level (2004) 73
1.28. Changes in old-age dependency 1998-2004 74
1.29. Skills in metro-regions and their national average (2001) 75
1.30. Differences in unemployment rates between metro-regions and their countries (2004) 77
1.31. Crime against property by type of region (2001) 78
1.32. Crime against persons by type of region (2001) 79
2.1. Finnish (Helsinki Region) Centre of Expertise Programme. 125
3.1. Geographical position of selected cross-border regions 184
3.2. Systems of metropolitan governance across borders 185
3.3. Assignment of responsibilities in cities: the case of Toronto 216
3.4. Assignment of responsibilities in cities: the case of Tokyo 217
3.5. Assignment of responsibilities in cities: the case of Stockholm . . . 217
3.6. Expenditures per capita in selected areas in OECD cities. 219
3.7. Revenue sources of various cities in OECD metropolitan areas . . . 220
3.8. Composition of tax revenue sources of various metropolitan areas in OECD countries. 221
A.2.1. Methodology for selecting OECD metro-regions 252
A.3.1. Relationship between population size and income. 277
B.1. Employment growth 1995-2002 304
B.2. GVA growth 1995-2002. 305
B.3. Population growth 1995-2002 305
B.4. GVA growth 1995-2001. 306
B.5. Determinants of urban competitiveness. 307
B.6. Absolute and relative GDP per capita at PPP, 2000. 309
B.7. A hierarchy of social cohesion 357
B.8. Implementing integrated urban renewal programmes and projects. 389

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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PART I

Competitive Cities in the Global Economy: Horizontal Synthesis Report

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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Executive Summary

The urban paradox: a challenge for national and global economies and sustainability

The acceleration of urbanisation has strengthened the weight of large cities, or metropolitan regions. More than half (53%) of the total OECD population lives in predominantly urban regions and the OECD contains 78 metro-regions, with 1.5 million and more inhabitants, which tend to concentrate an important part of their national economic activities. For instance, Budapest, Seoul, Copenhagen, Dublin, Helsinki, Randstad-Holland and Brussels concentrate nearly half of their countries' national GDP. Toronto, Montreal and Vancouver in Canada generate half or more of their respective provinces' output. In Norway, New Zealand, and the Czech Republic, one-third or more of production is based in their major metro-regions (Oslo, Auckland and Prague). Around 30% of national GDP in the United Kingdom, Sweden, Japan and France are accounted for by London (31.6%) Stockholm (31.5%), Tokyo (30.4%) and Paris (27.9%) respectively. More importantly, most OECD metro-regions have a higher GDP per capita than their national average (66 out of 78 metro-regions), and a higher labour productivity level (65 out of 78 metro-regions), and many of them tend to have faster growth rates than their countries.

The shape and nature of large cities have changed. Suburbanisation and urban sprawl, along with the formation of urban networks, has led to an increase of commuting flows, shaping the development of transport infrastructure and inter-firm linkages and allowing for the pooling of a self-contained labour market. Spurred by agglomeration economies, metro-regions typically constitute functional economic areas covering a number of local government authorities. The size of the metro-regions varies widely among OECD countries from small growing mono-centric metro-regions in Europe (Dublin and Helsinki with less than 2 million inhabitants) to mega-cities in Asia such as Tokyo (34) and Seoul (23.5), and in North America like New York (18.7) and Mexico City (18.4). Some other European metro-regions also largely outstrip the OECD average (around 5 million people) such as

London (7.4), Paris (11.2), Istanbul (11.4), and the polycentric metro-regions of Randstad-Holland (7.5) and Rhine-Ruhr in Germany (13.4).

A number of factors explain the **advantages of large agglomerations** in generating higher output per capita and productivity.

- ***Agglomeration economies*** allow large metro-regions to attract global or regional corporate headquarters, offer a wide range of choice in resources (primarily labour, but also some elements of supply chains and research institutes), and concentrate more specialised business services and infrastructure. Such agglomeration economies are confirmed by a positive correlation between metro-regions' ***size and income***, especially when they concentrate over 20% of national GDP. Capital cities, favoured by being the centre of political – and in many cases also economic – decisions in their countries, are at the forefront.
- Metro-regions typically provide contrasting ***advantages of specialisation and diversity***. The size of urban labour markets and the range of firms located within them permit competition and specialisation which in turn raises efficiency. Specialisation takes place in high value-added activities both in service sectors and manufacturing that are not demanding large factory sites, and which have advantages in both clustering and global access to knowledge. Meanwhile, even the most advanced metro-regions have large populations engaged in lower-productivity service activities such as various cleaning and maintenance services, as well as all forms of retail trade, security, transport and traffic-related occupations.
- The more favourable pattern of metro-regions' industrial mix is closely linked with their capacity to concentrate ***R&D activities and generate innovation***. For instance, more than 81% of OECD patents are filed by applicants located in urban regions. In Ireland, Greece, Finland, the Netherlands, Japan, Korea and Canada, a single region is responsible for almost half of the national patenting activity. In France and the United Kingdom, Paris and London account for more than 40% of the country's total applications.
- Metro-regions tend to have ***greater endowments of human capital***. The level of skills is higher than the national average for the majority of metro-regions. Metro-regions also have a more favourable demographic structure. They exert a particular pull effect on the young and the highly skilled, attracted by urban amenities and higher wages. All metro-regions have lower dependency ratios than their national averages.
- Metro-regions have a ***larger stock of physical capital*** measured by the equipment of firms and the stock of buildings and infrastructure facilities. Capital provision in metro-regions not only increases the ratio of capital per worker, but can also allow R&D activities within firms and innovation

arising at the production site. Particularly important examples of such infrastructure are universities and research centres. For instance, Seoul represents one-quarter of the country's stock whilst almost one-half of Sweden's university-based research is located in Stockholm. Better endowment of transportation and telecommunications infrastructure also confers significant advantages of accessibility.

Yet, the growth capacity of metro-regions should not be overestimated as metro-regions are **not always synonymous with success**.

- There are exceptions to the group of metro-regions performing above their national averages, some severely ***lagging,*** such as Berlin (Germany), Fukuoka (Japan), Lille (France), Naples (Italy) and Pittsburgh (United States). These metro-regions generally rank less well for almost all indicators, such as income, growth, productivity, skills, employment and unemployment.
- Bigger means richer until a certain threshold (around 7 million), *i.e.*, the correlation between metro-region size and income becomes negative, suggesting the existence of ***diseconomies of agglomeration in mega-cities*** (*e.g.*, Seoul, Mexico City, Istanbul, and probably Tokyo).
- The performance of many metro-regions is ***not as it could be expected***. Differences in output, productivity and employment levels from national averages are not large for a number of metro-regions. Moreover, in a number of cases, GDP and labour productivity growth do not differ from national averages. Out of a sample of 44 metro-regions, less than half grew faster than their country average over the period 1995-2002 and only six (Prague, Krakow, Budapest, Busan, Vienna and Stuttgart) out of 38 registered a higher productivity growth between 1999 and 2002. Although this could be explained by the fact that less advanced regions grow faster the farther away they are from their steady-state, this raises some questions about the real growth potential of metro-regions.
- Large cities' ***innovative capacity might be overstated*** as it overlooks the fact that patents are generally registered in the headquarters, typically found in large cities, while they might have been generated at research sites in other regions.
- Metro-regions tend to concentrate large and persistent ***pockets of unemployment***. Although this reflects their relative share of population, it also demonstrates that job creation remains insufficient despite output accumulation. Around, one-third of the 78 metro-regions have above national average unemployment rates. Between 1999 and 2002, about one-third of 38 metro-regions also registered lower performance in employment growth than their country's average, including cities such as Paris, Milan, Barcelona, Tokyo and Vienna.

- Urban regions surprisingly feature ***lower activity rates*** than other types of regions (44.3% against 49.7% and 44.5% in intermediate and rural regions respectively in 2003). Large cities tend to contain disproportionate numbers of people who are inactive (or who work in the informal economy).
- ***Exclusion and poverty*** in most OECD countries have become urban phenomena. These issues are prominent not only in less-advanced metro-regions like Mexico City (about 50% of the population are in a situation of poverty), partly due to rural migration, but also in cities that have faced strong industrial restructuring (Rotterdam, Lille, Detroit) as well as in the suburbs of some of the richest metro-regions (Paris, London, New York). Exclusion does not, of course, take the same form or intensity in every city but most metro-regions, including the wealthiest ones, have pockets of population with low standards of living and which experience social problems.
- Even in the most dynamic metro-regions, there are increasing ***socio-economic inequalities*** between high-income people working in high value-added services, and those engaged in servicing them and even more with those that have not found jobs.
- A particularly vulnerable portion of the metro-regions' population comprises ***immigrants*** and their descendents, who tend to cluster in large cities. Many of them have lower skills but even skilled immigrants find it difficult to integrate into economic networks (*e.g.*, in Stockholm only 40% of foreign-born university graduates from non-EU countries have a qualified job compared to 90% for native Swedes).
- Poverty and social exclusion lead to significant costs including high levels of ***criminality*** (on average 30% higher in urban areas than the national level) and strong ***spatial polarisation*** (in ten OECD countries surveyed, 7 to 25% of the population live in distressed neighbourhoods, representing up to 10% of their national population). Deprived neighbourhoods often have reduced access to public infrastructure and services, and in many cases, feature lower levels of investment per capita than other richer neighbourhoods.

In fact, metro-regions also hold important negative externalities that may only show up as direct costs in the long term.

- ***Congestion costs*** are particularly prominent, notably traffic congestion but also other forms of pollution, such as reduced air and water quality, high noise levels and degradation of green areas. There are major examples of this, not only in recently and rapidly developing metro-regions in OECD countries (*e.g.*, Seoul, Istanbul), but also in such long-established major cities as Paris, Tokyo and London, and even in some parts of such less densely populated and well-developed regions as Helsinki and Stockholm. Pollution and congestion have important physical and mental health costs. Other costs of congestion are reflected in high prices for land, labour and

other resources, making life particularly difficult for the low-wage population whose low-productivity labour is needed by many urban services.

- ***Poor-quality infrastructure*** may become a problem in some places because of the costs of maintaining a good-quality physical environment when there is a high concentration of people and activities. This is most likely to be manifested in the failure to maintain or improve areas with concentrations of social housing, or in areas where economic activities are associated with noise and other unwanted environmental effects. But the effects may not be limited to the areas directly affected. There might even be disinvestment from areas that are themselves otherwise well-served by infrastructure, but located within the wider urban environment that includes the neglected areas. In such cases there may be a relocation of households and firms to greenfield sites.

Increasing role of large cities: what should policy-makers do?

The combination of economic advantages and difficulties posed by the rise of metro-regions present a number of ***strategic choices*** that confront policy-makers. Large cities have acquired growing economic and demographic importance, and function as the key loci of transnational flows on the international market. Thus, they are often referred to as "a common market of metropolitan economies". Yet, large cities are also associated with negative externalities, such as congestion, pollution, social segregation or high crime rates. These trends raise issues about the long-term sustainability of urban regions – where congestion due to high population density is already considerable – and depopulation of rural areas, where the small size of communities makes the provision of basic services increasingly costly. Whether they are encouraged or discouraged, or simply accepted as irreversible facts of life, metro-regions are at the core of a series of dilemmas with which policy-makers (either national, urban or both) are confronted.

Dilemma I. Positive or negative spillovers?

Metro-regions have become major centres of growth in contemporary economies; but are they the causes of such growth or its consequence? If the former, they need to be encouraged; if the latter, does their tendency to attract resources away from other regions do more overall harm than good?

- ***The causal relationship between levels of urbanisation and per capita income is not obvious,*** *i.e.*, whether it is urbanisation that brings growth or growth which brings urbanisation. The fact that some metro-regions have excellent

growth records does not mean that creating large concentrations of people is enough to stimulate such a record. Furthermore, growth and other indicators of economic success peak at a certain point of urban agglomeration. Yet, metro-regions have the advantage of being areas with considerable internal diversity and therefore stand a better chance than smaller, more specialised or less pluralistic areas, of becoming the locations for successful innovation.

- ***The impact of metro-regions on other parts of a country is also not clear.*** Positively, wealth and economies of scale generated in a prosperous metro-region are likely to spill over, via fiscal revenues, foreign exchange earnings and exports. These resources pay for infrastructure, services and wider transfer payments across the entire country. Many of their assets, such as headquarters of key corporations, infrastructure (*e.g.*, airports) and information services, actually serve firms and consumers located elsewhere in the country and (up to the point where congestion costs and high land prices outweigh the positive effect) at cheaper costs thanks to agglomeration economies. Negatively, the metro-region may drain other areas of their talented young people and of their capital and physical resources.
- ***Reconciling national and dominant-region interests in a positive-sum game*** requires a new strategy that goes beyond the typical "centre *versus* periphery" dichotomy. Experiences of containment policies in OECD countries (such as those conducted in Paris in the 1960s, in Tokyo from 1959-2002, in London from 1965-1979 and still currently implemented in Seoul since the 1970s) have provided mixed outcomes. The most effective measures do not consist in distributing direct subsidies to lagging regions while ignoring the best performing regions, but in capturing differentiated regional competitive advantages. All of a country's regions need to strengthen their own functional specialisations enough to develop cross-regional complementarities.
- ***Synergy effects could be generated by building co-operative exchange networks*** between the major cities and other regions (*e.g.*, programmes for twinning universities and other regions, localisation in two places of different aspects of major technology projects). Meanwhile, metro areas need a comprehensive strategy to continue to contribute to national growth, tackle negative externalities of excessive urbanisation and deliver positive spillovers to other regions.

Dilemma II. Which public strategic vision in a market context?

To view the economic activities of a metro-region as a whole and to provide an environment in which both particular activities and the population in general will

thrive implies that there is a strategic vision at the level of the metro-region. Public authorities are central to the generation of such visions; but can they do this without attempting direct substantive economic planning of a kind which cannot work in a dynamic, changing economy?

- ***A strategic vision is required to foster the competitiveness of metro-regions;*** a process which is not without risks. The economies of metro-regions must constantly reinvent themselves through structural and microeconomic adjustments and respond quickly and effectively to problems in relation to the enhanced mobility of capital, skilled labour and technology innovation. If such response is inadequate or too slow to take full advantage of endogenous resources and competencies in the face of such new challenges, it will be by-passed, leaving declining sectors and communities behind.
- ***A diversified cluster-based approach could help to limit the risks.*** It is risky if strategic visions stake a region's future on a small number of ventures. A major advantage of large agglomerations here is their capacity to contain a range of different economic clusters within them, in contrast to the exposed specialisation of single-industry towns.
- ***Cluster development strategies for metro-regions should be tailor-made.*** The advantages of clusters are often case specific whilst much metro-regional effort in nurturing cluster development tends to concentrate on building high-tech clusters (*e.g.*, ICT and biotech) and science parks. A well-defined cluster identification process should be based on both quantitative approaches (to measure sectoral specialisations and trade flows between firms) and qualitative methods (to understand functional interdependence and knowledge spillovers). It also has to take into account the development stages of clusters (young *vs.* mature, existing *vs.* potential) and not sacrifice the advantages of diversity in metropolitan areas while prioritising their targeted clusters.
- ***It is essential is to build relational assets and provide local collective goods.*** Some of these are general such as the transport and other public infrastructure. Others are sector-specific such as building links between various university research departments and science-based industry or broker services to promote inter-firm linkages and SME participation. It is also notable that the most successful high-tech science locations today are those that take this multiple form, rather than a link between firms and a single university (*e.g.*, Boston, San Francisco, the Cambridge/Oxford/London triangle, Munich, Stockholm, Helsinki).
- ***By no means will all metro-regions become world leaders in high-tech activities,*** and therefore there is a need to search for strong, viable niches outside this range. Decision-makers at the metro-level often make major

speculative strategic investments to try to encourage new sectors for which there was little evidence of past success; often even radical innovations develop from existing capacities and recognisable potential. Moreover, even in the most successful regions, not all workers will find employment in high value-added sectors. One of the advantages of large urban agglomerations is that they produce forms of employment in service sectors for low-productivity workers. The difficulty lies in enhancing the quality of such employment or activity rather than trying to eliminate it.

- ***Involving a wide range of players could help to reduce the risks of implementing a strategic vision.*** Public authorities acting at the level of a metro-region are necessary focal points in the development and mobilisation of strategic visions. Competitive positioning in a new global economic geography shapes strategic challenges, particularly regarding major infrastructure investments, locations for new business activities, and promotion of cultural assets, along with other challenges for a sustainable environment and social cohesion. As a result, spatial development strategies have to be more than merely an aggregation of considerations and policy principles collected together in a plan or document. The task of public authorities in metro-regions now is to identify the critical relations among many agents which are likely to shape the future economic, social, political and environmental quality of a territory.

Dilemma III. Economic dynamism or liveable city?

Concentrations of population that account for part of the dynamism of some metro-regions also contribute to typical urban problems of congestion, poor environment, housing shortages and the formation of ghettos. Is there a choice between economic dynamism and having a liveable city?

- ***A good and attractive environment may not be an alternative to economic success*** but may rather contribute to it; as in the knowledge-based economy, highly qualified professionals with scarce skills can choose where to live from among different cities. A central fear of many local authorities is that the taxes necessary to fund high-quality public infrastructure and tackle social issues may deter investment in firms in the area, though there is no clear evidence that this happens. Economic dynamism is driven by the market, while public policy has to deal with its externalities as they appear, and will usually trail behind.
- ***Timing is important to avoid being trapped into expensive, and maybe irreversible, choices.*** Problems are often far more difficult and expensive to resolve after they have developed than when they could have been prevented. Delayed investment in transport networks imposes years of congestion costs, while ghettoes of poor housing are almost impossible to

eradicate once they have developed without massive disruption to people's lives that causes new problems.

- ***A more sustainable spatial approach enhances a city's liveability and attractiveness.*** Examples of such strategies include the development of green areas (*e.g.*, Seoul Cheonggyecheon Restoration project), multi-nodal approaches favouring the development of mixed-use areas with many transport options (*e.g.*, Melbourne), road pricing, or urban congestion charges (*e.g.*, London, Stockholm, Singapore). Changes in travel behaviour will happen only if the alternatives to the private car are made attractive, and are linked to changes in land use and the provision of affordable housing.
- ***Urban renaissance strategies also contribute to attractiveness and liveability.*** The growth of an inner-city residential population, which seemed utopian ten years ago, is now a commercial reality in a number of cities, thanks to entrepreneurial property development and to major public projects of regeneration. Development strategies build on the interest in places captured by the construction of new, dramatic museums and cultural facilities designed by world-famous architects in depressed areas in cities such as Glasgow, Bilbao, Cleveland and Kitakyushu. These strategies might enable cities lacking a strong historical identity to acquire a modern significance. Whether they are really effective in achieving these goals will be a matter for evaluation in future research, but they are helping to attract creative and innovative populations, and to promote tourism and territorial branding.
- ***Attractiveness is a major component of a strategy to attract foreign direct investment.*** Governments often strive to keep taxes as low as possible in areas where they are trying to encourage business investment. Yet, there are some metro-regions in Nordic countries (*e.g.*, Helsinki, Stockholm) that despite high tax bases have managed to attract capital thanks to the attractiveness of factors such as the infrastructure they provide. Others have explicitly introduced special enterprise zones where inward investors pay little or no tax (*e.g.*, Busan, Istanbul), with either little or no infrastructure being provided, or the rest of the country subsidising the zone. There is a risk that the investors may at some stage withdraw, leaving behind little lasting benefit in exchange for the fiscal privileges they have received. Activities that are willing to accept poor-quality infrastructure are also likely to be down-market activities, not seeking high overall efficiencies or attracting highly skilled labour.
- ***Poverty and spatial polarisation are probably the most difficult challenges*** for metro-regions. The above approaches do not resolve all problems, as for some components of the urban environment it is possible to achieve

attractiveness for central parts of a city that embody its image, with enclaves of the highly paid in well-maintained environments, but existing alongside ghettoes of the socially excluded. Yet, it is apparent from major cities across the OECD that metro-wide economic growth depends not only on economic interdependencies but also on social cohesion, for which policies have to be designed.

- ***Social and distressed neighbourhoods policies have produced mixed outcomes.*** Most city and national authorities accept some responsibility for tackling these issues, but rarely is there political will to devote resources adequate to the challenges posed. Only those authorities that are able to tackle emerging problems of major urban inequalities stand a chance of avoiding future crises of cultural as well as social exclusion and hostility.

Dilemma IV. Appropriate scale or closeness to citizens?

The de facto existence of metro-regions, and even more their need for a strategic vision and overall infrastructure planning, suggests some need for a relatively autonomous public authority at the appropriate geographical level. But this level will be remote from many citizens' local concerns, and there may be conflicts with existing city authorities if they lose power to a new level of government. How can these tensions be balanced?

- ***There has been a wide diversity of metropolitan governance models across OECD.*** The main rationale behind metro-wide co-operative arrangements is that in most metro-regions, the functional area does not correspond to existing local or regional government boundaries; yet many strategic decisions need to be made, and services provided, at this level. Few experiments have been made among OECD countries, most often because of the reluctance of other levels of governments. Even the most advanced cities were granted only imited autonomy (*e.g.*, Stuttgart, London and Montreal).
  - The most radical solutions involve the establishment of new authorities at the functional level, either by interposing an additional layer of government (*e.g.*, London, Stuttgart, Portland) or by expanding the boundaries of existing cities (*e.g.*, Montreal, Toronto, Busan, Istanbul).
  - There are then various forms of collaboration among existing authorities, ranging from the formation of specialised agencies or inter-municipal bodies, through contracts among different authorities to work together, to informal co-operation agreements.
  - There is also diversity in scope, some collaborations are multi-functional (*e.g.*, Vancouver, Lyon) and others are designed for individual services, such as transportation (*e.g.*, Athens, Philadelphia).

- Partnerships between public and private agencies and various forms of co-financing add further choices of potential arrangements that authorities might adopt.

- ***The different models contain considerable trade-offs in terms of benefits and costs.*** In terms of efficiency, it may be second-best to rely on a co-operative mechanism rather than a self-financed and directly elected administrative body, but it has its own merits of fostering communication and possibly limiting the tendency of bureaucratic mission creep. Associations and networks of local municipalities, typically with opt-in, opt-out possibilities, contribute to the flexibility of the experiment by allowing for a step-by-step inter-municipal co-operation according to local circumstances and culture. Formal institutions might be in a better position to co-ordinate policy objectives throughout a metro-region area and to deal with spatial disparities, and thus lighter forms of governance could be considered a first step towards a more formal institution.

- ***Most metropolitan governance arrangements do not address a long term strategy.*** Most of the existing formal models tend to respond to the lack of co-operation among local jurisdictions by focussing on improved economies of scale, reducing fiscal competition and disparities and internalising territorial spillovers within the area. The metropolitan model and amalgamation hold out the promise of increasing the political power of the metropolitan region, *vis-à-vis* the central government and internationally, but do not necessarily have the capacity to mobilise all stakeholders around a common strategic vision. The easiest form of inter-municipal co-operation, over single services, threatens to lose sight of the general concerns of the region, which are fundamental to the idea of a strategic vision. Lighter and more informal forms of governance generally tend to better mobilise metropolitan-wide stakeholders around a common vision, but the implementation then requires an action plan and a critical mass of financing that might need a more formal arena for co-operation or collaborative tools.

- ***Public support and legitimacy will determine the success of a reform.*** Most often the creation of a new body has been made possible thanks to strong leadership by a charismatic and influential individual and/or area-wide coalition (*e.g.*, NGOs, private sector). The process that preceded, and would be followed, to establish legitimacy of a new structure is also crucial to stabilise any new structures. Models that are imposed or lead to confrontation could well undermine the reform (*e.g.*, the vote in a referendum in Amsterdam to reject plans for a merger) or undermine the stability of the new structures (*e.g.*, de-merger movements in Montreal). Others, such as flexible forms of co-operation, are controversial as they have only indirect forms of representation but important funding

responsibilities and sometimes taxing power (*e.g.*, French Urban Communities).

- ***Participation of local actors is essential to deal with social conflicts and tensions.*** Formal government at the metro-regional level is unlikely to cope with these problems, and may make some of them worse because of its remoteness from street level. Units of local government that are close to residents become particularly important when the metropolitan region is represented by large scale local government, including amalgamated metro-regions and mega-cities represented by a single city authority (*e.g.*, Montreal, Seoul, Istanbul). Devolving more responsibilities and finances to these lower units would facilitate the development and reflection of local character and better encourage participative democracy. Moreover, the democratic character of metropolitan governance is not limited to the involvement of citizens through voting and representation or accountability of decision-making process but also includes participation of policy networks of non-governmental actors and associations.

Dilemma V. Metro-regions versus *central/state government?*

There may also be potential conflicts between any autonomous public authority at the metro-regional level and the higher levels of government (central or state government in federal countries), as the former may seek devolved powers or seek to pursue policies at variance with national government priorities whilst the latter still want to maintain control over its large cities. Where is the balance between these to be found?

- ***Higher levels of governments are central to building metropolitan co-operation.*** Whether in the case of merging municipalities, creating sectoral or multi-sectoral co-ordinating bodies, or even metropolitan governments, rarely have the reforms of metropolitan governance emanated from purely local initiatives in the OECD countries. The national government has played a leadership role either by imposing or by encouraging reform. A legal basis frequently plays a role in legitimising the process (*e.g.*, Korea, Quebec and Ontario provinces in Canada), or facilitating co-operation among local authorities at the metro-regional level (*e.g.*, France, Italy, Portugal). The incentive framework (fiscal or financial) behind these laws is determinant for the implementation process. In Italy, metropolitan cities are now mentioned in the Constitution; but so far, there are no such metropolitan cities partly because of the lack of such incentives.
- ***New tools of vertical relations for metro-regions are being developed.*** National policies are clearly essential to the development of strong metro-regions, and regional and city governments must expect national governments to become involved in their affairs, given the demographic and economic

importance of metro-regions. However, top-down strategies appear unable to generate a reassuring vision of the future on which an overall development strategy could be based. Particularly important are legal measures that enable urban partnerships, taking the form of contracts across several authorities (*e.g.*, French large cities, Stockholm, Vancouver). These are most useful when they make possible multi-sectoral collaboration, and when all stakeholders across an identifiable metro-region can be involved. Typically partnerships involve both a number of public agencies and some private ones. Contractual arrangements are more efficient where there is a negotiated planning process among different levels of government, with incentives for participation, a structured round of negotiations with clear objectives, a precise timetable, and monitoring and assessment components. Commitments have to be binding and pluri-annual, but agreements have to be tailored to local needs.

Dilemma VI. Participation of private sector actors in metro-regions' governance?

A further issue of governance is raised by the fact that for the development of policies for economic development, public authorities need to involve the private sector in constructing regional partnerships. But does this encourage improper lobbying and a squeezing out of small and medium-sized enterprises by large corporations?

- ***Private sector involvement in metropolitan governance entails opportunities and risks.*** One way in which the construction of strategic visions at the metro-level stays close to market realities is through the engagement of firms. Yet, firms chosen as interlocutors may use such a position to exclude competitors (*e.g.*, multi-national corporations with local SMEs). The problem can be partly addressed by public authorities dealing mainly with trade associations rather than individual enterprises; but this can mean favouring established (and possibly declining) interests and sectors at the expense of new ones that have not yet found a representative form (*e.g.*, in European cities during the 1980s and 1990s dominated by the steel or the metal-working industries).
- ***Metropolitan level offers greater opportunities for capturing activities*** of existing and potential sectors than the local level. The form of participation in the decision-making process will also be relevant ranging from consultation (*e.g.*, Madrid, London, Paris) to formal representation and policy influence (*e.g.*, UK regional development agencies). Here again, there is a difficult trade-off between ensuring the valuable participation of business interests in the formulation of strategies for development in metro-regions and opening the gate to privileged lobbying and market distortion.

Dilemma VII. Unequal burdens or distorting subsidies?

The large spending needs of metro-regions create major fiscal challenges. Under-funding leads to deterioration of the attractiveness of the region, and this is made worse when the metro-region does not have enough autonomy to raise its own revenues. At the same time, national goals – such as a demand for regional equity – might force metro-regions to contribute financially to the rest of the country. How can the right balance be found between the financial needs of metro-regions and those of the rest of a country?

- ***The specific challenges of metro-regions require an urban lens to local public finance.*** The local taxation system must be better adapted to metro-regions which typically tend to provide a wider variety of services than other regions in the same country. This is because metro-regions function as a centre for many services and activities, for example with respect to higher education and culture. The level of funding available for a metropolitan area also affects the amenities and services that are available within the area. Under-funding can lead to areas becoming less interesting places in which companies will not want to base themselves and citizens will not want to live. There are, however, large differences among metropolitan areas (municipalities and metropolitan authorities when they exist) both as far as revenues and responsibilities are concerned.
  - *On the revenue side*, sufficient autonomy should be provided to metro-regions to allow them to decide on local taxes and to set local priorities. Since all taxes have certain disadvantages, a case can be made for diversifying tax revenues. A special case can be made for so-called smart taxes such as congestion charges and other environmental taxes. Grants might also be relevant as many services provided by the metropolitan area have spillovers to the rest of the country. They could also be useful instruments for central governments to implement specific urban policy and promote metro-wide co-operation. Finally, public-private-partnerships (PPPs) can play a valuable role in augmenting resources available for public projects, providing the relationships are developed with care and avoid a moral hazard.
  - *On the expenditure side*, assignment of functions to the most appropriate government level, without many overlaps, can help the efficiency of spending of metro-regions. General principles are that the delivery of local services, such as waste management and maintenance of roads, should be better delegated to a local level whilst public goods with externalities such as air pollution and water management have to be addressed at the scale of the metro-region or a larger entity than city level. Clear delineation of responsibilities is also necessary, especially when these are mixed. Duplication of tasks is more likely to be an issue

for metropolitan areas, since the usually larger capacity or responsibilities of city government could interfere with a higher governmental level.

- ***Equalisation schemes might have some perverse effects.*** A major dilemma for central governments is how to get as much revenue as possible from metro-regions to ensure some territorial equity objectives without damaging their financial capacity.
  - *Intra-metropolitan equalisations* are used to solve negative effects of urban sprawl and deal with income polarisation. These mechanisms are implemented in some large metro-regions represented by a large local government (*e.g.*, Istanbul, Tokyo and Seoul), as well in some highly fragmented metro-regions (*e.g.*, Minneapolis-St. Paul). In France, the central government provides an additional block grant to municipalities that enter into horizontal collaboration and accept a form of intra-metropolitan equalisation scheme.
  - *National equalisation schemes* generally aimed at redistributing resources from richer to poorer regions are a commonly debated and controversial issue. Metro-regions are likely to have larger social and infrastructure challenges, but these might be counterbalanced by higher fiscal capacity in metropolitan areas and more geographically constrained expenditure needs in other areas, for example in mountainous areas. Yet, in some cases, some elements of expenditures are not taken into account such as higher labour costs (*e.g.*, Stockholm) or higher land costs (*e.g.*, Helsinki). In other cases, municipalities with high tax capacity receive more equalisation transfers (*e.g.*, Amsterdam). Equalisation schemes can also create disincentives to increase tax efforts, which is not beneficial to metro-regions with their large efforts to collect tax revenues (*e.g.*, Seoul).

Summing up: rethinking national urban strategies

Cities are key components in a territorial development strategy. A well-rounded national economic strategy cannot ignore the spatial structure of the economy, or the qualities and characteristics of cities that affect economic performance, social cohesion and environmental conditions. Whether a city is growing slowly or rapidly matters less than whether local and national governments are prepared to develop policies and guide investments appropriate to its needs and potential. But national urban policies in the past have been reactive and remedial, not pro-active and dynamic. Not only must urban issues be given greater visibility and higher priority in national policy but also new policies may be needed at national, regional and local levels. Governments at all levels must re-examine their roles and responsibilities and explore ways to foster synergies in a collaborative framework.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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PART I

Chapter 1

The Emerging Role of Metropolitan Regions

1.1. Introduction

Globalisation and the acceleration of international trade flows have put cities back on the stage. Today, large cities, or metropolitan regions (metro-regions), are the key loci of transnational flows and function as essential spatial nodes of the global economy to such extent that one hears talk of "a common market of metropolitan economies". Yet, the role of large cities in economic growth and their capacity to concentrate large parts of population and economic activity across national territories are not a new phenomenon. Memphis, Alexandria, Athens and Rome were the eyes of civilisation, education and power for thousands of years. The 19th century industrial revolution also asserted the role of large cities, especially trading ports. However, the acceleration of urbanisation along with globalisation and the international division of labour has reshaped the size of the metropolitan areas and their evolving nature:

- *From a spatial perspective*, urban areas tend to grow through outward expansion at progressively lower densities, meaning that the size of a metro-region in square kilometres is increasing faster than its population. This is happening, for example, in at least Chicago, London, Paris, Seoul and Tokyo among the OECD metro-regions. Moreover, suburbanisation and urban sprawl, along with the emergence of urban networks, has led to an increase of commuting flows, shaping the development of transport infrastructure and allowing for the pooling of a self-contained labour market.
- *From an economic perspective*, large cities have evolved from an urban form based on the production of manufacturing products to a larger area based on a myriad of activities. The former model meant horizontally integrated production systems that concentrated production and employment in a single centre; it also meant a process of suburbanisation aided by the development of transport infrastructure. The latter is rather characterised by a more diversified economic basis requiring highly specialised skills and an innovation capacity fuelled by a cross-fertilisation of ideas. Core-periphery commuting flows and distribution of goods has led to the emergence of a strong and dynamic service sector not only for consumers, but also for businesses.

The growing economic and demographic importance of metro-regions and their increasing relations to the world trade system raises important

policy issues. Is it the case that these areas confer economic advantages, such that firms that are not located within them will be at a disadvantage? If so, does this mean that policy makers should encourage the formation of such agglomerations? Or are they merely the consequences of successful growth rather than its cause? In cases where growth and innovation are concentrated in a small number of metro-regions, do other parts of the country gain from spill-over effects, or are they denuded of resources that they might have used themselves for autonomous development, and becoming dependent on fiscal support made possible through the wealth of the metro-regions? Do overall national economies gain or lose from the presence of metro-regions? These issues are made more difficult and pressing by the fact that large concentrations of population and economic activities are associated with certain negative externalities, such as congestion, pollution, social segregation or high crime rates. These impose economic and other costs that have to be set against any advantages. Whether they are encouraged or discouraged, or simply accepted as irreversible facts of life, metro-regions present major challenges of urban governance and financial management. Based on the work conducted by the OECD Directorate of Public Governance and Territorial Development, in particular from the series of *OECD Territorial Reviews*, this chapter attempts to define the phenomenon, draw out key trends and factors of growth and competitiveness, and identify some major dilemmas for policy-makers.

1.2. Defining metropolitan areas

Metropolitan regions are generally identified as large concentrations of population and economic activity that constitute functional economic areas, typically covering a number of local government authorities. An economic area in this sense denotes a geographical space within which a number of economic links are concentrated: most obviously labour markets, but also networks of firms, important parts of supply chains, and relations between firms and local authorities. Within this framework, it is possible to distinguish different types of metropolitan regions according to their population distribution and existing internal links and flows. The first model is the *mono-centric metropolitan region*, in its strict definition, with a single dominant core and its hinterland of towns and rural areas. However, many of those regions have grown to become *mono-centric metropolitan regions with smaller multiple nuclei*, which in addition to a dominant core, have a number of separate cities within reasonable proximity and well connected to each other. Among this category are such metropolitan areas as Stuttgart, London and Seoul. In contrast, a number of urban areas close to each other grew over the years to become an urban network, comprising built-up or urbanised territory, thereby called *polynuclear* or *polycentric metropolitan regions*. This last category includes

metropolitan regions such as the Randstad-Holland in the Netherlands comprising the four largest Dutch cities (Amsterdam, Rotterdam, The Hague and Utrecht), or the Rhine-Ruhr metro-region in Germany that encompasses important cities such as Bonn, Cologne, Dortmund, Düsseldorf and Essen (Box 1.1). In addition, within these different categories are *mega-cities* characterised by huge concentration of population, often found in cities that

Box 1.1. **The concept of polycentric metropolitan areas**

Polycentric urban regions are often defined as collections of historically distinct and both administratively and politically independent cities located in close proximity, well connected through infrastructure, commuting and business linkages and clustered together as a single economic functional area (Kloosterman and Lambregts, 2001). One of the important characteristics of these polycentric regions is that they usually have no dominant central city; instead there will be several city centres, the larger of which do not differ significantly in terms of size or overall economic and political importance. The notion of polycentricity derives its meaning from the patterns and dynamics of functional interrelations and cooperation (versus competition) between these centres. According to the EU/ESPON analysis, polycentricity has three interrelated dimensions. First, a *morphological* dimension: the geographical distribution of physical development and activity across a network; second, *socio-economic relations and flows:* the sharing and movement among the network including labour, services, knowledge and social capital; and third, *governance:* the presence of interconnected institutional arrangements, including organisations, procedures and instruments (ESPON, 2005).

Polycentricity then refers both to the morphology of urban areas, structured around several urban nodes, and to the existence of functional relationships (in terms of commuting flows, industrial and business relationships, forms of co-operation, or through divisions of labour) between the cities of such regions. However, as the literature on polycentric urban regions is still limited and therefore rather unconsolidated (Bailey and Turok, 2001), a diversity of concepts are applied, which are largely synonymous with the polycentric urban region concept. Recent examples include "multicore city-regions" (Westin and Osthol, 1994), "network cities" (Batten, 1995), "city networks" (Camagni and Salone, 1993) and "polynucleated metropolitan regions" (Dieleman and Faludi, 1998). Moreover, in terms of ideas on spatial structure and inter-urban relationships, the polycentric urban region concept builds on older concepts such as the "dispersed city" (Burton, 1963), "megalopolis" (Gottmann, 1961) or the idea of the "regional city" (Stein 1964 in Evert Meijers, 2005).

have recently experienced strong population growth such as Mexico City, Seoul or Istanbul that have attracted large-scale internal migration. In a mid-1980s study, the United Nations set the threshold size of a mega-city at a population of 8 million and later raised it to 10 million (United Nations, 1998).

Several methodologies have been developed to define functional metropolitan regions. While national definitions of a metro-region differ, they typically identify a core area with a significant concentration of employment or population and a surrounding area densely populated and closely linked to the core (Appendix 1). They therefore employ at least one of three criteria: large size (in terms of either employment or population); high population density; and higher commuting within the region than between it and other surrounding areas. The European Union through the Urban Audit has proposed a definition of Larger Urban Zones for all European countries based on commuting flows[1]. Similar to national statistical offices, scholars have used different approaches for identifying metropolitan areas. Merriman, Ohkawara and Suzuki (1995) use commuting flows and time to define Tokyo's metropolitan regions, whereas Simmie, Sennett and Wood (2002) used administrative boundaries to define London's metro-region. Dümmler and Thierstein (2002) use the metro-region's functional roles such as innovation, nodal and regulation or institutional role to define a Zurich metropolitan region. These different approaches can be summarised in five groups based on: administrative or legal boundaries, housing markets, economic activity, services provision, and labour markets. Metro-regions can also be selected on the basis of a certain critical mass that make them important as economic, social and transport centres within a national state.

Whether metro-regions are mono-centric (in the strict sense or with multiple nuclei), polycentric or mega-cities, commuting flows and the labour market are important factors behind the definition that has been developed for the purpose of this publication (Box 1.2). On the one hand, commuting flows take place between the suburbs and the core in mono-centric metro-regions. On the other hand, some suburbs around the various cities that were formerly largely residential in character, mainly dependent upon the core of the metropolitan areas to which they were attached, have ceased to be "dormitories" and have developed their own productive activities. Commuting no longer solely takes the form of journeys in and out of a central city, but many people travel between smaller cities and suburbs. In any case, commuting is at the heart of a metropolitan region as it brings together firms and workers through transport and telecommunications infrastructure.

Bearing in mind these concepts and the large diversity of metropolitan areas within the OECD area, this report has selected 78 metro-regions with a threshold of 1.5 million inhabitants (Appendix 2). This Metropolitan database allows us to make some inferences about the position of one particular metro-region with

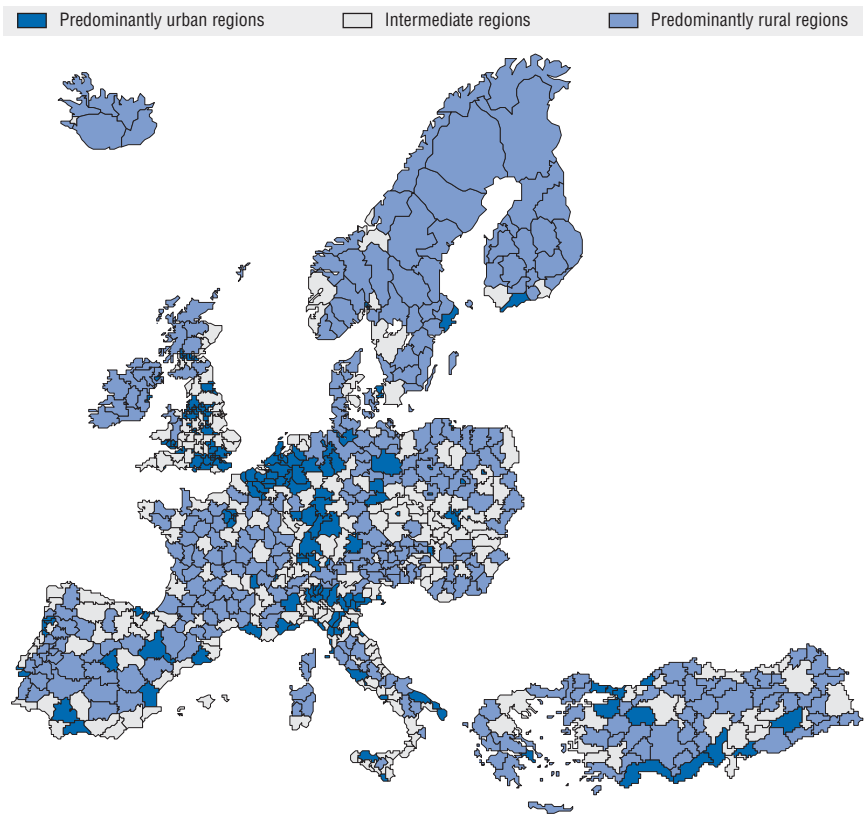
Box 1.2. **OECD metropolitan regions: data and definition**

For the purpose of this publication, the OECD has used a methodology to gather and analyse metropolitan data (Appendix 2). The Metropolitan database is based on four criteria. The first criterion is based on population size and a threshold of 1.5 million people is set to consider the region as metropolitan. Second, the density of population should exceed a critical value set at 150 people per km^2. These types of regions are considered as predominantly urban; therefore, it is not only important to be a region with a large population, but it is also necessary that they concentrate in a particular place thereby accounting for higher density rates. Third, it is also fundamental that these regions with large and dense populations constituting urban areas represent a contained labour market. In order to define labour markets, commuting flows are used to calculate net migration rates. Predominantly urban areas at Territorial Level 3 have been selected and a process of adding and eliminating neighbouring regions based on net commuting rates has been carried out as indicated in Appendix 2. Hence, metro-regions among predominantly urban areas (large and densely populated) are those for which the net commuting rate does not exceed 10% of the resident population. The fourth criterion has been set to include a small number of important cities in their national context. Therefore, the database also includes cities with less than 1.5 million people, but that account for more than 20% of their national population; in this event this means just one city, Auckland (Luxembourg and Reykjavik have been left out as they are extreme cases that represent outliers in many of our rankings).

There are a number of cities that have been included in the sample of 78 metro-regions that were over or under-estimated. For instance, London has been defined as a metro-region considerably smaller than the actual commuting zone around the city. Since data at the appropriate level (TL4) are not available for the surrounding regions of Greater London, the alternative would have been to largely over-estimate the metro-region using entire counties such as Essex, Kent or Oxfordshire among others to account for a part of these regions that may be argued to constitute part of London's labour market based on commuting patterns. In contrast, Busan has been slightly overestimated by taking into account the entire regions of Ulsan and Gyeonsangnam-do, large parts of which are effectively conurbated. Similarly, it could be argued that Milan and Zurich have also been overestimated. However, commuting flows and their net rates for Busan and Milan support our definition. Zurich along with the Turkish cities (Ankara, Istanbul and Izmir) were not defined using net commuting rates as flows are not available for them; instead the definition relies on previous studies as they are referenced in Appendix 2. Finally, Canadian, Mexican and US cities are already defined by their national authorities and data have been calculated using the corresponding statistical information accordingly. Although the database is supported by a solid methodology and makes extensive use of previous studies and definitions, there are caveats to bear in mind, particularly in the cases of Busan and London.

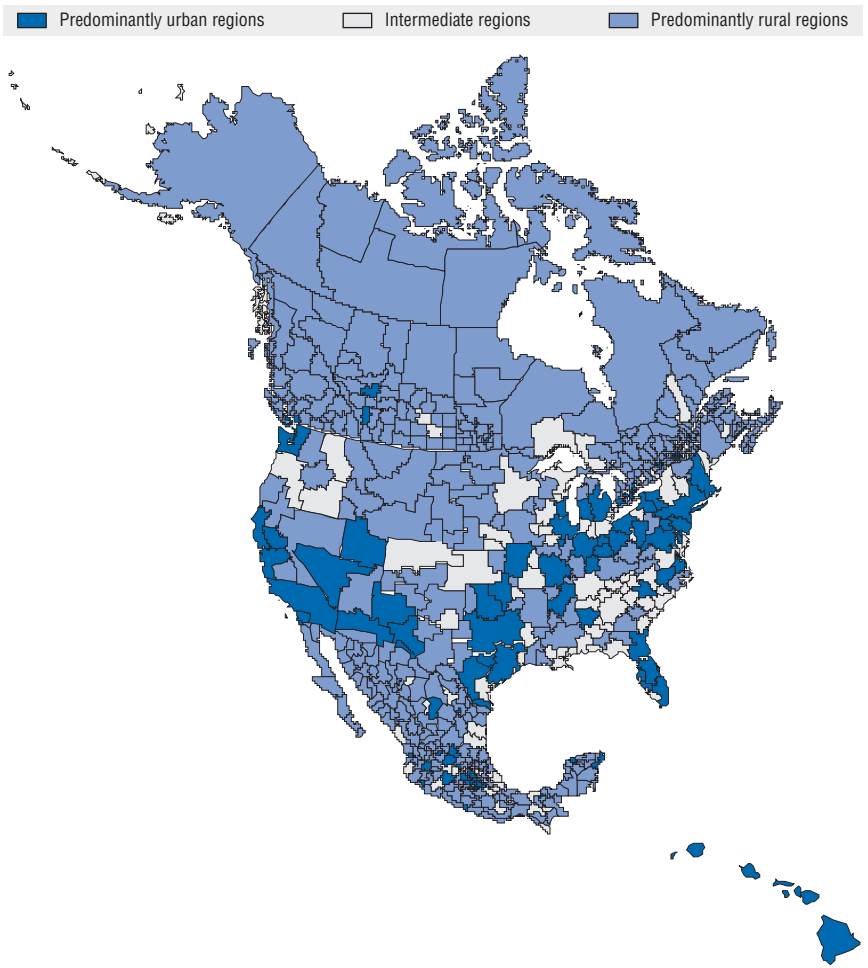
respect to the others or to the average, as well as to explore key issues concerning metro-regions such as the relationship between urban growth (in terms of population) and income (in terms of per capita GDP), ageing and dependency, the importance of capital cities, productivity and the contribution of metro-regions to their national economies. However, because of the limited data that are collected at this level, for some specific and key issues, we will also resort to the OECD Regional Database that provides data at the territorial level 3 (TL3 level)[2] and its regional typology (Appendix 2). According to the criteria of population density, the regional typology distinguishes among predominantly rural (PR), intermediate (IN) and predominantly urban (PU) areas (Figures 1.1, 1.2 and 1.3)[3]. Metro-regions are major examples of the last of these categories, except that some intermediate areas may be included within a metro-region, while many predominantly urban areas lie outside metro-regions.

Figure 1.1. **OECD regional typology (Europe)**



Source: OECD (2005g), *Regions at a Glance 2005*, OECD publications, Paris, France.

Figure 1.2. **OECD regional typology (North America)**

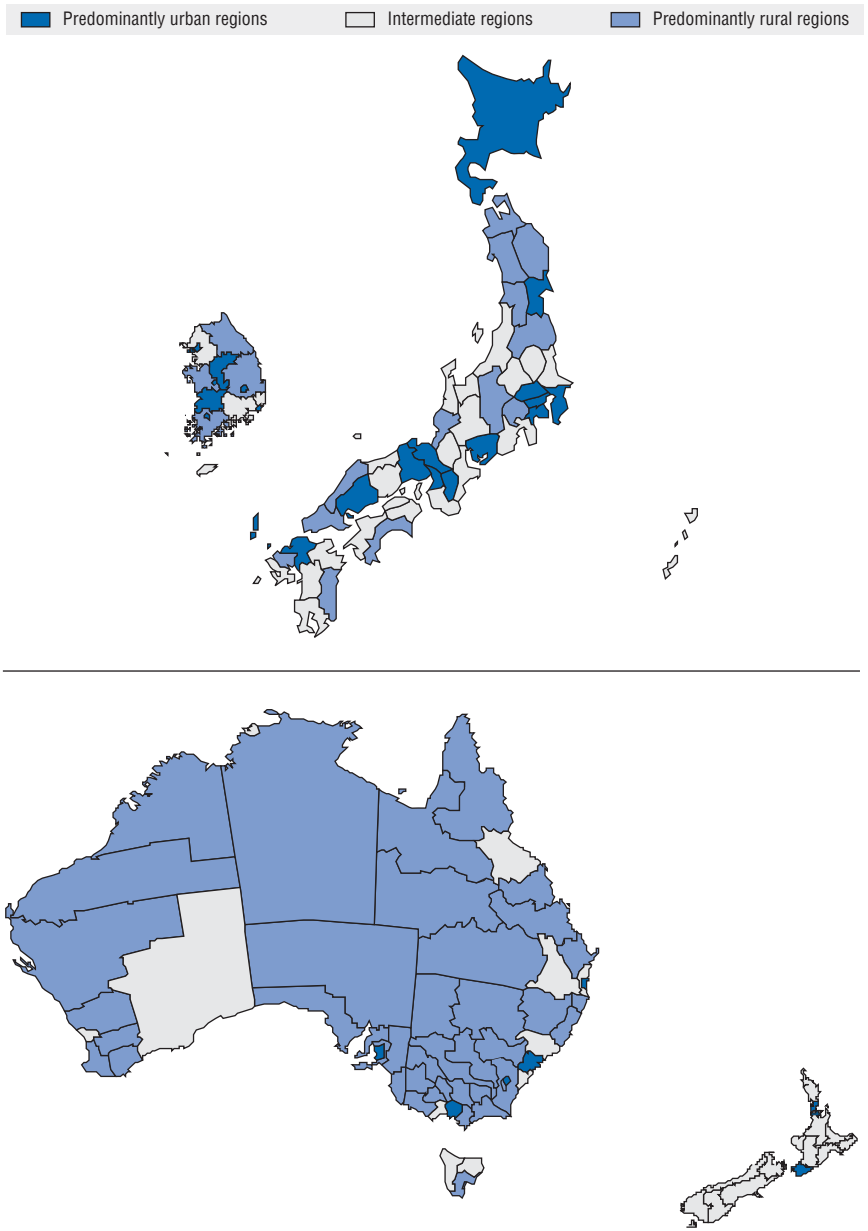


Source: OECD (2005g), *Regions at a Glance 2005*, OECD publications, Paris, France.

1.3. Urbanisation trends

Urbanisation is a worldwide phenomenon and a well advanced process within the OECD. By 2007, the world will have more urban residents than rural residents for the first time in history (United Nations, 2003) (Figure 1.4). This has already been the case in most OECD countries. Over the last 20 years agglomeration economies, migration and many other socio-economic factors have led people in OECD countries to increasingly choose to live in urban settings. On average, more than half of the total OECD population (53%) live in predominantly urban regions and the number rises to almost 80% if intermediate regions that include other less densely populated urban areas

Figure 1.3. **OECD regional typology (Asia and Oceania)**



Source: OECD (2005g), *Regions at a Glance 2005*, OECD publications, Paris, France.

Table 1.1. **Metropolitan database**

Ranking by GDP per capita

Rank	Metropolitan region	Country	Population (millions)	GDP pc in PPPs (thousand USD)	Share of nat. GDP %	Activity rate %	Employment rate %	Labour productivity (thousand USD)	% Difference in (compared to average)			Differences in GDP pc explained by (%)		
									Labour productivity	Employment rate	Activity rate	Productivity	Employment rate	Activity rate
1	San Francisco	USA	4.2	62.3	2.2	49.38	95.6	132.1	77.8	2.1	1.0	57.6	2.1	1.0
2	Washington	USA	5.1	61.6	2.7	57.32	96.9	110.9	49.3	3.5	17.2	40.1	3.4	15.9
3	Boston	USA	4.4	58.0	2.2	38.87	95.3	156.6	110.8	1.8	–20.5	74.6	1.8	–23.0
4	Seattle	USA	3.2	54.4	1.5	52.55	95.5	108.4	45.9	2.0	7.5	37.8	2.0	7.2
5	Minneapolis	USA	3.1	53.0	1.4	58.35	95.6	94.9	27.8	2.1	19.3	24.5	2.1	17.7
6	New York	USA	18.7	52.8	8.5	46.69	94.9	119.2	60.5	1.3	–4.5	47.3	1.3	–4.6
7	Denver	USA	2.3	50.8	1.0	52.90	94.7	101.4	36.5	1.1	8.2	31.1	1.1	7.9
8	Philadelphia	USA	5.8	50.5	2.5	49.69	95.3	106.6	43.5	1.8	1.6	36.1	1.8	1.6
9	Dallas	USA	5.7	50.1	2.4	49.83	95.0	105.8	42.4	1.4	1.9	35.4	1.4	1.9
10	Atlanta	USA	4.7	47.8	1.9	50.66	95.1	99.2	33.5	1.6	3.6	28.9	1.5	3.5
11	Houston	USA	5.2	47.4	2.1	46.82	94.4	107.3	44.4	0.8	–4.2	36.8	0.8	–4.3
12	San Diego	USA	2.9	46.8	1.2	44.78	96.0	108.8	46.4	2.5	–8.4	38.1	2.5	–8.8
13	London	UK	7.4	46.2	19.9	48.48	92.8	102.7	42.4	–0.9	–0.8	35.3	–0.9	–0.9
14	Chicago	USA	9.4	45.6	3.7	49.80	94.4	97.0	30.6	0.8	1.8	26.7	0.8	1.8
15	Los Angeles	USA	12.9	45.3	5.0	44.37	95.1	107.5	44.7	1.6	–9.3	36.9	1.5	–9.7
16	Detroit	USA	4.5	44.0	1.7	49.36	92.4	96.6	30.0	–1.3	0.9	26.2	–1.3	0.9
17	Baltimore	USA	2.6	43.3	1.0	50.04	95.7	90.5	21.8	2.2	2.3	19.7	2.2	2.3
18	Paris	France	11.2	42.7	27.9	46.13	90.7	102.0	37.3	–3.1	–5.7	31.7	–3.2	–5.8
19	Cleveland	USA	2.1	42.2	0.8	53.26	94.2	84.1	13.2	0.6	8.9	12.4	0.6	8.5
20	Portland	USA	2.1	41.8	0.7	48.83	94.7	90.5	21.8	1.1	–0.1	19.7	1.1	–0.1
21	St. Louis	USA	2.8	40.9	1.0	50.63	94.5	85.4	14.9	0.9	3.5	13.9	0.9	3.5
22	Phoenix	USA	3.7	39.9	1.3	47.45	95.5	88.1	18.7	2.0	–3.0	17.1	2.0	–3.0
23	Dublin	Ireland	1.6	38.9	47.6	50.87	95.9	79.7	7.3	2.4	4.0	7.0	2.4	3.9
24	Pittsburgh	USA	2.4	38.6	0.8	61.07	94.1	67.1	–9.6	0.4	24.9	–10.1	0.4	22.2
25	Tampa Bay	USA	2.6	37.8	0.8	49.35	96.8	79.2	6.6	3.4	0.9	6.4	3.3	0.9
26	Vienna	Austria	2.2	37.6	33.7	49.26	92.4	82.6	11.2	–1.3	0.7	10.6	–1.3	0.7
27	Miami	USA	5.4	37.2	1.7	44.32	96.7	86.9	17.0	3.3	–9.4	15.7	3.2	–9.8
28	Stockholm	Sweden	2.2	36.7	31.5	54.27	94.3	71.7	–3.5	0.7	11.0	–3.5	0.7	10.4
29	Stuttgart	Germany	2.7	36.4	4.3	53.21	94.1	72.6	–2.2	0.5	8.8	–2.3	0.5	8.4
30	Milan	Italy	7.4	35.6	17.2	47.96	95.8	77.5	4.3	2.2	–1.9	4.2	2.2	–1.9
31	Lyon	France	1.6	35.2	3.4	43.26	90.9	89.6	20.6	–3.0	–11.5	18.8	–3.0	–12.3
32	Munich	Germany	6.1	35.2	9.6	52.74	94.6	70.6	–5.0	1.0	7.9	–5.2	1.0	7.6

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Table 1.1. **Metropolitan database** *(cont.)*
Ranking by GDP per capita

Rank	Metropolitan region	Country	Population (millions)	GDP pc in PPPs (thousand USD)	Share of nat. GDP %	Activity rate %	Employment rate %	Labour productivity (thousand USD)	% Difference in (compared to average)			Differences in GDP pc explained by (%)		
									Labour productivity	Employment rate	Activity rate	Productivity	Employment rate	Activity rate
33	Oslo	Norway	1.7	35.0	36.5	53.44	95.7	68.5	–7.7	2.2	9.3	–8.1	2.1	8.9
34	Sydney	Australia	4.2	35.0	23.5	52.15	95.3	70.5	–5.1	1.7	6.6	–5.2	1.7	6.4
35	Brussels	Belgium	3.8	35.0	44.4	45.07	91.9	84.4	13.6	–1.8	–7.8	12.8	–1.8	–8.2
36	Toronto	Canada	4.7	34.9	17.7	63.44	93.0	59.1	–20.4	–0.7	29.7	–22.9	–0.7	26.0
37	Helsinki	Finland	1.8	34.0	42.1	53.54	93.2	68.1	–8.4	–0.4	9.5	–8.8	–0.4	9.1
38	Frankfurt	Germany	5.6	33.6	8.3	48.57	92.7	74.6	0.4	–1.0	–0.7	0.4	–1.0	–0.7
39	Copenhagen	Denmark	2.4	33.5	49.5	54.06	94.9	65.3	–12.1	1.4	10.6	–12.9	1.4	10.0
40	Zurich	Switzerland	2.5	33.4	33.1	50.19	97.7	68.1	–8.4	4.3	2.6	–8.7	4.2	2.6
41	Rome	Italy	3.7	33.1	8.1	44.77	92.5	79.9	7.6	–1.2	–8.5	7.3	–1.2	–8.8
42	Randstad-Holland	Netherlands	7.5	32.9	51.3	53.17	95.5	64.7	–12.8	2.0	8.7	–13.7	2.0	8.4
43	Melbourne	Australia	3.6	32.7	18.6	52.49	94.6	65.9	–11.3	1.0	7.4	–12.0	1.0	7.1
44	Vancouver	Canada	2.0	32.0	6.9	61.70	94.3	55.0	–26.0	0.7	26.2	–30.1	0.7	23.3
45	Turin	Italy	2.2	32.0	4.6	44.00	93.9	77.4	4.2	0.3	–10.0	4.1	0.3	–10.6
46	Auckland	New Zealand	1.2	31.2	36.1	55.16	96.2	58.8	–20.9	2.7	12.8	–23.4	2.7	12.0
47	Hamburg	Germany	4.6	30.9	6.4	44.74	90.7	76.1	2.5	–3.1	–8.5	2.5	–3.2	–8.9
48	Tokyo	Japan	34.2	29.3	30.4	51.92	95.2	59.3	–20.2	1.7	6.2	–22.5	1.7	6.0
49	Montreal	Canada	3.4	29.1	10.8	58.29	91.3	54.8	–26.3	–2.5	19.2	–30.5	–2.5	17.6
50	Madrid	Spain	5.6	29.0	16.7	51.42	93.3	60.5	–18.5	–0.4	5.2	–20.5	–0.4	5.0
51	Aichi	Japan	9.1	28.9	7.9	53.10	96.0	56.6	–23.8	2.5	8.6	–27.1	2.5	8.2
52	Birmingham	UK	2.6	27.8	4.2	45.30	93.2	65.7	–8.9	–0.4	–7.4	–9.3	–0.4	–7.6
53	Leeds	UK	2.1	27.5	3.4	48.25	95.5	59.6	–17.3	1.9	–1.3	–19.0	1.9	–1.3
54	Rhine-Ruhr	Germany	13.4	27.4	16.4	45.03	90.2	67.4	–9.2	–3.7	–7.9	–9.7	–3.7	–8.2
55	Lisbon	Portugal	2.7	27.1	37.9	50.96	92.4	57.6	–22.4	–1.3	4.2	–25.4	–1.3	4.1
56	Osaka	Japan	17.0	26.8	13.8	50.04	93.9	57.1	–23.1	0.2	2.3	–26.2	0.2	2.3
57	Manchester	UK	2.5	26.6	3.9	46.23	95.6	60.2	–16.6	2.0	–5.5	–18.1	2.0	–5.6
58	Barcelona	Spain	4.9	26.0	13.1	51.71	89.6	56.1	–24.5	–4.3	5.7	–28.1	–4.4	5.6
59	Prague	Czech Republic	2.3	25.6	34.7	52.33	95.4	51.4	–30.8	1.8	7.0	–36.9	1.8	6.8
60	Lille	France	2.6	23.7	3.6	46.10	87.3	59.0	–20.6	–6.8	–5.7	–23.0	–7.1	–5.9
61	Budapest	Hungary	2.8	23.5	45.6	45.43	95.5	54.3	–26.9	2.0	–7.1	–31.4	2.0	–7.4
62	Warsaw	Poland	3.0	23.1	16.2	43.01	88.5	60.7	–18.3	–5.5	–12.0	–20.2	–5.7	–12.8
63	Fukuoka	Japan	5.1	22.3	3.4	48.79	94.1	48.5	–34.7	0.5	–0.2	–42.6	0.5	–0.2

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Table 1.1. **Metropolitan database** *(cont.)*
Ranking by GDP per capita

Rank	Metropolitan region	Country	Population (millions)	GDP pc in PPPs (thousand USD)	Share of nat. GDP %	Activity rate %	Employment rate %	Labour productivity (thousand USD)	% Difference in (compared to average)			Differences in GDP pc explained by (%)		
									Labour productivity	Employment rate	Activity rate	Productivity	Employment rate	Activity rate
64	Valencia	Spain	2.3	22.2	5.2	50.12	89.3	49.6	–33.2	–4.7	2.5	–40.3	–4.8	2.5
65	Busan	Korea	7.9	21.9	18.9	46.59	96.5	48.7	–34.4	3.1	–4.7	–42.2	3.0	–4.8
66	Berlin	Germany	6.0	21.3	5.7	51.91	81.6	50.2	–32.4	–12.9	6.2	–39.2	–13.8	6.0
67	Athens	Greece	3.9	20.1	37.6	45.17	90.9	48.9	–34.1	–2.9	–7.6	–41.8	–3.0	–7.9
68	Seoul	Korea	23.5	19.1	48.6	48.35	95.8	41.1	–44.6	2.3	–1.1	–59.1	2.3	–1.1
69	Monterrey	Mexico	3.2	19.0	6.1	41.08	98.8	46.8	–37.0	5.5	–16.0	–46.1	5.4	–17.4
70	Naples	Italy	3.1	17.1	3.4	36.32	81.1	58.0	–21.9	–13.4	–25.7	–24.7	–14.3	–29.7
71	Mexico City	Mexico	18.4	14.3	26.7	39.21	98.3	37.0	–50.2	5.0	–19.8	–69.8	4.9	–22.1
72	Guadalajara	Mexico	3.5	13.4	4.8	42.73	98.9	31.8	–57.2	5.6	–12.6	–84.9	5.5	–13.5
73	Puebla	Mexico	2.1	13.1	2.8	39.54	98.5	33.7	–54.6	5.2	–19.1	–78.9	5.1	–21.3
74	Daegu	Korea	2.5	12.3	3.4	48.20	95.8	26.6	–64.2	2.3	–1.4	–102.7	2.2	–1.4
75	Krakow	Poland	2.1	11.2	5.6	46.42	83.7	28.8	–61.2	–10.7	–5.1	–94.7	–11.3	–5.2
76	Istanbul	Turkey	11.4	10.9	27.1	40.42	87.9	30.7	–58.6	–6.2	–17.3	–88.3	–6.3	–19.0
77	Izmir	Turkey	3.4	10.0	7.3	42.61	89.2	26.2	–64.7	–4.8	–12.9	–104.3	–4.9	–13.8
78	Ankara	Turkey	4.0	9.6	8.3	38.63	89.0	27.8	–62.6	–4.9	–21.0	–98.4	–5.0	–23.6

Note: This ranking by GDP per capita should be interpreted carefully. As mentioned in Box 1.2, due to data availability, there are a number of cities that have been included in the sample of 78 metro-regions that were over or under-estimated.

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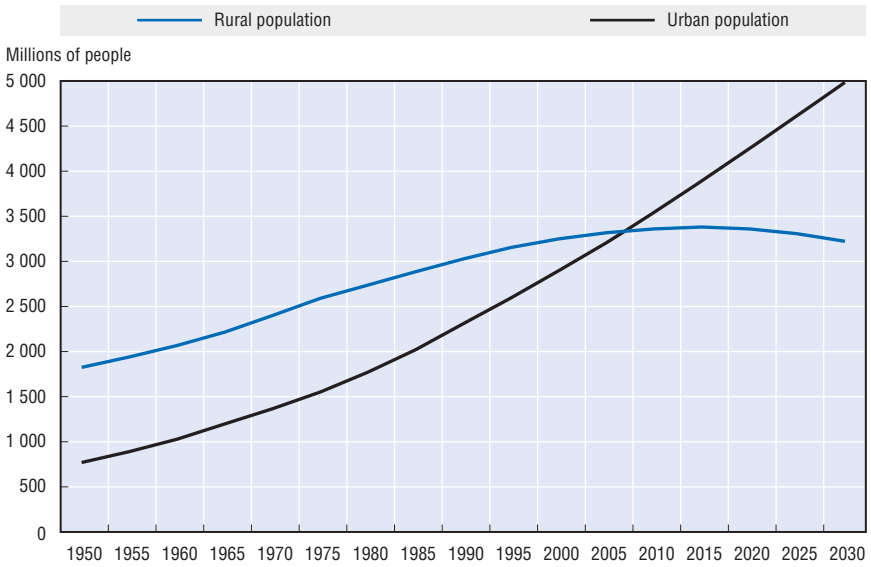
Figure 1.4. **Worldwide population projections (1950-2030)**

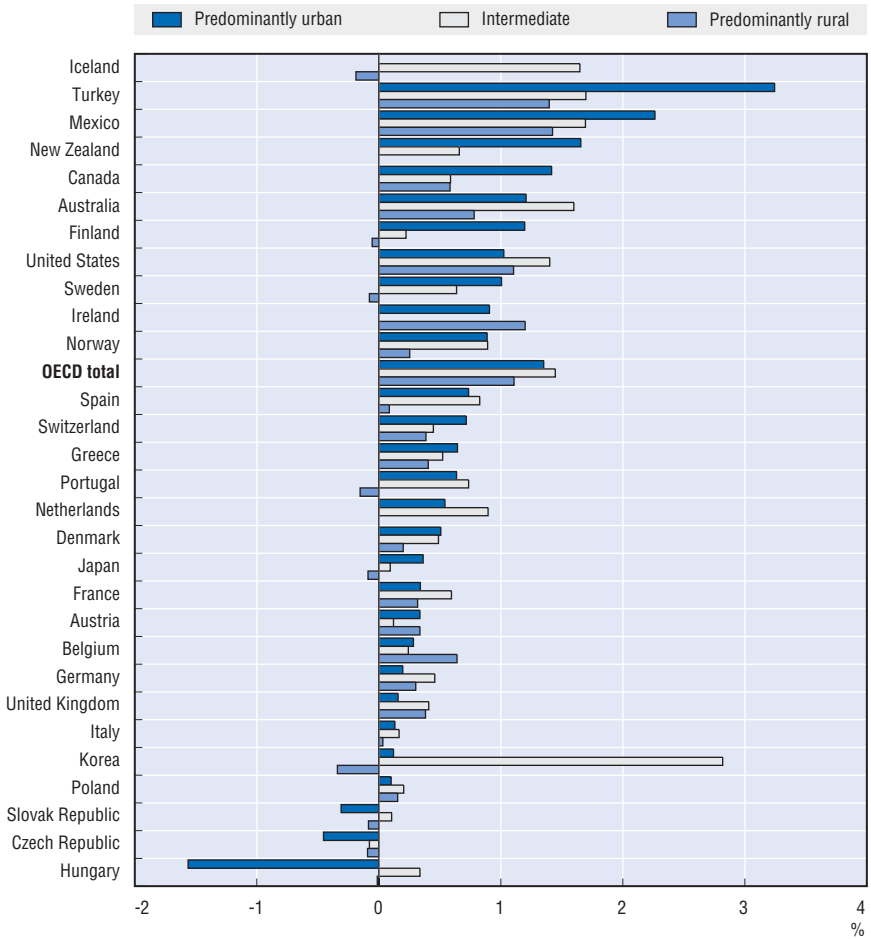


Source: United Nations (2004), "World Urbanization Prospects: The 2003 Revision", *Department of Economic and Social Affairs*, Population Division, *www.un.org/esa/population/publications/wup2003/WUP2003.htm*.

are taken into account. The level of urbanisation however varies among countries. In the Netherlands (85 %), Belgium (83%), the United Kingdom (69%), the United States (67%), Germany (62%), Japan (59%), Australia (55%), Korea (53%), Canada (53%), Italy (52%) and Portugal (51%), urban regions account for most of the national population. Less urbanised countries include Sweden, Norway, Turkey, Poland, Finland, Ireland, and Austria (OECD, 2005g).

Urbanisation growth is still ongoing throughout the OECD but at different rates. According to the United Nations, the world's urban population estimated at 3 billion in 2003, is expected to rise to 5 billion by 2030. Although much of this projected growth will occur in less developing countries, the already high concentration of the population in OECD urban regions is likely to be reinforced (United Nations, 2004). The OECD total population living in predominantly urban regions grew by around 1.4% over the period 1990-2000, with a similar growth rate for intermediate regions (1.4%) and a lower one (1.1%) for predominantly rural regions (Figure 1.5). In some countries, the share of people living in urban areas has continued to increase, in some cases as result of population density in intermediate regions rising until they become fully urban (especially in Japan and Italy, but also in Belgium and Canada). Within OECD countries, average annual population growth among urban regions varies from 3.2% in Turkey to –1.6% in Hungary (Figure 1.6). Population growth in urban areas has been notable in Turkey and Mexico

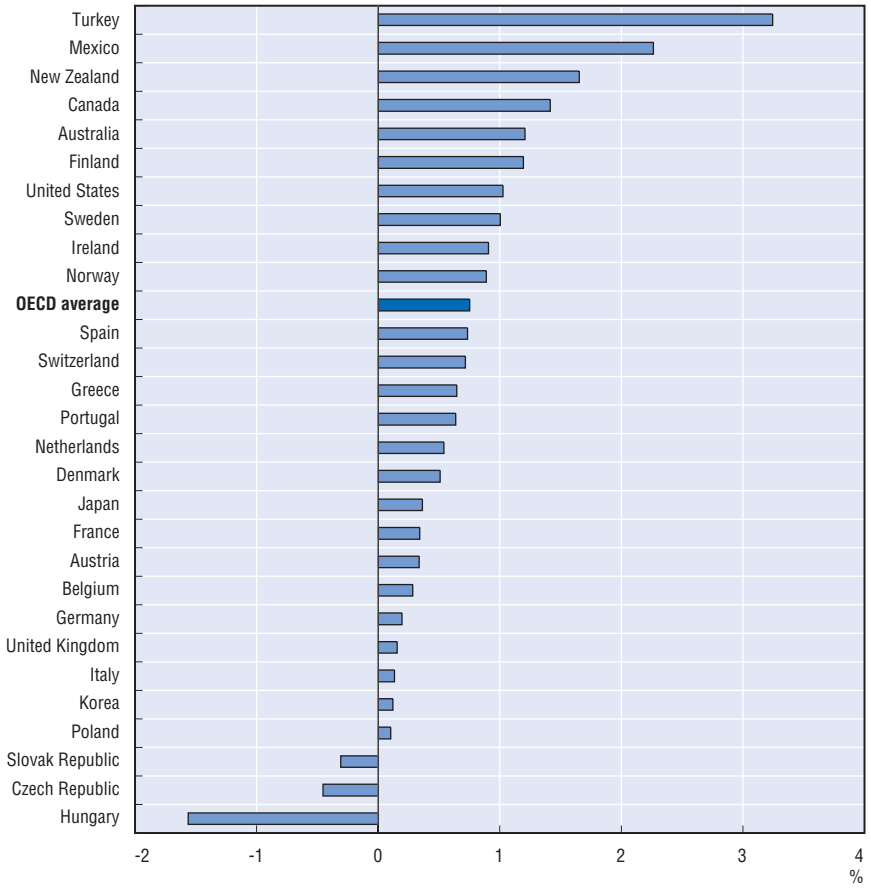
Figure 1.5. **Population growth according to the types of regions (1990-2000)**



Source: OECD (2005g), *Regions at a Glance 2005*, OECD publications, Paris, France.

where demographic transition and rural-urban migration are still ongoing. Growth of urban areas has also been important in New Zealand, Canada and Australia, a trend fuelled by international migration. In contrast, low-growth rates in urbanisation have been experienced in Austria, Belgium (already highly urbanised) and Denmark and even negative rates in some Eastern European countries such as the Czech Republic, the Slovak Republic and Hungary, probably due to international out-migration. Although the average distribution of the total population among the three types of regions within the OECD area has been quite stable over the period 1990-2000 (Figure 1.7), in some regions the rate of urbanisation has been much higher, suggesting that population in member countries is likely to become even more concentrated

Figure 1.6. **Urbanisation growth in OECD countries**
Average annual growth in population in predominantly urban areas (1980-2004)



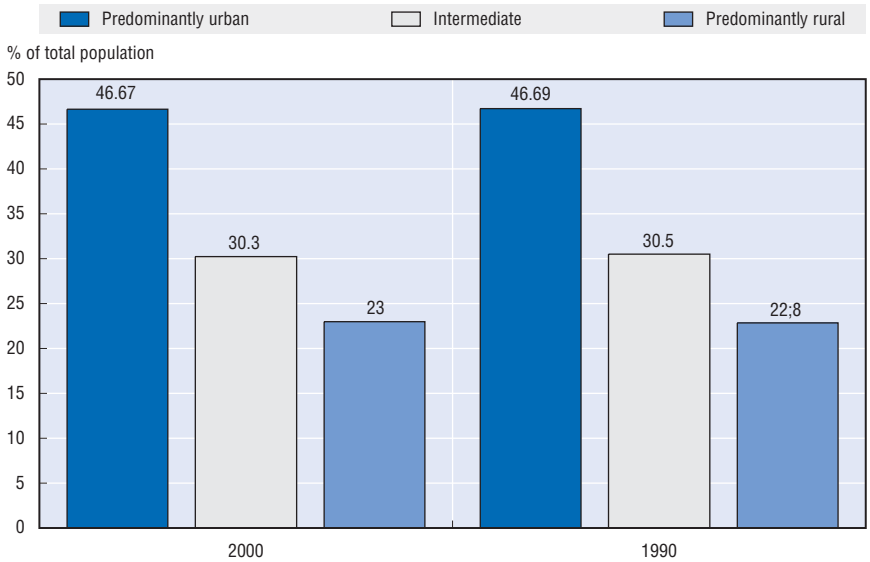
Source: OECD (2005g), *Regions at a Glance 2005*, OECD publications, Paris, France.

over the coming years. These patterns raise important issues about the long-term sustainability of increasing concentration in urban regions – where congestion due to high population density is already considerable – and depopulation of rural areas, where the small size of communities makes the provision of basic services increasingly costly (OECD, 2005g).

The acceleration of urbanisation along with increasing trade flows among cities have led to the emergence of metro-regions. The OECD has taken into account 78 metro-regions with 1.5 million and more inhabitants. The size of the metro-regions varies widely among countries from small, growing, mono-centric metro-regions in Europe (Dublin and Helsinki with less than 2 million inhabitants) to mega-cities in Asia such as Tokyo (34) and Seoul (23.5),

Figure 1.7. **Distribution of the total population among types of regions (1990 and 2000)**

Proportion of total population in the OECD



Source: OECD (2005g), *Regions at a Glance 2005*, OECD publications, Paris, France.

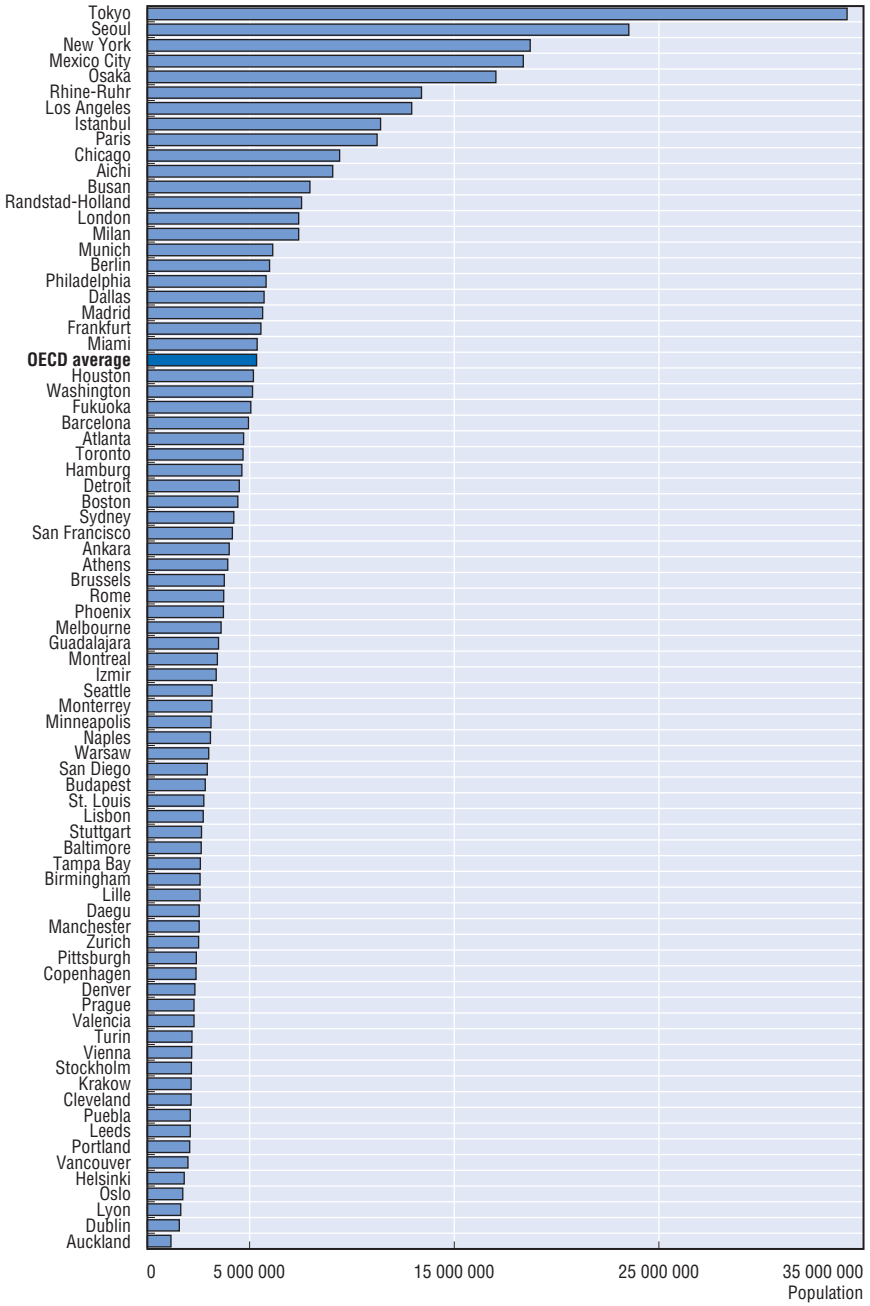
and in North America like New York (18.7) and Mexico City (18.4). Some other European metro-regions also largely outstrip the OECD average (around 5 million people) such as Rhine-Ruhr (13.4), Istanbul (11.4), Paris (11.2), Randstad-Holland (7.5), London (7.4) and Milan (7.4) (Figure 1.8). Based on simple graphic observation of their size, it is possible to identify three groups of cities:

- Small metro-regions with 1.5 to 3 million people with Dublin and Helsinki as examples.
- Medium to large metro-regions with 3 to 7 million people such as Atlanta, Melbourne and Montreal.
- Mega-cities of over 7 million people mentioned above as dominating the ranking.[4]

Metropolisation is the result of several processes among which are urbanisation, suburbanisation, migration, centripetal forces and linkages amid polycentric regions. The process of urbanisation and suburbanisation particularly in the US cities – but also a feature in others – has continued, spurred by agglomeration economies. The massive agglomerations in Japan are nothing new; however, it is important to highlight the fact they have grown in spite of congestion costs, perhaps since centripetal forces bringing firms and workers together are still stronger than any diseconomy of scale. In

Figure 1.8. **Ranking of metro-regions by population size**

OECD sample of 78 metro-regions



Note: OECD average refers to the average of OECD metro-regions.

Korean cities like Seoul and Busan, as well as in Mexico City, agglomerations were fuelled by rural-urban migration, but more recently their urban sprawl has outgrown administrative boundaries and they all include at least part of three other regions (provinces in the case of Busan and Seoul and states in the case of Mexico). In the Rhine-Ruhr in Germany and the Randstad-Holland in the Netherlands, metropolisation has been different from the rest of Europe – and the OECD as a whole for that matter – as it is the result of agglomeration and urban sprawl of smaller urban centres that have ultimately produced the integration of a networked urban-system into a single metro-region.[5]

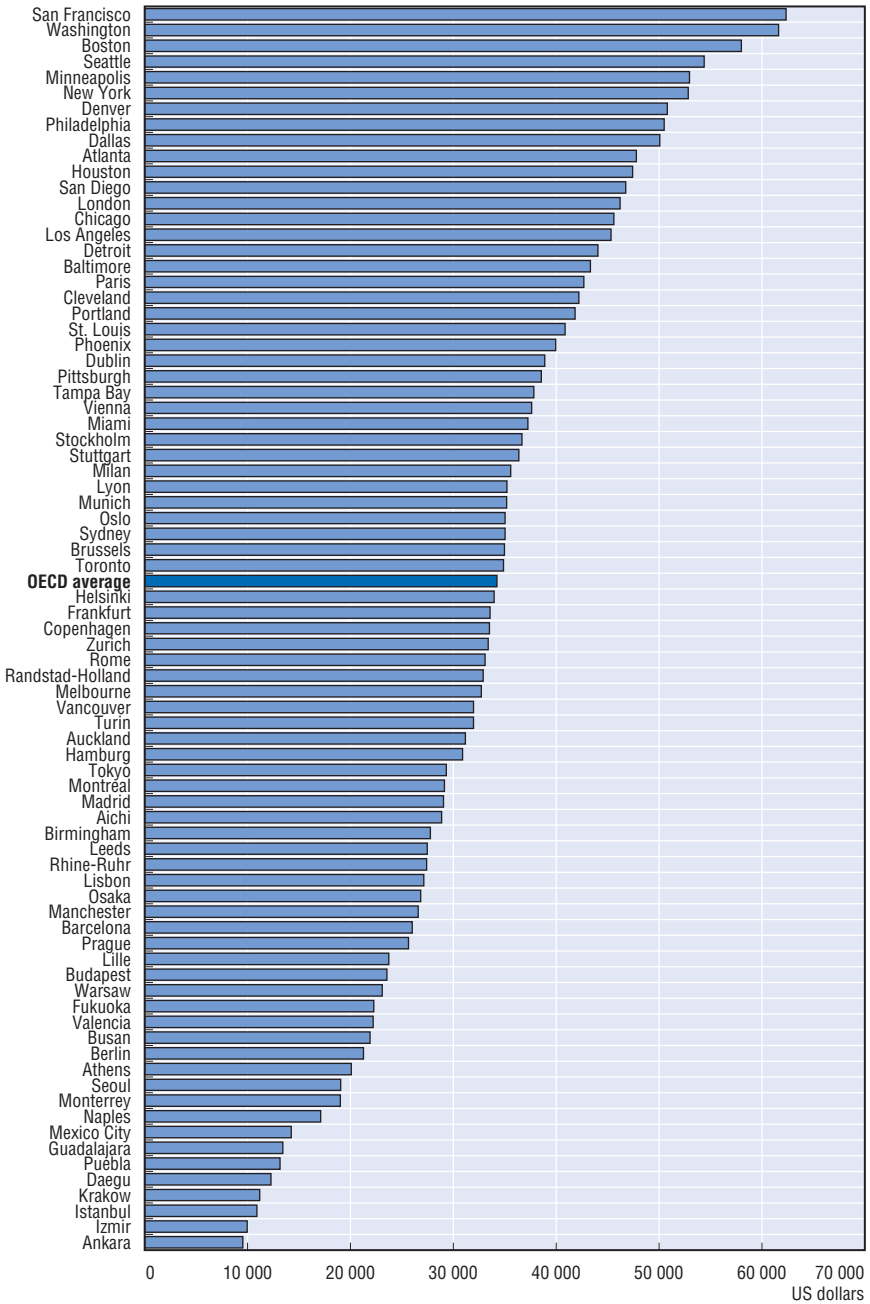
1.4. Performance of OECD metropolitan regions

Not surprisingly, metro-regions feature different levels of wealth. Per capita income in OECD metro-regions, measured in terms of purchasing power parity (PPP) GDP, ranges from USD 9 551 in Ankara to USD 62 350 in San Francisco (Figure 1.9). This largely reflects differences in national GDP and GDP per capita among OECD countries. However, a key dimension that needs to be considered is the path of economic growth over time in a given metropolitan area. The increasing opening of metropolitan economies to international markets might pose a threat to some dominant metro-regions, as richer metro-regions are not unchallenged leaders. For instance, during the period 1995-2002, in a sample of 44 metro-regions, relatively lower-income metropolitan regions in Korea (Busan), Turkey (Istanbul) and Eastern Europe (Prague, Warsaw) registered higher average annual growth rates than some richer metropolitan areas in Japan (Tokyo, Aichi), Germany (Frankfurt, Munich) and France (Paris) (Figure 1.10). Berlin and Budapest, among other metro-regions such as Randstad-Holland, Barcelona and Oslo, even yield negative average annual growth rates during the same period. However, the model and regressions results based on β-convergence suggest a strong pattern of divergence in which high-income metro-regions in the sample are outgrowing low-income ones[6] (Appendix 3). If this trend is confirmed with further research and over a longer timeframe, the results would be in line with a hypothesis that globalisation and the benefits associated with it are increasingly more located in the richest metro-regions.

The ranking by productivity differences, with respect to the average for all metro-regions, shows also a quite similar trend to income (Figure 1.11). Again, the ranking is dominated by US and some European metro-regions. In addition to London, French (Paris-Lyon) and to a lesser extent Italian (Rome, Milan) metro-regions are better positioned in this ranking than in that of GDP per capita.[7] Although some other European cities such as Brussels, Vienna and Dublin have productivity levels above the average, many other well-developed, above-average income cities with innovative capacities such as Helsinki, Stockholm, Sydney and Tokyo have productivity levels below the OECD average.

Figure 1.9. **Ranking of OECD metro-regions by income**

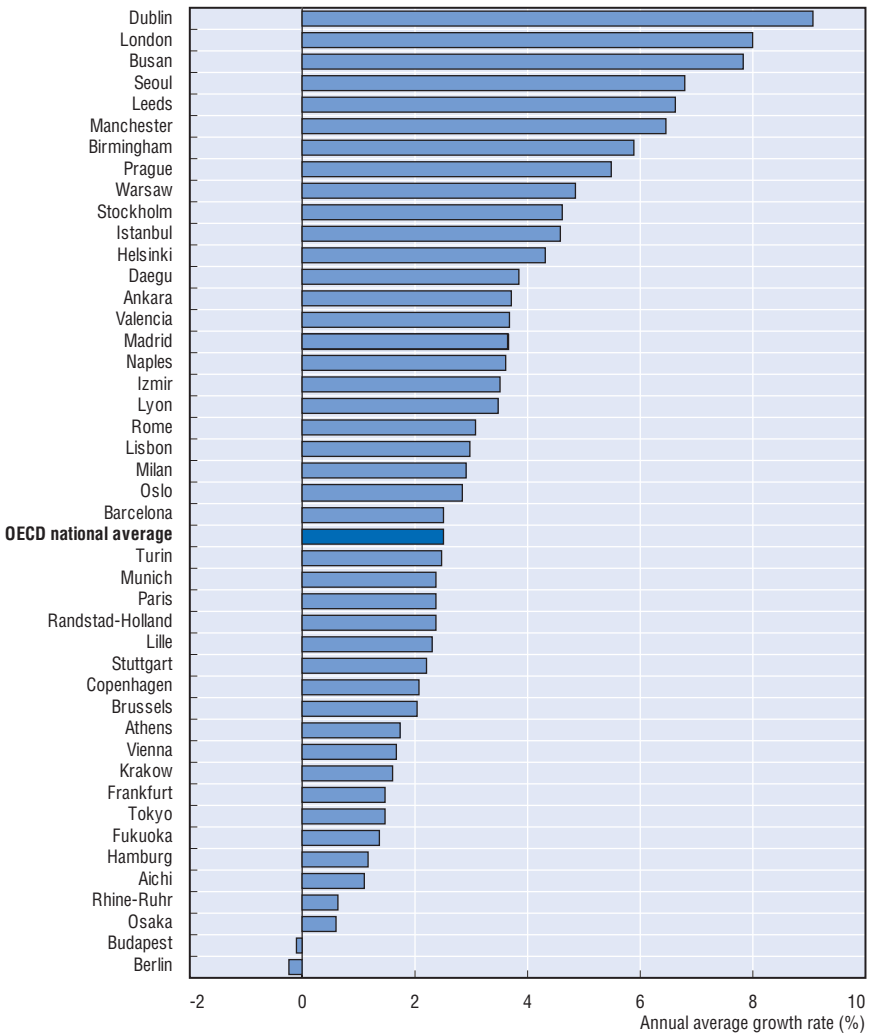
GDP per capita in PPPs for a sample of 78 metro-regions in the OECD



Note: OECD average refers to the average of OECD metro-regions.

Figure 1.10. **Average annual growth rate among OECD metropolitan areas (1995-2002)**

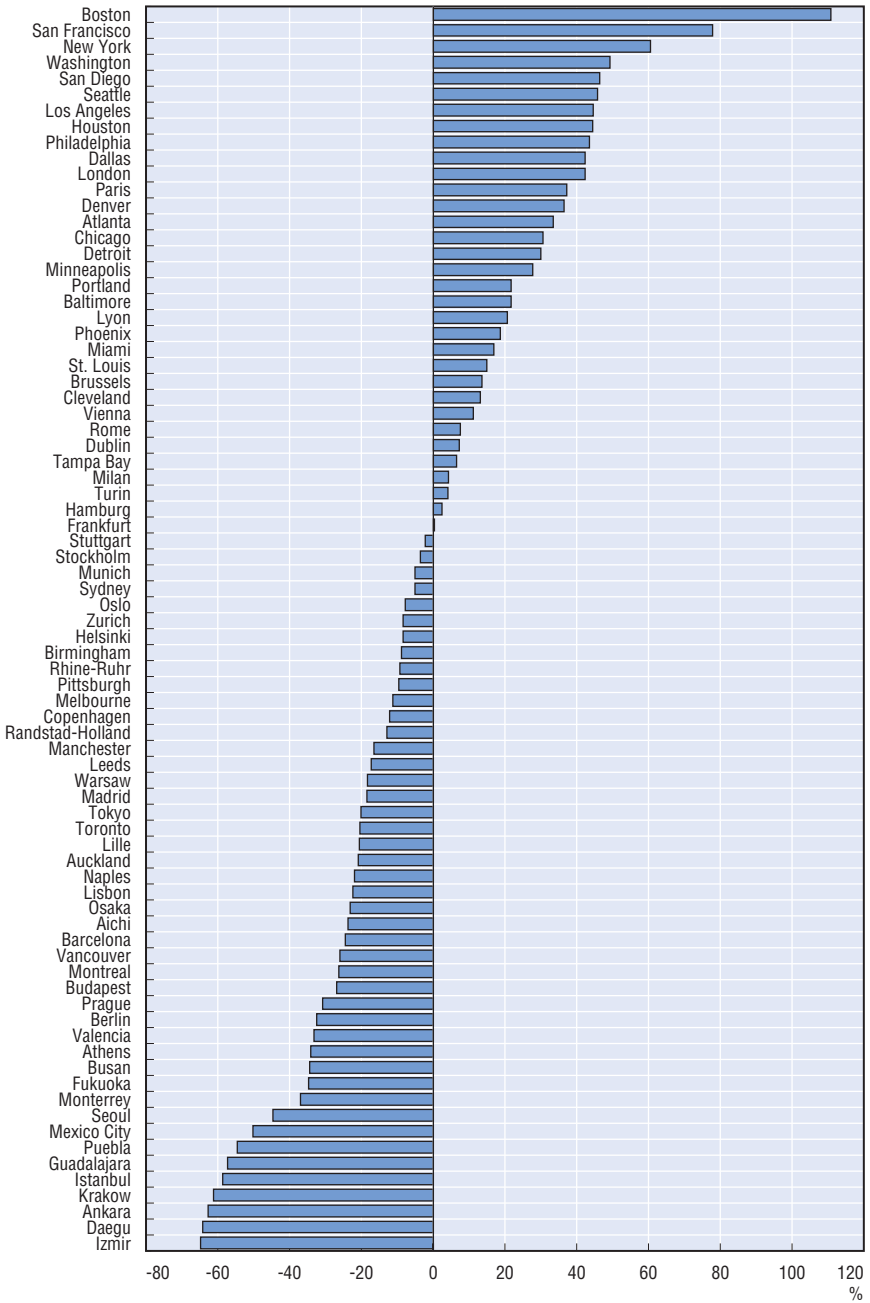
Sample of 45 metro-regions



The results may be influenced by commuting flows and the fact that productivity is measured only for the labour factor and does not take into account other multi-factor productivity measures. In addition, some metro-regions in countries which have opted for low levels of working hours, such as Stockholm and Randstad-Holland may appear to be losing ground to competitors. This is because a misleading impression of labour productivity is created when labour productivity is measured at the local level by GDP per worker and not by GDP per man-hour worked.

Figure 1.11. **Productivity differentials across OECD metro-regions (2002)**

Sample of 78 metro-regions in the OECD



1.5. City size and income

At first sight, the relationship between population size and income is not a straightforward one. One of the most important features claimed for urban economies, including metro-regions, is their capacity to concentrate population that nurtures the development of a pooled labour market, as well as human and physical capital, income and infrastructure besides cultural and recreational amenities. However, an initial look at the data for OECD metro-regions does not support this argument; if anything, there is a slight negative association between the size of a metro-region and the income of its inhabitants (Figure 1.12). A different picture emerges if size is taken into account with the largest metro-regions as outliers. Even if we disregard Auckland, whose population size is below the 1.5 million threshold, there is still considerable diversity in the size of metro-regions, ranging from 1.5 million (Dublin) to 34 million (Tokyo) population. Using natural logarithms for population and GDP per capita in PPP enables us to obtain linearized figures that compress the effect of size, giving the association between concentration of population and income (Figure 1.13). Pearson's correlation coefficient confirms the graphic suggestion that there is a positive and statistically significant correlation between the size of the population and income (Appendix 3). Hence, population size is positively associated with the level of income, but exceptionally large cities ("mega-cities") may become "dysfunctional".

Figure 1.12. **Correlation between population size and income in OECD metro-regions**

Sample of 78 OECD metro-regions (2002)

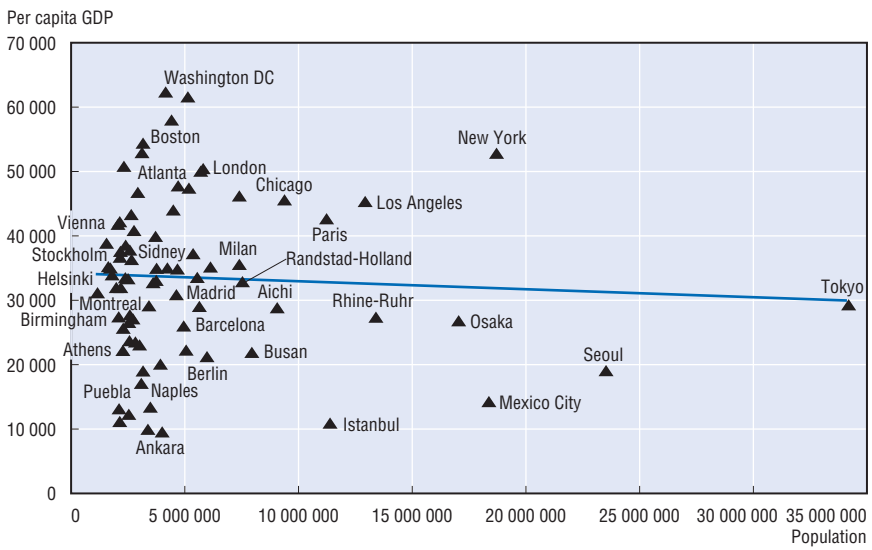
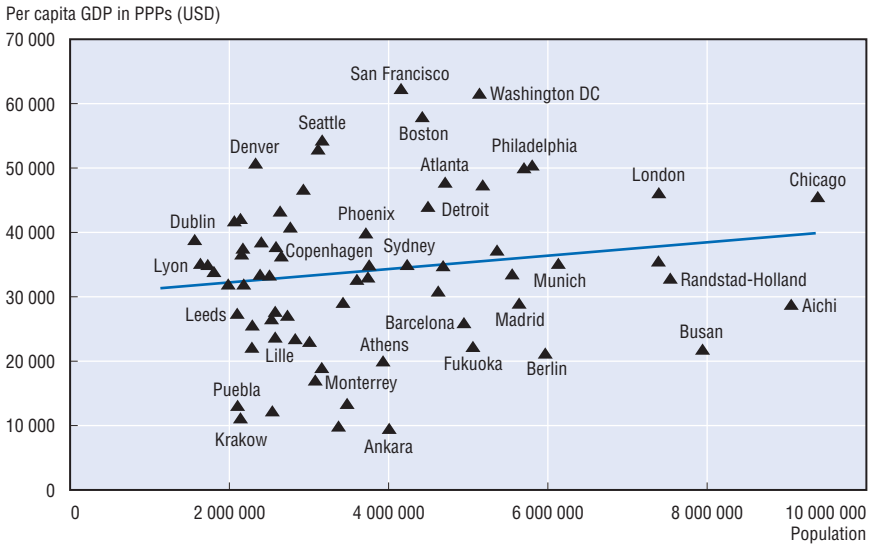


Figure 1.13. **Correlation between population size and income in metro-regions with fewer than 10 million inhabitants**

Sample of 69 OECD metro-regions (2002)



In fact, bigger may mean richer until congestion reaches a certain level. It can be argued that in mega-cities, income is affected by population size, probably as diseconomies of scale and congestion costs appear. Congestion costs seem to outweigh centripetal forces after a certain critical value that can be regarded as a threshold.[8] Figure 1.14 shows a somewhat weak, but negative, association between population and income for OECD mega-cities. Although the Pearson's correlation coefficient yields a statistically non-significant result, using the model in Annex 3 we can conclude that for metro-regions of over 6 million people, the relationship between income and population size is negative. One explanation for possible disadvantages of large size may lie in the congestion and related costs of very large urban agglomerations, *i.e.* higher commuting times, higher costs of logistics and transport, as well as land rent values and environmental costs. These results are important if we bear in mind that there is an ongoing discussion in the literature on whether there is an optimal city size that balances increasing and decreasing returns to scale in activities.[9] Therefore, it can be argued that many of the mega cities in the OECD are experiencing some type of diseconomies of scale such as congestion costs that impinge on the standard of living.

Metro-regions that concentrate within them over 20% of national GDP are likely to have higher incomes compared to both their national average and other metro-regions (Figure 1.15).[10] In some countries, one or a small number of metro-regions concentrate the majority of the population and produce the

Figure 1.14. **Relations between population and income in metro-regions of over 6 million people**

Linearized values for population and per capita GDP in PPPs (2002)

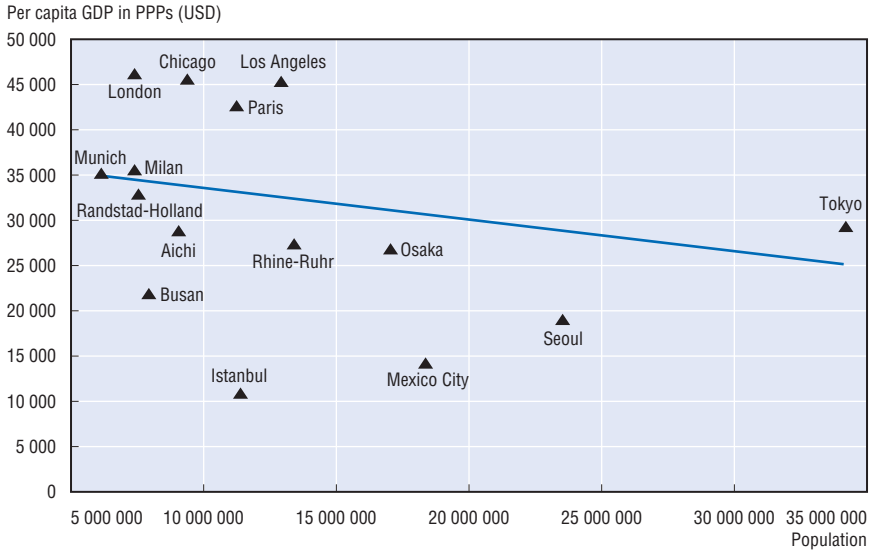
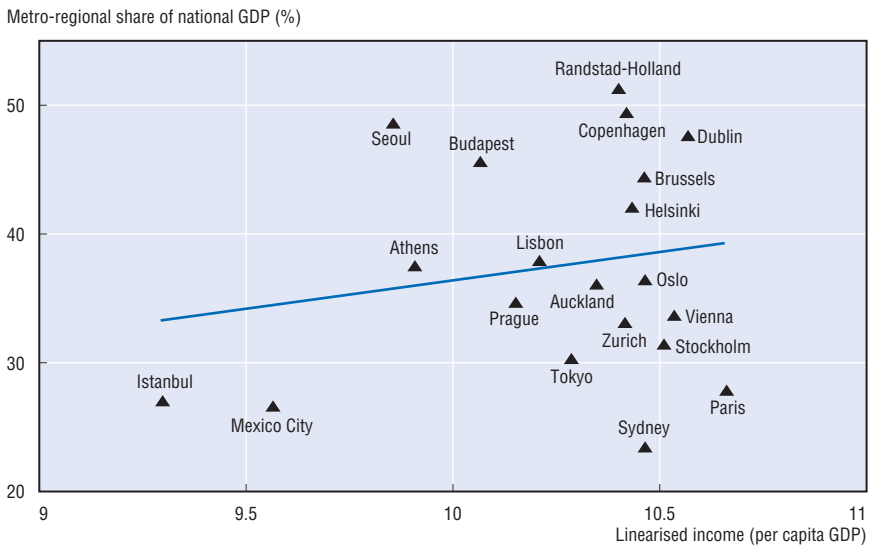


Figure 1.15. **Capital cities and income**

Sample selected using metro-regions representing more than 20% of their national output (2002)



bulk of the national output and employment. For instance, one Hungarian out of five lives in the city of Budapest which produces 34.5% of national GDP. The metro-region represents 42.2% of national GDP and 65% of total FDI. The capital region of Seoul concentrates more than 45% of the South Korean population, nearly half of the national GDP, 45% of total employment and 56% of FDI. In Canada, half or more of the GDP of the provinces of Ontario, Quebec and British Columbia is generated by one metro-region, respectively Toronto, Montreal and Vancouver. Similarly, the cross-border region of Vienna-Bratislava accounts for almost one-half of both countries' GDP (Austria and the Slovak Republic). Almost one-half of the Danish and Irish GDP and more than 40% of the Finnish and Belgian GDP are produced in Copenhagen, Dublin, Helsinki and Brussels respectively. One-third or more of Norwegian, New Zealand and Czech GDP are based in their national capitals (Oslo, Auckland and Prague). Around 30% of national GDP in the UK, Sweden, Japan and France is accounted for by London (31.6%) Stockholm (31.5%), Tokyo (30.4%) and Paris (27.9%) respectively.

Of the 20 metro-regions that concentrate more than 20% of national GDP, 15 are capitals and one more (the Dutch Randstad-Holland) includes the national capital within a multi-polar metro-region, leaving only Auckland, Istanbul, Sydney and Zurich as non-capitals. More generally, in only six countries (Australia, Germany, Italy, the USA, as well as Switzerland and Turkey already mentioned) the capital city was not the largest single metro-region. In eight it was the largest of a group of national metro-regions (Canada, France, Japan, Korea, Mexico, Poland, Spain, United Kingdom), and in ten relatively small countries it was the sole metro-region (the Czech Republic, Denmark, Finland, Hungary, Ireland, the Netherlands, Norway, Portugal and Sweden). The implication of this is that capital cities may be favoured by being the centre of political – and in many cases also economic – decisions in their countries, not only by attracting the most qualified workers in the country, but also through policies and resource allocation (Box 1.3). It can be argued that not only are public infrastructure, resources and human capital particularly allocated to and developed in those capital cities, but also institutional factors forming social capital that strengthen even more the centripetal forces in place.

Among non-member countries, China offers another example of the effect of concentration of wealth in a small number of metro areas, including the capital city. Shanghai and Beijing, the two mega-cities, have become two growth engines of China's economy.[11] The city of Shanghai has expanded and grown into a national economic centre during the last three decades. In 2003, Shanghai's GDP reached about RMB 625 billion with an annual CAGR (Cumulative Aggregate Growth Rate) of 17%, much higher than the national average. The city contributes one twelfth of China's total industry output

Box 1.3. **Main advantages of capital cities**

Capital cities tend to be linked, with political, diplomatic and international corporate headquarters activities being concentrated, and interacting, within them; this helps explain why capital cities feature so strongly among metro-regions. In many cases capitals function as both political capitals and as internationally linked commercial cities, Germany, Italy, Switzerland and the USA being special cases of where the political and financial capitals do not coincide. Capital cities are essentially political products, governments having worked to make them the communications centres and main showplaces of the country, in many cases for several centuries. Rail and road networks and major airports tend to be concentrated in them, even if they are situated far from a country's geographical centre. Major cultural and sporting facilities tend to be built within them. Employment in public administration is by definition centred there, with corporate national headquarters tending to locate there as a consequence. They therefore have disproportionate shares of educated workforces, good transport links and a high level of public infrastructure. Some of them, as our data show, succeed in using these advantages to develop other activities and become innovative metro-regions. Others simply continue with the size and prominence afforded by capital-city status. Vienna is an interesting example of a capital city of an extensive central European empire, which subsequently became the capital of a much reduced nation, but retaining the cultural and communications advantages of its previous situation (OECD 2003d). It also became a major industrial city, a role which, in common with most capitals in advanced countries, it is now losing. Its growing links with Bratislava as a joint metro-region suggest a potential new role as a major centre linking parts of central and Western Europe, though the sectoral composition of such a role remains at present undeveloped.

value, one-sixth of the country's port cargo handling volume, and one fourth of the country's total exports. In addition, the city also leads the nation in industrial upgrading and science and technology innovation. The metro-region has expanded its economic development beyond its city boundaries to the two neighbouring provinces – Jiangsu Province and Zhejiang Province. Similar arguments apply to Beijing. As an indicator of Beijing urban expansion, the Greater Beijing Plan includes Beijing, the northern part of Hebei Province and Tianji covering an area of nearly 70 000 square kilometres, as well as many large and medium cities in north China.

1.6. Factors of competitiveness

City competitiveness is a broad concept and can be assessed in different ways (Box 1.4). There is a wide range of indicators developed by international

Box 1.4. **What is city competitiveness?**

There is an extensive literature on factors of competitiveness. Factors such as infrastructure and accessibility, industry and economic scale and structure, human capital and labour force may act as major determinants of city competitiveness. Major drivers that function as intermediaries between the indicators and final regional performance or competitiveness may include entrepreneurship, innovation, investment and competition (Parkinson in ODPM, 2004). These factors are especially important in facilitating new business growth and product development and playing an even more important role in fostering the growth of a new economy that centres on knowledge creation and innovation. Facilitating these drivers entails creating competitive dynamics or efficient interrelationships among the major competitiveness indicators and other aspects of local business environments (government and business associations, etc.).

A widely cited case for measuring competitiveness is the measurement by the International Institute for Management Development (IMD), which measures competitiveness in four major categories: economic performance, government efficiency, business efficiency and infrastructure. These four major categories can be further sub-divided into more specific measures covering a comprehensive set of perspectives in national growth. Although employed at the national level, these measures apply to regional economies as well. A recent study in the United Kingdom identified factors in urban competitiveness, including economic diversity, quality of life, skilled labour force, internal and external connectivity, innovation in firms and organisations, and strategic decision taking capacity, etc. (Parkinson in ODPM, 2004).

Cities compete to attract and retain mobile factors of production, namely labour and capital. Cities compete directly with each other by providing the greatest quantity or optimal combination of location factors (such as green spaces, affordable housing, business support, quality of pre-university education for families, presence of headquarter functions, etc.) to lure skilled labour and investment. However, some economists may argue that competition is indirect as it derives from competition among businesses based chiefly on productivity. Whatever the view on city competition, policies to enhance the capacity of cities to attract businesses and workers have shaped regional and local policy in many OECD countries. There is also a concern across OECD countries to seize economic opportunities taking into account a sustainable growth approach.

organisations, academics and consulting groups to assess competitiveness of cities, most often utilised to elaborate an international ranking. Although not taking into account such determinants as quality of life, level of social cohesion and environmental quality, a commonly used definition is the aggregate indicator – GDP per capita. To conduct a more in-depth analysis of regional economic performance, the OECD has developed a cross-country comparison model, examining which factors explain a given region's gap in GDP per capita with other OECD metropolitan regions (Appendix 4). These are productivity per worker, efficiency of the local labour market expressed in terms of employment/unemployment, and the relative size of the labour force with respect to the population, *i.e.*, the activity rate. Greater productivity per worker translates into a higher level of GDP per worker,[12] an efficient labour market results in better labour utilisation (more employment, less unemployment), while a larger labour force relative to population implies that more of the region's human resources are being used in production. This methodology has been applied within the framework of the *OECD Territorial Reviews* to assess competitiveness of some metro-regions.

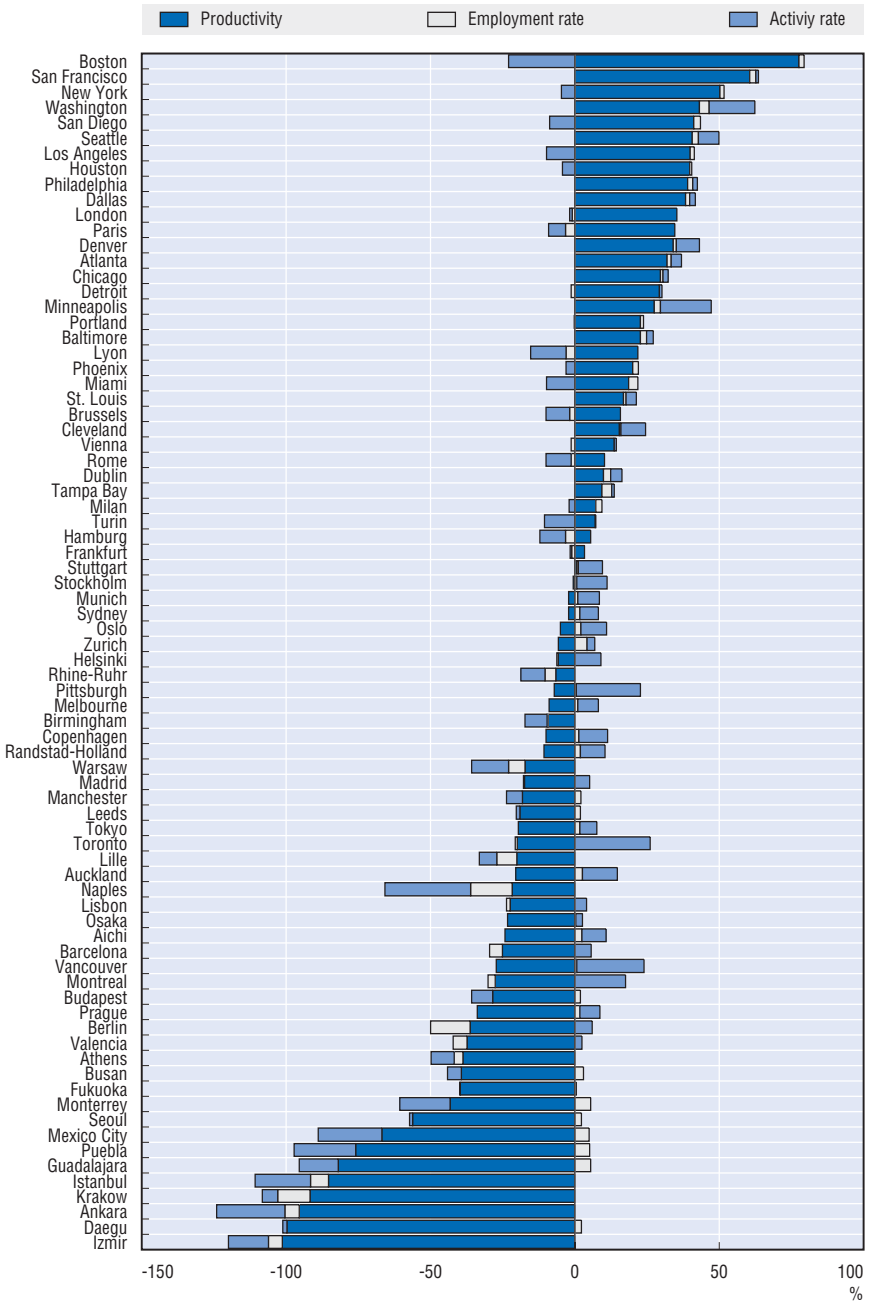
1.6.1. Productivity is key…

Productivity emerges as a key factor in metro-regional performance among the three explanatory factors. Figure 1.16 shows that labour productivity (measured as the quotient between GDP in PPPs and employment) explains most variation in GDP per capita among metro-regions themselves. That is, productivity differences from the OECD average determine whether the per capita income in a particular metro-region stands below or above the average. Since employment rates differ only slightly among metro-regions (from 81.1 to 98.9%), the activity rate then becomes the second explanatory factor, but its capacity to determine income is much weaker than productivity (activity rates range between 36.3 and 63.4%). This result is of utmost importance if we bear in mind that productivity, albeit not entirely, explains a great deal of the level of competitiveness of a country, a region or a metropolitan area. Thus, countries should place particular importance on understanding agglomeration economies that entail higher levels of productivity in their urban areas, particularly in their metro-regions, in order to foster their competitiveness.

… fuelled by a high value-added industrial mix

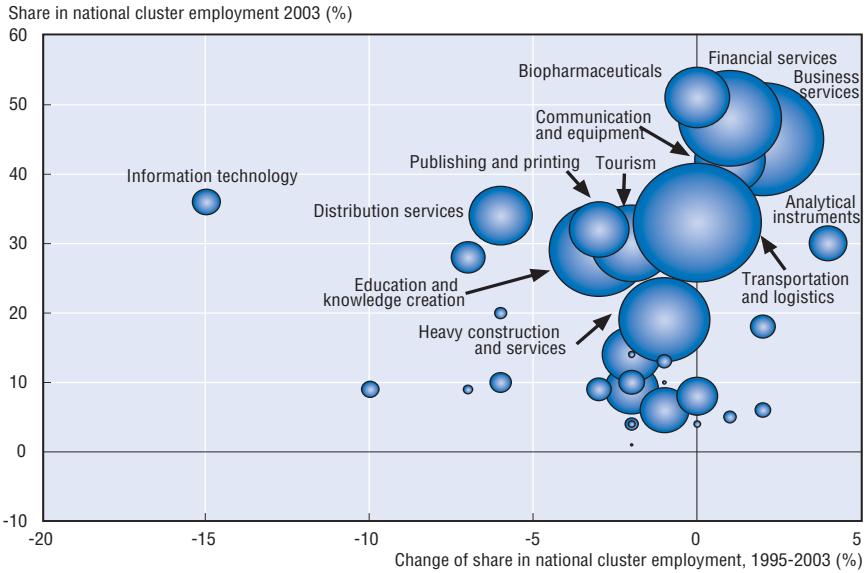
Performance in the productivity level of many (though not all) metro-regions is strongly linked to their association with certain kinds of economic activity, in particular high-tech and advanced services. Unfortunately, it is not possible to obtain data on the economic specialisations of metro-regions; but this information would be valuable for discovering what is important about these urban forms, and discriminating among them. However, *OECD Territorial*

Figure 1.16. **Main explanations of GDP differentials between OECD metro-regions (2002)**



Reviews provide some empirical evidence. For instance, well-performing metro-regions such as Stockholm and Helsinki have developed strong value-added clusters in telecommunications and ITC, as well as biopharmaceuticals, and to a lesser extent and especially in Stockholm, financial and other business services, transport and logistics, and analytical instruments (Figure 1.17). In both cases, strong concentration of productivity and a high skill level have been established, supported by a network of universities and advanced research centres around industrial activities, making use of the diversity of innovation sources that a metro-region can provide[13] (OECD, 2006d and OECD, 2003a). In Milan, the percentage of firms and people working in high knowledge activities is respectively 9.4% and 45.9% against a national average of 6.15% and 32.1% (OECD, 2006b). In the United States, high-tech industry concentrates more in metropolitan regions – the top 114 metro areas account for 67% of all jobs but 81% of high-tech employment. Conversely, in Busan, the second largest metro-region in Korea and one of the top five container ports in the world, the industrial mix has been advanced as the main cause of lower labour productivity. Actually, Busan exhibits the profile of a typical post-industrial city with many traditional industries undergoing restructuring and few knowledge-based and high technology-led industries able to fuel innovative development in the region (OECD, 2004b).

Figure 1.17. **Cluster composition in the Stockholm Region (NUTS 2)**



Notes: 1) Bubble size is proportional to employment levels; 2) Stockholm share of national cluster employment in 2003 is 22.9%; and 3) Change in Stockholm's overall share of national cluster employment over 1995-2003 is -0.5%.

Source: "Institute for Strategy and Competitiveness, HBS" with data from Statistics Sweden (2005).

In fact, such a pattern of specialisation towards higher value-added economic activities tends to favour metropolitan areas which also have a larger and more diversified economic basis. Even less well performing regions such as Mexico City, Seoul or Istanbul, have developed strong specialisations in high value-added activities as compared to their national average (50% of the country's total in the case of Istanbul). Henderson (1997) demonstrates that compared with medium-sized cities, large metro-regions are more specialised in modern services – finance, advertising, insurance, arts, consulting, etc. – or in consumer-oriented manufacturing such as publishing and high fashion apparel. They are also highly diversified in their remaining manufacturing bases, compared to medium-sized cities. Within basic manufacturing, very large metro-regions tend to have relatively low physical output per employee, instead producing administrative and R&D activities. Efficient R&D seems to need the diverse industrial base and labour force offered by large metro-regions. For example, major electronic firms in Japan, Korea and the United States tend to locate more R&D activities in metro-regions, but decentralise standardised production to medium-sized cities.

A more favourable industrial mix with high value-added activities is closely linked to the capacity of metro-regions to concentrate R&D activities and generate innovation. More than 81% of OECD patents, which are an important indicator of innovative activity, are filed by applicants located in urban regions (OECD, 2005g). Such regions are particularly prominent in the Netherlands (95%), Japan (90%), Belgium (88%), United States (78%), Portugal (77%), Germany (73%), Spain (72%), Australia (69%), Italy (65%), the United Kingdom (65%) and Korea (59%). In Ireland, Greece, Finland, the Netherlands, Japan, Korea and Canada, a single region is responsible for almost half of the national patenting activity. In France and the United Kingdom, Paris and London account for more than 40% of the country's total applications. In particular, the regions hosting the capital city (Paris, London, Dublin, Athens, Helsinki, Tokyo and Seoul) are the leading national centres of innovation.

The innovative capacity of metro-regions should however, be balanced. First, innovation and patents production requires physical capital and infrastructure (*e.g.*, laboratories) that tend to be more concentrated than even human capital. Fujita and Ishii (1998) find that the R&D activities of nine major Japanese electronic firms are located solely in the major metropolitan areas of Tokyo, Kyoto and in Boston in the United States.[14] Seoul concentrates around one-quarter of the country's universities, patents and students, more than one-third of research centres and more than 60% of the national R&D workforce (OECD, 2005f). Almost one-half of Sweden's university-based research is located in Stockholm and 42% of all research – private and public – spending (OECD, 2006d). More importantly, it should be borne in mind that in many cases, patents are registered in the headquarters, typically found in large cities, while they can be generated in other regions.

These tendencies suggest a distinctive logic of post-industrial urban forms that may favour large agglomerations in a way that was not so true of industrial activities. The latter sometimes have specific physical geographical needs and have large space requirements. In general, the added-value and productivity of service activities are less dependent on physical space, and these sectors are less constrained in their choice of a location. They are primarily driven by the availability of quantities of human capital, in the case of high value-added sectors such as those mentioned above, educated and skilled human capital. They therefore are both attracted towards and create population concentrations of the metro-region form, in a reinforcing spiral. At the same time, the strong pressure they exercise on land costs deters space-consuming industrial activities from locating within the metro-region, except for some high-tech industries where there is high value added per unit of space occupied. These forces together shape the metro-region as a space in which high value-added, largely post-industrial, activities take place.

The small group of so-called "world cities" is chiefly associated with strong specialisation in advanced activities, although a large number of other cities feature similar trends. One study shows that those cities regarded as world cities overlap heavily with some of the leading examples of metro-regions (London, Milan, Munich, Paris, Tokyo and New York).[15] Similar findings come from the recent work by the *Globalisation and World Cities Group* (Taylor and Walker, 2001) that has focused on analysing flows and links between these cities, mainly flows among advanced firms within and across cities, rather than the characteristics of the cities themselves.[16] However, these flows usually occur where certain high value-added sectors have both tendencies to geographical concentration and a need for extensive links with similar places across the globe, so they do tell us something about the kinds of activities concerned. It is relatively easy to identify the sectors that meet these criteria, primarily financial services and certain high-tech and scientific manufacturing activities, also some media, cultural and fashion activities. These are sectors where there are advantages in both clustering (to be discussed in the following chapter) and in global access to knowledge.

Some of the most successful cities and metro-regions have not necessarily conformed to the "world city" model. The renewed openness of the continental economies of both Europe and North America has provided cities with opportunities to assert new economic roles outside older notions of fixed national economies (implying urban hierarchies). In Europe, relatively successful metro-regions such as Randstad-Holland and Frankfurt, both of them well-performing financial centres, do not demonstrate all the characteristics of world cities compared to London and Paris. Other successful cases such as Helsinki and Hamburg display different patterns. With these latter two, technological prowess is a major source of strength. In

North America, cities such as New York and Chicago exhibit the main features of the "world city" model, but others such as Boston (technology and education), Los Angeles (film and manufacturing) and San Francisco (technology and finance) all succeed without having these characteristics.

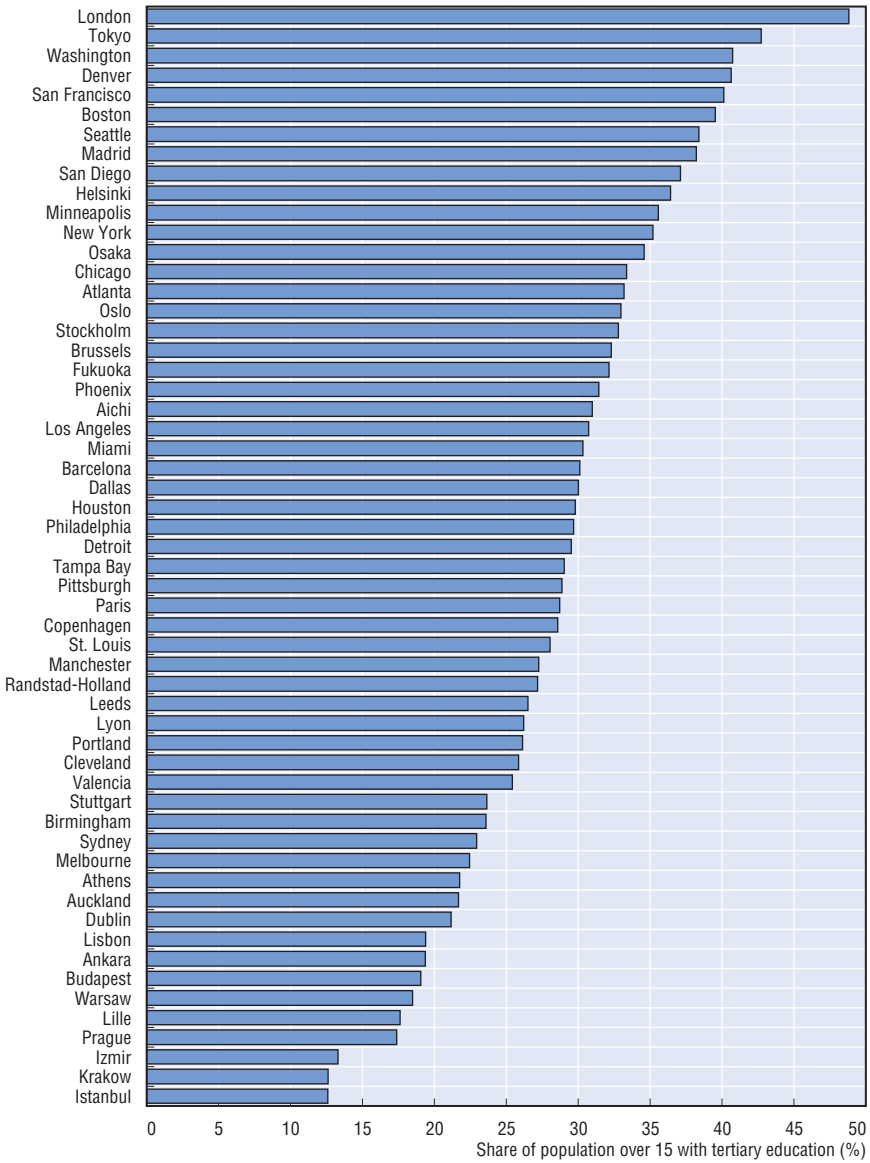
Yet, it would be wrong to stereotype all metro-regions as specialising in these particular sectors alone. Even those that do so specialise have large populations engaged in lower-productivity services activities typically associated with large concentrations of population, such as various cleaning and maintenance services, as well as all forms of retail trade, security, transport and traffic related occupations. London, New York and Tokyo, three main examples of metro-regions with large and geographically concentrated financial services sectors, depend heavily on local and national markets and customers as well as other sectors in order to sustain employment and output. It is likely that the balances between these different kinds of activities help explain the different levels of productivity in different metro-regions, and that data on these would enable us to construct a more extended typology of metro-regions. At the same time, metro-regions will rarely be polarised between these two kinds of socio-economic groups, as typically there is a large intermediate population engaged in the large diversity of economic activities that constitute a metro-region.

... and human and physical capital endowment

Skills in metro-regions strongly influence their productivity level.[17] In Montreal, for instance, which belongs to the category of metro-regions that have specialised in high value-added sectors, relatively lower productivity was caused by lower educational attainment and insufficient investment in equipment, as well as research and development (R&D), especially within small and medium-sized enterprises that constitute an important share of the regional fabric (OECD, 2004c). In less advanced metropolitan areas, such as Mexico City and Istanbul, productivity level is highly inhibited by the relatively lower skills of the working population and the extent of the informal sector where adult education and skills training are difficult to provide (OECD, 2005e and OECD, forthcoming a). In general, lower productivity seems to be related to lower skills, not only in Turkish and Eastern European metro-regions, but also in metro-regions from more advanced countries such as Athens, Lille, Lisbon and Valencia. There are however, some fast growing metro-regions such as Dublin, Warsaw and Lyon which surprisingly do not rank very high in terms of the skills of their labour force (Figure 1.18). One hypothesis is that the level of skills of these metro-regions was initially low. In contrast, high skill levels but low growth is experienced in all Japanese metro-regions reflecting an overall stagnating growth trend in Japan (OECD, 2005b). In most cities however, productivity and skills seem to be related, notably so with the

Figure 1.18. **Share of population of 15 years and more with tertiary education**

Sample of 56 metro-regions (2004)



Note: OECD average refers to the average of OECD metro-regions.

positive trend in London, Madrid, Oslo and Stockholm and the lagging one in Lille, Krakow and Stuttgart. In addition, countries such as Finland, Australia, the United States, France, Sweden and the United Kingdom, whose metro-

regions also belong to the fast productivity-growth group, attain high productivity levels which are largely explained by skills (OECD, 2005g).

Regions with the highest concentration of economic activity tend to have greater endowments of infrastructure and physical capital, thus a higher stock of capital per worker that can positively impact productivity. There are no data available at the local level to establish the link between the stock of capital and the level of productivity. However, a positive correlation between regional productivity and the stock of infrastructure has been detected in eight out of 15 OECD countries, (*i.e.*, the Czech Republic, Denmark, Germany, Hungary, Japan, Sweden, United Kingdom and United States) (OECD, 2005g). From a theoretical perspective such a link could be easily supported. For instance R&D infrastructure (*e.g.*, laboratories) and allocation of adequate spaces in metro-regions allow for the exchange of ideas and cross-fertilisation of innovative activities. In other words, capital provision in urban areas will not only increase the ratio of capital per worker, but can also allow R&D activities within firms and innovation arising at the production site to take place.

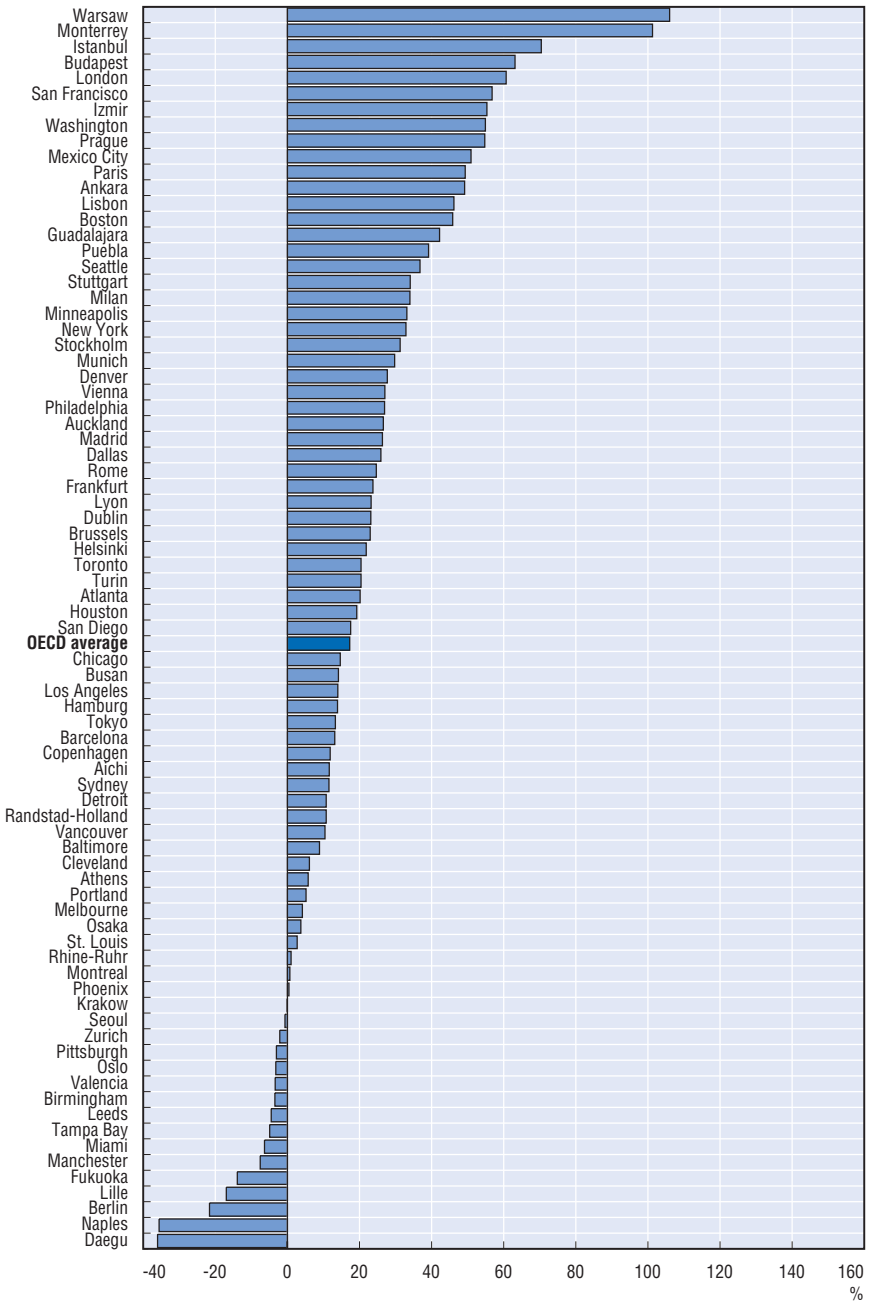
1.6.2. Labour market also does contribute

Although it has less impact on GDP per capita differential among metro-regions, labour market dysfunctionality can be a drag on a metropolitan region's competitiveness. Overall, activity rates and employment explain a smaller portion of GDP per capita differentials across metro-regions than productivity. However, higher activity rates of metro-regions in the United States (Pittsburgh, Washington and Minneapolis), in Canada (Montreal, Vancouver, Toronto) and to a lesser extent in some European capital cities (Copenhagen, Stockholm, Randstad-Holland, Prague) and New Zealand (Auckland) do contribute positively to differences in GDP per capita (from 26% of the differential in Toronto to 8.4% in Randstad-Holland). By the same argument, lower activity rates typically found in Mexican and Turkish metro-regions, but also in other European cities such as Berlin, Rhine-Ruhr, Hamburg (Germany), Naples, Rome and Turin (Italy) and Lyon (France) might also impact the differential in GDP per capita (up to 29.7% differential in Naples, 23.6% in Ankara and 12.3% in Lyon). Employment rates have a limited impact on GDP per capita differentials except for some regions with significantly lower employment rates such as Lille, Krakow, Berlin and Naples where such factors negatively affect their GDP per capita differentials.

1.7. Cities as engines of national economic growth?

Overall, metropolitan regions appear to be the dynamic engines of national growth. In most cases, metro-regions exhibit higher GDP per capita than their national average (Figure 1.19). Similar conclusions derived from the OECD Regional Database shows that GDP per capita tends to be higher in regions with a high concentration of population (86% of total OECD area GDP

Figure 1.19. **Differences in per capita GDP of metro-regions and their national level (2002)**



Note: OECD average refers to the average of OECD metro-regions.

is produced in predominantly urban regions and intermediate regions [OECD, 2005g]).[18] Moreover, there is a positive correlation between growth rates achieved by metro-regions and those experienced at the national level[19] (Figure 1.20). Again, the Regional Database shows that over the period 1996-2001, the fastest growing areas in OECD countries were predominantly urban areas (3.8%) followed by intermediate regions (3.5%) and predominantly rural regions (2.8%) (OECD, 2005g).

Yet, growth differentials between metropolitan regions and their national averages differ widely from one country to the next, and the causal link is not obvious (Figure 1.21). One can distinguish between three groups of metro-regions: those that grow considerably faster than their countries (*e.g.*, Stockholm, Prague, Rome, Milan, London), those that grow considerably slower than their countries (*e.g.*, Budapest, Daegu, Krakow, Athens, Barcelona or Berlin), and those whose growth is similar to their countries' and hence yield national small differentials. In other words, for most countries in the sample, metro-regions determine their growth dynamism, hence the small differences in growth rates between the country and the metro-region. There are however a small number of metro-regions which are outstripping national growth as well as a small number of lagging metro-regions such as Berlin, Lille or Krakow which are typically those experiencing industrial restructuring. However, further research is needed to establish the causal relationship of growth between the two levels and most importantly, the determinants of such growth.

Figure 1.20. **Relation between national and metropolitan growth rates**
Average annual GDP growth rates 1995-2002 for a sample of 44 metro-regions

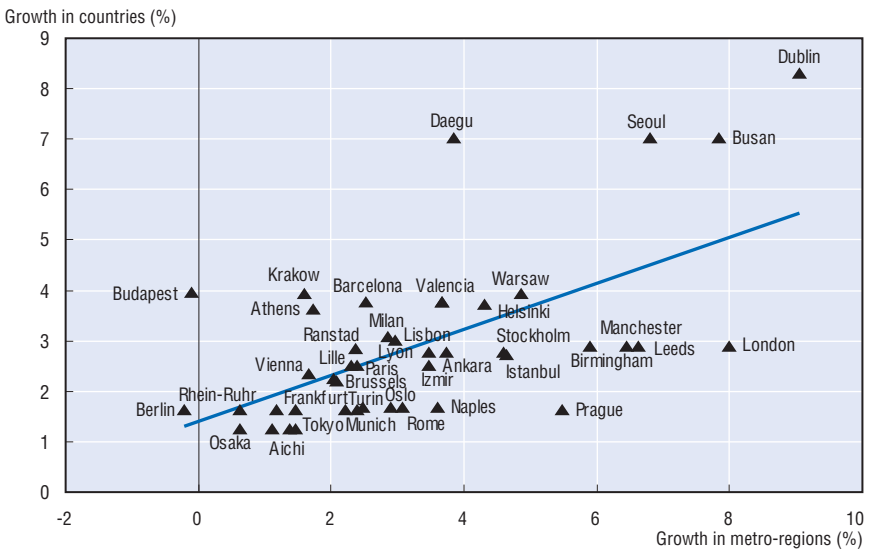
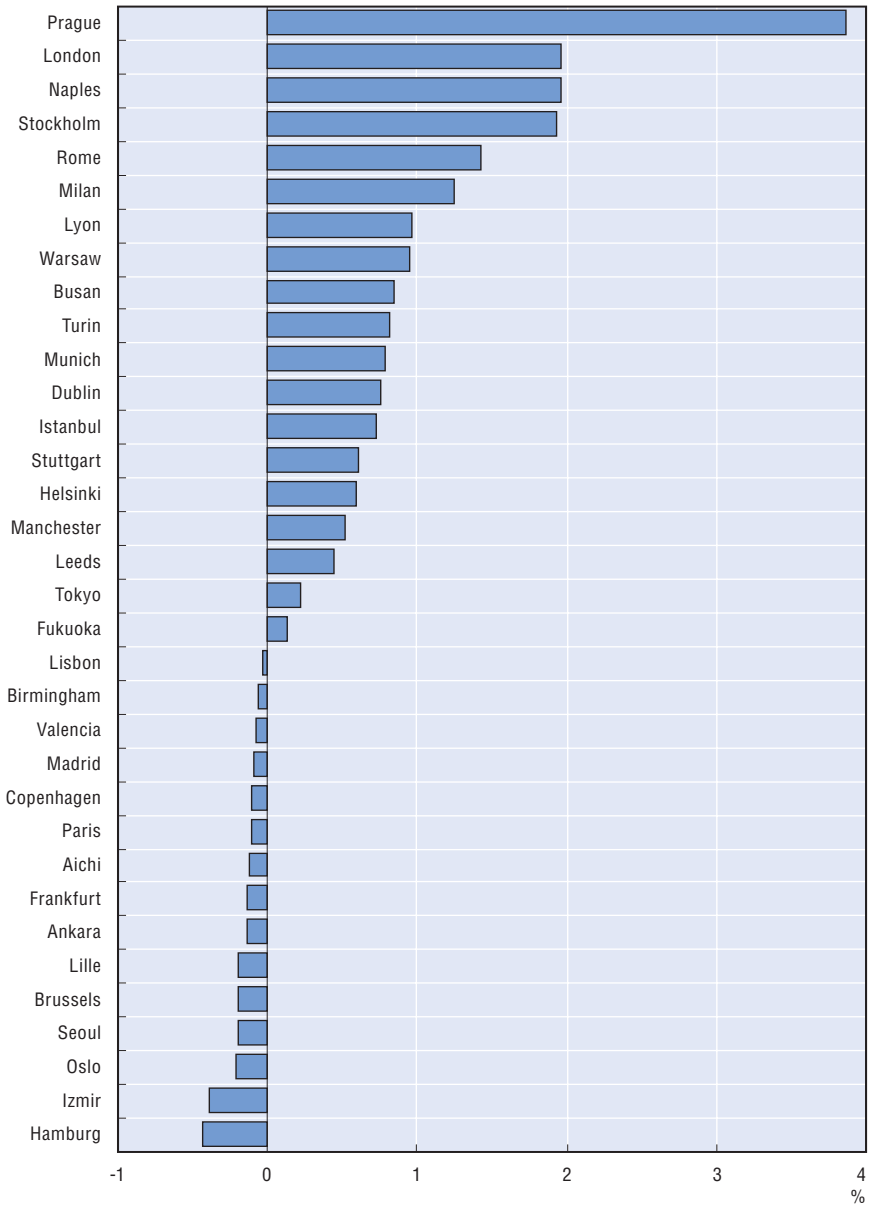


Figure 1.21. **Economic growth at the national and metro-regions levels**

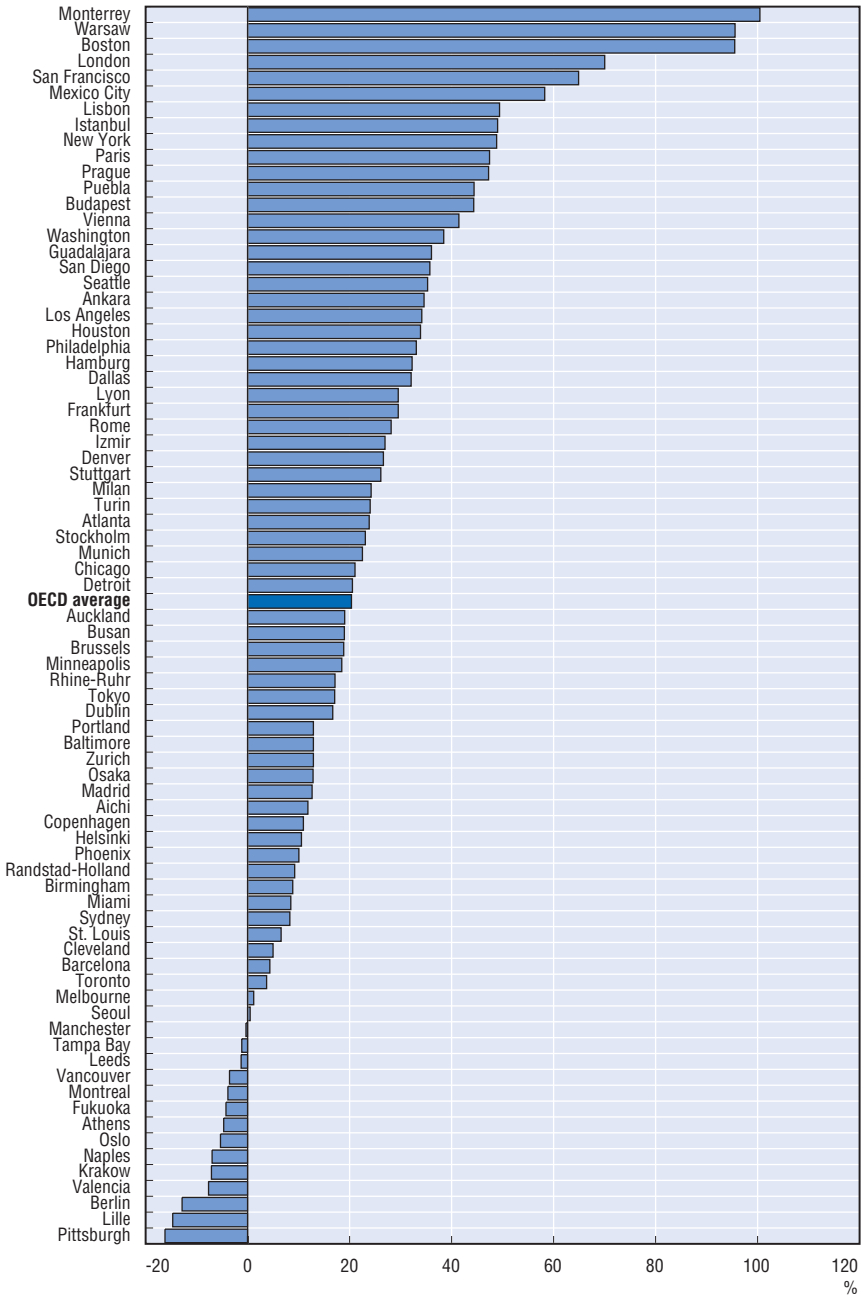
Differences between average annual growth rates for the metro-region and its country (1995-2002) – sample of 44 metro-regions



Similarly to GDP, productivity is typically higher in metro-regions than in the national economies – in many cases well beyond, but productivity growth is frequently lower for a number of metro-regions (Figures 1.22 and 1.23). The

Figure 1.22. **Productivity differences between the metro-regions and their national level (2002)**

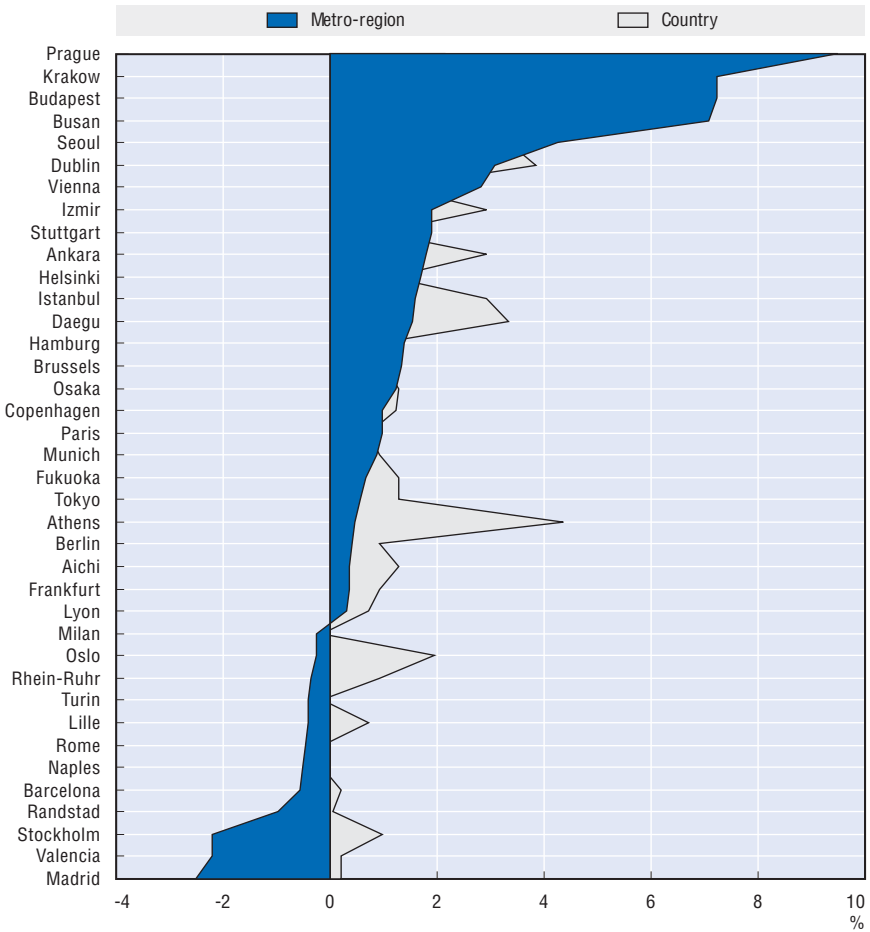
Sample of 78 metro-regions in the OECD



Note: OECD average refers to the average of OECD metro-regions.

Figure 1.23. **Productivity growth differentials between metro-regions and their national level**

Sample of 38 OECD metro-regions (1999-2002) using average annual growth rates



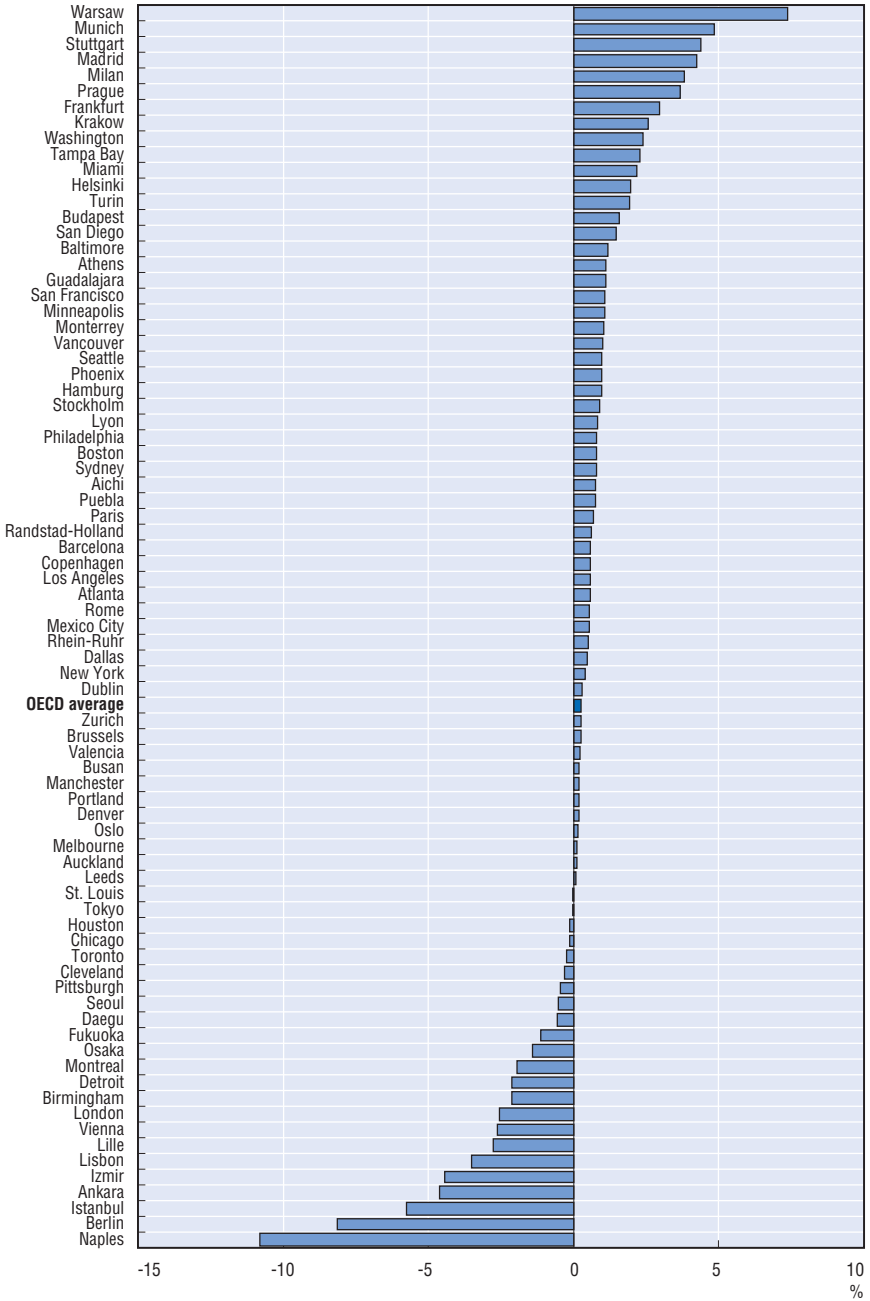
former datum suggests that the scale of production, the linkages among firms, the skills of workers and the agglomeration economies generated at the level of a metro-region are generally higher than in the rest of the country. Some authors call this "superproductivity".[20] A number of issues have to be considered to better understand the apparently weaker productivity growth. First, the available data do not include some of the metro-regions with the highest productivity levels (such as those in the United States and the United Kingdom). Second, new measures of productivity such as labour productivity using man-hours worked and multi-factor productivity should be used to further explore the issue. Economic growth theory establishes that

countries – or regions for that matter – will grow faster the farther away they are from their "steady-state". That is, poorer countries or regions grow faster than rich ones simply because they are growing from a lower level of production so increases in those levels typically represent a greater proportion (rate). Indeed, it is somewhat normal that growth rates are slower in more developed areas. Although the evidence presented in Figure 1.21 is rather ambiguous as we found that economic growth in metro-regions is not always higher than in their respective countries, the same is less true for productivity growth (most often higher in metro-regions), which brings us to an additional argument. We may be in the presence of external economies; that is, cities provide agglomeration economies external to the firm that are at the core of economic growth.[21] Thus, although productivity levels (internal to the firm) are in many cases larger in metro-regions than in their national context, they tend to grow at a slower pace and contribute less to economic growth than agglomeration economies (external to the firm). However, this argument needs to be further developed and researched.

Metro-regions also typically have better employment performance. Most metro-regions in the Metropolitan Database have higher employment levels than their national contexts and 29 out of 38 feature higher employment growth than their national average (Figures 1.24 and 1.25). Similar conclusions derived from the OECD Regional Database shows that over the period 1996-2001, the bulk of employment within the OECD area was generated in a handful of regions. In fact, only 10% of regions were responsible for almost 60% of employment creation (OECD, 2005g). Except for Belgium and the United Kingdom, employment in predominantly urban areas grew, and grew faster than in predominantly rural areas (Figure 1.26). An extreme case is Greece where 92% of total employment growth took place in Athens. Similarly, three-quarters of employment generated in Poland was in Warsaw and 70% of Korean employment growth was located in the Seoul metropolitan area. At least 40% of employment expansion in Finland and Sweden stemmed from Helsinki and Stockholm respectively (OECD, 2005g).

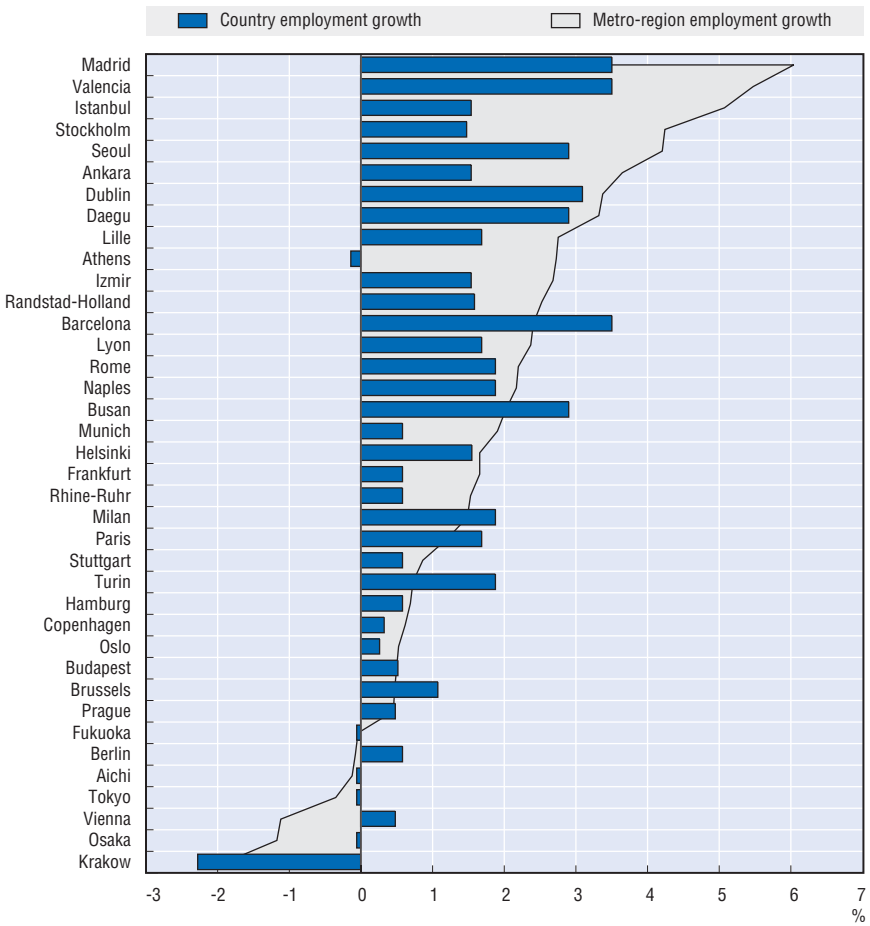
A number of metro-regions are facing severe job creation problems. In some cases, employment at the national level grew faster in metro-regions that have been performing below the OECD average on many other indicators stemming from the Metropolitan Database, such as Barcelona, Milan and Turin. Other metro-regions that experienced moderate economic growth such as Paris also found themselves creating less employment than their national averages. Busan experienced less job creation than Korea when in fact it has been yielding solid economic growth rates; one explanation may be that Busan is experiencing higher value-added job creation that allows faster growth rates without growing employment. Some metro-regions seem to be actually creating employment while the country loses jobs (Athens and Fukuoka),

Figure 1.24. **Employment differences between the metro-regions and their national level (2002)**



Note: OECD average refers to the average of OECD metro-regions.

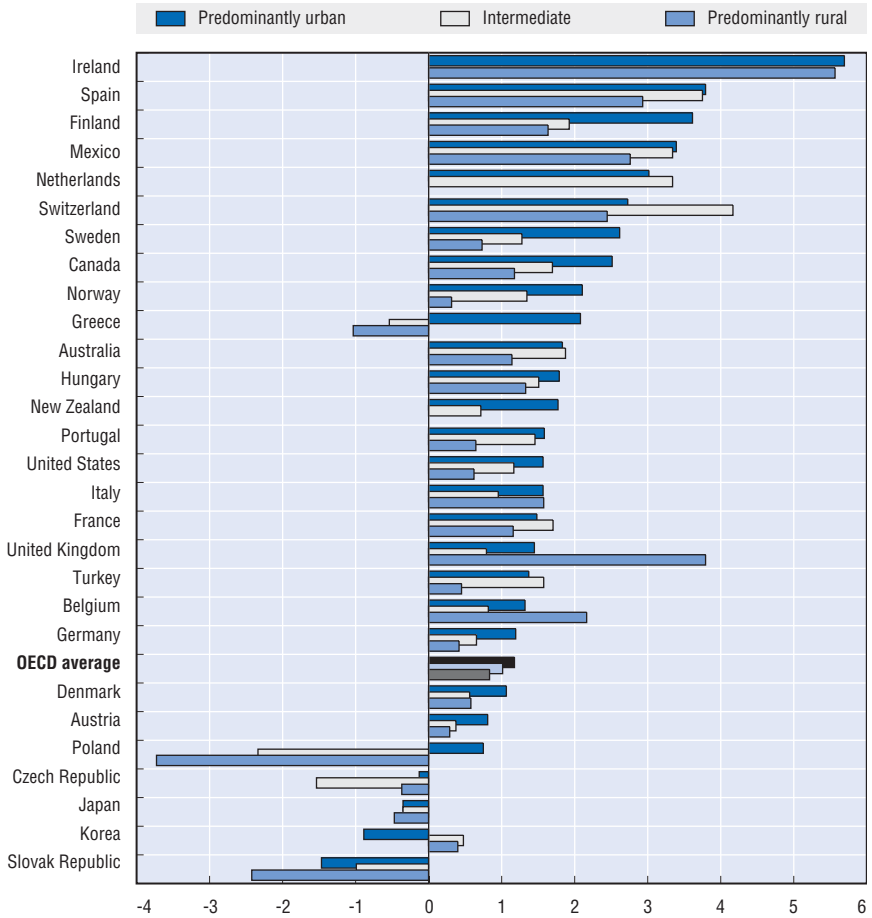
Figure 1.25. **Employment growth rates in metro-regions and their countries**
Average annual growth rates (1999-2002) – Sample of 38 metro-regions



while others drive national decline in employment such as in the case of Krakow. However, the evidence is mixed as there is a lack of data on the types of jobs created and their relationship to specialisation of higher value-added activities, a subject that should be further analysed.

Metro-regions exhibit more positive trends in their demographic profiles than their national average. The first positive factor is the *ageing and dependency profile*. The proportion of the population over 65 years old in OECD countries has been growing over the past 25 years as has the old-age dependency ratio (OECD, 2005b). Both indicators are expected to increase with implications for the size of the working-age population.[22] However, this trend is not always

Figure 1.26. **Employment growth by type of regions (1996-2001)**

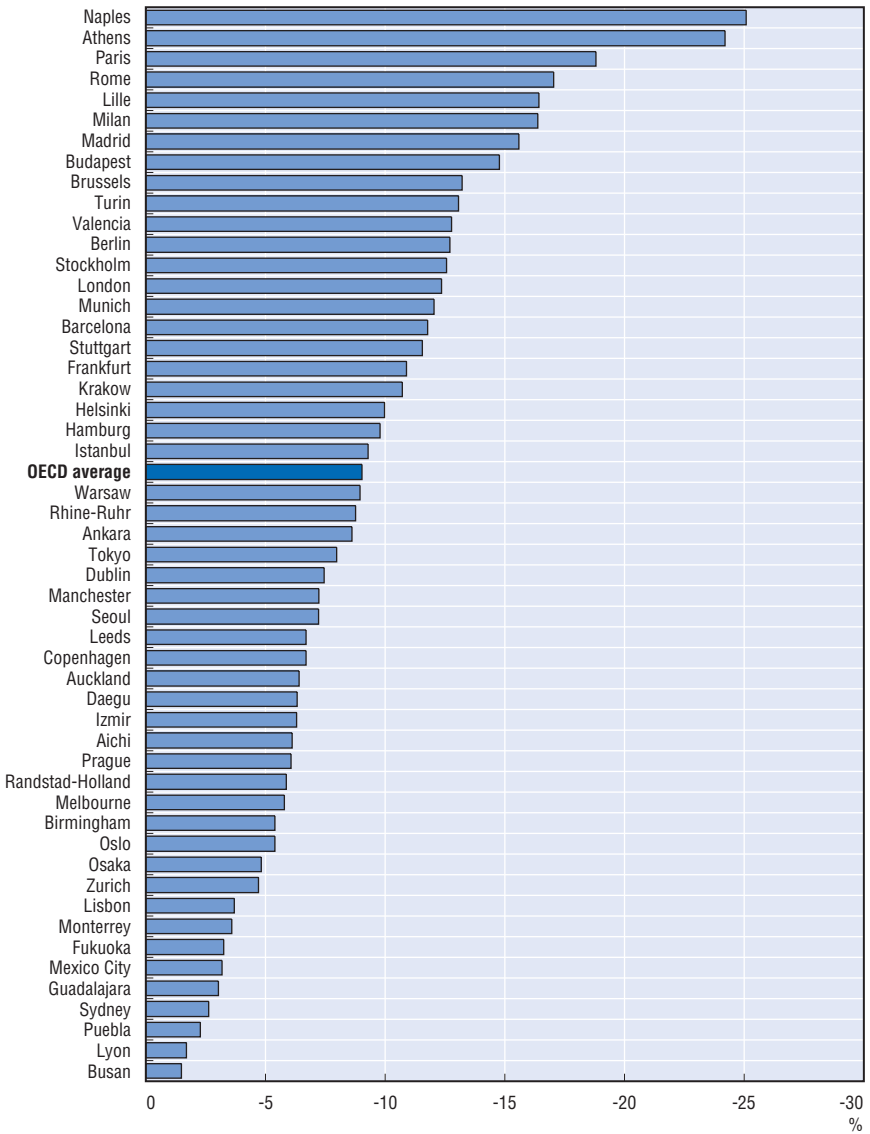


Source: OECD (2005g), *Regions at a Glance 2005*, OECD publications, Paris, France.

found in metro-regions to which people and resources are attracted by wages, amenities, networks and firm linkages among many other things. All OECD metro-regions have lower old-age dependency ratios than their national economies (Figure 1.27). The difference between the national context and the metro-region level can be as large as in Naples (25%), Athens (24.2%), Paris (18.8%) or Rome (17%) or as small as in Busan (1.5%), Lyon (1.7%) or Puebla (2.3%) with the OECD average differential standing at 9%. In fact, ageing tends to concentrate in rural and peripheral areas. Although having better dependency ratios than those of their national countries, the situation has worsened over the period 1999-2004 for many metro-regions, including Lyon, Busan, Osaka, Tokyo, Aichi and Turin (Figure 1.28). An explanation for this phenomenon may

Figure 1.27. **Old-age dependency in metro-regions with respect to the national dependency level (2004)**

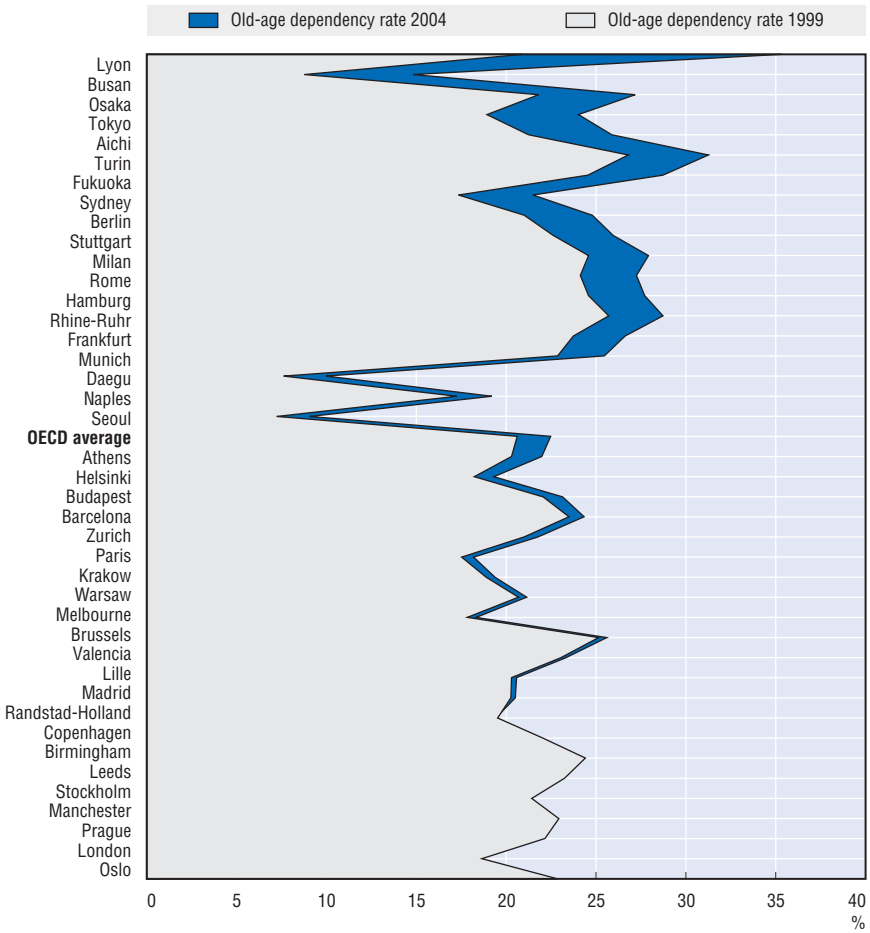
Sample of 50 metro-regions using the differential in ratios between the metro-region and its national dependency ratio



Note: OECD average refers to the average of OECD metro-regions.

be related to industrial restructuring or even retirement migration that might be taking place in metro-regions such as Sydney. The trend has however been more positive in Oslo, London, Prague, Manchester and Stockholm. This has a

Figure 1.28. **Changes in old-age dependency 1998-2004**
Sample of 42 metro-regions

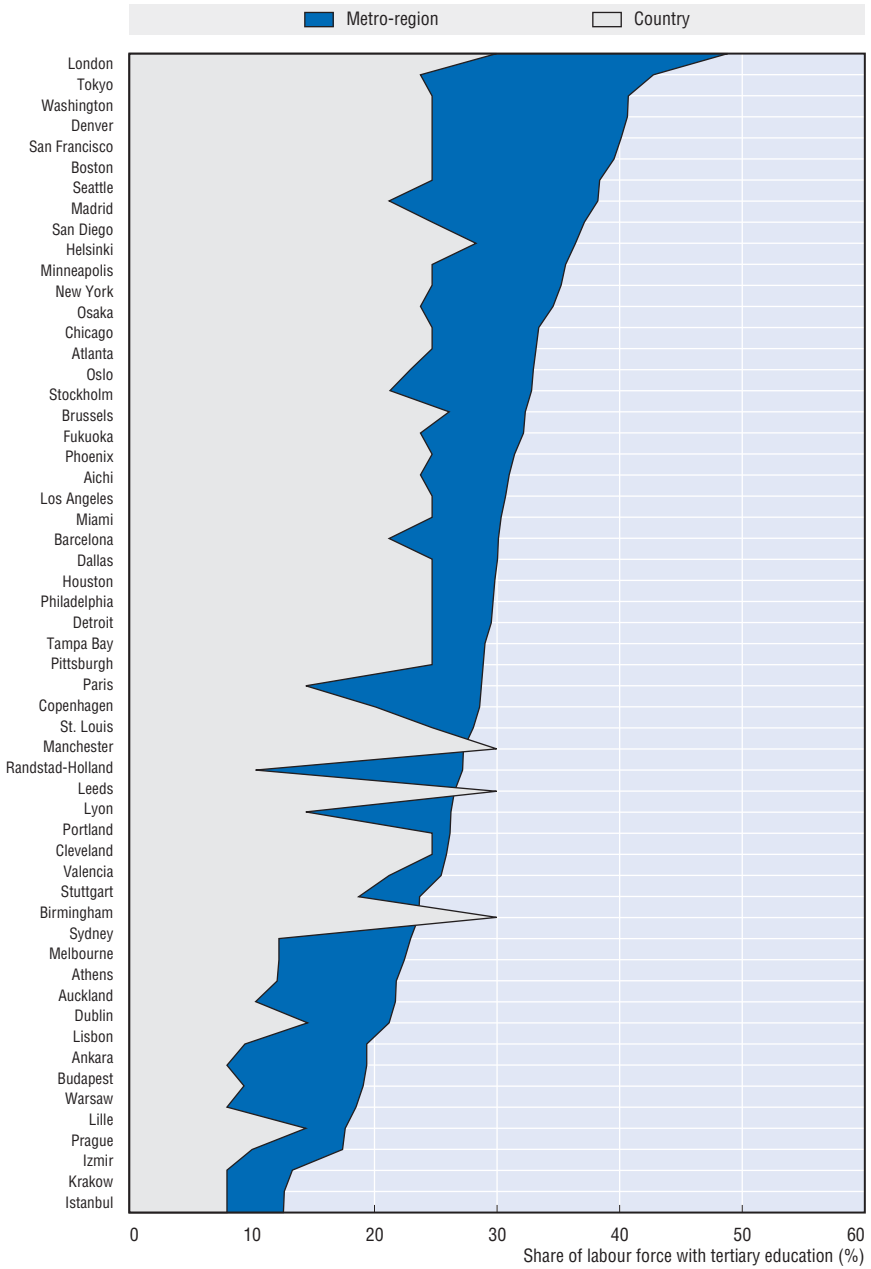


clear impact on competitiveness for firms as dependency may imply a tighter labour market due to less availability of labour force.

A second element that impacts positively on the demographic profile and the labour force is the capacity of large cities to exert a *pull effect on the population,* especially young population. On average, labour force grows faster in urban regions than rural ones (OECD, 2005g). Cities have long been net importers of people. They used to depend on surplus rural labour for growth; nowadays migration is more likely to be from smaller to large cities. Among those that choose to migrate to large cities are highly skilled young people attracted by urban amenities and higher wages. Some cities see rising percentages of older people either because they are stagnating (such as those in Hungary, Japan or

Figure 1.29. **Skills in metro-regions and their national average (2001)**

Percentage differences of population with tertiary education
(sample of 56 metro-regions)



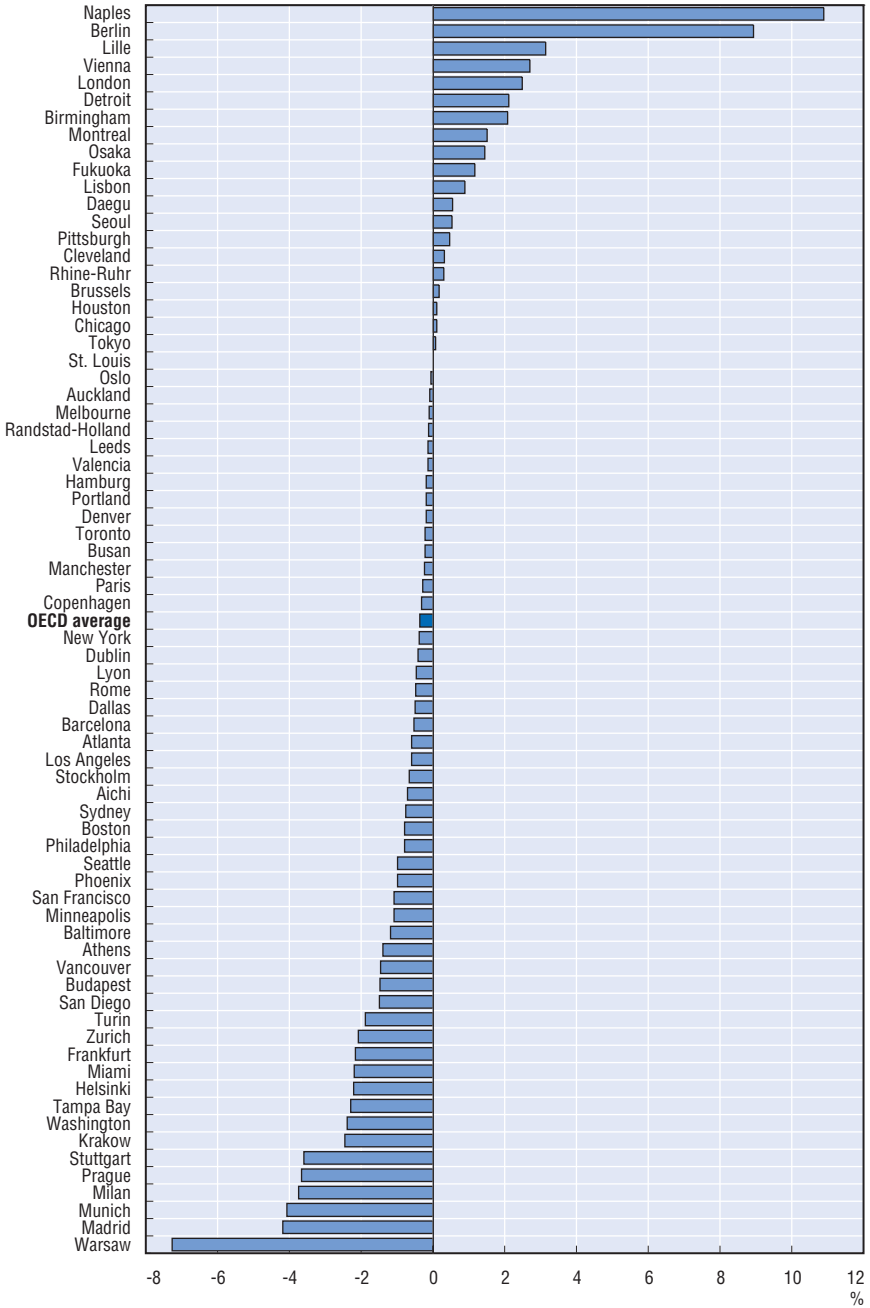
Italy) or because older people are attracted to live there (such as in the cases of Australia, Canada or Spain). However, many metro-regions – even in countries such as Germany and Japan with rapidly rising percentages of older people – actually have above-average percentages of younger people with respect to their national context. Metro-regions not only attract young people, but also the most educated. Metro-regions constantly outstrip the national average in concentrating a larger share of their working-age population with tertiary education (Figure 1.29). In fact, only UK cities (except London) have a lower share of population with higher skills than their national averages.

1.8. The urban paradox

Although most metro-regions appear to be characterised by high concentrations of wealth and employment associated with leading sectors and the focal points of their national economies, they also tend to concentrate a high number of unemployed residents. In other words, wealth is not adequately translated into job creation. According to the OECD Regional Database, about 47% of unemployment in OECD is concentrated in urban regions, but this figure reached 60% in the United Kingdom, Japan, Korea, the Netherlands and the United States. The Regional Database also finds activity rates lower in predominantly urban regions. Overall, unemployment rates are lower in metro-regions than in their national context but for almost one third of metro-regions unemployment rates are higher than their national average (Figure 1.30). The Urban Audit of the European Commission reaches similar conclusions (European Commission, 2004). Although its data refer to a wider size range of cities and not to metro-regions, the areas that fall within many metro-regions are included within this generalisation. While employment and employment growth are typically higher in cities, they also contain disproportionate numbers of people who are either unemployed or inactive (or who work in the informal economy). Among the main explanations advanced by the Urban Audit are the lack of affordable child care facilities, larger proportions of immigrants who generally have lower skills and who may be discriminated against, and in some cases, the presence of a sizeable informal economy, typically large in large cities. The Urban Audit further points out that within European cities there are both a higher share of residents with tertiary education and a higher share of residents without secondary education. It should also be noted that greater absolute numbers of unemployed in metro-regions are a likely result of concentration.

In fact, certain characteristics of dynamic post-industrial cities produce increasing socio-economic inequalities that increase segregation and its consequent discontent. Exclusion is not just a phenomenon within metro-regions in developing countries, produced by migration into poor cities from an even poorer rural hinterland, but also an increasing trend within all OECD metropolitan areas. Exclusion does not, of course, take the same form or intensity

Figure 1.30. **Differences in unemployment rates between metro-regions and their countries (2004)**



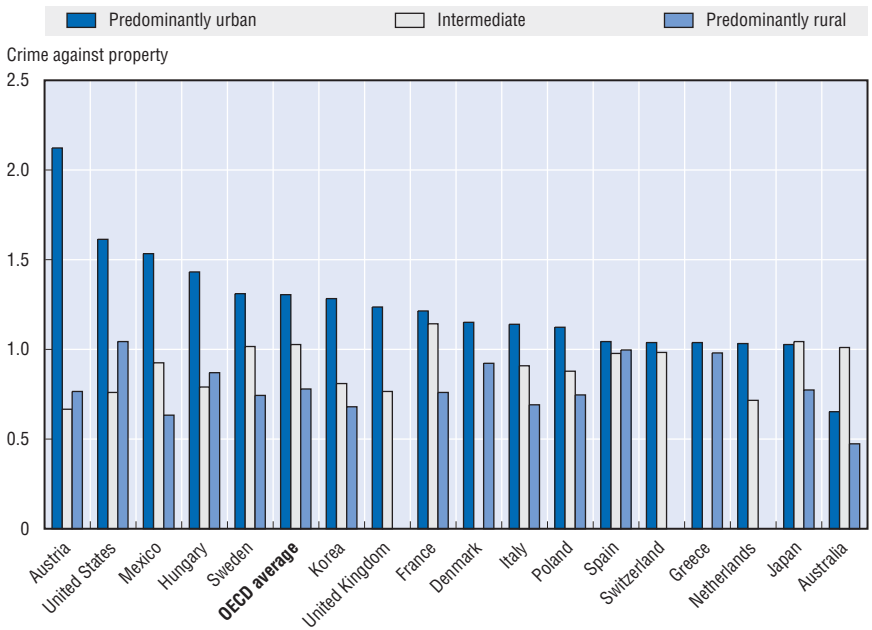
Note: OECD average refers to the average of OECD metro-regions.

in every city. The precise patterns vary from country to country and from city to city, partly depending upon national economic trajectory, labour market policies, welfare state policies and citizenship rights. Most large cities, including the wealthiest ones, have large pockets of populations with low standards of living and accumulations of social problems. They may be particularly vulnerable to extreme social segregation between high-income people working in the high added value services, and those engaged in servicing them. This creates a need for integration strategies in relation to urban services, job opportunities, housing, and the like. Among the main consequences of urban poverty is a higher level of criminality. For instance, urban regions record the highest rates for crimes against property and crimes against the person, which are on average 30% higher than the national level (Figures 1.31 and 1.32) (OECD, 2005g).

Social exclusion in urban areas is generally associated with strong residential segregation between the prosperous and deprived populations that concentrate in deprived neighbourhoods. Far from being solved, the situation has worsened since the 1980s, both in countries with strong employment growth and in those where unemployment remains high. Even Nordic countries, which generally have comprehensive benefit systems, have not been able to prevent the emergence of inequalities in some urban areas. An OECD report on ten countries

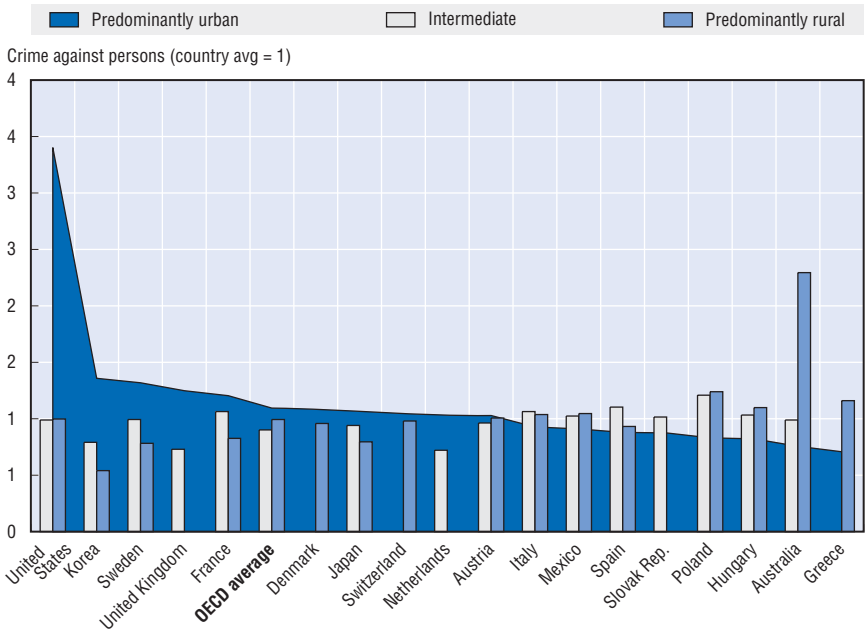
Figure 1.31. **Crime against property by type of region (2001)**

Country average = 1.0 (2001)



Source: OECD (2005g), *Regions at a Glance 2005*, OECD publications, Paris, France.

Figure 1.32. **Crime against persons by type of region (2001)**



Source: OECD (2005g), *Regions at a Glance 2005*, OECD publications, Paris, France.

surveyed – containing around half of the total population of the OECD – shows that the proportion of the population of major urban areas in relative distress ranges from 7 to 25%, representing up to 10% of the national population. In those countries surveyed, approximately 20 million people live in deprived areas, out of a total metropolitan population numbering 185 million (OECD, 1998). In many urban regions today, problems have now become chronic with patterns of social exclusion – unemployment, dependency, crime and violence – perpetuated from one generation to the next in the affected areas. Problems are also becoming more pervasive, affecting the wider urban region, including to the spread of decline to hitherto reasonably well-functioning areas (such as the inner ring of suburbs in US cities), or the crossing of jurisdictional boundaries through higher levels of city-wide crime and violence, more widespread pollution, traffic congestion, and derelict sites in the suburbs and/or the inner city.

1.9. The dilemmas for metropolitan regions

The present chapter demonstrates the importance of gaining more knowledge. It strongly indicates the need for further work, particularly of two kinds:

- The collection of statistical data at the level of the metro-regions in order to acquire knowledge of their internal economic and social structure. These

regions, which are defined functionally and technically, only coincidentally correspond to existing administrative or census boundaries. It is therefore difficult to acquire knowledge of their distinctive occupational and economic structure. For cities of the industrial era it is possible to gather data on their typical industrial and other specialisations; we need to be able to do the same for metro-regions, which may be the typical urban forms of the post-industrial economy.

- Detailed ethnographic studies of whether, and if so how, metro-regions function as integrated economic wholes. It cannot be assumed *a priori* that all metro-regions possess an overall integration; and it is certainly the case that any functional integration found will involve only a part of the overall economy. There are however studies that suggest that innovative large cities in particular are characterised by certain kinds of networks, even cultural forms (Florida, 2002). But these studies are only fragmentary, covering only a small number of cases, and normally comprise statistical correlations rather than profiles of actual networks.

Based on existing data availability, the above discussion has shown the economic advantages but also some difficulties posed by the rise of metro-regions and mega-cities, presenting a number of strategic choices that confront policy-makers. These choices can be presented as a set of contrasted or opposed options or dilemmas. It would however be wrong to see them as dilemmas in the strict sense of requiring the pursuit of one against another of a particular pair of options. Often, compromises can be struck, the options being more the ends of a continuum than actual choices. At other times choices will be resolved by policy-makers moving, under the pressure of difficult choices, to new and original positions. However, it helps clear thinking if the choices are initially set out as dilemmas. The following account will therefore be organised in terms of these choices. After a particular choice has been set out and explained, the discussion will move to consider the scope for creative compromises around them, and also initiatives which have sought to transcend the need for choice. Cases are quoted, not because they serve as models to follow, but because they illustrate themes and provide examples. The actual paths chosen in specific contexts will depend on political criteria, the particular balance of issues at stake, and the creativity of individual groups of policy-makers.

The key dilemmas are the following:

Competitiveness, liveability and strategic visions

1. Metro-regions have become major centres of growth in contemporary economies; but are they the causes of such growth or its consequence? If the former, they need to be encouraged; if the latter, does their tendency to

attract resources away from other regions do more overall harm than good? Assessment of the net balance of the value of metro-regions must also take account of a further negative characteristic that leads to the second dilemma.

2. To view the economic activities of a metro-region as a whole in this way, to seek to encourage the location of particular activities within the region, to provide an environment in which both they and the population in general will thrive implies that there is a strategic vision at the level of the metro-region. Public authorities are central to the generation of such visions; but can they do this without attempting direct substantive economic planning of a kind which cannot work in a dynamic, changing economy?
3. Concentrations of population that account for part of the dynamism of some metro-regions also contribute to typical urban problems of congestion, poor environment, housing shortages and the formation of ghettos. Is there a choice between economic dynamism and having a liveable city?

The governance of metro-regions

1. The *de facto* existence of metro-regions, and even more their need for strategic visions and overall infrastructural planning, suggests some need for a relatively autonomous public authority at the appropriate geographical level; but this level will be remote from many citizens' local concerns, and there is evidence that local levels are also necessary to engage citizen commitment. There are also major potential conflicts with existing city authorities within the metro-region if they lose power to a new, higher level of government. Particularly significant may be the fact that metro-regions are often favoured by central governments, which associates them with concentrating power upwards from existing local authorities rather than devolution downwards from itself.
2. There may however also be potential conflicts between any autonomous public authority at the metro-regional level and the role of central government, as the former may seek devolved powers or seek to pursue policies at variance with national government priorities. In countries with wider regional or federated levels of government, there will also be complex relationships between metro-regions and these levels. Where is the balance between these to be found?
3. A further issue of governance is raised by the fact that for the development of policies for economic development, public authorities need to involve the private sector in constructing regional partnerships, but does this encourage improper lobbying and a squeezing out of small and medium-sized enterprises by large corporations?

4. The high cost of urban and inter-urban infrastructure and of other public and social services required by metro-regions presents major fiscal issues. If these costs are borne within the region alone, investment may be deterred; but investment specifically directed to meet the high costs of metro-regions by central government may create distortions between the favoured areas and the rest of the country. Meanwhile, there will be a loss of autonomy over their own infrastructural priorities for local governments within the regions concerned, exacerbating existing problems of levels of government and governance.

Notes

1. See Appendix 1.
2. The OECD classifies regions within each member country based on two territorial units: the higher level (Territorial Level 2) consists of about 300 macro-regions while the lower (Territorial Level 3) is composed of more than 2300 micro-regions. TL3 levels are provinces in Belgium, Italy, Korea, the Netherlands, Spain and Turkey; statistical divisions in Australia; departments in France; development regions in Greece, regional authority regions in Ireland, regional councils in New Zealand and subregions in Poland; groups of municipalities in Mexico, cantons in Switzerland or prefectures in Japan; BEA Economic Areas in the United States, census divisions in Canada and upper tier authorities – or some other form of groups of smaller tier authorities – in the United Kingdom. Other particular names are given for TL3 regions in Austria (Gruppen von Politischen Bezirken), the Czech Republic (Kraje), Denmark (Amter), Germany (Regierungsbezirke), Finland (Maakunnat), Hungary (Megyek), Norway (Fylker), Portugal (Grupos de Concelhos) Sweden (Län). For more information about the OECD regional typology, see OECD (2005g).
3. The OECD Regional Typology classifies regions into three categories: predominantly rural (more than 50% of the population living in rural communities), intermediate (between 15-50%) or predominantly urban (less than 15%). A rural community is a community with a population density below 150 inhabitants/km^2.
4. The UN has defined mega-cities as those with populations over 10 million people. Simple graphical observation of metro-regions shows that the largest cities are a group of metro-regions in itself. Moreover, as shown in Appendix 3, mega-cities over 7 million people may be experiencing similar challenges. Hence, the threshold for mega-cities was set at 7 million people.
5. In the case of the polycentric regions such as the Randstad-Holland, agglomerations have occurred around several urban centres (Amsterdam, Rotterdam, Utrecht and The Hague), and over time have resulted in the urbanisation of the entire region (except for the so-called "green heart"). However, the degree of functional economic integration in these regions is weaker than in monocentric metropolitan regions.
6. However, the period omits – due to unavailability of data – the years after Eastern Europe's accession to the European Union. It is possible that metro-regions such as Budapest, Krakow, Prague and Warsaw may be growing faster, spurred by increased international trade.

7. The lack of data available at the sub-national level (at the level of the department, county, province or prefecture) does not allow the production of multi-factor productivity figures at the metro-region level. Therefore, these productivity figures and rankings at the metro-region level have to be taken with caution.
8. In Appendix 3, the threshold or critical population size at which the positive relationship between income and population becomes negative – suggesting congestion costs or diseconomies of scale – lies at 7.35 million people. There is in fact a stream of literature on the question of the optimum city size.
9. Starting with Flatters, Henderson and Mieszkowski's (1974) seminal paper, further developed by Stiglitz (1977), there is an ongoing debate over a possible optimum city.
10. This is shown in Table A.3.3 in Appendix 3 to be positive although statistically significant according to Pearson's correlation coefficient.
11. Shanghai Bureau of Statistics, *Yearbook of Shanghai Statistics*, 2004.
12. By definition, average productivity is a weighted average of sectoral productivity, where weights are given by the employment share of each sector. Therefore, differences in average productivity due to differences in employment shares can be regarded as the effect of specialisation and differences in average productivity due to sectoral productivity can be interpreted as the result of differences in capital and technology.
13. Yet, in both cases, there are some concerns about the concentration of this on one sector and, essentially, the one firm of Nokia in Helsinki or groups of large firms in Stockholm (Ericsson, ABB and Astra Zenica).
14. Quoted in Duranton and Puga (1999).
15. See Van Widen in Part II.
16. See also Sassen (1991).
17. In addition to industrial mix, productivity levels depend as well on complementary factors of production, *i.e.*, skills, technology and physical capital. See Appendix 4.
18. In almost all countries, GDP is more concentrated than population. Only in Korea does the concentration of population exceed that of GDP.
19. In fact, such association is statistically significant as revealed by the correlation coefficient shown in Appendix 3.
20. *www.amic.org.sg/websites/cities.pdf*.
21. In fact, Appendix 3 shows that national economic growth in OECD metro-regions is positively (the regressions yield strong and statistically significant coefficients) influenced by metro-regional levels of income.
22. Another implication is that, as old-age populations depend on their national security system, and on the income received by the working-age group to a growing dependency ratio, implies greater pressures on national security systems and eventually, fiscal pressures to finance it.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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PART I

Chapter 2

Competitiveness, Liveability and Strategic Vision

2.1. Introduction

Metro-regions are undoubtedly important actors of national economies, although they are not always synonymous with wealth. Overall, city size is positively associated with income. Capital cities, with their distinctive range of occupations and sectors, are at the fore. Thanks to their capacity to attract labour and firms from elsewhere within and across countries, metro-regions have a higher GDP per capita than their national average (66 out of 78 metro-regions). And most metro-regions also have higher labour productivity levels than their country average (65 out of 78 metro-regions). Metro-regions tend to have a more favourable demographic structure than their national averages as well, with lower dependency ratios. Not surprisingly, these regions tend to have faster growth rates than their countries. Yet, overall performance of metro-regions does have some limits. First, there are important exceptions to the group of above national average well performing metro-regions, some ostensibly "dysfunctional". Moreover, differences of output, productivity and employment from national averages are not so large. And after a certain threshold (around 7 million) the city size and income association becomes negative, probably due to congestion costs and other diseconomies of agglomeration. Finally, the generally strong economic performance of metro-regions frequently comes at a cost: unemployment, inequalities, and various indicators of a lack of social cohesion (such as crime rates) tend to be higher.

Many policy issues emerge from metro-regions' performance. In the present chapter we shall first examine the balance between positive and negative effects of metro-regions as well as the debate over their impact on the rest of their country. Does the metro-region draw skilled labour, capital and other resources away from other regions, which might have been deployed to enhance local dynamism? Or do other regions benefit from the spill-over effects of the metro-region? Second, we consider the challenge of overall strategic vision that seems to be needed if both the potentiality and problems of these regions are to be addressed. Central to the findings in Chapter 1 is that labour productivity is the principal determining factor in accounting for superior performance of one metro-region related to the others. While detailed comparative statistical breakdowns of the economic activities in which metro-regions concentrate are not available, there is some individual empirical evidence that many highly productive metro-regions specialise in high-tech and advanced services sectors, with R&D and other

knowledge-related activities at the fore. Access to large quantities of skilled human capital appears to be the fundamental characteristic at stake. How to make the best use of existing assets – tangible and intangible? How to foster the advantages of clustering whilst maintaining those of diversity? Finally, many social and environmental trends appear to emerge directly out of the dynamic, complex setting of the city, but their implications are often ambiguous. How to address "liveability" in highly concentrated urban spaces? How to deal with congestion, concentrations of social problems and lack of cohesion?

2.2. Dilemma I: positive or negative spillovers?

Metro-regions have become major centres of growth in contemporary economies; but are they the causes of such growth or its consequence? If the former, they need to be encouraged; if the latter, does their tendency to attract resources away from other regions do more overall harm than good? These questions are important, because metro-regions as such have both advantages and disadvantages.

2.2.1. The benefits of metro-regions

Large urban areas are expected to be associated with particular economic dynamism because they combine in particularly strong form the classic advantages of individual cities: accessibility, division of labour and competition, agglomeration effects, positive externalities for business, high stocks of physical, human and social capital.

- *Accessibility.* Individual cities already present advantages of accessibility over smaller towns; metro-regions multiply many of these. Because of the concentration of population and business activities, transport links between cities, in particular those within metro-regions, are usually good relative to those in the rest of a country. This makes it easier for firms located in these regions to access a wide range of choice in those resources (primarily labour, but also some elements of supply chains and research institutes) where proximity is important. In addition, transportation and communication networks multiply the connections among large cities which function in networked systems. The introduction of high-speed trains on the European continent further alters the time/distance equation. Urban rail centres are increasingly important as transport hubs within cities and as retail and commercial destinations in their own right, with a significant influence on street patterns and transport. Air bridges have been established between Tokyo-Sapporo, Melbourne-Sydney, New York-Chicago, and Los Angeles-San Francisco.
- *Division of labour and competition.* The size of urban labour markets and the range of firms located in cities permit competition and specialisation, which in turn raises efficiency. Because the market is large and the turnover

of goods is greater, producers are challenged to differentiate their products, thereby creating a demand for innovation. Because more firms are competing in the marketplace, there is a tendency for standards to rise progressively as well, with improvements in quality leading to gains in productivity. Sectoral division and diversification in manufacturing and services help to limit the effects of external shocks.

- *Agglomeration effects* reduce transaction costs because customers and suppliers can deal with each other more directly. In addition, individual large cities which attract global or regional corporate headquarters provide access to regional decision-makers; in the case of capital cities this includes national political decision-makers. Smaller cities located near these cities may have spillover gains from their proximity, further forging the metro-region. Certain infrastructure services can be offered sooner or more economically in cities, as is the case now with broadband telecommunications; other services, such as direct international air service, depend on a large local market. Certain specialised business services can only be offered profitably in larger cities (Quigley, 1998).
- *Positive externalities* for businesses are produced by the density of interactions among firms, research and education centres, public authorities and others within a large urbanised area. Knowledge spillovers and backward and forward linkages along supply chains are easier to capture within concentrated urban space.
- *Physical capital* in cities is not only measured by the equipment of firms, but also by the stock of buildings and infrastructure facilities. Much of the fixed capital stock of countries is invested in housing and commercial property; real estate price movements have a major impact on bank lending and consumer spending; and local governments often rely heavily on property taxes in their tax base. The construction sector is a major employer characterised by a skilled labour force, many small firms, and some major firms with significant international business.
- Some components of *social capital* may be directly related to scale and density of population, creating a multiplicity of local communities and neighbourhood organisations, and of civic groups that represent interests that cut across the population. Cities and metro-regions grow large through migration and immigration, producing a rich diversity of cultural backgrounds that is often the source of creativity and dynamism.

The association of many metro-regions with growth and innovation also relates to their resolution of certain paradoxes and trade-offs of contemporary economic activity.

1. The first is related to the constantly *increasing speed of both physical and electronic communications combined with continuing advantages of proximity*.

Much high value-added growth takes place in services sectors and in forms of manufacturing that, in contrast with much traditional manufacturing, are neither labour-intensive nor demanding of large factory sites or specific elements of physical geography. This gives many firms more choice in their physical location, from which process a preference for metro-regions is being revealed. The combination of continued advantages in proximity and accessibility alongside more rapid communications means, on the one hand, that there is a continuing need for some concentration of activities, but on the other, that this concentration can spread over a wider geographical space than in the past. This pattern favours neither small towns (which do not provide adequate concentration) nor the single concentric city with one central business district and a periphery of residential suburbs (which is an expensive form). Rapid transportation, as well as developments like tele-working, enable greater diversity of locations for both homes and businesses; but firms and workers still need easy physical contact at certain points. The kind of compromise between concentration and dispersal embodied in the multipolar metro-region makes this possible.

2. A second resolution of paradoxes typically found in metropolitan areas concerns demands for *change and flexibility in labour markets* combined with expectations of stable personal lives on the part of highly qualified labour forces. Metro-regions are also suitable for the needs of contemporary labour markets. Firms want the chance to recruit from large labour pools, and in many sectors offer relatively insecure employment. This is compatible with employees' needs to avoid major upheavals to their lives if they can be confident of finding new jobs within a certain geographical range.
3. Last but not least, metropolitan areas typically provide contrasting *advantages of specialisation and diversity*. The combination of specialisation and diversity raises important issues concerning agglomerations and clusters. There is a widely noted tendency for firms in certain industries, together with their supply chains and various specialised facilities (such as university research teams) to be geographically concentrated. Sometimes these are just aggregations of firms drawing on locally available resources; in other cases there are important knowledge exchanges among the participants, leading to the formation of clusters. However dependence of a geographical area on such aggregations in a single type of activity produces major problems if the industry concerned declines. There is particular vulnerability in a period of rapid economic change, like the present. Concentrated, populous metro-regions have a role in the resolution of this dilemma: these heterogeneous areas are better able than small cities to contain a number of clusters, ideally in sectors with diverse trade and

product cycles. If one industry collapses, there are alternative employment possibilities within commuting distance in other sectors.

Particularly important in the trade-off between specialisation and diversity is a likely, though not yet fully tested, association between agglomerations of the size and type of metro-regions and the concept of a *learning region or city* (OECD, 2001a) with multiple knowledge applications. The concept of the learning region centres on the hypothesis that the economic exploitation of creative and innovative knowledge depends, not just on the total of educated individuals working within a local economy, but on interactions among them and the organisations within which they work. These interactions run across the boundaries of firms, in particular along the supply chain, but they also involve other key groups. Most important are relations between firms and higher education and research institutes (discussed in more detail below). Also significant are links with locally embedded and specialised lawyers, accountants, venture capitalists and other professionals who acquire knowledge relevant to specific developments and sectors. This kind of knowledge is particularly important for innovative activities, where it cannot be assumed that up-to-date knowledge is readily available in, for example, general stock markets.[1] There is therefore a major role for the informal and interactive transfer of uncodified and often even tacit knowledge. These arguments partly relate to the question of specialised clusters discussed below, but they may have more general importance in facilitating knowledge transfers across sectors, and even in stimulating new activities.

This last point suggests a major potential advantage of metro-regions in harnessing *pluralism and diversity in knowledge*: until a point is presumably reached where diminishing returns set in, the larger an urbanised area, the richer and more diverse are the sources of and channels for knowledge creation and diffusion. For example, where there are a number of, rather than a single, university or research centre, there is both less risk of over-dependence on a single approach or set of programmes, and potential gains from cross-fertilisation. However, the mere existence of a diversity of institutions within a space designated statistically as a metro-region will in itself do nothing to ensure that interaction and inter-dependence occur. Left to themselves individuals often remain within their corporate or organisational boundaries. Metro-regions, and indeed individual cities, will only function as interactive spaces if they possess mechanisms that enable, encourage and reward groups and individuals to use them in that way. This may be partly a matter of public policy, partly of informal structures that develop in certain kinds of urban locations. Increasing knowledge of what these are and how they operate will be fundamental to determining whether or not individual metro-regions realise their potential.

2.2.2. Negative externalities of metro-regions

There are various negative externalities that are also associated with large concentrations of population. As externalities, they are not internalised by firms and households, and may only show up as a direct cost in the long term (*e.g.*, high transportation cost, loss of productivity due to long commuting time or higher health costs due to a poor environment). They concern congestion costs, poor quality infrastructure, poor social, political and fiscal cohesion, and the often perverse impact of spatial planning on agglomeration effects.

- *Congestion costs* are particularly prominent, notably traffic congestion but also other forms of pollution, such as reduced air and water quality, high noise levels and degradation of green areas. Congestion is also implicated in high levels of mental illness and infectious disease, and limited access to recreational facilities, as well as in over-heated property and housing markets. Some of these costs are reflected in high prices for land, labour and other resources, which make the cost of living high in metro-regions, making life particularly difficult for the low-wage populations whose low-productivity labour is needed by many urban services. Those who can afford the high cost of commuting respond to these disadvantages of metropolitan life by living further away from the centres where they work, adding to time lost through extended journey-to-work times, increased need for transport infrastructure, and urban sprawl. Other congestion costs (such as pollution) are externalities, the burden of which is not reflected immediately in prices, but which can have strong indirect consequences (for example, in health costs). There are major examples of this, not only in recently and rapidly developing metro-regions in OECD countries (*e.g.*, Seoul, Istanbul), but also in such long-established major cities as Paris, Tokyo and London, and even in some parts of much less densely populated and well-developed regions as Helsinki and Stockholm.
- *Poor-quality infrastructure* in some places arises because the costs of maintaining a good-quality physical environment among large concentrations of people and activities are high. This is most likely to be seen in a failure to maintain or improve areas with concentrations of social housing, or in areas where economic activities are associated with noise and other unwanted environmental effects. But the effects may not be limited to the directly affected areas alone. There might even be disinvestment from areas that are themselves otherwise well-served by infrastructure, but located within the wider urban environment that includes the neglected areas. In such cases there may be a relocation of households and firms to greenfield sites.
- *Poor social cohesion* may result from the anonymity and fragmented relationships found in large urban agglomerations. Large cities are often

associated with high levels of crime and anti-social behaviour, as well as problems of social isolation and negative externalities of distressed areas. These issues may be particularly important if groups from different cultural backgrounds remain largely segregated from each other. This is the other side of the coin of the gains that come from the diversity of large, heterogeneous populations.

- *Poor political cohesion,* in the sense that difficulties in mobilising resources to tackle collective problem, may also result where metro-regions comprise a number of cities and towns. It is difficult to organise such regions as wholes to deliver environmental, economic and social objectives. This may lead to higher overall costs to achieve a given level of environmental quality, which in turn can have knock-on effects on competitiveness.
- *Poor fiscal cohesion*. The relationship between taxation and public spending in metro-regions can become very unbalanced because their growth has produced patterns of use of urban space that no longer correspond to the existing administrative and political boundaries of local government and fiscal arrangements. This may take the form of a fiscal deficit for the major city or cities, which are responsible for a wide range of services that benefit the region as a whole, but whose resident populations bear most of the cost. Parts of the electorate become frustrated by paying for services enjoyed by others who do not pay the same level of tax. Alternatively, in metro-regions like the Paris Ile-de-France, where deprived populations live in communes around the periphery but spend their working lives in Paris, the local communities in which they live bear the costs of providing support services that try to compensate them for the low earnings that they receive in the city.

In addition to these negative externalities, the impact of *spatial planning and the organisation of public-service provision* on agglomeration effects has often been perverse. Many negative externalities relate to the interaction between economic activities and social patterns in space; density and movement are key parameters for the organisation of cities. For most of the 20th century, planning resulted in the functional separation of land uses. Zoning set aside land for residential, commercial, industrial and civic uses; urban services such as education, water, transportation and health were organised into separate bureaucracies which worked in parallel, managed by experts whose professional training reinforced a sectoral approach. This form of development was consistent with an economy of heavy, labour-intensive manufacturing, linked by relatively fixed connections by rail and sea. In the Fordist era, when the reallocation of labour meant that cities grew rapidly through in-migration (frequently from rural areas, but also from stagnating urban regions), uniform housing and in general a similar treatment of spatial structures and commercial and retail facilities meant that newcomers could more easily find their place in the city. Equally, a zoned pattern of land uses

corresponded to a pattern of day and night use of space, both in residential and economically active areas. However, aside from considerations of historic preservation, this approach to city-building was not adapted to the task of identifying and enhancing specific local needs and assets such as open and recreational space, access to rivers, neighbourhoods and districts distinguished by their architectural and social features. The shortcomings of the zoned industrial city became glaringly evident as factories and rail yards closed and many urban sites became abandoned. Social problems became concentrated in housing estates that were now remote from any sources of employment, while pressures arose to add new commercial and retail properties in established urban centres zoned for economic activities.

2.2.3. Metro areas versus national growth?

There is an important and continuing debate over the impact of metro-regions on overall development within a national economy. This debate has two aspects. The first concerns whether the normally observed association between urbanisation and economic growth peaks at a certain point of urban agglomeration. The second concerns the impact of the growth of metro-regions on development in other parts of a country. Existing knowledge does not permit clear answers to this question, partly because, as has already been stressed, metro-regions are not a unitary phenomenon: cities have become agglomerations for a number of different reasons. Also, as will be discussed extensively in this report, there are considerable differences in the ways that both city and national authorities have dealt with both metro-regions and their fiscal and other relationships to the rest of a country.

With respect to the relationship between urbanisation and growth, there is evidence in the academic literature of particular gains from what some authors accept as being "oversized" cities. Bertinelli and Black (2004), for example, use an econometric model to demonstrate such gains. They consider how the trade-off between optimal and equilibrium city size behaves when introducing dynamic human capital externalities in addition to classical congestion externalities. They assume that productivity depends on human capital, that this is solely accumulated in cities (Jacobs, 1985) such that urbanisation is the engine of growth. At low levels of technology, a development trap may occur, with levels of human capital and urbanisation being insufficient for growth to occur; while in equilibrium, urbanisation rates are too high due to the existence of a congestion externality. However, as urbanisation encourages human capital accumulation, there are dynamic benefits of static over-urbanisation. We can further stress here the arguments of Jacobs (1969) on technological advancement through inter-sectoral learning. This leads the authors to conclude that: "*myopic policies designed to reduce the degree of over-urbanisation by limiting urbanisation will tend to have an*

*adverse impact on economic growth, lowering an economy's steady-state level of technology and potentially leaving the economy stuck in a development trap. This suggests that policies designed to remedy potential over-*urbanization *may have adverse dynamic effects. In addition, spatial redistribution, rather than a curtailing of an economy's urban population may remedy the costs of over-urbanisation without these negative dynamic effects.*" However, they acknowledge that "*a full understanding of this requires in-depth knowledge of the costs of infrastructure investments required for urban population decentralisation*". Much also depends on the initial assumptions, and on the range of negative externalities that are taken into account.

The validity of the assumption that human capital is accumulated solely in cities is challenged by Polèse (2005). He argues that it is difficult to rigorously test the relationship between agglomeration and economic growth, part of the problem stemming from the difficulty of distinguishing factors that allow cities to *capture* a greater share of national economic growth from those that allow them to *add to* it. In a study of five Latin American cities, Freire and Polèse (2003) addressed the same issue, with particular reference to the question of why cities in developing nations do not create more wealth. They argue that positive local agglomeration effects can be realised only when there is a suitable national institutional and public policy environment: the rule of law, property rights, appropriate macroeconomic policies, appropriate public sector involvement. The local impact of this environment concerns those services which have to be consumed (though not necessarily provided) locally. For example, urban crime, poor traffic management, and poor street and road conditions reduce the potential for interaction and business meetings, and consequently for knowledge spillovers, with possible long-range negative effects on the rate of innovation. The same factors also affect labour recruitment, particularly of women, and staff punctuality. Inferior public services proportionally hit small firms the hardest, with a predictable impact on potential start-up businesses and entrepreneurship. Latin American data do not necessarily have direct implications for OECD countries, though at least some of the phenomena discussed are recognisably general: some of the tensions of economic success of metro-regions can be seen even in the cases of the largely well ordered Greater Helsinki Region and of the Mälar region around Stockholm (Box 2.1).

As to the question of the effect of growth in metro-regions on other parts of a country, it is frequently claimed that the wealth generated by successful regions can be of general benefit. Where metro-regions are what were termed in chapter one polycentric, the interests of both large and small cities within the metro-region may be more easily reconciled. As land costs rise in the major urban centre(s), smaller nodes within the region may grow, and may have more scope for so doing before the congestion and social segregation

Box 2.1. **Growth *versus* equity in successful metro areas: the examples of Helsinki and Stockholm**

After some very difficult years in the early 1990s, ***Helsinki*** and its surrounding region emerged as an internationally competitive economy that had seemingly grafted the requisites of the "new economy" on to the bedrock principles of the Nordic welfare state. The experience corroborates broader empirical evidence suggesting that a social commitment to equity need not disadvantage the economic performance of countries. At the same time, incipient trends observed in Finland and the Greater Helsinki Region (GHR) suggest that this commitment has become more difficult to implement in the current environment of economic development. Recent widening of regional disparities within the country, greater spatial differentiation within municipalities, and an increase in inequality of the size distribution of personal income – although modest in all cases – challenge the ability of the state, regional and local economy to meet its equity mandate while sustaining economic growth. Along several dimensions, development of the GHR is best described as transitional, compelling a reassessment of policies able to pursue competitiveness and equity as multiple objectives. The success of the ICT sector is a bellwether of a broader set of changes to the patterns of urban development. At the same time, the growth of Helsinki means that immigrants dependent on social support and other allowances are tending to be concentrated, with attendant social problems, in the city, although they are spread throughout its neighbourhoods, without any distinctive ethnic area or subculture emerging. Meanwhile, some other parts of the region are becoming progressively wealthier and more entrenched enclaves for the affluent, especially highly-paid workers in the IT economy. Dynamics of the "secession of the rich" can develop quite quickly and lead to very negative unintended effects in terms of sustainable development, social integration and economic development. In this light, attempts at regional co-operation would meet with mixed success, with issues of tax equity, social housing, cultural life, and economic development as nagging sources of political friction.

In ***Stockholm***, the low level of housing investment, exacerbated by housing market distortions, has contributed to the shortages that drive high housing costs. Changes in the housing finance environment worsened dramatically during the economic crisis of the 1990s. The tax reform (1990-91) and the modifications to policy over the last decade have led to higher housing prices and discouraged housing investment, which is at a very low level in comparison with some other OECD countries. Municipalities, which are responsible for the planning and overall implementation of housing construction, have been unable to promote the investments necessary to

Box 2.1. **Growth *versus* equity in successful metro areas: the examples of Helsinki and Stockholm** *(cont.)*

meet Stockholm's in-migration. Cuts in allowances for individuals have also contributed to the large share of household spending on housing. High rents in the central parts of the Stockholm Mälar region and housing market distortions contribute to segregation and spatial mismatches within the region. The intent of the rent regulations is to ensure affordable housing; however in general this tool results in considerable efficiency losses. Most municipalities own non-profit housing companies that allocate apartments to renters regardless of income, origin or family structure. In other words, there is no "social housing" in common usage. High housing prices have been particularly prohibitive for low income people, particularly in the County of Stockholm, where the price level of housing increased dramatically after the downturn economy in the early 1990s.

Source: OECD (2006d), *OECD Territorial Reviews: Stockholm, Sweden*, OECD publications, Paris, France and OECD (2003a), *OECD Territorial Reviews: Helsinki, Finland*, OECD publications, Paris, France.

effects characteristic of the larger centres begin to operate. The smaller cities gain from the growth, while the larger ones benefit from the reduction of pressure. Within more monopolar regions (such as London and Paris) it is possible to attempt a similar development of minor growth poles, but more determined planning is required, as transport structures and patterns of built space continue to reinforce concentration on the centre.

The strength of large metropolitan areas may also generate many positive spillovers into other regions through fiscal revenues, foreign exchange earnings and exports, which pay for infrastructures, services and wider transfer payments across the entire country. Many of their assets, such as headquarters of key corporations, infrastructure (*e.g.*, airport) and information services, actually serve firms and consumers located elsewhere in the country and (up to the point where congestion costs and high land prices outweigh the effect) at cheaper costs thanks to agglomeration economies. Subject to certain negative consequences considered above, the dynamic region offers opportunities for mobility to young people from other regions who have the opportunity of moving to take advantage of the job opportunities there: in no sense are the gains that flow from dynamic regions kept for existing residents alone. Metro-regions tend to generate a large number of low-productivity service occupations in both public and private sectors that offer job opportunities to workers with low education levels. This occurs because of the particularly high needs for occupations concerned with

maintaining the infrastructure of concentrated urban spaces – for example, in cleaning, transport, security, and janitorial activities. At a time when mass manufacturing, which used to provide employment for large numbers of such people, is declining in its capacity to generate employment, this is a useful employment gain.

On the other hand, possible negative consequences of the growth of metro-regions can be seen by their brain and capital drain effect on other regions. By losing their educated and skilled population as well as capital resources, these less populous regions then face decline. The ICT sector and the other dynamic sectors of the new economy have demonstrated a strong urban bias in location; economies of agglomeration exploiting the diverse collection of services and economies of localisation exploiting concentrated specialisation are thought to be dependent on a scale of economic activity available in medium to large cities. From Portugal, Ireland and Finland to France and Britain, the major city has faced continuous growth much to the irritation of the rest of the country. Inhabitants outside the favoured zones often perceive these developments with a great lack of trust, fearing that any transfer of resources to the flourishing metro-region will jeopardise their own resources or marginalise them.

Given that high population concentrations often entail high congestion and other costs, does a policy of explicitly discouraging metro-regions to the advantage of others have a positive outcome? Experiences of containment policies in OECD countries (such as the one conducted in Paris in the 1960s, in Tokyo from 1959-2002, in London from 1965-1979 and still currently implemented in Seoul since the 1970s) have provided mixed outcomes (Box 2.2). There is little reliable data showing whether constraints on the growth of the major region actually displaced economic activities to other domestic regions, thus compensating for the loss in the major regions with higher growth elsewhere in the country. In addition, there is an increasing concern that such policies and others might hold back international competitiveness of the major city in the context of an increasingly globalised economy. For example, the Korean government has pushed "balanced national development" as a priority, planning to build regional innovative clusters in regions other than Seoul, and has also designed plans to build a new administrative capital and to decentralise most of administrative functions out of Seoul. Meanwhile, a study shows that knowledge-based industries in Korea and especially in the capital region will experience a significant shortage of land over the next five years (Kim, Choo and Nahm quoted in OECD, 2005f). If these industries cannot find suitable sites in the capital region, it is unclear whether they will relocate to other Korean regions or go for more attractive regions in competing Asian countries. Similarly, the Paris metropolitan area was long seen as diverting growth from other regions

Box 2.2. **Monitoring the growth of capital regions in OECD countries**

France has attempted to achieve "controlled growth" in the capital region around ***Paris***, which expanded so rapidly compared with the rest of the country that scholars worried early about "Paris and the French desert" (title of a 1947 publication by French geographer Jean-François Gravier). Since 1955, both public and private firms seeking to expand within Paris are required to apply for an administrative authorisation. Regulations on offices were considerably loosened in 1985 but restored for larger offices in 1990. The government also started to levy taxes (*redevance*) on new offices locating in the Ile-de-France region to discourage new firm creation after the 2 August 1960 law. The scheme was toned down in 1982 when it was restricted to specific zones with a regressive pricing mechanism. Evaluations show that industrial employment in the capital region decreased extensively but mainly due to sectoral shifts rather than to the efficiency of the government's deterrents (DATAR, 1999).

In Japan, the Industrial Relocation Promotion Law (1972) introduced direct subsidies from the MITI and long-term loans for businesses willing to relocate to designated areas. The results of this policy are mixed. On the one hand, the volume of industrial output from ***Tokyo*** and ***Osaka*** declined from 18% to 15% between 1985 and 1992. On the other hand, there was less success in fostering dynamism and creative capabilities in Japanese localities outside of the Tokyo-Nagoya-Osaka agglomeration. Although many prestigious technology-oriented buildings were constructed, the lack of venture capital and of other soft infrastructure made it hard for entrepreneurs to take the risk of launching start-ups (OECD, 2005d).

In the Netherlands, the ***Randstad*** is above all a spatial planning concept that was born shortly after the Second World War and refers to the position of a belt of cities, in particular four large cities (Amsterdam, Rotterdam, The Hague and Utrecht) encircling a green open area named the *Green Heart* in the western part of the Netherlands. National spatial development policies have in recent decades switched back and forth between promoting and discouraging the development of the Randstad into a metropolitan region. Repeatedly, fears of the Randstad growing together into one "amorphous" metropolis have led to policy initiatives to limit expansion of the large cities and urban sprawl around them. This approach had two main consequences until the 1990s: within the Randstad, planning policies focused on the preservation of the green heart, seen as a key asset for the region, and the restriction in housing policy; and policies were focused on dispersing growth out of the Randstad towards more peripheral regions of the North and the East of the Netherlands.

Box 2.2. **Monitoring the growth of capital regions in OECD countries** *(cont.)*

In the United Kingdom, both deterrents and incentives were used to limit London's high concentration. From 1965 to 1979, the Greater London Council required firms to apply for office development permits (ODPs) before establishing new offices in the ***London*** area. A Location of Offices Bureau was set up and helped companies move away from the capital city. However, evidence of slowing expansion in London remained quite mixed. For example, the rate of office floorspace development increased from 14.6% in the decade before ODPs to 20.4% in the decade after.

In Korea, since at least the 1964 enactment of "Special Measures for the Restriction of Population Growth in ***Seoul***", there have been efforts to control the growth of Seoul and the larger capital region in order to ensure balanced national development. These efforts include relocation of government offices outside of Seoul, the relocation of university branches outside Seoul and financial incentives to relocate firms and regulations to curb the expansion of industrial establishments and academic institution in Seoul (OECD, 2005f). The nature of the policies has gone through numerous changes over the years, as various measures proved ineffective and encountered criticism that curbing the growth of Seoul was undermining Korea's competitiveness on the international stage. Even so, there are many indirect, economic disincentives against locating in Seoul. For example, the Capital Region Readjustment Planning Act (1982) divides the area into three main categories: congestion restraint zones, growth management zones and nature conservation zones. According to the category, the central government prohibits or controls the construction of new factories and buildings, levies over-concentration taxes, and bans or administers the creation of new universities (except for smaller and vocational colleges). In addition, the registration tax is five times higher in Seoul than in the rest of the country because of the Capital Region Planning Law (OECD, 2005f).

and was largely excluded from regional development policy. However, recently the region lost some rank against its EU major competitors for its innovation capacity and competitiveness, partly explained by the decision to relocate some public research centres outside the region (OECD, 2006a).

2.2.4. Summary: dilemma I

Resolution of this dilemma involves strategies of assisting metro-regions to maximise their economic and environmental possibilities, but without artificially promoting the growth of heavy population concentrations or

inhibiting the development of other growth models in other kinds of region. In rapidly changing market economies it is not good public policy to "put all one's eggs in one basket". It is never certain where future springs of innovation will develop until these emerge through market forces, and it is as important to avoid becoming over-dependent on particular urban forms as it is on particular industries. This formulation does not prevent stark specific choices from emerging: Should major new building be permitted, expanding the size of a particular city, or should measures be taken to encourage development in an area of declining population? Should priority in building transport infrastructures go towards easing congestion within a metropolitan concentration, or to reducing the economic isolation of a medium-sized city? (It must here be remembered that the effect of improving transport infrastructure is often to encourage a further growth of activities, journeys and population in the area concerned until congestion returns to its former unacceptable level.)

Evidence from the OECD *metropolitan reviews* does not produce easy answers to such choices: the fact that some metro-regions have excellent growth records does not mean that creating large concentrations of people is enough to stimulate such a record. On the other hand, the continued development and world city status or goals of such cities do not necessarily contradict national plans for balanced economic development. Also, given that there is uncertainty over what kinds of new economic initiatives will be successful, metro-regions have the advantage of being areas with considerable internal diversity and therefore stand a better chance than smaller, more specialised or less pluralistic areas, of becoming the locations for successful innovation. At the same time, there are examples of successful regions outside metro-regions: policies towards the latter need to be balanced by different ones targeted at different sectors and with different expectations for other parts of a country.

It is not possible for national or local authorities to address this dilemma by allowing market forces alone to determine relations between metro-regions and other parts of a country. A pure *laissez faire* approach would involve taking no public-policy measures to address congestion or to co-ordinate land-use policy within a metro-region, allowing the costs of inconvenience to mount until the area becomes uneconomic and firms move to other zones, leaving the metro-region to shrink in size. But that process would be prolonged and painful, and in the meantime potential synergies from the existence of the metro-region would be lost. On the other hand, action to support the infrastructure of a metro-region and ensure its development will mean ensuring that it continues to attract labour, firms and capital away from other regions. To pursue this path requires confidence that the metro-region will deliver the expectations held of it.

Reconciling national and dominant-region interests in a positive-sum game requires a new strategy that goes beyond the typical "centre *versus* periphery" dichotomy. Under the paradigm shift in regional development policies (OECD, 2005a), the most effective measures do not consist in distributing direct subsidies to lagging regions while ignoring the best performing regions, but in capturing differentiated regional competitive advantages. The condition is that all of a country's regions strengthen their own functional specialisation enough to develop cross-regional complementarities. Building co-operative exchange networks between the major cities and other regions could generate synergy effects (*e.g.*, programmes for twinning universities and other regions, location in two places of different aspects of major technology projects). Meanwhile, metro areas need a comprehensive strategy to continue to contribute to national growth, tackle negative externalities of excessive urbanisation and deliver positive spillovers to other regions.

2.3. Dilemma II: public strategic vision in a market context?

To view the economic activities of a metro-region as a whole in this way, to seek to encourage the location of particular activities within the region, to provide an environment in which both they and the population in general will thrive implies that there is a strategic vision at the level of the metro-region. This will need to address such issues as whether and how existing or new specialised clusters are to be encouraged; the role that will be played by higher education and research as well as more basic and vocational education; and, further related to education and research, the strategy for improving the region's innovation capacity. Public authorities are central to the generation of such visions; but can they do this without attempting direct substantive economic planning of a kind which cannot work in a dynamic, changing economy?

2.3.1. Why a strategic vision?

Strategic visions are highly important, but it is necessary to distinguish this process from economic planning in the older sense. The argument that local public authorities, together with other significant economic actors, need to develop a strategic vision for a metro-region seems to conflict with the importance of market forces in determining economies, and to hark back to attempts at planning economies. It is important that authorities understand that it is not possible to make administrative decisions that particular economic activities shall flourish in a particular region. The firms that are attracted to the region and sector need to have the right entrepreneurial and managerial qualities if they are to succeed, even in the best of environments; and some niches may already be over-full. This is not to say that public policy cannot play an active part in changing a region's comparative advantages, but

it needs to do this while being well informed about possibilities and potentialities. Similarly, central to appreciating the scope for regional strategic vision within free and open markets is a shift from the provision of subsidies or restraints in trade to indirect support for the business environment and the provision of infrastructure. It is important that public authorities take note of what activities flourish already in their region, and what seem, on the basis of evidence elsewhere, to be new activities that should be able to prosper. In this process widespread participation by a range of stakeholders will help ensure both an extensive contribution of ideas and perspectives, and subsequent commitment to the vision achieved. Strategic visions must also be capable of changing and responding to new challenges. This is more easily achieved if it is well understood from the outset that the vision is a permanently developing process and not something established at one point in time.

There will however continue to be risks in developing policies based on a strategic vision. Policies that provide resources that may be used by entrepreneurs may be difficult to relate directly to the performance targets that are a fundamental part of contemporary public management, for two reasons. First, some activities may not be linked directly to firms' actions. Second, even where a link can be made, by no means all entrepreneurial activities will be successful. The second presents particular problems for public administrations who are not accustomed to accepting failure. Older policies of support, such as protecting, subsidising, guiding special facilities to well established local industries, rarely encountered this prospect, until the final years of collapse of the industries concerned. The reaction against that experience led to a period of withdrawal from any intervention by public authorities at all levels, who came to believe that they should have no role at all in supporting economic activity. Neither this nor the old approach are appropriate for a period in which change and uncertainty are endemic, but where regional strategic vision and detailed enabling policies can clearly have a role in promoting the competitiveness of firms within the region. New means need to be found helping authorities to cope with risk and possible occasional failure, while still seeking to appraise the quality and success of their actions.

A valuable means of spreading these risks is the development of a diversity of specialised clusters, based on a large number of firms. The risks inherent in radical innovation mean that there is always insecurity in areas with a large number of such activities; an advantage of clusters (discussed below) is that they assist in the absorption of this insecurity and therefore both facilitate risk-taking and reduce its negative consequences. As the high-tech regions in the United States in particular demonstrate, where there is a large number of firms, research institutes and other institutions connected with a sector and its supply and knowledge chains within a region, risks are

cushioned. If a firm collapses, its high-calibre employees are likely to be able to find alternative employment that uses their skills without leaving the region; the capital and plant invested in the firm remain at the disposal of more successful enterprises, also within the region.

A first step to formulating a vision is to build political commitment and consensus behind the notion of metropolitan co-operation. This is particularly difficult to achieve where, as is normally the case, the metro-region is not a level of formal political competence. This is an issue considered further below in connection with governance arrangements. Formulating the vision may involve establishing a clear initial statement of the shared interests of each entity and of the commitment to work towards a common vision of the role of the metro-region. Before the development of a strategy and of mechanisms to implement it, the nature of the metro-region "project" needs to be clearly defined with the expression of why the different levels of formal government depend on each other. This regional vision is essentially a statement of common interest and a commitment to co-operate towards common, agreed objectives. The vision needs to understand the different identities that it encompasses, promoting complementarities and interdependencies, but also recognising differences and distinctive characteristics. To the extent that it is a political charter, this statement should be accepted by the heads of government of the different component authorities, but elaboration of the vision on which it rests could be a more consultative process involving different public and private stakeholders.

The second main component of a strategic vision is its policy content. In particular, it needs to encompass how the metro-region will establish a liveable environment with strong infrastructure and avoidance of the creation of areas of social segregation and inclusion, but it will also need to say something about the kinds of economic activities that the infrastructure and other public policies intend to support and encourage. Formulations of this kind need to combine vision and ambition with realism, and to include sober assessments of what such policies are likely to be able to achieve. It is very likely that there will be attempts to associate the region – or to take advantage of existing associations – with specific sectors. Some such specialisations are based on small numbers of large firms, though the experience of the Fordist period of manufacturing embodied salutary lessons of the risks of over-dependence. This concerned not just over-dependence on a sector, but on large organisations that often left areas with skill specialisations that excluded entrepreneurship and adaptability. In the light of this experience, it is not surprising that many local and regional development plans now include roles for SMEs and other forms of enterprise that will strengthen local capacity. This has often implied a concentration on specialised clusters, as these enable SMEs to take advantage of innovation. As noted above, metro-

regions have the further advantage of being able to contain a number of specialisations, avoiding the form of dependency that comes from the single-cluster development often associated with smaller towns and industrial districts.

The experience of the most successful metro-regions suggests that a number of key themes need to be addressed by strategic visions. For reasons already noted above, the encouragement of specialised clusters and their distinctive infrastructural and networking needs is one of these. Clusters do not involve only firms, but a number of other supporting institutions, prominent among which are local higher education and research institutes that interact regularly with creative enterprises, exchanging both ideas and personnel with them. The examples on which these conclusions are based come mainly from highly publicised high-tech sectors; but not every metro-region can specialise in what is a relatively narrow range of activities, within which success may be difficult to achieve. It is essential also to address viable strategic visions that do not depend on high-tech activities.

2.3.2. Cluster development policies

Characteristics and advantages of industry clusters

Industry clusters are tied into a spatial economic context and contribute to building metropolitan competitiveness. They can be defined as geographical concentrations of groups of industries within which firms and other actors in the spatial economic systems are formally or informally interlinked through their activities. An industry cluster is both functional (economic) and spatial. Consistent with their general concept, industry clusters in a metropolitan context show several major characteristics:

- They specialise in certain kinds of economic activities. Businesses in the cluster can be linked through a wide range of channels, ranging from a supply chain, same knowledge base (human resources, research institutions etc.) to common policy environments.
- They have a geographical scope, but the size of this depends on how closely firms or industries interact with each other and the overall size of the cluster. Often, spatial industry clusters spill over beyond jurisdictional boundaries and thereby are functionally rather than politically defined. In a metropolitan context, industry clusters often exist beyond smaller jurisdictional units (counties, etc.) and sometimes even go beyond a metropolitan region to a certain extent. Consistent with a functional metropolitan region, an industry cluster also spatially expands over time.
- Despite the focus on certain industry groups, industry clusters are tied into a much larger interlinked economic system where formal and informal interactions among businesses and other local actors are considered.

Learning, knowledge creation, and technology innovation and diffusion are particularly observed in this process. Overall, a combination of these characteristics leads to economic synergies and contributes to metropolitan competitiveness.

Different kinds of industry clusters function differently in competitiveness building, with traded clusters engaged in export activities showing distinct advantages. Industry clusters are not all the same kind. They may differ in the products or services they produce or deliver, stages of development (young, mature, present or potential) and other dimensions involved. Due to the various differences, the effectiveness of industry clusters in building regional competitiveness therefore varies across clusters and regions. This may at least partly explain the conflicting outcomes in cluster practices. Porter (2002) identifies three types of clusters based on their roles of serving local economy: traded clusters, local service clusters and resource clusters. Traded clusters refer to export-oriented clusters, often associated with higher productivity and higher wages. Local service clusters and resource dependent clusters are location dependent even though the latter may serve national or global resource markets. Although local services clusters are more evenly distributed within metropolitan regions to access a wider range of customers, their development is strongly coupled with the growth and expansion of traded clusters (manufacturing or services). All these clusters are important components of metropolitan economies, but traded clusters are what are really fundamental to building metropolitan competitiveness. A number of cluster cases studies show that traded clusters show more value added (measured by wage levels) than the average for the region in which they were located (Table 2.1). These clusters tend to concentrate better local

Table 2.1. **Wage levels of US metropolitan traded clusters (2002)**

Metropolitan regions	Average wage of traded clusters	Regional average wage	Difference (%)
Boston-Cambridge-Quincy, MA-NH	62 350	45 709	36.4
San Francisco-Oakland-Fremont, CA	68 418	49 720	37.6
Seattle-Tacoma-Bellevue, WA	61 391	43 193	42.1
New York-Northern New Jersey-Long Island, NY-NJ-PA	73 838	50 172	47.2
Denver-Aurora, CO	51 988	39 322	32.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	59 363	44 152	34.5
Dallas-Fort Worth-Arlington, TX	50 518	39 359	28.4
San Diego-Carlsbad-San Marcos, CA	50 147	37 412	34.0
Los Angeles-Long Beach-Santa Ana, CA	48 169	38 732	24.4
Houston-Baytown-Sugar Land, TX	51 033	40 435	26.2

Source: Porter, M. (2000b), "Location, Competition, and Economic Development: Local Clusters in a Global Economy", *Economic Development Quarterly*, Vol. 14, No. 1, pp. 15-34.

resources (knowledge, skills and capital, etc.) with competitive advantages. Set in a well-balanced metropolitan economic context, policy practitioners should therefore turn to traded clusters for building regional competitiveness.

The main advantages of clusters are that they present both various economies of scale as well as the production of tacit and unformalised knowledge that flows among those engaged in related activities and in frequent work and social contact with one another. Cases are reported from both traditional artisan production of, for example, fashion goods, to the most modern high-tech industries and services. Innovation seems inherent to clustered production. Also important here is the idea of untraded interdependencies (Storper, 1997) in labour markets, regional conventions, norms and values, public or semi-public institutions, etc.) that foster an environment conducive to trust, cooperation and innovation, often synonymous with social capital. Within dynamic high technology clusters, levels of personal exchanges between firms appear to be higher than in non-clustered locations. This type of cross-pollination of ideas and innovation is put forward as one of the main drivers of the success of the Silicon Valley model (Saxenian, 1994), and also the successful Stockholm ICT cluster, which exhibits higher rates of inter-firm labour mobility than the rest of the labour market (Power and Lundmark, 2004). In addition, clusters can combine flexibility and stability in the labour market, when key workers can be confident that, in the event of corporate collapse or redundancy, they can find new firms in which they can exercise their skills without major residential upheaval.

Knowledge of the advantages of clusters is however often dependent on case studies rather than large-scale statistical analysis. Other studies have questioned the validity of the cluster hypothesis, asserting that problems of definition and measurement make empirical evaluation of the relative performance of clusters and, in particular, the origins of any difference with non-clustered industries statistically dubious (Martin and Sunley, 2003). What is certain is that much of the evidence to support the view that clusters are more productive is case specific. Large scale empirical reviews are extremely rare, with the review of the Bank of Italy standing out as the most extensive research effort. The problem from an international perspective is that Italy already provides the best evidence of external economies derived from clustering, though there is also considerable evidence from California and other parts of the United States specialising in information technology and biopharmaceuticals in particular.

Clusters within metro-regions present specific challenges and opportunities because of the large size of these regions. Cluster characteristics and advantages develop most easily and autonomously in towns and cities with dominant specialities, and a more conscious strategy may be needed to

identify clusters and the locations within a metro-region where they can be cultivated. The concept of locational advantage that has been used by some theorists to focus attention on the crucial role of geographical cumulative causation (Myrdal, 1957) and positive feed-backs (Kaldor, 1967 and Krugman, 1992), as well as the embeddedness of investment in generating competitive advantages (Dunning, 1992) seem to imply close geographical proximity of a kind that cannot be found across a metro-region except in small district-based industries. However, especially within high-tech sectors, there is also strong evidence of more widely spread networks that stretch along transport corridors or are scattered across a region. Examples of the latter are found particularly in the biosciences in the United Kingdom and United States (Cooke, 2004; Swann, Prevezer and Stout, 1998) and more recently in the Munich-Ingolstadt metropolitan region (Jong Kon Chin, 2006). The exchanges among these scientists, working in both firms and universities, are organised more formally than in a classic, concentrated industrial district, and can therefore be arranged across a wider geographical area.

Popularity and suggested principles of cluster development policies

Policies for the encouragement of clusters have proliferated over the past decade, with manifestations ranging from policies to encourage low-resourced, small-group business networks without a particular sectoral focus to complex, large-scale programmes of co-ordinated measures that target a specific, geographically cohesive industry. There have been many examples, with varying success, of public policy targeted at the cultivation of clusters. Table 2.2 lists some examples implemented in different types of metropolitan regions and in some smaller urban areas. These cluster strategies vary in terms of their prioritised competitive industry, focus and policy tools. The table suggests that an industry approach has been widely accepted as an effective tool of local (and in the UK cases national) governments' targeting competitive industry groups as a way of building and strengthening metropolitan competitiveness. Specific cluster policies and focuses however vary. For example, given the differences (strengths and weaknesses) in their metropolitan clusters, the TAMA association in Tokyo stresses the importance of fostering SME growth and building university-firm linkages whereas the Montreal metropolitan region takes a more comprehensive approach, ranging from identifying industry clusters, developing action plans and preparing a regional innovation strategy (Box 2.3).

Cluster policies are most likely to be effective when they constitute a holistic approach, bringing together separate policy instruments. Different from traditional sectoral policies or regional (or metropolitan) policies which focus strongly on building physical infrastructure, these policies pay particular attention to building linkages between local actors and more

Table 2.2. **Examples of industry cluster policies in metropolitan regions**

Metropolitan region	Starting year	Brand name of the cluster strategies	Targeted clusters
Established regions			
Boston	2004	2004 Comprehensive Economic Development Strategy by Boston Metropolitan Planning Council	*Knowledge creation, IT, financial services, health care, traditional manufacturing*
Montreal	2003	Charting our international future: building a competitive, attractive, independent and responsible community (overall metropolitan strategy)	*Competitive clusters (aerospace, life sciences, information technologies, and textiles and clothing); visibility clusters (culture, tourism, and services); emerging technology clusters (nanotechnologies, advanced materials, and environmental technologies); and manufacturing clusters (energy, bio-food, petrochemicals and plastics, and paper and wood products).*
Munich	Various	Loosely structured cluster policy programs, including Bio^{M} (1997) and Software-Offensive Bavaria (1998)	*Mechanical engineering/automotive, ICT, finance/insurance, medical, biotechnology, and aerospace*
Capital cities			
Ottawa	2002	Innovation Ottawa	*Tourism, telecommunications, microelectronics, professional services, life sciences, software and communications and photonics*
Seoul	2002	Seoul Digital Media City	*Digital media industry and related industries such as software and IT-related service industries, IT manufacturers, R&D centres dealing with media and entertainment technology, as well as industries distributing and consuming digital contents.*
Stockholm	Various	Various, including Stockholm Bioregion (2003) and Kista Science Park (2000).	*Biotechnology (life science), ICT and environmental technology*
Tokyo	2002	Regional Industry Revitalization Project (for Northern Tokyo metropolitan area), Fostering Bioventures, and IT venture forum by Meti-Kanto	*Transportation and electric machine, biotechnology, and IT*
Newer technology centres			
San Diego	2002	Community and Economic Development Strategy (FY 2002-2004)	*Telecommunications, biomedical/ biosciences, software, electronics manufacturing, financial and business services, and defense and space manufacturing*
Phoenix	2002	Turning Point: New Choices for the Future by Greater Phoenix Economic Council (GPEC)	*Aerospace and aviation, high technology, bioindustry, software, and advanced financial and business services*
Inner cities			
Milwaukee, Minnesota, US	2003	The Initiative for a Competitive Milwaukee (ICM)	*Manufacturing, business process service centres, construction and development, and health services*

Table 2.2. **Examples of industry cluster policies in metropolitan regions** *(cont.)*

Metropolitan region	Starting year	Brand name of the cluster strategies	Targeted clusters
Lousville, Kentucky, US	2002	The West Louisville Competitive Assessment and Strategy Project ("The Strategy Project")	*Automotive cluster, transportation and logistics cluster, and life sciences (biomedical research and health care)*
Newark, New Jersey, US	2004	Opportunity Newark: Jobs and Community Development for the 21st century(Opportunity Newark)	*Education and knowledge creation, entertainment, arts and retail, health services transportation, logistics and light assembly*
Reading, Pennsylvaina, US	2005	Initiative for a Competitive Greater Reading (ICGR)	*Entertainment, hospitality and tourism; food processing; and professional and shared services*
United Kingdom	2001	City Growth Strategies (CGS) Pilot areas include St. Helens, Nottingham, Plymouth and four areas of London	*Various clusters identified, for example, prioritised clusters in Plymouth includes advanced engineering, business services, creative industries, marine industries, medical and healthcare, tourism and Leisure.*

Sources: City of Ottawa (2002), Innovation Ottawa: a Strategy for Sustaining Economic Generators, available at *www.ocri.ca/about/assets/export_plan.pdf*; City of San Diego (2002), Community and Economic Development Strategy (FY 2002 2004), available at *www.sandiego.gov/economic development/contacts/pdf/cedstrategy.pdf*; Metropolitan Community of Montreal (2003), "Charting Our International Future: Building a Competitive, Attractive, Independent and Responsible Community", available at *www.cmm.qc.ca/vision2025/vision2025_enonce_en.pdf*; Greater Phoenix Economic Council (2002), Turning Point: New Choices for the Future, available at *www.greaterphoenix.net/work/files/Pocketsummary.pdf*; OECD (2006d), *OECD Territorial Reviews: Stockholm, Sweden*, OECD publications, Paris, France; OECD (2005f), *OECD Territorial Reviews: Seoul, Korea*, OECD publications, Paris, France; Inoue, H. (2003), "Activating Industrial Clusters – On The Spot Experience", available at *www.rieti.go.jp/users/cluster seminar/pdf/005_p.pdf*; Newark Alliance (2004), Opportunity Newark: Jobs and Community Development for the 21st Century, available at *www.opportunitynewark.com/default.aspx*; as well as other local development strategy reports including from Munich and Boston.

broadly developing social capital. Effective industry cluster policies should integrate different aspects of regional development into a holistic policy framework: *e.g.*, technology innovation, regional productivity advantages, and growing *versus* declining sector balancing (Bergman and Feser, 2002). The cluster approach requires policy consistency across local actors. In particular, facilitating inter-firm linkages and linkages between private sectors and research institutions involves many actors, such as different industry sectors, higher education and research institutes and development agencies. Policy co-ordination and consistency are necessary in order to make the approach effective. This entails new partnerships between government, business and communities with business and communities playing a more direct role in the formulation of strategy and economic development process (Stimson, Stough and Roberts, 2002). For example, although not strictly structured, cluster development in Munich pays attention to the consistency and complementarities of cluster initiatives from the private sector, the science world, the city-government and the government of Bavaria. Munich's IT cluster shows collaboration between Munich and Bavaria through the software-offensive initiative driven by the Bavarian Land government. In summary, although there has been somequestioning of the degree to which cluster policies are

Box 2.3. **Examples of different metropolitan cluster approaches**

TAMA (Technology Advanced Metropolitan Area) Association in Tokyo. TAMA is an association, founded with the encouragement of the Ministry of Economy, Trade and Industry (METI) (particularly through the Kanto Regional Bureau). The association focuses on the revitalisation and development of industries located in the western parts of the Tokyo metropolis, creating new technologies, products and businesses. Between 1996 and 1998, the TAMA association was created to link almost 200 enterprises and a large number of other actors in a range of joint activities designed to enable these small or medium sized enterprises to access new technology, market information, product development facilities and export information, among other things. In establishing TAMA, its industrial and governmental founders, considering the local circumstances and potentials, referred to models elsewhere, including the Greater Washington Initiative (a public-private regional development organisation in Washington, DC, and parts of Virginia and Maryland). The TAMA region, which stretches over three prefectures and 74 municipalities, contains more than 300 000 small businesses and about 40 universities. Of these, about 300 area companies and 34 universities are members of the TAMA association. The association promotes industry interaction and seeks to strengthen traditionally poor industry-university linkages through exchange and joint R&D projects, with the broader goal of creating synergies that will foster new technological development and commercialisation. TAMA has established a Technology Licensing Office to assist in patenting, licensing, and R&D commercialisation. The TAMA region has significant strengths in mechatronics, instruments, and control systems. TAMA founders report that they have been successful in raising the concerns of companies in these sectors to policymakers, in catalysing academic-industry links (important because many of the region's universities are small and not experienced in technology transfer), and in creating a unifying hub in an otherwise fragmented region.

Cluster development strategy in the Montreal metropolitan region. The economic development of the Montreal metropolitan region, particularly its rebound in the 1990s, has been based on its strong specialisation in a number of clusters. As the first step in developing its cluster strategies, the Montreal Metropolitan Community 2005 (CMM) – the regional planning body serving 82 municipalities which covers the functional geographical area of the metropolitan region and which is responsible for the planning and the financing of economic development, transport and housing – examined the metropolitan economy and identified 15 clusters essentially based on their degree of development and interlinkages (Montreal Metropolitan Community, 2005). These clusters are classified into four categories: 1) competitive clusters (aerospace, life sciences, information technologies, and textiles and clothing); 2) visibility clusters (culture, tourism, and services); 3) emerging technology clusters (nanotechnologies, advanced materials, and environmental technologies); and 4) manufacturing clusters (energy, bio food, petrochemicals and plastics, and paper and wood products). These clusters accounted for 1 280 000 jobs (79% of the total jobs in this area) in 2001 (Montreal Metropolitan Community, 2005). The rest of the jobs in this region mainly concentrate in local services industries such as personal services, public

Box 2.3. **Examples of different metropolitan cluster approaches** *(cont.)*

administration and most health care and social assistance services. These regional clusters have stemmed from their ability to produce high-value added products and services and together created a hub of innovation in the rather diversified metropolitan economy. The first step was launched in the fall of 2003 and finished in late 2004.

The second and third steps involve developing an action plan for each cluster and preparing a regional innovation strategy and are carried out simultaneously. The point of departure in the case of Montreal is that the strategy should take a metropolitan-wide perspective to avoid the risks of heightening the tensions that exist between smaller municipalities in the region and the new largest city of Montreal (OECD, 2004c). A second principle of the cluster strategy is that it should address problems of duplication among institutions, streamlining interventions according to an agreed set of priorities. The CMM cluster plan intends to ensure that the entire community is committed to the course of action. The CMM selected a bottom-up approach with the cluster development initiative coming from the firms involved and their institutional partners in development. In addition to building the competitive capital of the clusters, the CMM proposes giving an organisation the mandate to support the dynamics of innovation for all the firms, whether they belong to a cluster or not, and to improve the region's overall innovation performance.

In co-ordinating the cluster development plan, the CMM suggests assigning each cluster a secretariat "to activate the cluster, safeguard the common vision, make good use of the competitive capital, see that the strategic plan is carried out and in the process, help improve the economic growth of the metropolitan area" (Metropolitan Community of Montreal, 2005). The secretariat will provide expertise in research and networking, cluster expansion, innovation and technology, education and training, commercial cooperation and policy action. Further, the CMM has decided to: 1) build an Integrated Transactional Information System (ITIS) to facilitate fast circulation of information among involved cluster partners; and 2) create a Metropolitan Competitiveness Fund through financing from the municipal, provincial and federal governments and the private sector primarily for value-added projects to stimulate and foster cluster development. The CMM, the Government of Quebec, the Government of Canada and the private sector are investing a total of CAD 6 million per year to finance the creation of industrial cluster initiatives as well as value-added projects to make these clusters more competitive and thereby make the metropolitan region internationally competitive. The cluster strategy has been developed with wide spread support and consultation from the CMM's Economic Development Commission (mayors and city councillors), the Technical Committee (Executive directors of the region's economic development corporations), elected officials on the CMM Board of directors and Executive Committee and the representatives of all the municipalities of the CMM, and the public.

Sources: OECD (2004c), *OECD Territorial Reviews: Montreal, Canada*, OECD publications, Paris, France; Metropolitan Community of Montreal (2005), "Charting Our International Future: A Competitive Metropolitan Montreal Region", Economic Development Plan (February), *www.cmm.qc.ca/pde/documents/pde05_english.pdf*; OECD (2005d), *OECD Territorial Reviews: Japan*, OECD publications, Paris, France.

more than a reformulation of traditional sectoral policies (Raines, 2002), they are widely regarded as innovative in bringing together formerly separate policy elements (Benneworth, 2003).

Identifying niches of excellence or competitive industry clusters is the first step before designing and implementing cluster policies. Cluster development policies often lack clear and well justified cluster identification approaches. Public authorities tend to develop clusters around knowledge-based industries (information technology and communications and biotechnology, etc.) without going through a well defined cluster identification process (*i.e.*, carefully checking the cluster size, structure and competitive advantages). For example, in the OECD *metropolitan reviews*, only Melbourne and Seoul were found to have relatively clear methods of identifying industry clusters (location quotients, etc.) (Box 2.4). Policy makers need to be in a position to map industry clusters, better understand their potentials and obstacles, and design and implement effective development policies. There are both quantitative and qualitative approaches to identify industry clusters. Both are necessary for mapping and complementary to each other. A combination of different approaches will allow policy makers to benefit from their respective advantages for clearer mapping results. Adaptation to local economic contexts is needed in the mapping practice.

Quantitative approaches measure industry specialisations or trade flows between firms and may not be fully able to capture the inter-firm linkages (formal and informal). Quantitative approaches typically analyse industry sector data using methods ranging from simple measures of specialisation/industry size and change (*e.g.*, employment, wage level, location quotients, establishments and related dynamics) to inter-industry linkage analysis (*e.g.*, correlations of industry employment, economic base or input-output tables).[3] Measure of specialisation alone are not methods of identifying industry clusters as they only measure single and multiple industries with no linkages involved. They therefore provide very limited information about inter-firm linkages if there are any. On the other hand, although estimates exist for quantitative linkages (particular trade flows on the supply-demand chain), they tend to be available at the national level. And they may not be able to capture the informal linkages whose importance in the new economy has been increasingly recognised. Therefore the application of these methods should be either used as a reference or combined with qualitative approaches for a more definite identification of metropolitan clusters. Quantitative approaches are particularly important for industry cluster benchmarking, which will help position industry clusters in relation to each other and understand their respective competitive advantages.

Qualitative approaches are able to capture information about informal inter-firm linkages and are complementary to quantitative approaches.

Box 2.4. **Methodology for identifying clusters in Seoul and Melbourne**

An example of first identifying clusters and moving from there to policies for strengthening them and then associating the area concerned with those products can be seen in ***Seoul***, whose metro-region has promising industrial clusters, both in high value-added services (finance, business services, ICT, and digital content), and manufacturing activities (fashion and clothing, printing and publishing). These clusters have the potential to serve as drivers of the Seoul capital region's economy, and the city has conducted exceptional research in detailed mapping of these clusters and their location within the metro-region. They have a relatively tight spatial integration, niche specialisation and good cross-sectoral linkages; all of which make success more likely. The major challenges these clusters face stem from the fact that the capital region has lost its competitive edge in production costs in comparison to low cost countries (fashion and clothing), sometimes lacks economies of scale (printing and publishing), and needs ever faster technological upgrading and innovation diffusion (ICTs). Seoul has targeted financial support towards new strategic industries, including business services, finance, IT/bio-tech/nano-tech and digital content. Seoul Metropolitan Government (SMG) took the initiative to identify its industrial clusters using location quotients, which are imperfect tools but provide a first basis for analysis. Five major industry clusters were identified in Seoul City: two manufacturing clusters (fashion and clothing, printing and publishing), three services clusters (financial industry, business services and IT) and one emerging industry cluster (digital content). Despite the growing recognition of the Seoul capital region as a functional metro-region, no cluster mapping had ever before been conducted at this level.

For measuring localization and clustering of industries, ***Melbourne*** uses squared deviation of one industry's employment share within one local government association (LGA) from its employment share within the overall Melbourne Region. Based on this index, there are some indications of some form of high-tech clustering such as manufacturing equipment which comprises electronics and automotive manufacturing in Monash and to a lesser extent in Moreland. This is also the case for health and recreational services which are concentrated in Stonnington and to some extent in Boroondara. However, whether this is mere coincidence or whether there is already ongoing cooperation between firms and universities cannot yet be confirmed.

Source: OECD (2005f), *OECD Territorial Reviews: Seoul, Korea*, OECD publications, Paris, France and OECD (2003b), *OECD Territorial Reviews: Metropolitan Melbourne, Australia*, OECD publications, Paris, France.

Qualitative approaches include interviews, expert opinions, focus groups and surveys.[4] The expert opinion approach often aims to debrief experts including industry leaders, public officials, and other key decision makers about regional economic characteristics and trends to validate hypothetical or assumed strengths or weaknesses. It is especially valuable for the identification of a region's potential opportunities for new products. Surveys of local firms may be used to identify local and non-local economic linkages.[5] Although this provides some insight for cluster analytic work, this approach is labour intensive and thus relatively expensive unless its modified fast version is adopted (Stimson, Stough and Roberts, 2002).

Qualitative methods provide a complementary approach in understanding functional interdependence and knowledge spillovers. They are particularly helpful in understanding informal linkages among businesses and local institutions. Simplified versions of these approaches are more applicable for cluster mapping to accommodate a short timeframe compared to other methods, particularly in studies conducted for immediate policy relevance. Qualitative approaches are particularly important for industry cluster policy studies for metropolitan regions because the dynamism in these regions is often dramatic, especially in terms of knowledge- and innovation-led growth. Data for these changes are always lagging behind the trends. Detecting the new trends requires knowledge and observations from businesses directly involved in the changes.

The ambiguity of cluster identification thresholds does not however prevent the development of certain criteria for cluster membership. Despite the various cluster identification methods, the identification process turns out to be somewhat arbitrary: which sectors should be included in a cluster and which should not? The ambiguity arises because industry clustering is characterised by the continuum of linkages or relationships among firms and institutions, and there is no clear cut point to declare their boundaries. This is especially true with the rise of the new economy where fusion of different technologies has become a trend, for example the interactions between ICT, media and entertainment in AOL Time Warner. The situation is even worse for rapidly growing metropolitan regions such as San Diego and Johannesburg whose functional (economic) boundaries have become less clearly detected. Quantitative thresholds may be able to be developed, but their credibility is doubtful due to data unreliability and a limited grasp of the dynamism of an economic system. In this respect, an ideal cluster threshold would be unlikely, and cluster analysts or policy practitioners are encouraged to act as entrepreneurs in developing their own cut off criteria based on their interpretation of the network and economy. Policy considerations will thus play a part. For example, two industries can be considered as parts of a cluster

as long as they share the same type of barriers in their external environment that can only be removed through joint action (Ketels, 2003).

Once industry clusters are identified, tailor-made cluster development approaches should be adopted to accommodate cluster and metropolitan peculiarities. The logic underlying clusters discussed earlier suggests the importance of exploring the specific characteristics and capacities of individual areas in order to determine what is most likely to build and enhance their competitiveness. Currently much effort in this field concentrates on building high tech clusters (*e.g.*, ICT) and science parks irrespective of these factors. There are no effective "one size fits all" policies: tailor-made approaches are necessary. Regional differences not only refer to different socioeconomic contexts but also to different types of clusters (manufacturing *versus* services, knowledge intensive *versus* capital intensive, etc.) and their development stages (young *versus* mature, existing *versus* potential [embryonic]), etc. These differences have to be factored in when designing policies. Similarly, there are limitations to the possibility of applying successful lessons (or very specific policy instruments) from other regions to a particular case. If they are applicable, they have to be tailored to accommodate the differences. This is especially true for cluster policies which focus on building subtle relational assets.

Incorporating sectoral differences is needed in designing and implementing cluster policies. Industries show differences in their "capital requirements, sunk costs, competition in factor and product markets, mixture of speed and maturity in product development, influences of the demand side such as that of businesses requiring intermediate products *versus* end-users, the speed of adjustment and hence for skills upgrading, and so on" (Andersson et *al.*, 2004). In broad categories, Wyatt (1998) shows different requirements of such industries as manufacturing, high-tech, health care, energy, finance and services for organisational skills, creativity, ability to deal with ambiguity, ability to influence or persuade, communication skills, interpersonal skills, technical knowledge and flexibility. More differences will be revealed when more detailed classifications are used. For example, in the Stockholm metropolitan area, biotechnology needs more investment, and the outcomes may take more time to realise than the ICT cluster, another high-tech sector. Research shows that the development of the biotechnology industry relies on two major sources – pre-commercial medical research and continuing private sector investment in product development (Cortright and Mayer, 2002). This industry is different from many others in that it is time- and resource- consuming with low odds of success. Further, different metropolitan industry structures and relations also imply adopting different policy approaches. For example, on the one hand, metropolitan economies heavily dependent on big firms in Helsinki, Stockholm and Seoul need to pay extra

attention to fostering their SME growth. The sectoral differences therefore entail different policy instruments to fulfil the requirements of specific clusters. On the other hand, the dominant presence of SMEs in Milan creates an environment where R&D activities seem unsustainable, posing a challenge for the region's cluster development. The recent attempt to face the challenge, the Metadistrict policy, may turn out to be effective (Box 2.5).

Policies should also fit clusters at different stages. Different policies are needed for reviving old clusters, upgrading established ones, or encouraging or assisting embryonic ones (Martin, 2002). Research shows that the general creation and nurturing of networks and partnerships seems important at early stages of cluster development whereas for mature clusters more purpose-specific networks may be more useful (DTI, 2003). Partnerships or networks remain important for sectors in decline, to help firms face challenges or potential threats on the market. For example, as the focus of the competition in the clothing industry shifts from production factors and costs to creating designs and brands, the fashion and clothing industry cluster in the Seoul metropolitan region faces challenges of how to stay responsive to market demand. Partnership and networks among member firms may enable them to pool resources in order to access expertise. For the emerging digital content cluster in the region however, growth potential lies in the fusion of traditional content industry and advanced information technologies, and networks would aim at furthering this mission. Research is needed on the possibly different forms that should be taken by clusters and policies towards them in these different circumstances.

Industry cluster policies should be accompanied by diversification policies for a well balanced industrial growth environment. The issue of diversity *versus* specialisation has always been a debate in urban development and the popularity of industry clustering in metropolitan regions has further stimulated this debate.[6] There are concerns that the general focus on the creation of high technology clusters tends to leave other economic activities in obscurity and therefore devalued (Sassen, 2003). The debate on the role of industrial composition in the growth of cities is far from reaching a definite conclusion. There may never be one, as suggested by the coexistence of both specialised and diversified cities (Duranton and Puga, 2000), but evidence tends to suggest that big metropolitan areas with much internal diversity spur innovation.

In addition, cluster policies can be significantly better tailored if government authorities understand how specific framework conditions work for different industries (or businesses). One important lesson learned from Danish cluster policy for metropolitan areas is the necessity of a dialogue between the authorities and the cluster industries (Rasmussen, 2003). Cooperation between different authorities is also a crucial part of this dialogue

Box 2.5. **Metadistricts to strengthen the SME growth in Milan and the Lombardy region**

The metadistrict is a territory, identified by the regional government of Lombardy in 2001, containing all activities involved in a supply-chain rather than a certain sector. The aim of identifying metadistricts is to improve local networks of firms and to promote meso-institutions able to support collective action and then innovation throughout the supply-chain as a whole. Clusters of small firms are a looser organisational entity than a corporate hierarchy, thus they need meso-institutions to produce a shared vision to co-ordinate their activity and to innovate. Furthermore, through metadistrict policy, the Lombardy Region aims at enhancing high-tech sectors in its territory by promoting linkages among SMEs and such knowledge-intensive institutions as universities and research centres. Six metadistricts have been identified: food and non food biotechnology, ICT, new materials, fashion and design.

Qualitative and quantitative approaches were sequentially implemented in defining the metadistricts. The regional government first implemented a *qualitative* methodology to select key sectors. The qualitative approach takes into account the territorial contiguity (but with less intensity than in a true industrial district) of activities involved in the same supply chains, the supply-chain's relevance within regional economy and the presence of leading firms (not necessarily in terms of size) within the supply chain. When it comes to selecting knowledge-intensive supply chains, the regional government specifically considered the location of universities and research centres and related yearly patent registrations. It then took a *quantitative* approach to define borders of metadistricts. This measures the specialisation of municipalities in selected sectors. Sectors on each supply chain are first classified with two-digit NACE codes (each supply chain is often composed of more than one sector). Then, the shares of the numbers of firms of more detailed sectors (three or four digits) are compared across the two-digit sectors and municipalities to determine local (municipal) specialisation in the Lombardy region. Based on this approach, the municipality of Milan is identified as part of each metadistrict.

The presence of firms and other institutions within the Milan metropolitan area in the geographically more widely defined metadistricts is a remarkable improvement on the former (statistical) definition of industrial districts.* The former approach concentrated on small geographically concentrated areas. The new approach makes it possible to develop policies to enhance important linkage between specialised metropolitan suppliers and SMEs in the less populated part of the region.

Box 2.5. **Metadistricts to strengthen the SME growth in Milan and the Lombardy region** *(cont.)*

Metadistrict policy also provides public financial incentives for joint research and development projects presented by networks of firms and knowledge-intensive organisations (such as universities, research centres, or other high-tech firms). Given the dominance of SMEs in the region, a concerted effort and linking with main R&D actors is needed. Within a metadistrict, firms and R&D institutions have to build a network and plan together for specific research projects in order to be evaluated by the Lombardy regional government and receive public funding.

* The Italian government had defined industrial districts between 1991 and 1993. The process of quantitative definition of industrial district started in 1991 when Istat (Italian Statistical Institute) divided the entire Italian territory into LLSs (Local Labour Systems). LLSs were defined by merging municipalities containing their labour market (commuting flows). In 1993, LLSs were used as base units to define industrial districts according to 5 indexes: 1) percentage of manufacturing firms on total; 2) entrepreneurial density (local units/population); 3) specialisation of local production (workers in a sector/workers *100); 4) weight of the sector of specialisation; and 5) percentage of SMEs in the sector of specialisation (SMEs workers/workers). In metadistricts the base unit are municipalities instead of LLS.

Source: OECD (2006b), *OECD Territorial Reviews: Milan, Italy,* OECD publications, Paris, France.

process. Co-operation between labour unions, professional associations, cultural and social organisations is also involved in the process of cluster formation and development. A dynamic network among public and private actors is essential for the development of the economic drivers of entrepreneurship and innovation (Parkinson in ODPM, 2004). Building and enhancing these linkages thus help create and maintain the dynamics of these driving factors in order to ultimately build competitive advantages. This issue demonstrates the importance of governance capacity and of new flexible forms of governance, as will be discussed in the following chapter.

Important to the strengths of clusters and other networked production systems is the existence of "local collective competition goods" to favour business growth and help clustered activities flourish.[7] Local collective competition goods are locally provided services and public goods that companies can use to develop their competitive strategies, but that they do not have to acquire through the market. Firms, especially SMEs, are dependent on the environment in which they are located to provide them with different types of these goods. Some of them are general (such as the transport infrastructure), but many are sector-specific (for example, links between particular university research departments and science-based industry). Local collective competition goods are not necessarily made available as public services or as deliberate products of public policy: they may be provided

through local business associations, or even emerge informally and implicitly within the working community (as in the case of the tacit knowledge mentioned above). However, it is possible for policy makers to explore what scope there may be for encouraging and stimulating the production of such goods within their regions. Particularly in the knowledge-based sectors of the contemporary economy, important sources of local collective competition goods are the networks that bring together entrepreneurs and those working on innovation within a region's higher education and research institutes.

Higher education institutions, research institutes and regional economies

Often as an aspect of networking construction and clustering, virtually all economically innovative regions exhibit close links between economic institutions and universities and other centres of advanced research and study. The contribution of higher education institutions (HEIs) and research institutions to regional economies is exhibited in various ways, including local consumption, housing, human capital and innovation etc. For example, in both OECD and non-OECD countries, empirical studies show that the most efficient policy tools for encouraging the development of the biotechnology industry were not necessarily those that required extensive real-estate projects, but rather initiatives to facilitate mutual learning and flows of human capital. Since the emergence of DNA techniques in the 1970s, several OECD countries opted for biotechnology as a strategic industry. Biotechnology has very distinctive characteristics in the sense that it is not defined by particular products or services, but has commercial applications in products and processes across a wide variety of industrial sectors, including pharmaceuticals, food processing and waste water management. It also implies very close connections between basic scientific research and commercial biotechnology (Box 2.6). While much policy development in this field has involved national governments, there is important scope for action at the metro-regional level, which combines both the proximity at which detailed collaboration is easiest and sufficient scale to capture diversity and high quality. The scale of a centralised system in a large state is not essential to scientific performance, as is shown by the federal character of higher education policy in Germany and the USA and the strong records of the small Nordic countries.

With rapid technology changes, single universities or research institutes may not be able to accommodate the needs of business development for skills, knowledge and innovation. It is therefore notable that the most successful high-science locations today are those that take a multiple form, rather than a link between firms and a single university (*e.g.*, Boston, San Francisco, the Cambridge/Oxford/London triangle, Munich, Stockholm, Helsinki)[8] (Box 2.7)

Box 2.6. **Examples of industrial liaison programmes in OECD countries**

One of the best known models of linkages between universities and companies is the Massachusetts Institute of Technology (MIT) Industrial Liaison Program in the United States. After paying a membership fee that varies according to their size, companies have unlimited access to specialised information services and seminar series, a monthly newsletter that includes details of ongoing research and outlines new inventions, the directory of MIT research activity organised by area of expertise to make it easier to track down by specific interests, faculty visits and expert meetings for companies that often result in consultancy or research sponsorship. The programme is particularly attractive to companies because it is managed by a panel of Industrial Liaison Officers (ILO), each one being responsible for a focused portfolio of companies with the responsibility to serve their unique interests and needs.

While this fee-paying model might be perceived as a special case by smaller universities that do not expect to derive the same level of commitment from companies, other universities have developed "community clubs" for companies interested in the university's work. In the UK for example, Cambridge University's Computer Laboratory and Newcastle University's Centre for Software Reliability have both created a club that invites companies to seminars and symposia or distributes copies of technical reports and organises exchanges of materials.

On a more individual basis, companies can also sign consultancy agreements with an academic. There exist many various forms of consultancy agreements, from small-scale private arrangements to broader collaborative work that may result in the hiring of graduate students in the consulting company, future research sponsorship agreements or grants of equipment. This also represents a way for SMEs and universities to link together despite the lack of a natural basis for collaboration because an increasing number of small high-tech companies are becoming research-focused and many start-ups are born out of specific knowledge transfers.

Source: Quoted in OECD (2004b), *OECD Territorial Reviews: Busan, Korea*, OECD publications, Paris, France.

One particular case is the often cited Research Triangle Park of North Carolina. The park is owned and developed by Research Triangle Foundation, a non profit organisation, which consists of three universities in this area – Duke University (Durham), University of North Carolina (Chapel Hill), and North

Box 2.7. **Co-operation among higher education institutions in Öresund and Melbourne**

An example of the role of universities in high-tech development can be found in the ***Öresund***. This is a cross-border region comprising the Danish island of Zealand including Copenhagen the capital city and the Skåne region of Sweden, with Malmö, Sweden's second largest city. Since 2000, the two cities have been linked by a rail and road bridge. This new transport infrastructure has resulted in a single functional region spanning two different countries. The Öresund region has developed significant strength in knowledge-intensive activities including the medical and pharmaceutical industries and certain segments of information and communication technology industries. It is also strong in food processing, and has developed an environmental cluster with companies that either produce environmental technologies or make production, of products and services more environment-friendly. The education sector seems to be in the forefront of promoting co-operation among knowledge generators and users. With a total of 20 universities with 130 000 students, the Öresund Region has many strengths in the education and research sector. More important than simply the existence of these resources, however, is the co-operation between universities that has developed over time. Long-term informal co-operation was formalised in 1997 with the creation of the Öresund University. This institution has been a leading actor not only around formal scientific research and education, but also around the creation of institutions to promote more informal networking activity and information sharing for economic activities. Working in collaboration with researchers, business leaders and policy makers throughout the region, the university has helped in identifying critical driving growth clusters and facilitating the development of networking associations in these areas. The organisations – Medicon Valley Academy, Öresund IT Academy, Öresund Food Network, and Öresund Environment – are already playing an important role in promoting networking and integration across the region, and show a great deal of promise for the future.

The economy of ***Melbourne*** is similarly characterised by a strong presence of universities, non-profit health research agencies, and Australian Commonwealth institutions, matched by an above-average share of the labour force with a tertiary or university degree and, compared with other states, a high proportion of employees in management and administration or other professional occupations. Melbourne's multicultural atmosphere and immigrant communities are an asset for international trade, innovation and entrepreneurship, reinforced by the success of Victoria in attracting more undergraduates from abroad than other Australian states. Major universities

Box 2.7. **Co-operation among higher education institutions in Öresund and Melbourne** *(cont.)*

have a clear emphasis on providing business relevant education and research, with an increasing emphasis on commercialisation of intellectual property. The state's overall research and development intensity is above-average within Australia. However, the share of research and development in universities is lower in Victoria than in other states, which could undermine their role in basic research. Melbourne's challenge is to further improve its role as a base for knowledge research in order to reach a higher performance in all forms of education as well as basic and applied research in universities, research institutions and firms as compared to international standards. More attention should now be paid to high-tech or high-growth industries. For instance, Victoria's manufacturing industry is concentrated on sectors such as motor vehicle and transport equipment. While some R&D-projects have been introduced, this is not yet reflected in the level of research and development; meanwhile, industries like photographic equipment and chemicals have a high R&D intensity, but still only a relatively low share of overall manufacturing employment and output.

Source: OECD (2003c), *OECD Territorial Reviews: Öresund, Denmark/Sweden*, OECD publications, Paris, France and OECD (2003b), *OECD Territorial Reviews: Metropolitan Melbourne, Australia*, OECD publications, Paris, France.

Carolina State University (Raleigh). The park (collaboration) has contributed to the prosperity of companies in this park such as Cisco, IBM and Sony/Ericsson, etc.

In addition to their research contribution, higher education institutions contribute to human capital development. This includes both their production of graduates and staff training that they often provide for local economic actors. Retaining graduates in the region is a key issue in human capital development. Incentives such as job placement through university-firm linkages should be provided to help maintain a quality labour force. Also, metropolitan regions in OECD countries often face shortages of highly skilled workers. Attracting international students and researchers to local higher education institutions is a good means to obtain international talents. English-speaking countries like Australia do not rely solely on the inherent advantage of language but rather implement thoughtfully planned policies to attract talented students, while Finland offers comprehensive benefits to targeted foreigners with key skills (Box 2.8).

Box 2.8. **Making higher education institutions more attractive to international students and researchers: the example of Australia and Finland**

In the post-Second World War period, universities in **Australia** offered free enrolment to international students from the Asia Pacific region under the Columbo Plan policy. Fees were charged again on international students after 1986 but a significant scholarship programme was maintained and Australia is currently the third most popular destination in the world (after the United States and the United Kingdom) for young people wishing to study overseas. Australia has made a concerted promotional effort to attract international students and has supported these marketing efforts by providing very quick visa issuance (sometimes in one day) and allowing people to change their status from tourist to student without leaving the country. 40% of Australia's international enrolments involve students studying both at Australian universities and colleges operating in other countries. For example, Australian universities have numerous partnerships and joint programmes in Japan.

Attempts to attract international talent to the Greater Helsinki Region (GHR) in **Finland** were aimed at responding to two problems: the declining domestic labour share in an ageing society and the shortage of highly skilled labour in the region. Up to 2.1 million foreign workers were forecast to be needed by the year 2020. Policies for upgrading the skills of immigrants as well as attracting new skilled foreigners were prioritised. First, the Immigrants' Employment and Family Support Projects, an Open Learning Centre and a Youth Activity Centre were established in order to improve the employability of immigrants. Second, some teachers and researchers from certain countries were entitled to full tax exemption in Finland if their employment met specific criteria. Finland also lowered the income tax burden down to 35% (instead of progressive tax) for "foreign key persons" residing in Finland for more than six months. "foreign key persons" target teachers or researchers in an institution of higher education in Finland, or persons whose monthly salaries are at least EUR 5 800 throughout their stay in Finland and whose employment in a Finnish enterprise requires special skills.

Regional innovation system strategies

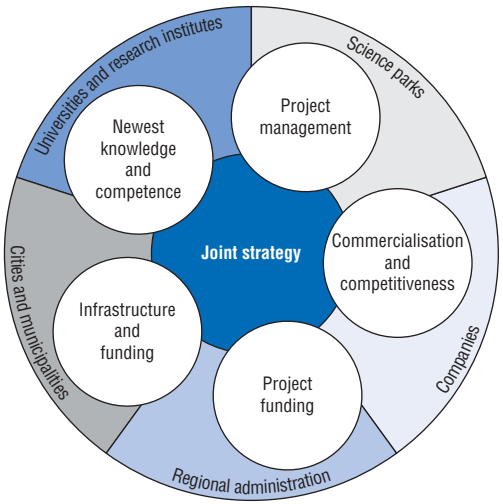
Perhaps the most fully developed form of cluster development incorporating higher education and research alongside firms and other relevant agencies is the idea of a regional innovation system (RIS). This concept was introduced in economic theory during the early 1990s. It describes a "concentration of interdependent firms within the same or

adjacent industrial sectors in a small geographic area" (Isaksen and Hauge, 2002). This systemic approach to innovation recognises that innovation stems from interactions within a network of different actors including firms and institutions, whereas it is seldom the result of efforts within a single firm. While national systems of innovation are invoked to explain differences in innovation performances between countries, *regions* are increasingly recognised as the cradle of networks of innovators, local clusters and cross-fertilising effects of research institutions (Lundvall and Borras, 1997). A RIS can stretch across several sectors and clusters as long as their constituent firms interact. At the same time, clusters can develop close links with knowledge organisation outside the RIS (Asheim, 2002).

A regional innovation system development strategy should follow a holistic approach. The concept is closely linked to that of industry clusters. In modern innovation theory, the strategic behaviour and alliances of firms, as well as interaction and knowledge exchange among firms, research institutes, universities and other institutions, are at the heart of an analysis of innovation processes. Innovation and productivity capacity upgrading is considered a dynamic social process which evolves most successfully in a network where intensive interaction exists between those "producing" and those "purchasing and using" knowledge (Roelandt and Hertog, 1999). The exchange of knowledge and information in industry clusters is most important in updating firms' products or services and producing new products or services and thus maintaining their competitiveness on the market. This primarily Nordic concept has been applied in the most direct way in Finland, particularly in relation to the Greater Helsinki metro-region. At the heart of this is the Centre of Expertise Programme of the so-called "Triple Helix Model" (Figure 2.1 and Box 2.9).

Inter-firm linkages constitute a key component in technology innovation and industry growth. The benefits of inter-firm co-operation have been considered a central topic in cluster policies. In an industrial system, firms may interact with each other through joint development, resource sharing, structural knowledge exchanges, informal contact and monetary business transactions (Andersson *et al.*, 2004). According to the Australian Bureau of Statistics Survey (2005), about 27% of innovating firms collaborate with other firms. Collaborations take the form of joint marketing, joint R&D and licensing agreements. The collaborators are in many cases located within 100 km of the responding firm. Large firms usually have the advantages of playing a leading role in overall cluster development due to their greater capability to carry fixed costs and therefore strong analytical competencies than SMEs, a critical mass of experienced managers and leaders and established supplier customer and supplier base (Andersson *et al.*, 2004). For example, in Mountain View (San Jose), California, Google, the leading internet search engine, signed a deal in

Figure 2.1. **Finnish (Helsinki Region) Centre of Expertise Programme**



Source: Laurila, T. (2005), "Innovation Strategy Process in the Helsinki Region", Baltic Sea Region Micro/Nano Technologies Seminar, available at *www.fmnt.fi/berlin/Lectures/Laurila.pdf*.

September 2005 to build a technology-research complex on land owned by the NASA Ames Research Centre. It is expecting the new USD 300 million centre to attract leading scientists and technology experts, and foster collaborations on research ranging from supercomputing to biotechnology and to commercialise any discoveries.

In building inter-firm linkages and facilitating regional innovation, SME growth needs particular attention. Evidence suggests that research and development undertaken by old large firms in mature industries tends to be weighted towards incremental and process innovation, rather than transformational innovation, which is more likely to come from new firms and new industries. A US Small Business Administration Survey Report (2005) shows that small firms in the United States (fewer than 500 employees) produce 13-14 times more patents per employee than large patenting firms and that these patents are twice as likely as large-firm patents to be among the one per cent most cited.[9] Building inter-firm linkages, particularly among SMEs, is however to a large extent a process of trust building, which often needs third parties with no direct interest to foster. SMEs in many cases start as sub-contractors or spin-off firms to large firms as in the case of Silicon Valley. Spin-off firms tend to compete fiercely against each other rather than co-operate. They may be reluctant to do so because of fears that their ideas or resources will diminish in collaboration (Andersson *et al.*, 2004). They tend to co-operate either when there is great pressure from the market or when the collaboration clearly supports their interests. These concerns are particularly

Box 2.9. **A well-functioning triple helix model: the example of the Helsinki Culminatum Ltd.**

For 15 years, the City of Helsinki and the University of Helsinki have built up their co-operation, the most important ingredients of which are: promoting science-driven business enterprises with the aid of a common business incubator and science park, cooperating in urban planning and traffic planning to develop campuses and transport and logistics between campuses, creating a common Student City concept to increase international attractiveness, promoting urban research by creating initially six (today nine) professorships in urban research, and collaborating with the city's own think-tank Helsinki City Urban Facts.

Besides their international co-operation, the University of Helsinki and the City of Helsinki have been initiators in establishing the *Helsinki Region Centre of Expertise Culminatum Ltd.* This public-private organisation is based on the Triple Helix model, which means that one-third of its shares are owned by the local universities and research institutes, one-third by the City of Helsinki, its neighbouring municipalities and the Uusimaa Regional Council, and one-third by the business community, financers and science park companies.

Helsinki Culminatum forms a cooperation forum and a basis for the development of common projects. It focuses on two main missions, namely:

- Managing regional cluster building activities in six selected sectors of the knowledge-based economy. Development programmes and actions are funded mainly by the cities and by national innovation organisations. In sharing their knowledge, universities and polytechnics play a crucial catalysing role in development projects. One of the focus areas of Culminatum is to help university spin-off companies grow. Cluster building activities by Culminatum combined with the funding from the National Technology Agency (Tekes) have contributed to increased interaction between SMEs and higher educational institutions.
- Developing the Helsinki Region as a world class innovation eco system – as an Ideopolis. Early 2005 saw the birth of *Yhdessä Huipulle* (Together to the Summit), a common innovation strategy by Culminatum's owners presenting 26 common development projects of the universities, cities and the business community on four key issues: 1) to increase the international appeal of local research and education; 2) to develop strong clusters and create test beds and living labs for product service development; 3) to apply innovations to renew the welfare services provided by the cities and to consolidate the role of the cities in the R&D; and 4) to support university-driven business growth by, for example, developing a second generation science park concept.

Source: Quoted in OECD (2006d), *OECD Territorial Reviews: Stockholm, Sweden,* OECD publications, Paris, France.

valid when SMEs collaborate with large firms, as the dominance of the latter may pose threats growth of SMEs.

One way to foster entrepreneurship and SMEs' growth is through public private partnerships. The importance of PPPs in regional development and SMEs growth has been widely recognised as a way of ensuring the application of the power and efficiency of the private sector to develop initiatives at all levels. PPPs can also be important for the formation of regional networks. Government authorities can function as a broker to facilitate the development of clusters and local incubation centres, developing an informal venture capital through Business Angel Schemes, and specialist skills in education and technology support with priorities determined in partnership with local clusters, and resources on a long-term basis. Certain types of inter-firm linkages are less inclined to thrive via spontaneous interaction; they need institutional inducement. An example is to make firms eligible to apply for certain public support funds for R&D or networking under the condition that they engage in joint projects with other firms.

PPPs have often helped and played catalytic roles for creating regional innovations, provided the public authorities have a clear idea of the region's priorities. In order to stimulate this role for PPPs, the public sector first needs to initiate long-term master plans of regional development and prioritise infrastructure projects based on their external benefits for regions. It next needs to establish implementation policies for the partnerships, which are consistent with the plans and do not sacrifice the public interest. During the above processes, the public sector needs to identify or create more favourable regional conditions for PPI. For example, it needs to have enough capacity to further improve schemes and proposals from the private sector and to be able to incorporate innovative policy measures whereby the combination of the public plans/resources and private expertise/resources creates synergy for enhancing not only regional competitiveness but also regional attractiveness. If the private firms of a region are keen to invest in infrastructure facilities and manage them or even initiate the projects with enough financial and managerial capacity, it can be assumed that the region's economic needs for infrastructure are fully identified and understood by private partners. These can be regarded as positive indications for the regional impact. Local firms should be involved in PPPs devoted to local development. As users of collective services, they have views on their needs in terms of infrastructure, training, etc. And as suppliers of services, they will often be more attuned to improving outcomes than other actors that are less directly involved. Without infringing rules of competition, it would be worthwhile to provide them with the support and incentives necessary for them to participate in this way. This is particularly important with respect to SMEs. A similar logic should be

applied with respect to citizens' groups and other non-profit organisations (OECD forthcoming c).

The creation of an organisation can be a good idea to support the development and implementation of a holistic innovation strategy. For example, the creation of a Competitiveness Council could be a concrete initiative to support regional innovation through political leadership and public/private dialogue as was experimented in the US State of Massachusetts (Box 2.10). Such a Council could be formally led by a region, county or municipal political leader (depending on the governance model in place) and a leading business executive. The council would include key representatives of the regional "triple helix" (public, private and research sectors). The Council could be given a key role in the development of an overarching economic strategy for the region. It could guide a number of working groups focused on specific clusters and cross-cutting issues. In these working groups, specialists from companies, government agencies, universities, and other institutions would identify specific actions and define responsibilities to execute them. The public sector's role in the Council should be carefully assessed, as experience suggests that the private sector should have a key operational role if genuine partnership is to develop.

2.3.3. Alternative futures for non-high-tech regions

The success of science-led, high-value-added regions is likely to lead policy makers almost everywhere to seek to imitate these successes, and to use the role of higher education and research institutions to ensure that their regions are competitive in high-tech sectors. However, as noted above, it is not possible for more than a small number of regions to succeed in this task. Further, the sectors concerned are usually capital-intensive, leading to relatively low employment creation for a given unit of investment. It is therefore necessary to examine a wider range of activities, and a wider range of engagements between the economy and higher education and research than is featured in the most prominent examples. Earlier work by the OECD (2005a) identified attempts to found technopoles as particularly vulnerable to over-ambitiousness and distinguished between "real" and "quasi" technopoles. The latter did not really display the networking and cross-fertilisation aspect of the technopole concept and were essentially industrial parks, business support or information centres. The construction part of such interventions is easy to design and is a tangible political achievement, but the cross fertilisation and value added aspects are much more complicated to generate, slow to emerge, difficult to measure and, as a result, difficult to fund. They appear to work best when the "raw materials" of the system are already in place, such as a highly regarded R&D centre or some co-location of linked industries.

Box 2.10. **Competitiveness councils**

The main purpose of establishing a competitiveness council is to provide a dialogue mechanism between the public, private, labour and academic sectors. Particularly by tapping the expertise and knowledge of those non public sectors, a competitiveness council is able to provide the government with well-substantiated and concrete policy recommendations and program of actions. It can also help to effectively mobilise the unique skills and resources of these non-government partners in implementing action recommendations. The establishment of a competitiveness council however should be deeply rooted in the national and regional socio-economic and institutional context. The experience of building national competitiveness councils shows that they may differ in their institutional forms, membership, funding and focused areas when making policy recommendations. For example, in terms of the institutional forms, the Irish competitiveness council was instituted by an act of government. The council in Singapore was created based on a directive of the President of Singapore to the Ministry of Trade and Industry to study the future of Singapore's competitiveness. And the US Council on Competitiveness was created by a coalition of company, university, and trade union leaders to work with government to "elevate national competitiveness to the forefront of national consciousness". The membership of each council represents a wide range of sectors including senior levels of the government, private and public sector. Competitiveness councils may also vary in their specific duties and reporting requirements. The Irish council reports directly to the government to provide their work plans and specific recommendations on policy improvement. Ireland shows a most comprehensive reporting by providing an advisory benchmarking report and an annual policy recommendation report. A distinctive character of a competitive council from other forms of partnerships may be that rather than simply providing consulting and training services, it works hand in hand with the government in building and strengthening competitiveness policies. It should be noted however that although the councils provide strategies to the government, they do not supersede the ability and necessity of industries to get their own action agendas and strategise for industry competitiveness.

Competitiveness councils can also be built at the regional level to address local needs of facilitating local economic growth and building regional competitiveness. A particular example is the establishment of regional competitiveness councils in the State of Massachusetts. In 2003, in order to adopt a well co-ordinated approach to identify the state's strengths and weakness and maximising regional growth potential, Mitt Romney, the Massachusetts governor, set up six regional competitiveness councils,

Box 2.10. **Competitiveness councils** *(cont.)*

representing the following regions of the state: Berkshires, Cape and Islands, Central, Northeast, Pioneer Valley and the Southeast. Each of the six councils consists of about 25 members representing private businesses, higher education, and key elected officials in the respective region. They are each co-chaired by a local business leader and by the State of Massachusetts Secretary for Economy Development. The key difference (noted by Romney) between existing organisations and the new competitiveness councils is the inclusion of higher education leaders. Responsibilities of the regional councils include conducting an in-depth analysis of their regional climate, assessing local abilities to attract new companies, identifying companies and jobs currently at risk, and developing a strategy to create opportunities by building on regional resources such as human capital, infrastructure and financial investments. The councils are expected to develop strategy documents for their regions that identify action priorities for government agencies as well as for the private sector and the research and education community. These regional councils were build in many ways on the experience from about a decade ago when Massachusetts created a Governor's Council on Economic Development for the entire State in response to its severe economic downturn.

Source: The Commonwealth of Massachusetts Executive Department (2003).

It would be particularly unwise for decision makers at the level of an entire metro-region to make major speculative strategic investments to try to encourage new sectors for which there was little evidence of past success; even radical innovations usually develop from existing capacities and recognisable potential. Entrepreneurial activity is bound to include some cases of failure; it is the job of the market to clear the failures and advance the successes. It is more difficult for public policy innovation to deal with failure, when the innovation has risked setting down a set of general conditions that affect large numbers of firms and people. Policy makers therefore have to work interactively with the business environment, concentrating at first on two kinds of measures. First are those that enhance general infrastructure that might be of value to various high value added sectors without a prior specific commitment – such as general improvements in transport and environmental quality, or in collaboration opportunities for firms and university research institutes. Second are measures to identify innovative sectors that seem to be developing in the region, and which could advance more prominently and quickly with certain kinds of public intervention measure. These latter are likely to be more promising than sectors that have not found any comparative advantages in the region. An example is the up-grading of the textile industry being planned in Seoul (Box 2.11). In Milan, the development strategy is now

Box 2.11. **Upgrading clothing and textile industry in Seoul**

After many years of trying to support its textile and clothing industry through subsidies, the government of Korea has recently encouraged more innovative approaches, with particular interest in the Seoul area. At least the high value-added segment of the industry is seen as having a future, despite the growth of new competitors in China and other newly emerging economies. The clothing industry fits well into an urban environment and it is non-polluting. It also conveys a cultural value that could become an image-builder and thus contribute to the international branding of Seoul. Korean firms have remained weak in design and planning skills. Therefore, one of Seoul's measures to revitalise existing fashion business agglomerations was the creation of the Seoul Fashion Design Centre in 2000. This offers more comprehensive assistance than traditional industrial centres do. Its 720 m^2-large facilities provide both hardware and software support to local fashion and clothing SMEs by offering various types of product development and planning infrastructure, an exhibition hall, a monthly fashion magazine (Fashion Focus) and a fashion-related information centre. Recently, specialised events have been organised in Seoul to promote designers both domestically and internationally. Seoul Collection Week (every spring and fall since 2000), Seoul Fashion Week and Dongdaemun Festival are starting to attract interest but need to gain prominence and to overcome intra-industry rivalries. The Seoul Fashion Design Centre also organises design contests to select promising fashion designers and sponsors them to participate in international collections and exhibitions (for instance in Paris, Milan, London and New York). It promotes overseas marketing by providing funding to cover booth rental fees as well as advertising and interpretation services.

More systematic and active networking between the Seoul Fashion Design Centre, fashion firms and the numerous local universities that offer specialised courses in fashion and design could help better promote talented domestic fashion designers. Although Seoul-based universities send some 45 000 designers every year onto the labour market, examples of internationally successful local designers have remained rare so far.

Source: OECD (2005f), *OECD Territorial Reviews: Seoul, Korea*, OECD publications, Paris, France.

focussing the region's established base in textiles (14 570 local units in 2003) that in recent years have been suffering because of the increased international competition. Specifically local authorities have launched the so-called "Metadistrict policy" with the objective to promote firms' backward linkages with knowledge intense universities or research centres, thus promoting the added value of their output (OECD, 2006b). If such policies succeed, the

distinction between the two kinds of measures diminishes as measures at the general level begin to be more tailored towards the kind of sector that is flourishing. It will however remain valuable for a metro-region to sustain an environment in which a diversity of sectors flourishes, with different trade and product cycles, and employing different kinds of labour.

Lower productivity metro-regions have particular problems, as their large scale is not necessarily associated with significant locational advantages. An example is Mexico City, which has a GDP per capita 48% below the OECD average for these regions.[10] This is related to the weaknesses of the labour market and to overall difficult framework conditions linked with poverty and low levels of infrastructure and basic services. Only a limited number of industrial branches (pharmaceutical, automotive, printing and publishing), characterised by high capital intensity, higher inflows of foreign direct investment, and trans-national operations have been responsible for some sector-specific growth and productivity gains. These examples of good performance do not appear to be spreading across the metropolitan area where significantly weak levels of productivity prevail due to low educational attainment and investment in human capital development as well as to insufficient links between research and industry to facilitate and diffuse innovation. Overall, the most defining characteristics of the metropolitan economy are the consolidation of the tertiary sector as the driving force of the regional economy (in 2003, it was estimated that 75% of the workforce was in the service sector), a decline of manufacturing, a reduced capacity of large firms to generate employment and to compete successfully in international markets, and the increasing reliance (about 42% of the active population employed) on micro and small firms in both the formal and informal sectors. Only half are firms with an established workshop, (the rest being home- or street-based). These firms capture the smallest share of financial credit and invest the least in formal training and technology.

The informality of the labour market is often a characteristic of poorer metro-regions, and demonstrates that the transition from manufacturing to services is not always synonymous with economic up-grading of the city concerned. Although the decline in manufacturing is often accompanied in such cases as elsewhere by an increase in service sector employment, the ability of the formal labour market to absorb former factory workers in such contexts is often limited. The gap between labour supply and demand leads to the development of a high proportion of informal activities, in the case of Mexico City around one-third of all employment. If informal labour is considered in a wider sense, to include also people employed by enterprises or households, but having no work contract and no payment, the figure rises to almost half of total employment. A large informal labour market can have a high social cost, being closely linked with low levels of education and implying

little access to adult education, on-the-job training, and other human capital development mechanisms. To take another example, the informal sector accounts for almost half of the Istanbul economy, creating high negative externalities for the firms that remain in the formal sector. The activities involved include casual day labour, petty trading, street hawking, letter typing, knife sharpening, load carrying, street vending, and shoe shining. It is reported that there are about 500 000 street vendors in the city,[11] one of its largest sectors. Recent immigrants from Africa are particularly likely to find this kind of employment in that city.[12]

There are however sectors in regions with lower productivity where competitive advantages can be exploited and where there are resources on which development can be built. For instance, many firms establish head-office functions in Mexico City, but carry out their main operations in areas bordering the United States. This has enabled the city itself to develop rapidly certain advanced producer services, in particular accounting, law, finance, advertising, distribution, and communications. In terms of output, these sectors have consolidated as the drivers of the economy. The high specificity of advanced services, the availability of skilled workforce coming from the local notable universities, and the concentration of their main costumers provides these industries with strong incentives to agglomerate in Mexico City rather than elsewhere in the country, leading to the city being regarded as the only Latin American city with a major global services centre.

Micro-firms, an important and valuable source of employment in many large cities, often have difficult connections to public authorities: partly because there are so many of them; partly because, being so small, they have few resources to devote to relations with authorities; and partly because many of their activities are in the "black economy". In many cities there is a wide technology gap between these firms and the sector of internationally competitive, export oriented firms. (In the wealthier metro-regions, the latter sector is large; in the smaller ones it is small.) While lack of access to modern equipment is a clear problem for micro-firms, lack of information about production methods and processes also appears to undermine the productivity of individual firms and whole sectors. Strong co-operative production chains, including links between SMEs and larger more competitive firms are hampered by weaknesses in areas such as standardisation and quality control. Addressing the technology and information gaps is critical to enabling small industries to achieve higher levels of productivity and reduce polarisation of the economy. The challenge for public policy is to reach these firms through a cost-effective enterprise development strategy. The difficulty is that the enterprise base is large and geographically diffused and the firms can be informal or semi-formal and, as such, hard to influence through public policy. The most effective way to help micro-firms overcome their low capital

structure and access technology is to facilitate their access to finance, partly by creating a venture capital system. They would also benefit from research institutes that they could access without paying high fees. However, it is often difficult for micro-firms to know how to gain access to financial or research institutions. There can be an important role for local public policy in finding means to help them solve this problem.

At the same time, it has to be recognised that even in the most successful regions not all workers will find employment in high value added sectors; indeed, one of the advantages of large urban agglomerations is that they produce forms of employment in services sectors for low-productivity workers. The problem is to enhance the quality of such employment, not to try to eliminate it. An advantage of Fordist mass-production industry was that, by putting highly productive plant at the disposal of low-skilled workers, it enabled them to achieve relative prosperity and security. In the post-industrial economy these workers find work in services sectors that do not reinforce them with capital, and in which very small firms and informal employment are often concentrated, bringing conditions of high insecurity. Many of these services are typically urban and related to large concentrations of people, such as cleaning and maintaining infrastructure, the provision of food outlets, and private services to households. Some of these services are provided publicly, which makes possible some stability of employment. In large urban agglomerations there may be sufficient business to enable stability also in the private sector. For example, labour-only contracting enterprises may have a sufficiently extensive customer base to enable them to provide stable employment conditions while being hired out to a succession of firms.

2.3.4. Summary: dilemma II

In today's economies former ideas of planning have been replaced by concepts of public policy marshalling support for the business environment. This includes providing necessary infrastructural support for economic activity, which for successful cities and regions crucially includes linking businesses to high-quality institutions of research and higher education. Concepts such as the regional innovation system will be key. These relationships are often based on specialised clusters of related sectors of production. To fulfil these tasks requires the formulation of a strategic vision. This becomes particularly important in metro-regions, which have been identified as economically functional areas that are typically not contiguous with existing political and administrative boundaries.

While this form of strategic vision avoids the risks of former approaches to planning, it remains vulnerable to the risks of failure always attendant on entrepreneurial activity. These will be reduced if a wide range of informed stakeholders is engaged in the process, but more importantly by ensuring that

diversity is built into all objectives: the large size of metro-regions equips them particularly well to combine both the specialisation of clusters and diversity. Risk is further reduced when policy makers build on existing points of strength and avoid unrealistic expectations. This includes facing the reality that by no means all metro-regions will become world leaders in high-tech activities, and therefore the need to search for strong, viable niches outside this range. Even in the most advanced regions, large proportions of the labour force will not work in high-tech activities; general and vocational forms of education and knowledge-building will need to be parts of the vision everywhere.

The new agenda of spatial development is broad. Competitive positioning in a new global economic geography shapes strategic preoccupations, particularly as regards major infrastructure investments and locations for new concentrations of business activities. It also highlights the importance of the cultural assets of a place to attract the skilled workers of the new knowledge industries and tourists. The need for environmental sustainability highlights both new conservation priorities and new ways of thinking about the flows of people, goods and waste products; the need for social cohesion leads to concerns for the quality and accessibility of particular resources, amenities and opportunities in the city-region. Housing remains the biggest single use of land, with impacts on health, safety, and the environment. As a result, spatial development strategies must go beyond merely indicating where major material investments should go and what criteria should govern land-use regulations. In other words, they have to be more than merely an aggregation of considerations and policy principles collected together in a plan or document. This suggests that their key task now is to identify the critical relations among many agents which are likely to shape the future economic, social, political and environmental qualities of territory. Spatial development strategies exert influence by framing ways of thinking about and valuing the qualities of a place and of translating plans into reality. This work in turn helps to mobilise the many actors inventing the futures of places by shaping their understanding and guiding their investments towards more sustainable outcomes.

The visionary and long-term view of the new territorial policy is best reflected in a long-term strategic plan. In addition to the critical function of promoting policy coherence and identifying obstacles to implementation, its main purpose is to send signals concerning government policy priorities and desired outcomes to the private sector, which after all is responsible for most of the investment in property and housing, and increasingly, infrastructure provision. The role of planning is not to dictate what goes where; rather, when linked to expenditure on infrastructure and to policies and programmes for SMEs, housing, education health and the like, flexible spatial planning strategies can help to leverage private investment and civic involvement.

These challenges however are difficult, given the inherited professional specialisations in the public and private sectors that deliver space-based services and goods, the frequent lack of multi-year and multi-sectoral budget for major projects, and the problems of co-ordinating private and public finance with different time horizons. Strategic plans should also include exploration of the synergies that can result from bringing together large firms and SMEs, universities and other research centres in order to develop local potential for regional innovation systems.

2.4. Dilemma III: Economic dynamism or liveable city?

Concentrations of population that account for part of the dynamism of some metro-regions also contribute to typical urban problems of congestion, poor environment, housing shortages and the formation of ghettoes. Is there a choice between economic dynamism and having a liveable city?

Even in the most prosperous metro-regions there is strong evidence of the negative consequences of heavy concentrations of population. These include traffic congestion, pollution, urban sprawl, generally high levels of criminality, lack of open space and other deficiencies of the physical environment, housing shortages for poor people, the residential and social segregation of the immigrant populations who are attracted to large urban centres, especially when these are also capital cities. Poor people in large cities often have to cope, not only with their low personal incomes, but with enjoying lower levels and poorer quality of the collective goods available within the urban infrastructure. For example, although residents in the metropolitan region of Mexico City are endowed with the highest levels of access to basic services (water supply, electricity and drainage) of all Mexican cities, with a very high proportion of households having access to them, several poor municipalities in the State of Mexico face levels of access to basic infrastructure below the national average. These problems are common to all large OECD metro-regions, including the wealthiest. Yet, how to strike the right balance between policies for increasing the competitiveness of cities and policies for social cohesion and liveability is a major dilemma for the metropolitan areas of OECD countries.

- On the one hand, it is often argued that policies pursued by cities to redistribute wealth might dampen economic growth. In particular, in a global environment where cities and metropolitan regions are increasingly autonomous, cities are likely to be faced with the dilemma of devoting resources toward economic development or putting them into social spending. In the same vein, strong compliance to environmental norms might be advanced as an obstacle to the attraction of firms and thus to competitiveness.

- On the other hand, it is clear that competitiveness and economic growth will in the long term suffer if the major social and environmental problems outlined below are not resolved. In some cases it is easy to see their negative implications for competitiveness.

2.4.1. Attractiveness and sustainability

There is considerable evidence that *a good and attractive environment*, including well-performing urban infrastructure, is not an alternative to metropolitan economic success but in fact fundamental to its continuation. This seems to be so for two reasons. First, many of the problems that result from crowding impose heavy costs and inefficiencies: the most obvious are traffic congestion and poor transport networks. These problems are particularly acute in new developing cities such as Seoul, Mexico and Athens, but even in Stockholm, a metro-region noted for the quality of its overall infrastructure (Box 2.12). Second, advanced economic sectors are often engaged in a global competition to attract good staff, and these people would sooner choose to work in a pleasant city than a polluted, ugly, and crime-ridden one. The latter argument also applies to the attraction of tourists, an important form of actual or potential economic activity for many cities. Good infrastructure and attractive environment are also crucial components of clusters, innovation and territorial branding policies.

Although large cities are often associated with pollution and various forms of environmental damage, they also represent a scale of activities sufficiently large to permit the launch of serious positive policies for sustainability. Public authorities at city level have important powers over land use, transport and traffic, building codes and waste management. These can be used to have an impact on air pollution, energy utilisation and conservation, renewable energy use, and water conservation. The Habitat programme of the United Nations develops policies for application on these issues at all levels of government. More specifically at the local level, the International Council for Local Environmental Initiatives seeks to promote policies for "eco-efficient cities".[13] Among its 450 local government members are several, but by no means all, major cities within metro-regions.

The OECD case reports provide several examples of policies to meet the challenge of *reconciling environmental quality with economic success*. An example of such strategy is provided by Seoul with the Cheonggyecheon Restoration project that replaced an elevated expressway and its disadvantaged neighbourhoods with a fresh water stream and green spaces (OECD, 2005f). The objective was not only to help solve the inner city environmental problems, but also to reduce socio-economic disparities between the northern and southern parts of the city. Both public transportation reforms and control of private automobile use were implemented at the same time. During the

Box 2.12. **Environmental concerns in some metropolitan areas**

In ***Seoul***, traffic congestion costs increased over the years 1999-2002 (from KRW 4.18 trillion in 1999 to KRW 5.31 trillion in 2002). The share of public transportation use dropped slightly (from 62.6% in 1999 to 60.6% in 2002) despite huge investment in subways and the introduction of bus-only lanes. The share of passenger cars increased from 19.6% to 26.9% over the same period. More commuters chose to drive due to the increasing commuting network and the lack of efficient public transport across the capital region. Out of all vehicles crossing the city boundary, the share of passenger vehicles and SUVs rose from 69.1% in 1996 to 72.9% in 2002. The proportion of those vehicles with only one passenger increased from 68.9% to 79% over 1999-2002. Traffic congestion has raised severe pollution issues within the capital region. According to the Ministry of Environment, the emission shares of the capital region are 42.7% for carbon monoxide (CO), 31.1% for NO_2, 38.1% for volatile organic compounds (VOCs), and 18.1% for PM_{10} (excluding road dust) in 2001. In 2002, the city's ambient concentration of PM_{10} was the highest (76 ug/m^3 among all the major cities densely populated up to 5-10% of national total population within the OECD area. The NO_2 concentration in Seoul was at the second highest level (only next to Bratislava) among all the major cities reported in OECD (2002f). Vehicles are the largest pollution source of CO, NO_2 and PM_{10} (90.8%, 79.4% and 66.9% respectively). The continued increase in traffic congestion cost and air quality deterioration poses challenges of improving the transportation system in the capital region.

Transport infrastructure in ***Mexico City*** is representative of the problems that urban development without systematic integration of spatial planning and transportation system development can generate. The fact that around 83% of the total number of trips is undertaken in low capacity vehicles (cars, minibuses) is significant, particularly when combined with the sheer number of trips (over 4 million intra-metropolitan trips per day). The relative level of private car use is rather low for a major city, but this is somewhat offset by having 58.6% of the total number of single trips carried out in public transport vehicles with very low capacity, such as "minibuses" and "combis". The metro system is well-used but it is mostly based in the Federal District. While there are metro lines that extend out to heavily populated municipalities in the State of Mexico, residents in the rest of the metropolitan area must first take minibuses to terminus metro stations and then take the metro into the centre. Perhaps the most significant fact is the almost complete absence of train travel as a major form of transport, indicating a very under-developed commuter train system. Given the increasingly long distances involved as the region expands, the lack of effective train links and the reliance on relatively inefficient low capacity buses will continue to be significant handicaps for commuters. Commuting distances and travel times have increased significantly since 1987 as a result of both expansion of the urban economic area and, probably, slower traffic flows as a result of congestion. Significant differences in the quality of transport services across the metropolitan area will tend to produce disparities in terms of access to employment, levels of investment and so on, which are self-reinforcing. These changes in urban form and function that Mexico City is experiencing imply the need for significant new investment in metro-wide infrastructure.

Box 2.12. **Environmental concerns in some metropolitan areas** *(cont.)*

Accessibility problems and congestion in the ***Stockholm*** region are mainly due to insufficient public investment. In fact, investments in transportation remain low in Sweden overall and below the OECD average. Transportation network capacity has not kept pace with either local population growth or changes in the economy. From the 1960s to the 1990s, no major investments were made in the road network in the Stockholm region. Many of the small and medium-sized local labour market regions around Stockholm experienced in the 1990s an increasing population and an expanding economy. The more peripheral cities and labour markets in the Stockholm Mälar region often have a commuting time of one hour or more to the centre of the City of Stockholm. The fragmentation in the responsibilities for public transportations between national and local governments, and between counties is a serious obstacle to the implementation of a coherent infrastructure development policy.

In the continuing absence of comprehensive regulatory planning for the entire urban area and in particular due to poor implementation of planning laws, urban sprawl has continued in ***Athens*** since before World War II. The settlements which sprang up outside the planned areas were in due course integrated into the official city plan. This a *posteriori* process resulted in a mixture of incompatible land uses characterised by the coexistence of industrial and residential areas, high densities, lack of social amenities and green spaces, poor infrastructure facilities, particularly for mass transport, traffic congestion and air pollution. For many decades, Athens was credited with one of the lowest values of attractiveness and competitiveness indicators compared to other European metropolitan areas. Since the mid-1990s, however, major changes have and continue to occur which are substantially enhancing the potential of Athens to stake its claim as a modern European metropolis. But although reform is well under way, it is not yet clear whether all opportunities for improvement will be grasped. Both positive and negative factors of change are currently at play in Athens. Some, such as higher than average levels of economic growth in Greece compared to other European countries, are contextual, but nonetheless important in reinforcing the Athenian economy; others, such as transport congestion, car use and on-street parking control or planning failure in Athens, must be tackled at the level of the urban region.

To fight against extreme pollution in the Marmara Sea and to fulfil European environmental standards as part of Turkey's negotiation process for entry into the EU, ***Istanbul*** needs a consistent environmental policy with a comprehensive monitoring and inspection mechanism. In Istanbul, municipalities and other authorities have not established environmental standards for industrial waste and sewage, of which there is wide deposition. Solid waste is not well managed and this damages the environment. Almost half of Turkish industry is located around the Marmara Sea, and industrial waste waters are removed without phosphate and nitrogen treatment requested by EU directives. In particular, there is a need to remove phosphorus deposits. In order to fulfill EU directives on the environment Istanbul needs new investments of EUR 60 billion.

Source: OECD (2006d), *OECD Territorial Reviews: Stockholm, Sweden,* OECD publications, Paris, France; OECD (2005e), *OECD Territorial Reviews: Mexico City, Mexico,* OECD publications, Paris, France; OECD (2004a), *OECD Territorial Reviews: Athens, Greece,* OECD publications, Paris, France; OECD (2005f), *OECD Territorial Reviews: Seoul, Korea,* OECD publications, Paris, France; and OECD (forthcoming a), *OECD Territorial Reviews: Istanbul, Turkey,* OECD publications, Paris, France.

process of suburbanisation, traffic congestion in the capital region was aggravated with the explosive growth of private automobile use between Seoul City and the suburban ring. This situation may have even deteriorated with the additional loss of roads resulting from the initial Restoration Project. The government comprehensively restructured the bus system in 2004. Both physical infrastructure and institutional governance were remodelled to make bus routes more direct and to simplify the fare system. Although it may be too early to evaluate the environmental and economic impact of the reform, a significant shift from private to public transportation modes is expected gradually to take place.

Good transport infrastructure policy can also help assure balanced economic development across a region. Melbourne is an example of a metro-region where the transportation, distribution and logistics services industries are themselves an important aspect of economic activity. The port industry is a unique and complex business operating, but also impacting simultaneously, on inland, coastal and marine environments. The port economy is characterised by the great range, diversity and volume of traffic, and linkages with firms throughout the state of Victoria and beyond. Inter-modal integration and development of access roads and rail links are a priority if the potential gains are to be maximised. In such cases, consideration should be given to developing inland ports, central places where freight could be handled via rail, and which can be sited in areas where there is already some indication for localisation of industries. Inland ports can also alleviate pressure in central urban areas of such cities, and are compatible with efforts to improve the movement of road freight around the city.

An increased supply of infrastructure itself is not sufficient for long-term effective transportation management. A multi-nodal approach, favouring the development of mixed-use areas with many transport options, can help guide investment in ways that can increase public transport usage. Improvements to rail links with other regional cities give people more options about where to work and to live, creating larger functional labour markets while preserving the essential characteristics of a polycentric, networked region. But all the proposed policies and strategies may not work if the incentives are not right. Road pricing, or urban congestion charges as introduced in some cities (including London), for example, could deliver further opportunities for efficient transport management. What is necessary is to ensure the quality and efficient management of transportation, ensuring the freedom of people to travel without creating negative externalities. Changes in travel behaviour associated with the objective of increasing the proportion of people using public transport, walking, biking, etc., will only happen if the alternatives to the private car are made attractive, and are linked to changes in land use and the provision of affordable housing. In the Randstad-Holland region for

instance, the introduction of a road pricing system has long been debated and will not been introduced before 2012, at least. There are some doubts that this will have much effect on congestion unless there are convenient alternatives to the use of the main arterial roads. Everything needs to be seen in network terms, and the integration of different forms of public transport is crucial. For instance, most train users travel to the station on a bicycle, but there are limited secure facilities for bikes at stations and insufficient coordination of bus timetables at the other end. The same point applies to cars: there are limited parking places, thus not facilitating the combined use of cars and public transport (OECD, forthcoming b).

A major change in recent years that has transformed living conditions in many cities, several of them parts of metro-regions, has been the *re-emergence of inner cities* as desirable places to live, thanks in part to entrepreneurial property development and in part to major public projects of rejuvenation. Development strategies build on the interest in places captured by the construction of new, dramatic museums and cultural facilities designed by world-famous architects in depressed areas in cities such as Glasgow, Bilbao, Cleveland and Kitakyushu. Events such as the Olympic Games or World Cup often play a catalyst role in revitalisation programmes for city centres as part of an integrative economic development strategy. The Unification of the Archaeological Sites project, hotel upgrading, improved transport and the Athens 2004 Culture Programme, had coincided with the Athens 2004 Olympic Games. Istanbul is taking similar advantage of its designation as European Capital of Culture in 2010 (Box 2.13). While European cities have usually sustained important historic centres and have rarely experienced the decay of central areas familiar in US cities, many of them have also benefited from these major new projects. The theory behind these developments, particularly those based on iconic buildings and cultural features, is fully compatible with the idea of the learning city: by providing a context for social interaction, and above all, by supporting large labour markets, cities should be able to nurture an environment in which tacit knowledge can circulate. They might in particular enable cities lacking a strong historical identity to attract creative and innovative populations. Whether this strategy is really effective in achieving these goals will be a matter for evaluation in future research.

An increasing number of cities and regions pursue a strategy of territorial branding to associate their area with specific high-quality products or approaches. In the case of many traditional products, particularly food, wine, and some types of clothing, a place name is often formally included in the name of the product (Champagne is probably the most famous example.) Similar, though probably less deeply rooted, associations can be promoted for more modern products and for larger areas like metro-regions (Silicon Valley is an example, where rather than the product taking its name from the place,

Box 2.13. **Urban regeneration based on cultural assets: the cases of Athens and Istanbul**

Athens, as a capital city with an important cultural heritage, has a strong asset base which it is seeking to ameliorate in order to capture its real potential. It has long been realised that Athens was a means to getting to other places in Greece and not a destination itself. Various interventions have created a new opportunity but the process is in its infancy and will require sustained efforts to fully establish the city as an international tourist destination in and of itself. Progress is being made, as the Programme of Unification of the Archaeological Sites shows. All the main archaeological sites and monuments of the capital will be presented as an extended archaeological park which, united by a broad network of pedestrian routes, will be incorporated into the historic centre of the city (Plaka, Psirri, Theseio) and the downtown commercial area. The Programme as a whole involves some 60 major or minor interventions across a geographical area which more or less coincides with the traditional centre of Athens. The archaeological sites and the monuments of Athens are of great value and importance for visitors and residents contributing to the historical and contemporary local identity. Several benefits can be identified from historical preservation and more specifically from the implementation of the Unification of the Archaeological Sites project with respect to the development potential of the area and to the upgrading of the quality of life. Positive impacts for the environment will result from direct (*i.e.*, construction of pavements, increase of open/green spaces) and indirect interventions (improvement of road network, increase of average speed, decrease in the emission of air pollutants and noise pollution). The intention is to create a network of public spaces, cultural venues, open spaces, amenities and recreational areas which will link the major cultural landmarks of the capital and integrate them into the everyday life of the city.

Authorities in Turkey plan to make use of the designation of ***Istanbul*** as "2010 European Capital of Culture" to launch a re-grading programme and attract 10 million tourists to the city, making use of co-operation between local administration and non-governmental organisations. Private initiative has already overseen the construction of the Formula 1 Istanbul Racing Circuit, with the city first hosting Formula 1 racing in 2005. Istanbul's future in terms of its sustainable development requires restructuring the central functional areas of the city, protection of natural resources and historical city centres as well as rehabilitation and transformation of the urban structure on the basis of the legal framework of EU legislation. Particularly after the Marmara earthquake of 17 August 1999, studies made of current housing stocks have shown that the problem lies not in the amount of available housing but in its quality. Local authorities have focused on planning these renewal projects in two types of area. The first is the city centre and the historical urban structure – those areas where global demand is highest and which carry the potential of satisfying the conditions for the city to be globally and economically competitive. The second area of activity involves the regions of low-quality housing areas and squatter settlements, where the aim is to create healthy and modern conditions.

Source: OECD (2004a), *OECD Territorial Reviews: Athens, Greece,* OECD publications, Paris, France and OECD (forthcoming a), *OECD Territorial Reviews: Istanbul, Turkey,* OECD publications, Paris, France.

the dominant material of the production process has become the unofficial name of the area). Territorial branding associates a place with a successful range of products, advancing the reputation of the place; and it also becomes a marketing tool of firms in the sector concerned that they can boast of their place of origin. Firms, local trade associations and local authorities can combine to produce territorial branding strategies. These need to involve, not simply the production of logos, but specialised local facilities for the sector – for example, technical college courses, or museums relating it to the region. Again, these developments are most likely to take place in smaller, strongly specialised locations than metro-regions. Strategic vision at the metro-regional level needs to be aware of existing and potential territorial brands *within* the wider area, which implies a general willingness of other places within the region to accept the special character of these locations and not to seek to lose them within the wider whole. Tourism is often at the heart of territorial branding, especially when this concept can be expanded to include such elements as hosting conventions and displaying local culture (Box 2.14).

Box 2.14. **Strategies for territorial branding: the example of Busan**

The tourism industry has been widely identified as one of the most promising next-generation economic bases for regional development in ***Busan***. The second largest metropolitan area in Korea intends to benefit from its strategic location as a crossroads and a gateway to Pacific and Northeast Asia to develop a "trademark image". The objective is to develop an integrated strategy for tourism and branding in order to move away from its austere image as an industrial port-city and be seen as a modern maritime city. Busan is already endowed with the nationally very popular Haeundae Beach and other natural assets. Because there are nevertheless inevitable limits to physical or hardware elements, Busan would be well-inspired to invest more in software elements, *i.e.*, thematic events and festivals. For example, building on the assets of the port city, one of the niches that Busan could cultivate is "thematic tourism", mainly maritime tourism including cruises, yachting and bathing activities, but also other activities related to typical local assets such as the increasingly wide-known Busan International Film Festival, beauty surgery holidays connected with hot springs and historical tours around the 1 000-year old Gaya Dynasty. A promising option would be to connect tourism with other aspects, notably convention tourism. The institutions of Busan's urban governance already effectively undergird this strategy since city administration has integrated tourism, culture and conventions within the same department.

Source: OECD (2004b), *OECD Territorial Reviews: Busan, Korea*, OECD publications, Paris, France.

Attractiveness is also a major component of a strategy to attract FDI. There is clearly a problem here: while firms may demand a high-quality environment and advanced infrastructures, they may be deterred by the high taxation that is needed to sustain these qualities, as these will raise their costs of production. At the same time, there is recent evidence, particularly from the Nordic countries, that taxation is not so important to inward investors at the high added value of activities, if they find in return a good infrastructure (Jensen, 2006; Kiser, 2001; and Campbell, 2004). For firms at this end of the market, the ability to attract staff and the efficiencies that flow from certain elements of infrastructure may well outweigh added taxation costs. However, in the light of the widely perceived risk, governments often strive to keep taxes as low as possible in areas where they are trying to encourage business investment. In some cases, particularly in emerging economies, they have explicitly introduced special enterprise zones where inward investors pay little or no tax. An example among the OECD metro-regions is Busan. In some countries a distinction is made between different kinds of such zones. For example, in Istanbul there are "industrial zones" and "free zones".[14] In many cases of special enterprise zones, either little or no infrastructure will be provided, or the rest of the country subsidises activities in the zone. Experience of the OECD metro-regions project would caution against extensive use of policies of this kind, whether or not they concern specially designated zones. First, particularly where low taxation has been used to encourage inward investment, there is a risk that the investors may at some stage withdraw, leaving little behind of lasting benefit in exchange for the fiscal privileges they have received. Second, activities that are willing to accept poor-quality infrastructures are likely to be down-market activities, not seeking high overall efficiencies or to attract highly skilled labour to live and work in the area.

2.4.2. Social cohesion

Particular problems are posed by the social exclusion and loss of cohesion that follow the creation of socially segregated zones of poor people, often immigrants or ethnic minorities. There are two, related, aspects to the issue. First, given the growing disparities between rich parts of the world and those that still have massive problems of poverty, there are very strong incentives for people living in the latter to move to the former. Legal barriers to immigration and the poor opportunities that probably face them if their immigration is successful, do not outweigh the advance in living standards that they might expect to find. While these immigrants sometimes move into rural areas (as with North Africans moving into southern Italy or Spain), these immigrations most often concentrate on big cities, metro-regions, as it is here that the typical low-productivity jobs available in urban agglomerations will

be found, often in the shadow economy. This links with the second factor, mentioned in Chapter 1: the tendency for metro-regions to develop both these kinds of employment as well as the high-income activities associated with advanced services and the knowledge economy. Successful cities therefore become sites for extreme inequality, leading to some areas becoming trapped in more general criminality. In recent years London, Paris, Rotterdam in the Randstad-Holland region and other less prominent cities have seen major eruptions of social disorder rooted in tensions, some but not all of them ethnically and culturally related. The last EU Urban Audit confirms similar trends and advances the hypothesis that disparities within a given city have largely surpassed disparities between cities. It also concludes on the fact that most immigrants cluster in cities, particularly in large cities, and on the strong link between urban poverty and ethnic origin (foreign born and immigrant citizens).

It is apparent from major cities across the OECD that metro-wide economic growth depends not only on economic interdependencies but also on social cohesion, for which policies have to be designed. In other words, areas that are detached from the economy and labour market of the metro-region constitute a drag factor that reduces the competitiveness of the region as a whole. For these reasons, metro-regional economic and social development policies need to be elements of a single coherent strategy. Very frequently it is economic dynamism itself that creates this detachment and lack of cohesion. For example, cities which have faced strong industrial restructuring processes, like port cities such as Rotterdam, have experienced rapid losses of many basic port-related industries in the 1980s, contributing to significantly increasing social cohesion problems in the area, in particular for ethnic minorities with little education. Dynamism produces losers as well as winners, such as those whose skills are made redundant by sectoral change.[15] Further, dynamic areas attract population from other parts of a country or from other countries, who often have difficulty in adapting to a new life and making social connections. Public authorities with responsibilities across a metro-region or large parts of it cannot avoid responsibility for people and areas and people either left behind by change or having difficulty adapting to it, as they constitute parts of their overall constituencies.

Different policy approaches have been experimented to tackle urban poverty and spatial polarisation within metropolitan areas. An instance can be taken from Mexico City, where, as elsewhere, the problems are metropolitan-wide, but the solutions are often top-down and organised according to political jurisdictions (OECD, 2005e). There, the federal government launched the Habitat programme in 2003 that intends to improve public infrastructures and services in nearly 60 cities. A more integrated approach that will include other social measures is currently being developed.

In France, there has been an attempt to reduce the social isolation of these areas (mainly through large urban renovation projects) and to attract economic activity to them (mainly through the "urban free zone" policy). However, it has proven very difficult to link the two objectives – social cohesion and economic development – in a single comprehensive policy package led by a single ministry (Box 2.15).

Viewed differently, areas and populations left behind by economic change constitute resources for development in the next stage of growth, as they are clearly not fulfilling the full potential of their contribution to the region.[16] This indicates a need for redevelopment programmes to move beyond city-centre projects to encompass hitherto excluded districts and populations. The large numbers of people employed in low-productivity urban services, often in the informal sector, constitute a similar resource. Their work makes a contribution to the urban environment, which would benefit if it was performed at higher levels of skill. This indicates a need for good-quality technical colleges and similar institutions providing lower-level skills, and not just advanced high-tech education, in metro-regions and for other strategies for improving the quality of the whole labour force.[17] There is also a need for creative policies to bring activities currently embedded in the shadow economy into normality (Burroni and Crouch, 2006). US experience demonstrates that local business leaders often see opportunities to work alongside local authorities in tackling this wide range of issues.[18]

Particular difficulties are experienced by immigrants from social contexts and cultures very different from their country of arrival, though the importance of at least some groups of these to the economies of dynamic areas is widely recognised. Declining birth rates in wealthier countries (especially in Europe), combined with good technical and scientific education in India, China and many other parts of the developing world, means that employers in the former countries increasingly look to the latter for talented young people to work in high-tech sectors. (In many cases these often return to their country of origin after a number of years, helping to diffuse advanced scientific and corporate practices.) These immigrants are often able to live in the wealthier cosmopolitan districts typically found in dynamic metro-regions, protecting them from some of the difficulties typical of immigrant life. However, in cities and countries with reputations for prejudice and discrimination this may not be enough to protect from all negative experiences, which may limit the ability of cities so located to attract them in the first place.

More problematic is the situation of the large numbers of poor immigrants and their descendants, large numbers of whom live in nearly all metro-regions. So long as extreme disparities exist in living conditions between these regions and the third world people will come to seek better

Box 2.15. **Fighting urban poverty and distressed neighbourhoods in Mexico and France**

The Mexican federal policy in urban areas

Recognising the need to foster the fight against urban poverty, the *Habitat* programme, launched by the federal government in 2003 was essentially designed to combine federal and local budgetary resources to finance physical infrastructure (streets pavement, construction of sidewalks, expansions of networks for water, drainage and electricity, and also building of community centres, day-care centres for the elderly, shelters for victims of family violence, etc.), in well defined zones (poligons) within cities, that concentrate large shares of urban poverty.

A more coherent and integrated approach to urban poverty alleviation has recently been launched to complement the existing *Habitat* programme with other types of poverty alleviation measures and better involvement of local actors. The *SUMA con Habitat* programme seeks to articulate the objectives of social policies with those of territorial and urban development in a framework that includes all regional and local government actors and joint funding responsibilities between federal, state and municipal governments, as well as private investors. More specifically, the new programme will combine existing measures to improve physical and social infrastructure and public services delivery with subsidies or income transfers for poor households for basic consumption of private goods (food, healthcare, etc.), as well as more long term policy actions such as basic education and labour training for adults, financial supports to small businesses and self employment and other types of measures to support capital accumulation (family dwellings, etc.). In terms of implementation, innovative governance mechanisms would be developed to secure both horizontal co-ordination among programs from different sectoral authorities and vertical collaboration between different levels of government that have distinct responsibilities at the local, regional or national levels. A particular focus would be put on providing adequate schemes of social participation around the design, monitoring and evaluation of the programs. Two surveys will be conducted, at the beginning and at the end of the pilot test, to assess the impacts of this co-ordinated strategy and compare its effectiveness (impacts) relative to those obtained in other local contexts where policy interventions are not integral and are not co-ordinated.

French policies for urban distressed areas: the city contract and Urban Free Zones policies

Until the 1970s, France's urban policy goals were essentially quantitative. They sought to promote the construction of as much housing as possible. This approach led, to some extent, to problems of spatial segregation which had to be addressed in the 1980s with targeted initiatives. In some areas these took the form of new infrastructure and social and environmental measures (rehabilitation of large estates, neighbourhood social development). The rationale behind urban policy today is to progress beyond merely renovating problem neighbourhoods and, using comprehensive development plans, foster genuine social and urban development in these "disadvantaged" areas that are home to 5 million people. As a result of the French urban policy – territory-based and contractual

Box 2.15. **Fighting urban poverty and distressed neighbourhoods in Mexico and France** *(cont.)*

initiative – specific procedures have been developed since the 1990s leading to the creation of: 247 city contracts for the 2000-2006 period, 751 sensitive urban zones (ZUS), 416 urban revitalisation zones (ZRU) and 85 urban free enterprises zones (ZFU).

City contracts (which reflect a commitment on the part of one or more local and central authorities to jointly implement a multi-annual programme, designed to deal with the most disadvantaged neighbourhoods areas at urban area or municipal level) were introduced under the 1993 Urban Revival Plan, with the aim of promoting a comprehensive strategy rather than the previous sector-specific policy. City contracts are first and foremost viewed as contributing to urban social development. More than 1 300 neighbourhoods and 6 million inhabitants are now benefiting from the initiatives introduced under the 247 city contracts.[1]

The urban "free zones" (ZFUs). The 1996 Urban Revival Pact (1996-1998), introduced as part of a programme of affirmative action on behalf of specific urban areas in difficulty, was a more significant effort to tackle their disadvantages from an economic perspective. In particular, it set up the mechanism of the urban "free zones" (ZFUs). The 44 ZFUs (0.8 million inhabitants in 1999) were designated by decree by the *Conseil État*, "taking account of the factors that will attract enterprises or foster the development of economic activity". The principle is to offer reductions in taxes and social contributions to businesses that set up in these zones and recruit at least 20% of their personnel from those living in the ZFU (or in other sensitive urban zones (ZUS) in the same urban area).

Several reports give a favourable assessment of this policy, in terms of enterprise and job creation and of achievements in terms of investment.[2] They also emphasise the technical problems involved in precisely gauging the specific impact or cost-effectiveness of the attendant tax and social exemption measures. However, it should be noted that the latest enterprises to set up in the ZFUs are most often concentrated on the edges of the zones, because of the lack of sites available in the more central districts. It is therefore on the periphery of these areas that economic development is the most marked, and the impact of the ZFUs on the more central areas is limited.

The generally favourable assessment of the first generation of ZFUs prompted the government in 2003 to give the current list of 44 free zones a five-year extension and broaden the scheme further. As from 1 January 2004, a regime of tax and social exemptions for 41 new free zones was created under the framework law of 1 August 2003 on urban renewal. It grants 5-year tax exemptions to small enterprises with fewer than 50 employees that set up business in ZUS districts, provided that one-third of the jobs created go to people living in problem neighbourhoods in the larger urban area. Opinion remains divided about their value. According to one study by Ernst and Young, the average cost of tax and social exemptions for one job in a ZFU (whether created, transferred or already existing) ranges from FF 33 753 (EUR 5 158) to FF 44 832 (EUR 6 838). However, the ability of ZFUs to create jobs in the long term is regularly questioned. To date, urban policy has not markedly closed the gap in development and inequality between the ZUS areas and the rest of the country.

Box 2.15. **Fighting urban poverty and distressed neighbourhoods in Mexico and France** *(cont.)*

In addition, an urban renovation program, comprising 52 major city projects (GPV), three of which are located in the overseas territories, and 70 urban renewal operations that will soon be extended to over 165 sites has been launched. To complement its action, the government has created recently the National Urban Renovation Agency, a public corporation that allocates substantial grants to local communities planning to carry out urban renovation projects. A far-reaching five year nationwide urban renewal program has been launched to improve housing and environmental conditions in priority areas. It includes the building of 200 000 new subsidized rental housing units, the rehabilitation of 200 000 rental housing units, the demolition of the same number of run-down housing units and a program to rehabilitate common areas.

1. Following criticism of the earlier programme of *grands projets urbains* (GPUs) a programme of 110 more numerous and ambitious city projects and urban renewal schemes designed as an integral part of city contracts was introduced in 2001. These seek, among other things, to promote social revitalisation and upgrading, in order to restore the economic value of the areas. They include schemes to introduce public and community services, make certain districts less isolated and incorporate them into the urban area (improving transport, improving the distribution of urban functions across the area) and breathing new life into the economy (reinforcing the existing fabric, assisting local people with business creation).
2. Including the report to Parliament by the Minister for cities in July 2001, the urban policy report by the Audit Office in 2002 and the information report by the Senate Commission for Economic Affairs and Planning in July 2002.

Source: OECD (2006a), *OECD Territorial Reviews: France*, OECD publications, Paris, France; OECD (2005e), *OECD Territorial Reviews: Mexico City, Mexico*, OECD publications, Paris, France and OECD (forthcoming b).

lives, legally or illegally. With the exception of the special groups mentioned above, their labour market position is usually weak, their unemployment rates typically being higher than those of the rest of the population. They lack connections to informal and community sources of support within local institutions, except those within their own communities, which can lead to ghettos and social exclusion. They also often lack access to publicly provided social support, either because they lack citizenship entitlements or because services are not geared to their specific needs. As the *OECD Territorial Review of Stockholm* showed, even a welfare state as strong as the Swedish one is inadequate for immigrants' needs. New and innovative public policies at urban level are clearly needed, as recent examples from Stockholm show (Box 2.16).

Most city and national authorities accept some responsibilities for tackling these issues, but rarely is their political will to devote resources adequate to the challenges posed, while the cultural cleavages that develop can sometimes reach a point where simple material redistributive policies cease to address the issues as they are redefined. This can in turn lead to major problems of governance, as will be discussed in Chapter 3. Only those

Box 2.16. **Policies for integrating immigrants into the labour market in Stockholm**

Sweden has invested heavily in programmes aimed at integrating immigrants and is one of the only countries in the world where immigrants are entitled to social assistance immediately upon arrival. However, better immigrant labour market integration requires a paradigm shift from a model of assistance and entitlement to a model that recognises the social, cultural and economic value that comes from diversity. Tackling discrimination, forging partnerships with the private sector for programmes aimed at immigrants and creating incentives for early labour market participation need to be part of this paradigm shift.

The Swedish government has taken several useful steps to promote better labour market integration of foreign-born workers. Sweden has increased protection against discrimination in employment such as the Act of 1 July 2003. In 2004, Sweden established a foreign diploma equivalency and validation board. This measure should assist immigrants upon arrival to find employment that matches their qualifications. Vocational training in fields where there are labour shortages has also been offered to skilled foreign-born workers who hold jobs for which they are overqualified. One successful programme facilitating labour market entry is the Job Centre Southwest in the Skärholmen district in the Stockholm County. This Skärholmen model has generated national and international interest because the number of households receiving social welfare benefits has dropped by half since the program started six years ago, the best results of any Local District Council in Stockholm. However, it has been reported that this experience has provided short-term solutions, with some people coming back to unemployment in some cases after six months. The Kista Matching is another example of an area that offers an opportunity to move forward on the issues of integration and inclusion. The area's robust business sector and concentration of immigrant and ethnic minority residents makes possible a unique synergy between business development and an under-utilised labour force. However, housing in the area is segregated and local residents have relatively high rates of unemployment. Services, for example those provided by the Kista Science City Information Centre (*Motesplats*), have focused on labour market, such as improved placement services and career enhancement.

To improve coherence and co-ordination of actions among central government and the municipalities, county councils and regions, Sweden launched in 1998 a Metropolitan Policy aiming to "end the social, ethnic and discriminatory segregation in the metropolitan areas and to work for equal and comparable living conditions for people living in the cities". The initiative focuses on 24 housing districts in the three major urban areas reaching 250 000 individuals. The main policy tools for achieving these objectives are the local development agreements (LDAs) elaborated by the state, the municipalities and the districts but implemented primarily by municipalities. First evaluations of the programme suggest success increasing employment rates and reducing benefit dependency. Tangible results in reducing segregation, a phenomena based on a complex set of issues, have not yet been observed despite improved neighbourhood conditions. Furthermore, there are still several distressed districts within the Stockholm Mälar region that have not benefited from LDAs, including those located in Västerås and Uppsala.

Source: OECD (2006d), *OECD Territorial Reviews: Stockholm, Sweden,* OECD publications, Paris, France.

authorities that are able to tackle emerging problems of major urban inequalities while they remain defined in material terms stand a chance of avoiding future crises of cultural as well as social exclusion and hostility that are far more difficult to confront.

2.4.3. Summary: dilemma III

The challenges to liveability presented by large urban agglomerations are well known, but there are also strong associations between economically successful metro-regions and high-quality environments, which policy-makers need to grasp. The attractiveness of a city or region has economic relevance at a number of points. One relates to branding the area, whether in order to associate its characteristic products with a desirable image or to attract inward investment. Further, both existing and inwardly investing firms in the advanced sectors identified as characteristic of successful metro-regions are competing strongly for skilled workers, who want to live in attractive environments with good public services and urban infrastructure. Although metro-regions face particular environmental problems, their advantages of scale are also positive elements for many aspects of sustainability, such as the development of energy-efficient public transport.

Given that metro-regions attract both the most highly skilled and rewarded workers and large numbers of people in either low-income work or living on the margins of urban society, they are frequently highly unequal. Some of these inequalities take a geographical form, with different parts of the population being segregated in parts of the region with strongly contrasted environments. Such characteristics are associated with many indicators of lack of cohesion, with a number of negative consequences. Those planning renovations and improvements in different parts of metro-regions need to be aware of implications of this kind of their projects.

Gains will accrue to regions that are proactive in creating liveable cities, rather than wait until a problem has already appeared. Because economic dynamism is driven by the market, while public policy has to deal with its externalities as these appear, the latter will usually trail behind. It is important that urban governance structures are able to break out of this trap, as problems are often far more difficult and expensive to resolve after they have developed than when they could have been prevented. Delayed investment in transport networks imposes years of congestion costs, while ghettos of poor housing are almost impossible to eradicate once they have developed without massive disruption to people's lives that causes new problems.

The positive and negative aspects of metro-regions are closely related to each other, requiring new forms of urban governance if the former are to

dominate. In the knowledge-based economy, highly qualified professionals can choose where to live from among different cities on the basis of their appearance, lifestyle and ambience. From this perspective, quality of design and more efficient use of infrastructure become critical in an overall strategy for competitiveness. A more sustainable approach to the uses of space, to infrastructures and to buildings seeks to enhance the assets – and hence the liveability and attractiveness – of particular cities. The growth of inner-city residential populations, which seemed utopian ten years ago, is now a commercial reality in a number of cities. These spaces should provide a context for social interaction nurturing an environment in which tacit knowledge can circulate.

Notes

1. See, for example the studies of Silicon Valley in Kenney (2000) and Saxenian (1994).
2. Initiatives for a Competitive Inner City (ICIC) (2001), *UK City Growth Strategies* (CGS), (examples) available at *www.plymouthgrowth.org.uk/documents/executive-summary.pdf*.
3. (Plymouth), *www.citygrowthsthelens.com/*.
4. (St Helens), *http://gnp3.polestar.demo.eibs.co.uk/EasySite/lib/serveDocument.asp?doc=3594&pgid=1014* (Nottingham), and *www.northlondon.org.uk/2/index.asp?id=130&page=business*.
5. Initiatives for a Competitive Inner City (ICIC) and the City of Louisville (2001), "The *West Louisville Competitive Assessment and Strategy Project*: Creating Jobs, Income and Wealth in the Inner City", available at *www.icic.org*.
6. The Initiative for a Competitive Milwaukee (ICM), available at *www.isc.hbs.edu/pdf/ICM_FinalReport_v2.pdf*.
7. Metropolitan Area Planning Council (2004), *2004 Comprehensive Economic Development Strategy*, Boston, Massachusetts.

   Initiatives for a Competitive Inner City (ICIC) (2005), "Initiative for a Competitive Greater Reading" (ICGR), available at *www.icic.org*.

1. Biotech Region Munich (1997), Bio^{M} available at *www.bio-m.de/web/index.php4?sx=b2.0.0&lg=en*.
2. Bavarian State Government (1998), Software-Offensive Bavaria, available at *www.software-offensive-bayern.de/english.xml*.
3. Blin and Cohen (1977), Campbell (1972) and (1975), Czamanski (1971), Dahal and Dalum (2001), Feser and Bergman (2000), Munnich *et al.* (1996), Porter (2000), San Diego Association of Governments (2000).
4. Austrian (2000), Stough (2002), Stimson and Roberts (1997).
5. Kilkenny, Nalbarte and Besser (1999), Kilkenny and Nalbarte (2000), Rosenfeld *et al.* (2000).

6. Jacobs (1969), Henderson, Kuncoro and Turner (1995), Romer (1986), Barro and Sala-i-Martin (1991).
7. This concept is discussed in detail in the paper by Crouch in Part II.
8. An account is given in the paper by Lawton-Smith in Part II.
9. Available at *www.sba.gov/advo/stats/sbfaq.pdf*.
10. Data here refer to the year 2000 based on a former Metropolitan Database including 66 metro-regions with 2 million and more inhabitants (OECD, 2005e).
11. See NTV/MSNBC (2002) at *www.ntv.com.tr/news/144050.asp*.
12. Results from the Istanbul Chamber of Commerce's (ITO) survey show there are 5 500 African immigrants in Istanbul, half of them working as street vendors.
13. *www.iclei.org/*.
14. In the former the municipality provides infrastructure and also some reduction in energy costs, but not tax exemption. In free zones there is tax exemption, but only exporters can benefit from this. The main aim of a free zone is to promote exports, and of the industrial zone to promote specialisation in industrial production.
15. See Turok paper in Part II.
16. See Jacquier paper in Part II.
17. See Gordon and Turok papers in Part II.
18. See Pastor in Part II.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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PART I

Chapter 3

The Governance of Metro-regions

3.1. Introduction

Metropolitan governance emerges as a key issue for managing urban growth and for the implementation of policy actions and strategies in pursuing competitiveness objectives. Cities have to cope with negative effects of urbanisation and international division of labour (urban sprawl and spatial disparities, congestion and pollution, social issues and distressed areas) but they also have to produce proactive actions to improve and sustain their competitiveness position. Although market forces have contributed to shape the development of metropolitan areas, public policies addressing physical infrastructure (transport and communication, education and research centres) as well as soft measures (the animation of clusters, universities and firms linkages, human capital, etc.) are also increasingly important for large cities to attract and retain a potentially mobile workforce and capital. Yet, in a context of increasing strain on fiscal/financial capacities, cities (and other governmental layers) have to constantly "perform better with less". Providing more efficient and effective public services, making economies of scale, and dealing with infra-metropolitan equity issues (positive or negative territorial spillovers and externalities) are a particular challenge for metropolitan regions.

In many cases, the structures of governance in place in many metropolitan areas of OECD members are not well adapted to the tasks they face. Institutional fragmentation, *i.e.*, the lack of correspondence between existing administrative borders with the spatial and functional organisation of social-economic relations, requires cooperative arrangements among local jurisdictions. While there is a need for area-wide structures which enjoy legal capacity and greater authority, it is clear that a uniform model of general application is not appropriate even within one single country. A bench of experiments of metropolitan governance models has been undertaken in different OECD countries. To what extent do these different models respond to such objectives as producing economies of scale, dealing with territorial spillover and externalities, and helping the elaboration of a long term strategic vision for metro-regions' competitiveness? Insufficient intergovernmental collaboration can also limit the effectiveness of policies undertaken by different levels of governments. These different policies can be duplicative and also may unintentionally interfere with each other, retarding rather than stimulating urban development. How should central governments intervene

in urban areas? What is their role in building horizontal collaborative frameworks? Finally, intergovernmental fiscal frameworks strongly influence the capacity of local governments (and, where they exist, metropolitan authorities) to perform their assigned functions. How does the urban finance structure affect the competitiveness of a metropolitan area? How to deal with intra-metropolitan disparities and the need to raise funds for public services and infrastructure? Are national equalisation schemes detrimental to metro-regions' competitiveness?

3.2. Dilemma IV: Appropriate scale or closeness to citizens?

The de facto *existence of metro-regions, and even more their need for strategic visions and overall infrastructural planning, suggest some need for a relatively autonomous public authority at the appropriate geographical level; but this level will be remote from many citizens' local concerns, and there is evidence that local levels are also necessary to engage citizen commitment. There are also major potential conflicts with existing city authorities within the metro-region if they lose power to a new, higher level of government. Particularly significant may be the fact that metropolitan regions are often favoured by central government, which associates them with concentrating power upwards from existing local authorities rather than devolution downwards from itself. How can these tensions be balanced?*

Discussion of the role of strategic vision and the development of shared infrastructure at the level of the metro-region raises two major and potentially contradictory issues: 1) that often metro-regions do not constitute levels of formal government, these being at individual city levels; and 2) that compared with local government as such, authorities at metro-regional level would be remote from citizens' daily lives. Economically dynamic regions necessarily outgrow formal sub-national governmental boundaries, as economic dynamism usually means constant incremental expansion across both business and residential space, while governmental boundaries can be changed only occasionally, in big leaps, and often only after complex procedures. Without a proper capacity for decision-making at the metro-level, it is difficult to formulate strategic visions in a democratic way; but the establishment of such a capacity can undermine existing democratic local institutions. Local boundaries are part of the constitutional structure of a polity. This is true when the growth of individual cities alone is considered; the issue takes on even greater significance in the case of metro-regions, which frequently involve the growth of conurbations linking, often through urban sprawl, existing cities as well as many towns and some rural districts in between. Once towns and cities become intensively linked through the commuting, inter-business transport, and territorial overspill that constitute metro-regions they acquire, not only certain shared collective needs, but also the opportunity to realise certain economies of scale.

3.2.1. *Challenges and rationale for horizontal collaboration*

The main rationale for building intra-metropolitan co-operation is linked with the *fragmentation of administrative jurisdictions within metropolitan areas*. As major cities of OECD countries expand geographically outward, old administrative boundaries usually remain in place, creating a patchwork of municipalities within the urban area, each with its own vested interests to defend. Table 3.1 shows that almost all metropolitan regions studied by the OECD are characterised with such complex institutional framework. Institutional fragmentation holds the advantage to increase competition among local jurisdictions to provide more efficient/effective local public services to attract and retain mobile resources, *i.e.*, individuals and firms. This is the main argument advocated by the proponents of the *Public Choice School* which, drawing on Tiebout's classic idea of "voting with one's feet", consider large scale governments as counterproductive whilst the existence of a large number of local jurisdictions would allow citizens to choose the place with the tax/service package corresponding best to their personal preferences (Tiebout, 1956). Institutional fragmentation also creates a complex policy environment in which area-wide consensus is difficult to reach on medium and long-term goals in environmental quality, economic development and competitiveness, social and spatial disparities, equitable public finance and level of quality public services across the urban region. More precisely, institutional fragmentation raises two main challenges:

- *Lack of policy co-ordination* in areas such as spatial planning and economic development, including the development of regional innovation system strategies. For example, urban sprawl engenders heavy costs in terms of infrastructure and amenities, but it is, on the other hand, a new revenue resource for suburban municipalities that rely strongly on income or property tax. Although it could be more profitable to concentrate certain industrial activities within the central city, suburban jurisdictions would still like to benefit from the revenues stemming from firms located in their jurisdiction.
- *Suburbanisation and functional separation* create internal tensions and imbalances within most metropolitan regions. Suburbanisation and functional separation between workplace and residence have been accompanied by social segregation and put a burden on private and public transport networks and damage environment. Some aspects of political, social and fiscal systems as well as land use regulations might exacerbate functional and social segregation. When institutional fragmentation is high, this creates *negative territorial spillovers* in the sense that some local jurisdictions, generally central cities, have to bear the costs of public services to neighbourhoods' residents without getting related fiscal revenues. In other words, the lack of cooperation on a territorial basis can

Table 3.1. **Institutional fragmentation and governance challenges in some OECD metropolitan regions**

	Institutional setting of the metropolitan region	Main governance challenges
Busan	The local labour market is more or less represented by the Busan Metropolitan City (higher level of local government in Korea) and includes 16 lower levels of local governments (15 autonomous districts and one rural unit). The largest functional area, often referred to as the Southeast Region, extends to the Gyeongnam province and Ulsan Metropolitan City.	Cope with brain drain and competition from Seoul and other Asian mega-cities, need to build better co-operation with Ulsan and Gyeongnam to design a comprehensive competitiveness strategy based on the complementary assets of the largest Southeast Region; Manage spillover problems (*e.g.*, urban sprawl and environmental concerns); Enhance local capacity to design and implement strategic decisions (decentralisation is quite recent), increase local democracy (especially at the lower level of local governments) and promote a culture of citizen participation.
Helsinki	The functional urban region includes four core municipalities (that form the core Helsinki metropolitan area) and eight surrounding municipalities. The Greater Helsinki region is comprised of four regional counties (NUTS 3).	Deal with urban sprawl and risk of further spatial polarization and disparities; increase co-operation among planning authorities of regional councils and municipalities especially for land use and housing. Further integration of the Great Helsinki area requires making major investments in infrastructure and housing (Helsinki has a small size from an international and EU perspective). Weak regional marketing generates unproductive competition between municipalities for FDI attraction.
Istanbul	The functional area is mainly represented by the Istanbul metropolitan municipality that includes 72 district municipalities but it also extends to two other surrounding provinces (Kocaeli and Yalova).	Manage huge transport congestion, provide better co-ordination of strategic planning at a wider regional level and better implementation and enforcement in the planning process; need for a long term strategic vision; improve delivery of local public services, need for more decentralization management at the district municipality level; strengthen local capacity building.
Madrid	The functional labour market is slightly larger than the Comunidad Autonoma de Madrid (autonomous community is a regional government in Spain), which is composed of 179 municipalities (including the City of Madrid that represents 54% of the total population).	Solve the problem of overlapping responsibilities and competition between the Comunidad and the City of Madrid (*e.g.*, economic development and internationalisation plans).
Milan	The restricted definition of the functional labour market roughly fits with the Milan Province that includes 189 municipalities (including the City of Milan). The extended definition of the functional area includes the Milan Province and seven other provinces.	Enhance co-operation to manage sectoral bottlenecks throughout the functional area (*e.g.,* transportation and congestion, housing); Build an integrated governance framework to create a sustainable "Milan community" capable to produce public goods with regional/national spillover effects.
Montreal	The functional labour market includes 82 municipalities (the largest ones being Montreal, Laval and Longueuil) and is represented by a metropolitan agency (CMM); the area is also split into three parts, each belonging to different administrative provincial regions that extend well beyond the current functional area.	Stabilisation and consolidation of institutional reforms in the region; dealing with demerger issues; implementation of decentralisation at the district level; new metropolitan community needs to be strengthened both from legitimacy and financial aspects; deterioration of municipal infrastructure puts strain on local finance.

Table 3.1. **Institutional fragmentation and governance challenges in some OECD metropolitan regions** *(cont.)*

	Institutional setting of the metropolitan region	Main governance challenges
Randstad	The polycentric Randstad region includes most of the South Holland and Utrecht provinces, the southern part of the province of North Holland and the growth municipality of Almere in the province of Flevoland. With 6.6 million people, it covers a large number of medium-sized cities and small towns and villages in addition to the four largest Dutch cities (Amsterdam, Rotterdam, The Hague and Utrecht). Each of the four large cities forms part of a city-region, an urban area that also includes the neighbouring municipalities. The highest functional integration occurs at sub-Randstad levels: city regions levels (Amsterdam, Rotterdam, The Hague and Utrecht) and wings' levels (North wings and South wings). The Randstad is also highly connected to neighbouring urban regions – North Brabant and Gelderland, so the Randstad could actually be embedded in a larger functional area.	Congestion and bottlenecks in transportation, notably in relation with the two main ports (Schiphol airport and Rotterdam harbour) requires more co-ordination at a wider regional level; More formal co-operation at the Randstad level is needed to pursue the objective of the integration process; Existing co-operation at the city-regions level is hampered by the lack of implementation power (every municipality that is part of these co-operative arrangements can block the decisions); Provide a better co-ordination process to manage existing environmental concerns, notably in relation with the "green heart" and water management (most of the area is below the sea level), for instance through improved co-ordination and rationalisation of water boards within the Randstad.
Seoul	The functional area is referred to as the Capital region, which includes Seoul Metropolitan City (around half of the total population in the functional area), Incheon Metropolitan City and the Gyeonggi Province. Within Seoul Metropolitan City, there are 25 districts (lower levels of government) of an average size of 400 000 inhabitants.	Need to build further and more formal co-ordination between the three local governments (Seoul, Incheon, Gyeonggi) to deal with typical challenges of mega-cities (*e.g.*, over-concentration of population and industries, congestion and environmental problems); Integrate sectoral co-ordination of local policies (spatial planning, land use management, transport and environment, economic development strategy) into a broader and integrated strategy for competitiveness and sustainable development; Avoid democratic deficit and inefficiency in local public services provision that could be caused by excessive centralism from upper level of local governments (Seoul metropolitan city) towards lower levels of local governments that are large in scale (districts municipalities); Pursue decentralisation process.
Stockholm	The local labour market includes two counties (Stockholm County and Uppsala County) totalling 36 municipalities. A larger expanded metropolitan area, the Stockholm Mälar region, includes five counties and 65 municipalities.	Strong local autonomy and weak intermediate level (counties) do not allow coordination of strategic planning decisions for transportation and economic development at the metropolitan level. The wish to create a wider Stockholm Mälar region requires creating a commonly agreed strategic vision and implementation and coordination of strategic investment projects especially for transport infrastructure.

lead to a mismatch between decision-makers, taxpayers, and beneficiaries of public services.

Horizontal co-ordination and more systematic integration of spatial planning, transport infrastructure, and socio-economic development is

particularly challenging in *mega-cities*. The development of mega-urbanisation often goes ahead of urban planning and the provision of public facilities. In some cases, there is a lack of an efficient infrastructure for the public and private traffic, of proper garbage removal and also of sewage systems with wastewater purification. Except the core city, the focus of strictly conventional urban planning, all the other quarters and districts of the agglomeration and mega cities grow up without the full benefit of urban planning. Especially the informal housing areas and in some cases also illegal housing areas built by the migrants themselves leads to an extensive settlement structure. The situation has serious consequences for environment and public health.

Finding co-operation arrangements with a real capacity for implementation between different jurisdictions – and levels of jurisdictions – is an extremely arduous task in the case of *polycentric metropolitan regions*. Yet, co-operation is important for such regions to exploit synergies and complementarities between the different parts of the region. In addition to common challenges to mono-centric regions, such as the need to co-ordinate policies on spatial planning and economic strategy, the lack of a dominant central city and the existence of several urban nodes in polycentric regions does not allow for the critical mass necessary to develop a branding/marketing strategy to attract FDI, compete for national public funding or develop large-scale infrastructure projects. Competitiveness of polycentric regions is also highly dependent on the quality of intra-regional connectivity and the public transport system. All these issues might be more difficult to tackle with for polycentric metropolitan regions that are typically characterised by strong institutional fragmentation, represented by a number of local governments, and in some cases, representing different administrative layers with the absence of a strong local leadership. The particular difficulty in achieving metropolitan governance in *cross-border regions* is that no higher level of government exists that could organise and direct collaborative efforts in the whole metropolitan territory.

3.2.2. Main trends in horizontal co-operation within metropolitan regions

Building on existing administrative layers

Institutional fragmentation is a common trend in OECD metropolitan regions, but its importance varies considerably from one region to another. In particular, the weight of the central city within the functional labour market could be such that the main local government could represent *de facto* a metropolitan government. This is the case of cities such as Busan, and Istanbul. In Korea, metropolitan cities were granted their status as autonomous regional governments in 1995 at the same level as provinces. In Turkey, Istanbul has been governed since 1984 by a Metropolitan Municipality

whose administrative boundaries were extended from 1 870 km/sq to 5 430 km/sq in July 2004 along with new assigned responsibilities. In some cases, an existing intermediate level of government represent *de facto* a kind of metropolitan government as the geographical area they cover match more or less with the functional area (Table 3.2). For instance, the metropolitan area of

Table 3.2. **Case of metropolitan regions represented by a local/regional government**

	Status	Share of total functional regions		Main responsibilities
		Population (%)	GDP (%)	
Communidad de Madrid	Regional Government (including 179 municipalities + City of Madrid)	106.9	105.15	Economic development, spatial planning, housing, social services, environment and water management, rail transport and regional roads Strong sub-national governments with legislative powers
Region Ile-de-France	Regional Government (including eight departments/counties and 1 281 municipalities among which Paris municipality which has 20 boroughs)	93.2	96.2	Exclusive competence for professional training, important role for economic development; spatial planning (master plan legally binding); specific responsibility in transport, shared competencies in other fields (education, culture, etc.) Rather weak in terms of spending powers as compared to municipalities and departments/ counties but relatively important strategic capacity
Stockholm County	Intermediate level of local government (including 26 municipalities).	85	90	Health care, and in a limited way, economic development and transport planning (weak both in terms of decision making, implementation and political legitimacy)
Istanbul	Metropolitan municipality (higher level of local governments) lower levels of government include 72 district municipalities	87.90	81.70	Public transportation, water supply and sanitation, public works (local road construction and maintenance), public safety. Can also intervene in such fields as social aid, health and education which are the responsibilities of the central government Metropolitan municipalities are the strongest local governments in Turkey which yet is the most centralised country in OECD
Busan	Metropolitan municipality (higher level of local governments; lower levels of governments include 15 autonomous districts and one rural district)	n.a. (nearly 100)	n.a. (nearly 100)	Social services, basic and elementary schools, local roads and waste management, economic development The strongest level of local government in a quite centralised country

Note: The functional region refers to the local labour market area.
Source: Data for Region Ile-de-France refers to 1999 for population and 2000 for GDP, the functional area is determined according to the GEMACA study conducted by the Regional Council' Institute for Planning. Data source for Stockholm is NUTEK and corresponds to the 2005 functional area. Data for Istanbul comes from Istanbul municipality. Data for Madrid comes from the City of Madrid.

Madrid in Spain is within the regional level called the *Comunidad Autónoma de Madrid* (Rodriguez Alvarez, 2002) that was established as part of Spain's federal system government after the death of Franco and, along with the other Autonomias of Spain, operates as a regional level of government. In France, within a context where successive waves of decentralisation have strengthened the position of the regions, the Region Ile-de-France whose areas of competencies roughly matches the Paris metropolitan area, now is responsible for producing the new regional master plan (previously produced by the central State) that will be the legal framework for all local government. Additionally, since 2005, the Region gained more competencies in public transportation through the authority of the *Syndicat des Transports d'Ile-de-France* (STIF). Similarly, Stockholm County has long been considered as the appropriate level for managing the metropolitan area as it fits with the local labour market area.

Generally, the effectiveness of large municipalities or intermediate levels in dealing with metropolitan wide challenges greatly depends on their legislative, executive and fiscal competences as well as the existence of appropriate planning tools. Compared with Region Ile-de-France, the Autonomous Community of Madrid has more capacity and competences to play the role of a metropolitan government. Strong local autonomy and the corresponding weakness of intermediate levels in Sweden have considerably limited the ability of Stockholm County to play the role of a metropolitan government. Istanbul and Busan municipalities were actually reorganised to respond to functional needs, thus holding promise of better coherent spatial planning. However, this has not always been the case. For instance, the Istanbul metropolitan municipality is in charge of urban planning, but the implementation process is hindered by a limited local fiscal capacity and conflicting relationships with lower local governments. As in Busan, relations with lower levels of government (districts municipalities) often duplicate a model of centralism raising concerns for efficient management and local democracy.

Creating new modes of governance

New modes of metropolitan governance, involving reform of traditional institutional and financial structures of major urban centres, are an arduous task. They pose a multitude of problems relative to the roles and responsibilities of different levels of government operating in metropolitan regions, intergovernmental co-ordination, and new relationships with the private sector and civil society. In this context, there is a strong interest in developing an adequate formula that will respond to metropolitan challenges now visible everywhere. The discussion of how to manage metropolitan regions better revolves principally around a spectrum of models that range

from relatively "heavy" to relatively "light" in terms of the scope of the reform they imply.

1. At the relatively heavy end are functional models whereby governance structures are re-shaped to fit or to approximate to the functional economic area of the metropolitan region. Examples include the creation of a metropolitan government and the amalgamation of municipalities.
2. At mid-position are a wide range of co-operative arrangements through inter-municipal joint authorities, most often on a voluntary basis, such as sectoral or multi-sectoral agencies whose main functions generally include transport, urban planning or economic development (sometimes on an *ad hoc* basis).
3. At the light end are informal co-ordination bodies such as platforms, associations or strategic planning partnerships, often relying on existing networks of relevant actors, without necessarily following the logic of territorial boundaries.
4. In addition to these different categories are purely fiscal arrangements such as equalisation mechanisms and tax-base sharing whose main purpose is to deal with fiscal disparities and territorial spillover within the area as well as public-private partnerships and contract services. Depending on the amount of funds they involve, they might be referred to as either light or heavy forms of co-operation. These are discussed in a separate section at the end of the chapter.

The functional models generally follow the *Metropolitan Reform Tradition,* which views the existence of a large number of independent local jurisdictions within metropolitan regions as a main obstacle to efficient and equitable delivery of public services and, conversely, large scale governments as being the main condition for producing economies of scale and internalising spillovers (Newton, 1982). The large scale of voluntary co-operative arrangements is much in line with what some scholars called *New Regionalism* (Savitch and Vogel, 2000). Contrary to the Metropolitan Reform tradition and the Public Choice School, new regionalists do not support the argument that political regulation must only be organised by public bodies. Rather, metropolitan governance is seen as organised by more or less formal and stable systems of different actors, involving structures of network co-operation between public and private actors and a relatively weak institutionalisation (Walter-Rogg, 2006).

i) Functional metropolitan models: amalgamation and metropolitan governments

Amalgamations or consolidation, *i.e.*, the mergers of municipalities, constitutes the most radical options of metropolitan governance reforms.

Amalgamations are promoted on the grounds that a bigger metropolitan government would improve the effectiveness of public services delivery and thus increase the competitiveness of the metropolitan region. With amalgamation, higher-level of governments try to overcome the combined pressure of metropolitan fiscal fragmentation, in some cases off-loading certain responsibilities and limited powers to the municipal level. Another objective is to rebalance population growth and patterns of social structure within metropolitan regions. Pro-amalgamationists contend that this formula can reduce duplication, produce economies of scale and scope for service provision, improve accountability, enable a more equitable sharing of the burden of taxation, and contribute to improved spatial planning capacity. In many cases, this reform was implemented as a response to urbanisation and urban sprawl by annexing small jurisdictions to a large municipality. This was done in Korea when metropolitan regional tiers were created in 1995, in Istanbul in 2004 with the 2004 legislative law that extends the administrative boundaries to fit the provincial level, as well as in Madrid during the 1940-1950s and Melbourne in the end of the 1990s.[1] These arguments have also been advanced by provincial policy makers in Canada which led to mergers in large metropolitan areas (Halifax in 1996, Toronto in 1998, and Montreal in 2002) (OECD, 2004c and OECD, 2002a).

So far, the results of amalgamations in Canada appear mixed. One positive aspect of amalgamation is that it can help to increase awareness of urban problems within upper levels of government as well as the city's international visibility. However, cost reduction or quality increases have not been necessarily detected, a task made more difficult by persistent transitional cost increases. In general, amalgamation is rarely an option that can be easily implemented, especially in urban areas, as it has limited support from all the hitherto independent urban or suburban municipalities. The forced amalgamations in Canada were made possible because municipal governments have no constitutional status. Their existence is derived from provincial legislatures that have exclusive control over municipal institutions. As a result, a municipality is a "creature" of the provincial government and the structure of its institutions as well as the scope of its responsibilities are determined by provincial legislation. A proposal for the amalgamation of the four main municipalities in the Helsinki metropolitan region was rejected as it ran directly counter to the country's strong tradition of local autonomy (OCDE, 2003a). Even in the Canadian context, some rich municipalities managed to de-merge from the new city of Montreal just two years after the reform.

The main counter argument against amalgamation is that, while the process could probably lead to reduced fiscal competition and less social segregation along geographical boundaries, many of the objectives could have

been achieved through voluntary inter-municipal collaboration on functional grounds. Moreover, few merged cities actually cover the entire metropolitan region. As mentioned previously, it is difficult to achieve a perfect match between functional and administrative boundaries simply because functional areas evolve constantly in time and space. For instance, the extent of urban sprawl in Korea is such that simply enlarging the perimeter of the metropolitan city by annexing neighbourhood communities is no longer a sustainable policy (OECD, 2001c and OECD, 2004b). In the case of the metropolitan region of Mexico City, the sheer size of most municipalities reduces the weight of the amalgamation argument – most have a population of more than 200 000 people (OECD, 2005e).

The functional model of *metropolitan government* has some basic characteristics. First, it is based on governance at a functional economic area level. Second, it assumes some decision-making power at the regional level distinct and autonomous from either central, large regional or local government. Third, it is built around cross-sectoral competencies (*i.e.*, not restricted to a specific sector or service) and competence in areas that have a metropolitan logic, such as transport, investment promotion, water supply, etc. Among the most well-known metropolitan governments are the Greater London Authority, the Stuttgart Regional Association and the Portland metropolitan district (Box 3.1). The metropolitan governance model assumes some logical predominance of functional area provision of goods and services over provision according to administrative boundaries. This assumption is based on arguments about the economies of scale (in terms of procurement, maintenance, operation, etc.) generated by larger, unified service delivery areas, better equalisation of costs across the entire metropolitan region (thereby reducing polarisation pressures), and more effective strategic planning and integration of sectoral policies. The metropolitan model also holds out the promise of increasing the political power of the metropolitan region, *vis-à-vis* the central government and internationally. For instance, since its creation, the Stuttgart Regional Association has been able to activate subsidies for regional development projects totalling EUR 155 million (Walter-Rogg, 2006).

Like amalgamation, the counter-argument to the metropolitan government model is that it dampens competition and public choice. Local governments compete to provide the mix of services demanded by residents at an appropriate price, it is argued, and if they fail to do this, these residents will, and should, move to other jurisdictions. Against this it can be pointed out that competition may be solely on the basis of which authority charges the lowest level of local taxes, which contradicts the logic of the sharing of functions across space in a metro-region. When people live and send their children to school in one area, work in another, and attend leisure and cultural

Box 3.1. **Metropolitan governmental authorities: the Stuttgart Regional Association, the Greater London Authority and Metro Portland**

Founded in 1994 the ***Stuttgart Regional Association*** represents 179 municipalities or five counties covering the metropolitan area of Stuttgart in the German Land of Baden-Württemburg with around 2.6 million people and a surface area of approximately 3 600 square kilometres. The legal framework of the association was established through a provincial law passed in 1993. The association's assembly is directly elected through a general ballot. The association's main responsibilities are regional spatial planning, transport infrastructure and operation, and regional economic development.

The association is funded by municipal contributions (54%) and intergovernmental conditional grants from the Land of Baden-Württemburg (46%). The municipal funds consist of a general contribution (11%) and an earmarked contribution for public transport (35%). Both contributions are negotiated annually and then split between the municipalities according to tax raising capacity and structural factors. The association has no taxing power and does not levy user fees. These powers remain within the exclusive authority of either the municipalities or the Land. Most expenditure (85% of the associations' budget of around EUR 260 million) goes to funding regional express trains and the regional transport body that manages buses and tramways.

Some years after the Greater London Council was abolished in 1986, a new ***Greater London Authority*** (GLA) was established in 2000. Unlike any previous local or regional government in the United Kingdom, it is made up of a directly elected Mayor – the Mayor of London who is elected by a single constituency of 7.3 million people – and a separately elected assembly – the London Assembly. When fully staffed, there will be about 490 staff to help the Mayor and Assembly in their duties.

There is a clear separation of powers within the GLA between the Mayor, whose executive role requires making decisions on behalf of the GLA, and the Assembly which has a scrutiny role and is responsible for appointing GLA staff. The Mayor is London's spokesman and leads the preparation of statutory strategies on transport, spatial development, economic development and the environment. S/he also sets budgets for the GLA, Transport for London, the London Development Agency, the Metropolitan Police and London's fire services. The Assembly scrutinises the Mayor's activities, questioning the Mayor about her/his decisions. The Assembly is also able to investigate other issues of importance to Londoners, publish its findings and recommendations and make proposals to the Mayor.

The GLA's competences include a number of existing government programmes such as police, fire, transport and economic development. These four key functional responsibilities are in the hands of boards: Metropolitan Police Authority, London Fire and Emergency Planning Authority, Transport for London and London Development Agency. Other functions include environment, culture, media and sport, public health and inward investment. The GLA has no taxing power. Its budget amounted to GBP 4.7 billion budget in 2002-2003, and most of the cost of the GLA itself is met by a central government grant, with a small contribution from London council taxpayers.

Box 3.1. **Metropolitan governmental authorities: the Stuttgart Regional Association, the Greater London Authority and Metro Portland** *(cont.)*

The Metropolitan Service District, usually known as Metro Portland, is a government for the Portland metropolitan area in Oregon, and the only directly-elected regional government in the United States. Metro serves more than 1.3 million residents in Clackamas, Multnomah and Washington counties, and the 25 cities in the Portland, Oregon, metropolitan area.

Metro was created by voters to join the Columbia Region Association of Governments (CRAG) and the Metropolitan Planning Commission in a May 1970 election. Metro in its current form went into operation on 1 January 1979. It is governed by a council president elected region-wide and six commissioners who are elected by district and has an elected region-wide auditor. Each elected official serves a four-year term. The council appoints a chief operating officer and an attorney. Metro receives 14% of its USD 200 million budget by levying a property tax, but more than 50% of its budget comes from fees and charges levied on metropolitan-wide operated firms (solid waste disposal plan, the zoo, the Convention Center, the Expos Center and the Portland Center for Art Performances).

Metro performs the following functions: 1) provides land use planning and is responsible for maintaining the Portland-area urban growth boundary, a legal boundary which separates urban from rural land, and is designed to reduce urban sprawl; it co-ordinates with the cities and counties in the area to ensure a 20-year supply of developable land; 2) serves as the metropolitan planning organisation for the area, responsible for the planning of the region's transportation system; 3) manages several park facilities, handles waste disposal and maintains landfills and recycling transfer stations.

Source: quoted in OECD (2004c), *OECD Territorial Reviews: Montreal, Canada*, OECD publications, Paris, France and Internet site of Metro Portland.[2]

events in others again, authorities in the different localities involved are not competing on a level playing field, but have diverse responsibilities. A stronger argument against the metropolitan model is that there is no such thing as an independent functional region; rather there are numerous functional regions within any given area depending on the activity. A related argument is that metropolitan government is unnecessary from the perspective of public service provision because there are many other means by which to achieve economies of scale (many of them involving production and provision of public services by the private sector or inter-municipal co-operation). These arguments, on the other hand, conflict with the frequent demand for "joined-up government" and "one-stop shops" for local services.

Conversely to amalgamations, metropolitan governments are not necessarily strong. The Stuttgart Regional Association has limited powers and its resources depend on contributions from local, state and federal governments. Similarly the Greater London Authority has very few resources

(except congestion charges) and largely depends on national transfers, and limited budgets. Similarly to amalgamation, the metropolitan government model appears, however, politically impossible in most cases; and where a single authority is introduced it often does not reflect the functional area anyway, thereby reducing the fragmentation problem but not completely resolving it.

ii) Inter-municipal joint authorities

- A first form of inter-municipal joint collaborative framework is the traditional *single-purpose* or *sectoral authority* devoted to one specific public service, aimed at increasing co-ordination and producing scale economies. They may provide similar municipal services to several municipalities or manage metropolitan-wide services with significant externalities. These forms of inter-municipal co-operation are common in countries where local autonomy is strong. Governance of US metropolitan regions for instance is notable for a profusion of regional special districts. The special districts largely focus on single purposes, such as providing such amenities as environmental protection, cultural facilities, transit, and so forth. Many are funded through special tax measures as well as fees and charges. In addition, one-third of all local governments in the United States are special districts or school districts. The boards of such special districts are usually represented by the constituent municipal councils except for those of the school districts who are generally directly elected (Bird and Slack, 2004). In Sweden, municipalities co-operate through a variety of mechanisms such as joint ownerships whereby two or more municipalities or county councils form a joint board to handle a given operation, such as managing a school or a health care centre (OECD, 2006d).

  Public transport or urban planning is also likely to be under the domain of this type of authority due to their metropolitan scope. In the case of transport, three main organisation models can be found in OECD metropolitan regions. The metropolitan authority can be a service operator only (Philadelphia), both service operator and manager (Athens and Madrid) or a co-ordinating body with several operators (London and Copenhagen). In terms of revenue resources, fare receipts generally account for a substantial part of the revenues of transport management authorities. Some transport authorities rely on commercial development opportunities as a complementary source of revenues, such as advertisement on trams, metros and buses, as is the case for the South Eastern Pennsylvania Transportation Authority (SEPTA) of Philadelphia which operates public transportation networks through its three branches.[3] They can also receive contributions from member municipalities, either on a voluntary or compulsory basis, as in the case of the Strathclyde Passenger Transport

Executive that operates the underground railway network in the Glasgow metropolitan region.

The special purpose district has a specific advantage, *i.e.*, since spillover boundaries differ for each service, they can be addressed on an individual basis. The main disadvantages of a single-purpose authority are that it raises the problem of co-ordination between several sectoral agencies and increases the risk of constituencies emerging to defend sectoral interests. It can also limit possible economies of scope among the different services provisions. The independence of the different bodies does not allow tradeoffs between different types of expenditures. This creates a complex policy environment which reduces political accountability as in general there is no direct link between the expenditure decisions made at the district/agency level and the local councils that are usually responsible for collecting taxes to fund it. In some cases, special districts might be subject to political considerations in the decision-making process (Bird and Slack, 2004). Whilst these inter-municipal forms of collaboration might be successful in achieving co-ordination and efficiencies for specific services, they are not suitable for achieving sustainable region-wide co-ordination. Hybrid solutions to meet the need for economies of scale and overflow effects based on the type of public goods involved, such as those developed in the United States, are often well adapted to the existing political and administrative structure (special districts, sectoral co-operation agencies, etc.), but might accentuate the functional fragmentation of metropolitan regions.

- Beyond a single-purpose sectoral agency, *multiple purpose metropolitan bodies* perform a wide range of functions such as planning and co-ordination, and sometimes delivery of public services (Box 3.2). This form of multi-purpose inter-municipal cooperation has been described as "minimal" government restructuring,[4] though their individual status varies greatly from one model to another, depending on the degree of administrative integration as well as political linkages with representatives from member local governments. They might be created by an upper level of governments like the Montreal Community of Montreal (CMM) or through voluntary cooperation (Greater Vancouver Regional District), sometimes with incentives from upper levels of governments (French Urban and Agglomeration Communities). Some receive grants from upper-level government, and/or fees from members local governments, and even can levy their own taxes. In some cases, not only can they deliver economies of scale in specific policy areas, but can also equalise the sharing of service costs across the metropolitan region and allow for a more harmonious distribution of resources, although this degree of redistribution is not systematic as in heavier governance models.

Box 3.2. **Examples of multi-purpose inter-municipal bodies in Canada (Montreal and Vancouver) and in France**

In Montreal, the amalgamation of the municipalities gave birth to the New City of Montreal whose boundaries still did not coincide with the functional area as defined by commuting and regional clusters patterns. Thus, a new regional body called the ***Montreal Metropolitan Community*** (CMM) was created by the government of Quebec in 2001 to handle responsibilities in areas of land planning, economic development, housing and public transit, environment and waste management. The CMM has a planning, co-ordinating and financing role and is managed by a council made up of 28 representative mayors. Its budget (around CAD 118 million) is essentially funded by contributions from member municipalities (roughly 88%) and grants from the provincial government (roughly 12%). The CMM has been particularly active in promoting an economic development strategy for the whole metropolitan area, including the creation of a regional fund, the production of a strategic vision and the elaboration of a cluster strategy, as well as lobbying towards higher levels of governments to get more funding for municipal infrastructure. It provides a rather modest tax base growth sharing mechanism. This programme is used to finance small development projects throughout the CMM and thus would only marginally improve fiscal equity among municipalities.

Canada's ***Greater Vancouver Regional District*** (GVRD) is a voluntary organisation that has achieved striking successes in the Vancouver metropolitan region to deal with such challenges as rapid growth, underinvestment in infrastructure and so on. The GVRD is a partnership between the over 20 municipalities that make up the Greater Vancouver metropolitan area which has formal responsibility in providing metropolitan-wide services such as drinking water, sewage treatment, recycling and garbage disposal, as well as regional planning and environment protection. It can also choose to take on other roles on a voluntary basis. The GVRD's Board of directors is comprised of mayors and councillors that serve on members' local councils, on a representation by population basis. The budget of GVRD is fairly small (CAD 191 per capita in 2002 compared to CAD 1 135 per capita for the lower-tier municipalities combined). The largest expenditures of the GVRD are for water and sewers (42% of total expenditures in 2002), capital expenditures (23%), and solid waste management (16%). User fees account for 80% of GVRD revenues followed by property taxes (almost 8%), and other investment income (almost 5%). A separate regional authority is responsible for transit.

Municipal organisation in ***France*** is characterised by fragmentation which has led municipalities to develop pools of certain services. This form of

Box 3.2. **Examples of multi-purpose inter-municipal bodies in Canada (Montreal and Vancouver) and in France** *(cont.)*

collaboration has always been practised on a voluntary basis and is regarded by some as an effective alternative to grouping local authorities (Mévellec, 2002). In the late 1990s the government decided to recognise the concept of agglomeration to clarify the institutional framework and accommodate the proliferation of agreements and actors. With the introduction of three laws (law on spatial planning and sustainable development or LOADDT, law on strengthening and simplifying inter-municipal co-operation, and law on urban solidarity and development or SRU), the government developed a mechanism to encourage the creation of ***Agglomeration Community*** (a public inter-municipal cooperation body for urban areas of over 50 000 inhabitants grouped around a central city with at least 15 000 inhabitants) and the ***Urban Community*** (a public inter-municipal co-operation institution for urban areas with over 500 000 inhabitants). As of 2005, there were 143 Agglomeration Communities and 14 Urban Communities. These joint intermunicipalities bodies are directed by councils composed of representative municipalities and carry out such functions as spatial planning, economic development, public transport, environment, social housing, waste disposal, etc. Generally, the President of the board is the Mayor of the central city. To carry out most of their responsibilities, these authorities enjoy their own tax revenues from the establishment of a common business tax. In addition, they receive some financial assistance from the State through an increase of the Operating Block grant (*Dotation Global de fonctionnement*).

Source: OECD (2004c), *OECD* Territorial Reviews: Montreal, Canada, OECD publications, Paris, France and OECD (2002b), *OECD Territorial Reviews: Champagne-Ardenne, France*, OECD publications, Paris, France.

The advantages of metropolitan wide co-ordinating and planning bodies depend on whether they take into account the overall metropolitan area. For instance, many of the French examples cover only a portion of the metropolitan area (especially within Paris metropolitan region). Yet, in many cases of multi-purpose oriented there is no superimposition of a brand new umbrella of government upon existing cities, but representatives are taken from existing localities and recast in a common structure. Thus, they are able to avoid the "grindstone effect" of being squeezed between competing jurisdictions. In addition, they do not suffer the tendency towards territorial stagnation that is common to consolidated metropolitan areas, as cities can join the body without disrupting activities or re-constructing the re-scale area. Positive benefits of multi-purpose agencies also depend on their capacity to integrate different functions. For instance,

regional transit is managed by a separate entity in Vancouver but with institutional links with the metropolitan body. Conversely, the provincial transport agency that covers the metropolitan area AMT (Agence Métropolitaine de Transport) in Montreal has not yet been integrated to the Metropolitan Community of Montreal (OECD, 2004c). Another advantage of multi-purpose agencies is that they preserve local autonomy, diversity, and the distinct identity of its member municipalities. Popular legitimacy can however became an issue when the institution takes on increasing responsibilities and fiscal revenues. In addition, problems may arise for policy implementation when the municipalities are not bound to respect the decisions. In Vancouver, cases have been reported about the difficulties to implement the master plan. The French Urban Communities and Agglomeration Communities are more efficient in this respect because participating municipalities are obliged to implement the decisions taken at the metropolitan level.

iii) Soft governance: light collaborative bodies

In many cases, new mechanisms emerged from city networks that spontaneously filled in the institutional blank and ensured free dialogue and co-operation among the cities in the metropolitan territory. The lighter forms of inter-municipal co-operation are generally engaged in mobilising local actors around common development projects as well as longer term strategic vision. An important assumption is that all parts of a metropolitan region as defined by functional economic area can share some common objectives. Furthermore, notwithstanding inequalities and rivalries, the interdependencies among the different municipalities imply stronger logic of co-operation than of competition. In other words, there is added value to a common strategy/vision that recognises explicitly interdependencies. This vision needs to understand the different identities that the metropolitan area encompasses: promoting complementarities and interdependencies, but also recognising differences and distinctive characteristics. There might be instances where specific local interests appear to contradict this, but in the long term there should be a clear collective premium for a region that maximises its "functional" complementarities. Strategic thinking should also link the inner urban core to the wider functional region relying on a comprehensive understanding of the economic, spatial and social implications of policy.

Light forms of collaborative frameworks have proved to be quite relevant and easier to implement at a wider regional level. The *Association of the Lyon Urban Region* for instance has been created as a forum of exchanges and co-operation among different other more formal inter-municipal co-operative structures such as the Urban Community of Lyon and existing administrative

layers (departments and municipalities) in order to foster co-operation and concentration at a wider regional scale (Box 3.3). It has proved to be successful in creating synergies among Lyon and other cities such as Saint-Etienne. Following the same logic, the *Council for the Stockholm Mälar Region*, which covers a larger area than the Stockholm functional labour market, has been an interesting bottom up initiative acting as a forum network. The Stockholm Mälar region includes five counties and features increasing commuting flows, clusters and business linkages, as well as spatial specialisation of higher education institutions. Further integration is perceived by local and regional leaders as holding promise for further agglomeration economies and productivity gains that could put the largest and strongest Swedish region in a better position to compete within the Baltic Sea area and on the international

Box 3.3. **Association of the Lyon Urban Region (LUR)**

The Lyon Urban Region (LUR) in France is an association that was created in 1989 on a voluntary basis by several departments – the second level of local governments in France – and focuses on elaborating plans and strategies for economic and sustainable development at the level of the functional metropolitan region. LUR represents 2.6 millions inhabitants and gathers different sets of administrative levels: four departments, 700 municipalities as well as a number of inter-municipal bodies (50 associations of municipalities (*communautés de communes*), the Urban Community of Lyon (also called the Greater Lyon) that includes 55 municipalities, and the Agglomeration Community of Saint-Etienne that includes 43 municipalities). With a budget of EUR 540 000 funded by the different members, LUR focuses on elaborating strategic plans on a wide variety of topics such as: mobility within the region; sustainable development policies; attractiveness of the region, infrastructures, logistics and metropolitan functions. The goal is to define the functions and strategies of the whole metropolitan territory (accessibility, major infrastructures, green spaces) and to co-ordinate the "master plans" of the different entities of the Lyon urban area. The creation of Lyon Urban Region has optimised the economic development of the area, which is one of the most integrated in France. Co-operation was particularly successful in the areas of mobility, public transport (as tariffs were harmonised at the regional level), and sustainable development (with the elaboration of a common strategy in 1998). The openness of Lyon Urban Region to neighbouring urban areas (*Saint-Etienne Metropolis, Vienne, Villefranche, Isère, Ambérieu-Plaine*) has favoured the development of plans to build a polycentric metropolitan region.

Source: Internet sites of the City and the Region[5] also quoted in OECD (2006d), *OECD Territorial Reviews: Stockholm, Sweden,* OECD publications, Paris, France.

marketplace (OECD, 2006d). In 2003, the *Council for the Stockholm Mälar Region* proposed a regional vision addressing such issues as co-ordination of infrastructure and transport, economic development and integration within the Baltic Sea area.

Polycentric metropolitan regions are particularly keen on "soft governance arrangements", focusing on achieving strategic spatial planning development objectives rather than on localised place-specific projects or programmes of action (ESPON, 2005). Most of those "governance partnerships" for polycentric regions are bottom-up initiatives coming from municipalities themselves, rather than driven by the national government, often with partners from private and voluntary sectors and other public and private agencies. These partnerships do not have decision-making powers, but can influence decision-making processes and seek implementation by making recommendations to the decision-making bodies. The key objectives followed by these governance partnerships are usually: strategic development; project orientation; networking and advocacy. Examples include the Regio Randstad, a platform for co-ordination within Randstad Holland, involving local, sub-regional and provincial governments and the Rhine-Ruhr Area in Germany, a more top-down approach essentially initiated by the Land of North Rhine-Westphalia. In both cases, concrete results in terms of planning or economic development have been limited up to now but they have contributed to start building a culture of co-operation and dialogue at the metropolitan scale – which is a pre-requisite to any further structural change (Box 3.4).

Light collaboration at the metropolitan level often emerges in the process of preparation of strategic plans for enhancing their potential for development and improving their image as a good place to live and work, as discussed in the previous chapter. For instance, the new amalgamated city of Toronto has adopted a multi-year strategic plan for economic development that has been integrated within a multi-sectoral plan and that has been accompanied by inter-municipal co-operation initiatives at a wider regional level (Box 3.5). Specific events also act as catalyst to mobilise local actors (Sevilla, Turin, Athens, Barcelona). In Barcelona where there are some conflicts between the core city and the Automomous Community of Catalonia, the preparation of the 1992 Olympic Games gave rise to pluralised networks of co-operation between the public and the private sector (Mariona Tomas in Kübler and Heinelt, 2005). Similarly, the Olympic games in Athens created a momentum for building a metropolitan governance framework after the event (OECD, 2004a). Both examples put the issue of regional planning and management of the after game period high on the political agenda.

The development of public private partnerships (PPPs) throughout a metropolitan region can create the need for more co-operative arrangements, generally in a light form as a first step. For instance, the need to leverage

Box 3.4. **Soft governance in polycentric metro areas: Regio Randstad and Rhine-Ruhr**

Regio Randstad was formed in September 2002. It is a deliberative body representing the four provinces of the Randstad (*i.e.*, North and South Holland, Utrecht and Flevoland), the four major cities (Amsterdam, Rotterdam, The Hague and Utrecht) and the four city-regions. Its stated purpose is "the strengthening of the Randstad as an attractive metropolitan region to live in and the strengthening of its competitiveness at the European and international level". Regio Randstad is administered by a council of 24 members which appoints an executive committee of five persons. This committee meets every month and is assisted by an administrative and technical staff of about 12 people.

Regio Randstad does not have power that is binding for either the local or provincial authorities. Instead, it acts as a platform of dialogue on spatial planning, housing and environment; agriculture, economy, knowledge infrastructure, innovation and accessibility among local governments and with the central government. *Regio Randstad* and the central government meet on a regular basis (about three times a year) through the Steering Committee Randstad (BCR). The BCR, established in 1998, brings together the ministries of Spatial Planning, Economic Affairs, Agriculture, Transport and the Interior, together with the executive committee of the Regio Randstad.

In practice, the influence of Regio Randstad on decision making remains limited. Most of the regional planning takes place at the city-region level and the other structures seem to have a stronger say in national policies (*e.g.*, the association of municipalities (VNG), the association of provinces (IPO), a grouping of the four cities (G4). In addition, the central government has adopted a regional policy focused on a wing level: North wing (Amsterdam-Utrecht) and South wing (The Hague-Rotterdam) rather than at a Randstad level.

The ***Rhine-Ruhr Area*** in Germany is a classic example of a polycentric region. Although it contains several large cities such as Cologne, Essen, Duisburg, Dortmund, and Dusseldorf, no clear hierarchy of cities exist. The Rhine-Ruhr region is neither politically nor statistically defined. It is politically fragmented and has no joint planning and development authority. Since the mid-1990s, German planning has recognised Rhine Ruhr as a functional metropolitan entity, *i.e.*, one of the country's European Metropolitan Regions (EMRs). This concept was introduced by the federal planning agency and has been integrated into the State Development Plan of North Rhine-Westphalia (1995) with a clear competitive objective in mind. The concept was however introduced in a top-down manner and is still in a the "very early stage of the process".*

Box 3.4. **Soft governance in polycentric metro areas: Regio Randstad and Rhine-Ruhr** *(cont.)*

The *Kommunalverband Ruhr* (Ruhr District Association of Local Government Authorities) consists of 11 large cities and four counties (municipalities of Bochum, Bottrop, Dortmund, Duisburg, Essen, Gelsenkirchen, Hagen, Hamm, Herne, Mülheim et Oberhausen, and *Kreise* of Ennepe-Ruhr, Recklinghausen, Unna et Wesel). Its territory contains 5.4 million inhabitants. It was recently strengthened by the Land of North Rhein Westphalia through the assignment of some new planning competencies and was renamed *Regionalverband Ruhr* (Regional Association Ruhr).

The Land had also pushed in the early 1990s for the creation of sub-metropolitan networks among cities in the Rhine Ruhr area: the so-called "regional conferences". These networks are consultative platforms of dialogue, whose main activities are to prepare "development concepts". Functioning and organisation of conferences are varied. For instance, the *conference of Emscher-Lippe*, in the North of the Ruhr, is composed of 26 members: representatives of ten large municipalities, *Kreise* unions and two representatives of the Land. The conference is headed by the "prefect". It is thus a rather small structure. On the other hand, the conference of Ruhr-Est (Dortmund) gathers 75 members: consular chambers, unions, environmental groups, cultural associations, universities, municipalities, *Kreise*, etc. It is headed by a committee of the mayors of large municipalities. It is thus a much larger and open structure.

A culture of co-operation and joint working is born, with very little or no funding at the regional scale. Observers are sceptical about the achievements of these co-operation platforms, which have produced very few concrete results in respect to their first objective, *i.e.*, to elaborate concrete strategies and projects of development.

The *Regional Association Ruhr* remains also in a very preliminary stage and has not led to concrete results or projects. Overall, in spite of a growing demand by stakeholders to bundle regional tasks into politically legitimated region-wide bodies in order to simplify administrative structures and processes, current political thinking does not include any further steps towards advanced urban networking for Rhine Ruhr (Romein, 2004).

* For instance, the former idea of a high speed Metro-Rapid as a metropolitan "flagship" in Rhine Ruhr failed, following opposition of regional stakeholders. The planning of this flagship missed, in short, a regional discourse and created little support from most regional and local stakeholders.

Sources: OECD (forthcoming b), *OECD Territorial Reviews: Randstad-Holland, The Netherlands*, OECD publications, Paris, France and Romein, Arie (2004), "Spatial Planning in Competitive Polycentric Urban Regions: Some Practical Lessons from Northwest Europe", OTB Research Institute for Housing, Urban and Mobility Studies, Delft University of Technology, paper submitted to City Futures Conference, 8-10 July 2004, Chicago, IL.

Box 3.5. **The Toronto Economic Development Strategy**

When the new city of Toronto was created through the amalgamation of a number of municipalities in 1998, it launched a multi-year strategic economic plan that resulted in adoption of the Toronto Economic Development Strategy.

Several actions have been concretely taken afterwards. While each action focuses on a specific issue, all of the actions have been purposely designed and implemented so as to develop a culture of partnership among business, labour, educators, NGOs and all orders of government. For instance, the City produced a comprehensive business directory. Meanwhile, the City has secured funding from the federal government to prepare a Labour Force Readiness Plan for the period 2001-2010 in partnership with the business community, labour representatives, educators, and all levels of government. The Plan provides an overview of labour market issues in the city-region and detailed action plans for three industry clusters – construction, information technology/telecommunications, and tourism/hospitality. After the first three years of the five-year Toronto Economic Development strategy, it appeared that the programme had benefited from the active involvement of business, labour, academic and community leaders. All the programme's components were designed to be replicated, so as to allow for on-going performance monitoring. The same approach was used in a number of different Canadian jurisdictions.

This long-term outlook and broad consultative approach has had a major impact on the community, creating an "alignment of strategic intent" among all levels of government and formerly competing municipal jurisdictions, forging broad-based partnerships with business, labour, educators and government, and developing new products and approaches that have improved customer services and become models for other jurisdictions. By developing partnerships focusing on a common vision, City Economic Development staff have increased municipal out-of-pocket investment from less than CAD 100 000 over three years to almost CAD 1 million, and significantly advanced Toronto's interests.

The example of Toronto is particularly interesting in that the city has managed to build a consensus around a common vision for the economic development of the city among business, labour, and community leaders. In addition, the Economic Development Strategy is not an independent programme but is firmly integrated in the city's entire strategic plan, including the Environmental, Cultural and Official Plans and the Social Development Strategy. They have all been developed under the umbrella of City Council's Corporate Strategic Plan. Moreover, Toronto's suburban municipalities, having frequently engaged in heated competition with the city

Box 3.5. **The Toronto Economic Development Strategy** *(cont.)*

and with each other over economic growth in the past, now recognise the importance of a strong inner city and are advocating a policy of close co-operation. This recognition came about after the Plan acknowledged that:

- the city and the 905 surrounding municipalities comprise a single economic region;
- Toronto has the critical mass of people and activity necessary for internationally competitive financial services, leading edge research and development, and top quality education and training programmes; and that
- the surrounding regions have the land necessary to accommodate large scale production and distribution facilities.

A concrete example of co-operation with suburban municipalities is the creation of the Greater Toronto Marketing Alliance, a single marketing agency for the great metropolitan region of Toronto. The Greater Toronto Marketing Alliance is a public-private partnership between the 29 GTA municipalities and regions, together with the provincial and federal government, other non-profit organisations, and a broad cross-section of private sector partners. The objective is to provide a single point of contact for prospective international investors and business inquiries in the GTA. Among other activities it has undertaken trade missions abroad, mainly in the United States. It aims to have a less fragmented approach to international tourism and investment marketing.

Source: OECD (2002a), *OECD Territorial Reviews: Canada*, OECD publications, Paris, France.

private funds for infrastructure development projects in the preparation of Olympic Games in Athens, Barcelona and Turin went hand in hand with discussion to better organise the metropolitan area. In the United Kingdom, where public policies are typically delivered through PPP, such mobilisation could emerge to deal with what Lefevre (2004) calls a "proliferation of partnerships" that leads to "territorial fragmentation". For instance, the Birmingham Strategic Partnership was established to better organise existing PPPs, bringing together, at a city-wide and district level, key public agencies and representatives of the business, community and voluntary sectors to achieve more effective joined up action, particularly in relation to *neighbourhood renewal* and tackling deprivation.

Soft governance arrangements could be conceived as a first step towards a more formal governance collaborative framework. For instance, in the province of Bologna, the Metropolitan Conference, made up of mayors of the member municipalities, and presided over the by the President of the

Province, has been acting mainly as forum of discussion with the objective to start the process of institution building through the setting up of technical and administrative joint bodies. This experience was abandoned in 1999 with the election of the centre-right coalition, but a new culture of co-operation has been developed throughout the Bologna metropolitan area so that the metropolitan conference was re-launched as a permanent political structure with the 2004 municipal election (Lefevre, 2006). The Bologna experience has inspired similar initiatives in Turin where a metropolitan conference was set up in 2000 with the voluntary adhesion of 38 municipalities including the central city and the Province. One of the main objectives for such Italian metropolitan conferences is to go towards the creation of a Metropolitan City (*Citta Metropolitana*), as provided by the 1994 Act.

In many cases, there are already some light forms of collaboration that could be strengthened when local and regional leaders feel the need to enhance regional development economic development and planning. For instance, as the functional region of the Seoul metropolitan area has extended to include Incheon metropolitan municipality and Gyeonggi province, there is a rationale to strengthen the existing *Administrative Council for the Capital Area* that was instituted in 1988 as a mechanism for area-wide co-operation through an agreement between Seoul Metropolitan Government, Incheon Metropolitan City, Gyeonggi Province, Gangwon Province and Chungbuk Province. This council was intended to provide heads of provincial and metropolitan governments with a forum to discuss and solve common problematic issues. However, it was unsuccessful in solving some of the issues that were put on the agenda (*e.g.*, large-scale land development projects) due to a lack of operational tools (OECD, 2005f). In the same vein, if there is a wish from local and regional leaders to accelerate the integration process within the Stockholm Mälar region, the Council for the Stockholm Mälar Region, currently endowed with a secretariat of five people and a budget of SEK 10.7 million funded by membership fees, could see its mandate extended to co-ordinate efforts for a common and shared vision for economic development and infrastructure planning. If needed it could evolve towards a formal metropolitan agency in charge of strategic planning and transport infrastructure (OECD, 2006d).

iv) Metropolitan economic development agency

Inter-municipal collaboration around one single theme can focus on policy and not public services delivery through an *economic development agency*. Such agencies are common in OECD countries and despite great diversity in details of organisation and objectives they generally share some principal features and functions. Overall, they can be described as agencies that

co-ordinate and drive forward economic development actions in a given geographical area, with the following characteristics:

- Their mission and general objectives are defined by the sponsoring public agencies involved to whom the agency is accountable;
- They are responsible for translating overall objectives into operational projects and programmes;
- They have a strong labour market and enterprise focus, including responsibility for organising, or at least co-ordinating, regional business support and workforce development programmes;
- They are responsible for, or closely involved in inward investment promotion and processing, and more generally are responsible for contributing to the marketing of the region;
- They work with local development agencies or sectoral agencies that are delivering outputs that contribute to achieving the general objectives (*e.g.*, they do not necessarily replace specialised bodies).

Generally, such bodies maintain close links with the different government entities of the entire region. In some cases, they are institutionally separate from them, in other they are incorporated in the newly created metropolitan entities. The principal concern is to ensure that they can provide an approach to policy delivery that provides what the public authorities cannot in terms of flexibility, business-linkages and sensitivity to local needs. Within the OECD, there are relatively few examples of such economic development agencies organised at the metropolitan level. An interesting example is the London Development Agency (LDA), as it is linked with a wider metropolitan governance reform process, reporting to the Greater London Authority (GLA). As with other regional development agencies in the United Kingdom, the LDA receives central government funding and has to comply with the national policies guidelines. It produces the Economic Development Strategy on behalf of the Mayor of London and implements economic development policies for the metropolitan area covered by the GLA, working with a wide range of local agencies. The Regional Council of Ile-de-France established in 2001 the ARD (*Agence Régionale de Développement)* is the economic development agency in charge of promoting FDI and marketing strategy for the Paris metropolitan area. With a total budget of EUR 9.2 million in 2005, the ARD provides services to companies in their strategic locational decision (inward and outward investments) and is involved in promoting clusters and the so-called "poles of competitiveness" (*pôles de compétitivité*) recently launched by the French government (OECD, 2006a).

In many cases, there are no metropolitan-wide economic development agencies but the local development of the most important municipality takes the leadership and promotes the city and its wider region as a whole. One

example is Sevilla Global, the Urban Agency for the city economic development that belongs to the Sevilla City Council (Sevilla is the fourth urban agglomeration in Spain and the capital of the Autonomous Community of Andalucia). Also in a number of cases, joint inter-municipal authorities take place in a portion of a metropolitan area only such as the "ASNM" (*Agenzia di Sviluppo Nord Milano*), established in 1996 on a voluntary basis by the northern municipality of Sesto Saint-Giovanni and the Milan Province. In 2005, three other municipalities have joined the agency, renamed *Milano Metropoli* (*i.e.*, the municipalities of Bresso, Monzese, and Balsamo). The agency's mandate consists in stimulating economic development especially in large Brownfield sites through territorial marketing, FDI promotion and local initiatives. The new structure has now evolved towards a public-private partnership owned agency as partners also include the Chamber of Commerce of Milan, two financial institutions and some important companies.

iv) Specific case of cross-border regions

The extent to which a national border running through a metropolitan cross-border area hampers the evolution of a common system of governance is dependent on a large variety of factors concerning the economy, culture, politics, etc. Their influence ranges from prohibiting any attempt at exercising common governance (two different political systems collide) to being strongly supportive (a vision for the future development of the region is widely shared). Aspects that are crucial to the development of any system of metropolitan governance across borders could be grouped into four major categories:

- *The prevailing culture of co-operation*: Co-operation across national borders is not only the technical inter-linkage of two or more different systems of governance. It also has to bring together different people and social systems with differing systems of values. Therefore the culture of co-operation that exists (or may emerge) in a multinational metropolitan area is most decisive to any approach towards metropolitan governance across borders. It is principally centred on two questions: *First*, what role are local actors willing to concede to their potential partners on the other side of the border in the management of the region? This is the basic question concerning the will to engage in co-operation. *Second*, the ease with which co-operation can be carried out. Language problems or different standards in culture, politics, etc., can provoke long delays in the administration and implementation of technical questions and cause frustration among co-operating actors.
- *Legal aspects*: Establishing a system of metropolitan governance across borders means institutionalising one set of co-operation agreements on the basis of several different jurisdictional systems. Co-operation is facilitated

if a certain similarity characterises the different legal systems in the metropolitan area. This is, for example, the case for co-operation among Scandinavian countries, whose legal systems are relatively similar. If differences prove substantial, they can be bridged with the help of bi- or multilateral agreements. They provide a legal framework for co-operation on the regional level and enable direct co-operation on the sub-national level (*e.g.*, the creation of trans-border associations assembling several municipalities[6]). Over the second half of the 1990s these agreements have mushroomed, especially in Europe.

- *Financial aspects*: In the absence of a higher level of government that could promote co-operation in a multinational region, incentives have to be provided to enhance co-operation. The supply of financial funds is a way to correct a market failure induced by a border that prevents actors from co-operating. The ambition of those funds trying to address this problem is to initiate economic activities (including a reasonable return of investment). In Europe, the INTERREG-programme is the most prominent example of this approach. Besides availability (and accessibility) of *external* funds the establishment of a trans-national system of governance also requires sufficient *internal* funds.
- *Distribution of competences:* Co-operation is dependent on the possibility to have a partner with decision-making authority. It is obstructed if a metropolitan area belongs to countries with strongly diverging constitutional set-ups and differing distribution of competences. Take the example of a region accruing part from a federally, part from a centrally organised country. In this case, administrative competence can fall in the hands of local municipalities on the one side, whilst on the other side they rest with de-concentrated agencies of the national government. Or, assume that the overall distribution of power is balanced, the partners are of roughly equal "weight", yet they dispose of different kinds of competences. These situations complicate cooperation, as different sets of actors from differing levels of governance have to be assembled for every problem. It can result in a situation where, for example, the establishment of a trans-border industrial park has to be managed by the local authority of the one side together with a national ministry on the other one.

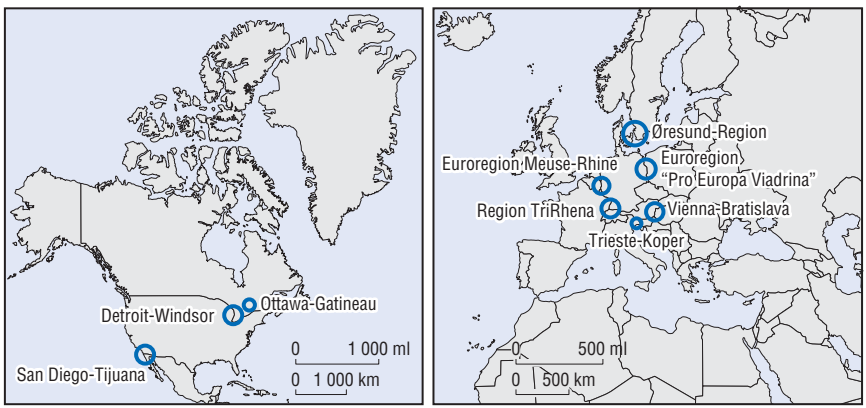
OECD case studies of metropolitan governance across borders include the urban agglomerations of Vienna (Austria) and Bratislava (Slovak Republic) and the Scandinavian Öresund region, embracing Copenhagen (Denmark) and Malmö (Sweden). These two case studies have been benchmarked with Tijuana/San Diego (Mexico/United States), Detroit/Windsor (United States/Canada), RegioTrirhena (Basel/Switzerland, Mulhouse/France and Freiburg/Germany) and Meuse Rhine-Regio (Liege/Belgium, Maastricht/the Netherlands and Aachen/Germany) (Table 3.3). The metropolitan areas covered assemble a

Table 3.3. **Examples of cross-border regions**

	Inhabitants	Area (km^2)	Population density (inhabitants/km^2)
Vienna-Bratislava Core region	2 921 800	8 456	346
Vienna (Austria)	1 550 123		
Bratislava (Slovak Republic)	428 672		
Detroit-Windsor Metropolitan region	4 775 000	12 386	386
Greater Detroit Region (United States)	4 400 000		
Greater Windsor (Canada)	375 000		
San Diego-Tijuana cross-border region	4 072 200	12 284	332
San Diego (United States)	1 200 000		
Tijuana (Mexico)	1 000 000		
Öresund Region	3 554 561	20 859	170
Copenhagen (Danmark)	500 531		
Malmö (Sweden)	265 000		
RegioTriRhena	2 200 000	8 700	248
Basel (Switzerland)	166 285		
Mulhouse (France)	112 002		
Freiburg (Germany)	210 240		
Meuse-Rhine Euregion	3 794 000	10 738	353
Liege (Belgium)	185 000		
Maastricht (the Netherlands)	122 000		
Aachen (Germany)	245 000		

Source: Annex documents to OECD (2003d), *OECD Territorial Reviews: Vienna-Bratislava, Austria/ Slovak Republic*, OECD publications, Paris, France, except for Basel, Mulhouse and Freiburg source *http://de.wikipedia.org*; all data for 2000-2002, except Koper for 1996.

Figure 3.1. **Geographical position of selected cross-border regions**



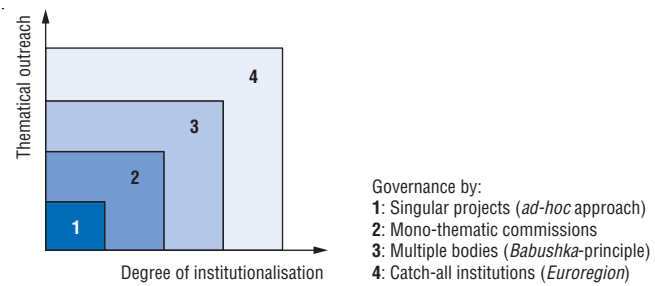
diverse sample of different systems of co-operation – concerning endurance, depth and scope of co-operation. Note that the territorial delimitation is – as a result of existing administrative borders – highly arbitrary and tends to

include functionally independent areas while sometimes excluding territories of high importance for the metropolitan area.

The different systems of metropolitan governance across borders that developed in the metropolitan areas covered have been grouped into four categories as shown in Figure 3.2. The categorisation developed primarily accounts for the existing formal structure of co-operation. Principal variables of differentiation are *first* the governance system's thematic outreach (is co-operation restricted to one or a few fields or does it include the whole spectrum of governance?) and *second* the degree to which the organisation of cross-border co-operation has been institutionalised and centralised on the trans-border level (is governance the product of national institutions' initiatives or has a central, multi-national institution with its own power for policy design emerged?).

- The most basic form of metropolitan governance across borders is the *joint implementation of single projects* that impact the whole metropolitan area. Although not necessarily a form of real governance, these projects nevertheless represent the basis for long-term co-operation. Fields most likely to be addressed by this approach include environment and infrastructure. Vienna-Bratislava falls into this category. This metropolitan area stretches over the former "iron curtain" that kept them for decades from establishing closer ties, despite their historically close ties within the former Austro-Hungarian Empire. Attempts to set up a system of cross-border governance have not been very successful over the last decade, due to the instability of relations and alternating reluctance from both sides to engage in their consolidation. Until the entrance into the EU of Hungary and the Slovak Republic, relationships were characterised by an incremental approach that tried to accumulate individual (bottom-up) projects. They either emanate from professional relations or socio-cultural projects, the latter funded by the EU INTERREG or PHARE programmes. Again, co-ordination between the two programmes is weak. The most notable

Figure 3.2. **Systems of metropolitan governance across borders**



project of the last years is the establishment of "Centrope", or Central European Region. It is a platform that tries to co-ordinate cooperation in the border quadrangle between the Czech Republic, Slovakia, Hungary and Austria.

- *Governance by mono-thematic commissions* follows a sectoral approach oriented at concrete and direct problem-solving. Co-operation across national borders targets one specific challenge and tries to supply solutions. This is generally done in a rather pragmatic manner, where the territorial dimension (integration of several policy fields as an attempt to create a cross-border region) is underdeveloped. The approach restricts work to the one single sector it started from (classically environment or infrastructure) and shows little appetite to include other fields. Working structures tend to be light and flexible and show characteristics of networks rather than institutions. These are created easily and can be dissolved quickly. This makes the approach flexible but not very durable. Governance systems of this type can mostly be found in North America such as San Diego-Tijuana and Windsor-Detroit (Box 3.6).
- *Governance by babushka* recalls a Russian doll holding a smaller puppet in its hollow inner, which again holds another, smaller puppet and so on. In the field of governance the Babushka principle serves as an illustration for an approach where a dense network of different bodies creates a decentralised system of co-operation across a national border. Those bodies (councils, commissions, associations, etc.) contribute to an intense inter-linkage of various actors that co-operate in different fields and on different levels. The special trait of the Babushka principle is the absence of a central institution that would manage the existing structures of co-operation. In this environment, coherence of action can only be guaranteed through the existence and widespread acceptance of a common vision for the development of the metropolitan area. A system of metropolitan governance across borders that follows this approach requires considerable time (several decades) to emerge. Basel-Freiburg-Mulhouse (RegioTriRhena) and Copenhagen-Malmö (Öresund) are examples that fall into this category (Box 3.7).
- A system of *governance managed by a catch-all institution* corresponds to the most institutionalised and most centrally organised type of metropolitan governance across borders. Catch-all institutions are set up on the metropolitan level and assemble actors responsible for policy design from all national parts of the region. Normally, they should be endowed with their own policy power thus representing a genuine governance institution that encompasses different national jurisdictions. This degree of central control distinguishes this approach from the Babushka principle. The Euregions, existing exclusively in Europe, are examples of those catch-all

Box 3.6. **Cross-border regions: governance by mono-thematic commissions**

Extreme economic differences (*e.g.*, wages diverge by app. 1 to 10) collide on the metropolitan area of ***Tijuana*** (Mexico) and ***San Diego*** (United States). The border between the two cities is reportedly the world's busiest land crossing, with approximately 130 000 people crossing each day. Tijuana, attracting workers from the rest of Mexico, almost doubled its population during the 1990s. The dynamic demographic development makes evident certain fields where cross-border co-operation is required: tackling economic interdependence and the labour market, transportation and border crossings, and environmental problems stemming from the massive population growth (especially water supply and treatment). These fields are addressed by individual commissions or programmes which are rarely restricted to the metropolitan area but often cover wider parts of the US-Mexican border. Examples include the International Boundary and Water Commission (IBWC) or the Border Environment Cooperation Commission (BECC). The Border Liaison Mechanism (BLM) is a system under which the consul generals of Mexico and the United States in San Diego and Tijuana can convene the three levels of government from both sides of the border to address important issues. Furthermore, a series of quasi-governmental, regional co-ordinating entities have been created on both sides of the border to circumvent governmental structures that would obstruct cross-border co-operation. However, note that these commissions are restricted to one issue only and are not designed to extend their work onto other fields. No attempts are taken to establish any kind of all-embracing, multi-thematic governance institution for the metropolitan area.

Windsor (Canada) and ***Detroit*** (United States) have both been part of an important automotive cluster over the last century. Relations between the two cities are close. Due to their strategic location at the Great Lakes (a considerable portion of US-Canadian trade passes through the region), transportation issues are at the heart of co-operation agreements. One example of how governance is done in the metropolitan area is the Ontario-Michigan Border Transportation Partnership. It was set up in 2000 and assembles representatives from US and Canadian institutions of both regional and national level. Its purpose is to conduct a Planning/Need and Feasibility Study and to determine long-term solutions for transportation across the border. Other attempts concentrate on controlling the impacts of increasing economic interdependence, especially since NAFTA entered into force. However, although governments and economic development corporations keep strong ties across the border, integration rarely surpasses the level of technical commission. Governance attempts concentrate on improving common border infrastructure and ways to make (physical) crossing easier. The harmonisation of policies and the set-up of common institutions with real governance power are not seriously discussed.

Source: Annex documents to OECD (2003d), *OECD Territorial Reviews: Vienna-Bratislava, Austria/Slovak Republic*, OECD publications, Paris, France and OECD (2003c), *OECD Territorial Reviews: Öresund, Denmark/Sweden*, OECD publications, Paris, France.[7]

Box 3.7. **Cross-border regions: governance by babushka**

In the ***RegioTriRhena***, a tri-national region situated in the Upper Rhine area, a process of cross-border integration has been taking place over the past 40 years. It started in the Swiss town Basel,* where a group of business, university and political representatives founded the Region Basiliensis association that supplies a forum for exchange. Similar associations were formed in the German and French part of the region. Over the decades a vast network of cross-border co-operation has evolved. It spans all levels of governance in the region with local business and academic communities as an integral part. Existing boards, conferences, associations and councils range from pure governmental commissions over councils assembling regional parliamentarians to an INTERREG-funded information centre. Public amenities such as airports or research infrastructure are habitually dimensioned for the whole region. However, no central institution exists that would co-ordinate different activities. Coherence of action is guaranteed by a common "vision" of how the region should develop.

The opening in 2000 of a fixed link across the ***Öresund*** strait has put a flashlight on developments in the Scandinavian Öresund Region that encompasses Copenhagen (Denmark) and Malmö (Sweden). Using this major project as a focal point, the region managed to tap national and European funds (the INTERREG programme will contribute EUR 30 million to the Öresund Region for 2000-2006) and set up new institutions of cross-border co-operation. This task is facilitated by the relative similarity of the Danish and Swedish systems of governance and the two sides' cultural homogeneity. The major platform for horizontal partnerships is the Öresund Committee. It is composed of local and regional political bodies from both sides of the strait and – which is quite exceptional for trans-national regionalism – by the two national ministries as observers. There are no private actors on the Committee. Although elected local politicians represent the Committee, it does not act as a local or regional government but only as a platform for the elaboration of public strategies on both sides of the border. This makes the Committee the crossroads and pivotal point of many cross-border activities. The process of integration in the Öresund is therefore achieved not through the set up of an additional government layer but through the voluntary co-ordination of policies of its members. It has thus been acting as a catalytic converter for numerous cross-border activities.

* It should be mentioned that integration was advanced in this region before the First World War.

Source: Annex documents to OECD (2003c), *OECD* Territorial Reviews: Öresund, Denmark/Sweden, OECD publications, Paris, France and OECD (2003d), *OECD* Territorial Reviews: Vienna-Bratislava, Austria/Slovak Republic, OECD publications, Paris, France.[8]

institutions. However, quality and governance power of these institutions vary widely. Examples covered include the Euregion *Meuse-Rhine* in the Belgian-Dutch-German borderlands and the Euregion *Pro Europa Viadrina*, encompassing Frankfurt and Slubice (Box 3.8).

Box 3.8. **Cross-border regions: governance by a catch-all institution**

In 1976, the implementation of an agreement between the governors of the Belgian and Dutch Limburg regions and the provincial governor of Cologne (Germany) created the ***Meuse-Rhine*** Euregion. Its purpose was to promote the integration of the populations separated by national frontiers. Note the difference to the approach of mono-sectoral commissions that focus on concrete problems and do not include further ranging ambitions. Currently the Euregion assembles five regions in three different countries. Due to its cultural heterogeneity, it is referred to as "Europe in miniature". Despite the existence of a working group created in 1976, it is only since 1986 that the Euregion really took up work. New impetus was given in the early 1990s. First, a joint Dutch-Belgian-German ministerial declaration expressed the political intent to improve the cross-border infrastructure in the region, and second the start of the INTERREG-programme provided the region with a new source of finance. In its current set-up the Euregion disposes of an ample organisational structure that assembles representatives from the local to the European level as well as the civil society (*e.g.*, universities, chambers of commerce, labour unions) in a system of councils, committees and working groups. Its youngest institution is the Euregional Council, an 81-member body that is consulted for questions on the Euregion's strategic development. It is received as a parliament-in-waiting. The Euregion's institution has direct control over EU-funds and exercises strong policy influence over the five member regions.

Source: Annex document to OECD (2003d), *OECD Territorial Reviews: Vienna-Bratislava, Austria/ Slovak Republic*, OECD publications, Paris, France.[9]

Systems of metropolitan governance across borders develop over long periods of time and are each the result of a series of different processes. It was argued that they can be grouped into four different types. While several of the cases studied exhibit little ambition to transcend their current characteristics to engage in a deeper form of co-operation (this is particularly true for the second group analysed, governance by mono-sectoral commissions), others show a tendency towards deeper integration. This is done in two different ways: metropolitan areas that can resort to a longer tradition of cross-border co-operation may confide governance to the hands of several bodies

(Babushka principle) or to one single institution. In cases where a system of governance across a previously closed border has to emerge quickly, the responsible actors may resort to the set-up of a central institution as represented by a Euregion.

In some cases, development leapfrogs from the level of projects to the creation of a central catch-all institution in a situation where the existing network of cross-border contacts is still relatively weak. Although the creation of such a central institution generally has a high symbolic value and might act as a catalyst for further development, it is important to beware of the dangerous illusion that a single institution responsible for cross-border co-operation would solve all problems. Such an institution, however designed, can still create problems of insiders and outsiders, with the latter feeling excluded (Casteigts, 2003).

This logic can – if not properly addressed – hamper the evolution of a working system of metropolitan governance across borders: the establishment of a weak central catch-all institution might combine the negative effects of keeping potential actors passive without providing a working institution that could tackle and advance issues of mutual interest. This seems to be the case in the Euregion "Pro Europa Viadrina", where a central institution was created that – in the absence of a rich substrate of local initiatives – virtually developed into a tool for the administration of external funds. In this context, the criticism expressed by Scott (1999) seems appropriate: "Viewed from a normative and practical standpoint, the aims of European cross-border cooperation are only partially addressed by present forms of co-operation. They are characterised by administrative complexity, public sector dominance and local dependence on co-operation incentives". Nevertheless, the establishment of central catch-all institutions (*e.g.*, Euroregions) is a passable approach to advance cross-border co-operation if the institutional design takes into account those dangers and strives for a light, open and easily accessible composition of the institution. This has been, for example, the case in the Öresund Region. Although a central institution exists (the Öresund Committee), the current system of governance has been qualified as following the Babushka principle, due to the Committee's restriction to a sole platform for discussion. Its composition could be an alternative to the orthodox structure of the Euregions that shows a tendency towards creating heavy bureaucratic structures.

3.2.3. Tentative evaluation: pros and cons of the different models

A review of metropolitan governance arrangements shows that there is *no one single model for metropolitan regions*. Differences between the different models contain considerable trade offs in terms of benefits and costs (Table 3.4). These arrangements strongly depend on national politico-

institutional framework, including the level of decentralisation, as well as local and regional context. Countries like France, Germany, Italy and Eastern provinces in Canada have the tendency to rely on institution-building, whilst Nordic countries, United States and United Kingdom rather on association and co-operation arrangements. Even within countries, different solutions have emerged. In federal countries like Germany, governance models range from strong metropolitan governments in Stuttgart, Frankfurt and Hanover to purpose-oriented loose networks and state-run regional planning in Berlin, Munich and Hamburg (Walter-Rogg, 2006). Similarly, authorities in a unitary country with a federal structure like Spain, Madrid and Barcelona have followed two completely different strategies to organise their metropolitan governance, relying on the creation of autonomous communities to build a strong metropolitan government in Madrid or developing coalitions of several actors from the civil society with the local and regional authorities in Barcelona (Tomas in Heinelt and Kübler, 2005). Even in a strong unitary country like France that provides a common legal framework for metropolitan-wide co-operation, the success and level of co-operation largely differs from one region to the other. In fact, there are wide variations among sub-national authorities both in their capacity and their ability to transform this mobilisation into real impact and influence (Jeffrey, 2000 in Giordano and Roller, 2003).

There is also *no best practice or one size fits all solution*. Many cities have placed greater emphasis on voluntary instruments for co-ordination and co-operation and even the few examples of strong metropolitan governance through metropolitan governments and amalgamated cities coexist with other forms of network arrangements. In terms of efficiency, it may be second-best to rely on a co-operative mechanism rather than a self-financed and directly elected administrative organ, but it has its own merits of fostering communication and possibly limiting the tendency to bureaucratic mission creep. On the other hand, experiences of voluntary co-operation arrangements are most often difficult if not impossible to implement in the context of conflicting relationships between different territorial layers or when there are high intra-metropolitan disparities. Paris is one of the richest municipalities in the Region Ile-de-France and has never accepted to engage in any urban or agglomeration communities. Similar is the city of Milan, which is not part of the Metropolitan Development Agency. Flexible and informal forms of co-operation are increasingly advocated as being the appropriate response for metropolitan areas, which evolve in space and time. Yet, in some cases, like mega-cities such as Mexico City or Istanbul, the problems seem so significant that any solution requires a governance structure that has a more permanent institutional status (Bird and Slack, 2004). More generally, formal institutions might be in a better position to co-ordinate policy objectives

throughout a metropolitan area and to deal with spatial disparities. Lighter forms of governance could be considered a first step towards the establishment of a more formal institution. The Italian cases of metropolitan conferences that aim at setting a metropolitan city instance have clearly demonstrated the limits of public policy that concentrates on the project (strategic vision) neglecting the procedure (institutions) (Pinson, 2006). In this respect, governance should be thought of as a process and not as a final outcome.

The question of a *long term strategy* is generally not well addressed in existing formal metropolitan governance arrangements. Due to the large number of actors involved in urban development policies, there is a need for a collaborative framework that will enable a clear and coherent strategy for the development of the whole metropolitan region that goes beyond short term objectives. Actually, most of the existing formal models tend to bring a response to the lack of co-operation among local jurisdictions focussing on improved economies of scale, reducing fiscal competition and disparities, and internalising territorial spillovers within the area. In other words, they bring a solution to problems that would help to improve social, spatial and economic conditions and that would certainly contribute to improve the competitiveness and the attractiveness of the area. However, formal governance arrangements do not automatically provide an explicit "proactive" approach that an overall development strategy for the whole area would require. All forms of fiscal arrangements simply ignore the issue. Both the metropolitan model and the amalgamation holds out the promise of increasing the political power of the metropolitan region, *vis-à-vis* the central government and internationally, but do not necessarily holds the capacity to mobilise all stakeholders around a common strategic vision. Lighter and more informal forms of governance generally tend to better mobilise metropolitan wide stakeholders around a common vision but the implementation of such vision then requires an action plan and a critical mass of financing that might need a more formal arena for co-operation or collaborative tools. Elaborating a politically agreed commitment to the metropolitan concept is a key element for success. Any vision has to be backed by a political consortium including all of the different territorial governments and designed around an inclusive vision for the region, which without strong unifying action risked disintegrating into areas of relative poverty functionally and spatially segregated from areas of job growth and economic development.

Trends for horizontal co-operation in metropolitan regions tend to highlight a complex set of *multi-layered metropolitan governance frameworks*. This is consistent with the fact that the boundaries of a metropolitan area cannot be definitively fixed. In fact, metropolitan governance models rarely achieve a perfect match between functional and administrative boundaries. Moreover,

the fact that the appropriate boundary varies according to the function or goal in question calls for different responses. For instance, promoting the development of clusters and enhanced inter-firm relations may require co-ordination within a territory whose boundaries differ from the functional region defined by commuting flows. Even metropolitan government models either built on existing administrative layers or created on purpose (metropolitan governments and amalgamation) generally coexist with either other administrative institutions or other forms of collaboration operating at different territorial scales. The amalgamation in Montreal has allowed a reduction in the number of municipalities, but the metropolitan region remains an intricate institutional mosaic, with 79 municipalities in addition to the three largest cities (Montreal, Longueuil and Laval), 11 supra-municipal bodies at the fringe, provincial administrative regions plus the recently created *Conseil d'agglomération* that groups the recently demerged cities (OECD, 2004c). Yet, a main disadvantage of having multi-layer metropolitan governance is that it might result in a "spaghetti bowl of institutions and bodies", especially as it is most often easier to create new institutions than destroy existing ones. The French Urban Communities and Agglomeration Communities have not replaced any existing administrative layers but have been created as an additional layer leading to a patchwork of institutions and agencies within metropolitan regions. An extreme case is the Region Ile-de-France which includes 27 Agglomeration Communities in addition to a number of other forms of intermunicipal co-operative bodies (the city of Paris not participating in any).

Two main elements have proved to be crucial for the emergence of metropolitan governance. The first element is the *incentive framework* granted to area-wide co-operation established by higher levels of governments. For instance, fiscal and financial incentives largely explain the success of the French policy for Urban and Agglomeration Communities; other countries, such as Switzerland, are considering introducing such mechanisms in their policy to promote horizontal collaboration within their large metropolitan areas. Negative incentives could also see the emergence of a horizontal collaborative framework like the threat of a solution imposed by higher levels of government. A second element that is crucial to drive any collaborative process is *leadership*. Political leadership generally depends on whether the local government framework includes an elected mayor that could position himself as a charismatic and influential leader. The greater success of Urban Communities in Lyon and Bordeaux as compared with other metropolitan regions in France was achieved by strong leadership of local elites. In the same vein, resistance of local political leaders might block the process (Rotterdam and Amsterdam), reverse it (demergers in Montreal), or be not responsive to any financial and fiscal incentives (Paris Region Ile-de-France). Leadership

Table 3.4. **Main purposes of a selection of metropolitan co-operative arrangements**

	Informal co-operation networks (association/ platform/metropolitan conferences)	Metropolitan authority/agency		Metropolitan government	Amalgamation	Tax-base sharing and redistributive grants
		Single-purpose	Multi-purpose			
Examples	Regio Randstad (Plateform) Lyon Urban Region, Council of Stockholm Mälar Region, Bilbao 30 – Metropolitana, Torino Internazionale (Associations) Regional conference (Rhine-Ruhr)	Many US cities Mexico City (large number of sectoral agencies) Athens transport agency	Montreal Metropolitan Community Greater Vancouver District Urban and Agglomeration Communtiies in France	Greater London Authority Stuggart Verband Association Portland Communidad de Madrid and Region Ile-de-France (Paris) as existing regional governments	Montreal, Toronto Busan/Seoul in the 1950s Madrid in the 1960s Melbourne in the 1990s	Minneapolis Saint-Paul Stockholm County Some municipalities within Paris Ile-de-France Busan/Seoul
Administrative boundaries	No change	Possible creation of a new layer		Building on a regional tier or creation of a new regional tier with an elected body	Disappearance of municipalities. Possible creation of sub-local units	No change
Economies of scale (cost saving)	No	For one public service only	For certain public services only	For certain public service only Expected (??)	Expected (??)	No
Sharing of public services	No	Yes, for one public service only	Yes, for certain public services only	Yes, for certain public services only	Common	In a limited way
Specific advantage	Great flexibility. Might provide impetus for further co-operation	Cost saving for a particular service Better management of a metropolitan function	Idem to single-purpose + Integration and co-ordination of sectoral policies	Integration and co-ordination of certain sectoral policies	No fiscal disparities Stronger political power One decision centre Better equalisation of costs	Reduce fiscal disparities Still allow some variety

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Table 3.4. **Main purposes of a selection of metropolitan co-operative arrangements** *(cont.)*

	Informal co-operation networks (association/ platform/metropolitan conferences)	Metropolitan authority/agency		Metropolitan government	Amalgamation	Tax-base sharing and redistributive grants
		Single-purpose	Multi-purpose			
Specific disadvantage	Does not tackle issues such as territorial spillover/negative externalities/equity Weak implementation capacity	Emergence of sectoral constituencies	Emergence of the funding and legitimacy issues	Democratic cost	Lack of creative diversity Democratic cost	Separate the costs and benefits of local public services
Long term strategic vision	Yes, in many cases	Yes, in many cases for economic development agency but risk of avoiding the multi-sectoral aspects or urban development	In some cases only	Yes, will depend on the administrative boundaries of the new structure	Yes, will depend on the administrative boundaries of the new structure	No

Note: This table provides a typology of metropolitan governance arrangements previously discussed according to the different objectives that calls for horizontal co-operation. This typology is not exhaustive. The selections of different options that it includes are not mutually exclusive, as some metropolitan regions combine several options (*e.g.*, Montreal experienced an amalgamation of 27 municipalities whilst a multi-sectoral agency was created at the wider metropolitan level).

could be conducted or supported by area-wide coalitions as well. Although the creation of the Stuttgart Regional Association came from a 1994 state law, it was strongly advocated for the city of Stuttgart with strong support from the local industry including big business firms like Daimler-Chrysler, Porsche and IBM, and re-enforced by the local media. In Milan where political and institutional conflicts have prevented so far the establishment of a metropolitan region, the debate over the creation of metropolitan wide governance has been lively among socio-economic actors and spurred by private initiatives such as the Association of Metropolitan Interests (AIM) that brought together many large companies (Pirelli, Telecom Italia, Falk) and banks (Banca Intesa, Credito Valtinese) (OECD, 2006b).

Discussion of the appropriate metropolitan-wide co-operative arrangements raises concern about their *democratic legitimacy and accountability*. The public choice perspective is that local democracy is seen as embedded in individual municipalities, which goes against the creation of any strong institution at the metropolitan levels. Metropolitan government models through amalgamation and metropolitan governments do not consider local democracy an issue as long as these new structures have direct elected forms of representation. However, denying what Kübler and Heinelt (2005) call "actor behaviour" when such models are imposed or lead to confrontation could well undermine the stability of the new structures (as demonstrated by the demerger movements following the amalgamation in Montreal). More controversial is metropolitan governance within more flexible forms of co-operation which have indirect forms of representation, especially when they have important funding responsibilities and taxing power. These structures are legitimated by the number of cooperating local governments. Yet, the accountability of such structures has been questioned – as in France for the Urban Communities and Agglomeration Communities – as they carry out more and more responsibilities and are controlling larger and larger budgets without being run by a directly elected assembly (Lefevre, 2006 and OECD, 2006a). Concerns have been raised as well about some multi-purpose oriented bodies where indirectly elected members on their board might be inclined to set local priorities above metropolitan commitments (OECD, 2006b). In general, there is a rationale to move towards better forms of popular legitimacy and representation when the metropolitan body is to increase its funding responsibility, become a regional service provider and (more importantly), get the right to levy taxes (no taxation without representation).

The success of any metropolitan governance reform will largely depend on the *public support* that the new established structure is able to gain and therefore on the *process* that preceded and would be followed to establish such legitimacy for that structure to function properly. As mentioned, the

advantage of strongly institutionalised models lies in their accountability but their stability will largely depend on how well the local population has been prepared and acknowledged the reform, the so-called "culture of co-operation". In Stuttgart, the creation of the metropolitan government (Stuttgart Regional Association) has come from a long tradition of co-operation. Similarly, Lyon's positive experience with the Urban Community goes back to the 1960s inter-municipal forms of co-operation that have since gradually evolved. After the creation of a metropolitan body, "actor behaviour" will be determinant for the implementation process and the stabilisation of the newly created structure. One condition is the support from other layers of government, especially from other regional/intermediate level, as well as from the core city because of its political importance. In this respect, it is important to provide instruments to link the metropolitan decision-making system to the local level, be it municipal or neighbourhood. Another condition is to build a metropolitan identity which might prove to be very difficult, especially in the case of polycentric areas, as generally, local population and civil society are more sensitive to local and neighbourhood level.

The democratic character of metropolitan governance is not limited to the involvement of citizens through voting and representation or accountability of decision-making process but also includes *participation of non-governmental groups in the decision making process* (Kübler and Heinelt, 2005). In this respect, there are several interesting experiments among OECD metropolitan regions (Box 3.9). However, a main difficulty is that often arenas for consultation and participation do exist, but the ignorance of the local population concerning the supra-municipal bodies produces low levels of participation. Here again, building a metropolitan regional identity is crucial to increase public awareness and mobilisation. Moreover, although co-operation through policy networks involving non-governmental actors and associations do assist pluralism and civic culture, there is a concern to what extent these actors have the legitimacy to represent the local population. This is especially the case for the role of big businesses in particular, and the private sector, in general.

Units of local governments that are close to residents become particularly important when the metropolitan region is represented by large scale local government. When amalgamation was implemented in Montreal in 2000, former municipalities were turned into simple administrative units called *arrondissements (*boroughs) with limited responsibilities. Some citizens therefore raised the issue of the democratic cost of the amalgamation and the implementation of a new law resulted in more autonomy for these boroughs.[10] In the case of mega-cities represented by a single city authority, the legal relationship between the upper and basic local governments remains very hierarchical. Yet, Seoul's 25 autonomous *gu* (lower level of local

Box 3.9. **Involving civil society in metropolitan governance**

In Germany, the ***Stuttgart* Regional Association** works closely with a series of economic and social groups on various initiatives. For example, it joined *KulturRegion Stuttgart* (an association set up in 1991 to promote the cultural identity of the Stuttgart region) and *SportRegion Stuttgart* (an association of municipalities, specialised sports associations and sports clubs) in 2001. It also produced a joint study with *FrauenRatschlag Region Stuttgart*, a feminist network of female experts and politicians, defending women's interests in regional transport planning. It incorporated this study's findings into its own regional transport plan. Broader and closer collaboration between public and non-public actors could also be facilitated by bringing together the metropolitan authority and the private sector through mutual participation of their respective bodies. For example, the metropolitan authority of *Hanover* (KGH) in Germany is a member of several chambers of commerce (*e.g.*, the bilateral German-Italian Chamber of Commerce). In Hungary, the Act on Regional Development and Planning imposed the legal obligation to involve voluntary associations and businesses in the consultation process preceding the planning process. The business sector is also represented through the local Chamber of Commerce in the Development Council of the Budapest Metropolitan Region.

Seoul's executive leadership in recent years has sought to encourage more citizen input into metropolitan city management. One example was to encourage direct public participation in controlling corruption through simple-to-use mechanisms for residents and non-profit organisations to request audits of agencies in the event that a breach of law or other harm to the public interest is suspected. The city has also made excellent use of Korea's very high rate of internet dissemination to craft an online system for handling civic affairs called OPEN (Online Procedures Enhancement for Civil Applications). By accessing the city's internet website, residents can monitor the progress of their applications and other business with the city. Seoul's administration has also bolstered the incentives to report suspected cases of corruption by offering financial inducements to residents. Finally, the city has encouraged direct citizen representation in the decision-making process through various oversight committees. Over 30% of the committee members are required to be women in order to increase female participation in social affairs. The use of committees needs to be accompanied with clear standards and guidelines for the committee members – especially the representatives from civil society – to use in determining whether there are problems evident in the area they are overseeing.

In ***France***, the 1999 act on regional planning that established the Urban Communities and Agglomeration Communities provides the establishment of a *conseil de développement*. Those are mandatory councils which represent the economic and social actors at the metropolitan level which are supposed to assist the joint municipalities structures in the elaboration of their strategic projects and actions. However, they largely differ in membership and in place since the law does not provide for any rules in that matter (Lefevre, 2006). Generally speaking, chambers of commerce, business associations and higher education institutions take part in these councils. Sometimes there is direct participation of the population. In some areas, they are chaired by a member of the joint authority. Overall, they lack staff and budget but they contribute to strengthening relationships between the private and the public sector which are not so well developed.

governments) could be thought of as mid-sized cities, as they have a rough average of 400 000 inhabitants (OECD, 2005f). Similarly in Istanbul, most district municipalities have at least 200 000 inhabitants far exceeding the average size of a municipality in the OECD countries (which is around 15 000 inhabitants). In Tokyo Metropolitan area, the average size of the 23 special districts (*ku*) is around 350 000 inhabitants with the largest district (Setagaya) reaching almost 800 000 inhabitants. Devolving more responsibilities and finances to these lower local governments units would facilitate the development and reflection of local character and better encourage participative democracy.

Account also needs to be taken of the extensive *social conflicts and tensions* that can exist in metro-regions (Le Galès, 2004). In some cities, especially in the United States, wealthy citizens tend to withdraw to residential areas free of the negative externalities associated with concentrated urban spaces, whether by living in segregated and gated communities with private security arrangements, or by living remote from city centres and commuting over long distances. In Europe the wealthy maintain their similar enclaves in city centres, and the poor live in remote suburbs, where they experience heavy transport costs. Poor populations, which in most metro-regions include large groups of people from cultural minorities, often recent immigrants, find themselves in different segregated areas characterised by poor infrastructure and social problems. There are conflicts over the location of major, essential but unattractive elements of urban infrastructure, such as major roads or waste-disposal plants, which everyone in the region needs but no-one wants to live near. Formal government at the metro-regional level is unlikely to cope with these problems, and may make some of them worse because of its remoteness from street level.

It is important for policy-makers to recognise the reality of these conflicts and tensions and not to avoid them through functionally neat formulae that succeed only in hiding them; to some extent there are issues here that can be addressed in formal government, but much has to be left to the *vitality of civil society*. In terms of formal structures, it is important that levels of local government close to citizens are strengthened in a parallel move to the introduction of any major new mechanisms at the metro-regional level rather than weakened. Doing this will not make the task of metro-regional governance easier, but it will enable strategic policy makers to be aware of issues that might otherwise smoulder dangerously. Beyond that it must be recognised that the conditions of modern city life will generate a number of social movements and protests that cannot easily translate themselves into formal political and administrative terms. These movements are indicators of the health of a vibrant civil society that makes its own contribution to the strength of some metro-regions. Policy makers will need to learn how to work

flexibly and informally, building contacts and networks with these groups as much as they do with business interests. For example, the inhabitants of large cities spend much of their time close together in shared, public spaces; it is the advantages of such arrangements that are producing the growth of the metro-regions. But they also need to escape from these conditions into smaller and more private groups from time to time. Conflict often exists at the interface between these two needs, gated communities of the rich and inward-looking communities of ethnic minorities both being examples. Although the circumstances of the metro-region create these situations, it is unlikely that a solution will be found at that level. Rather, it requires hard and continuing work by a variety of formal and informal actors at a number of levels reaching down to the very local.

3.2.4. Summary: dilemma IV

It is difficult for strategic visions and shared policies for advancing a metro-region to develop without some kind of policy capacity at the level of the metro-region itself, but the various options all bring difficulties; a capacity on behalf of those involved to acquire the skills of inter-municipal co-operation is probably the most promising approach. Except in a few cases, amalgamations will be unpopular and unwieldy, while adding a new metro-regional tier may result in an over-burdened structure. The easiest form of inter-municipal co-operation, over single services, threatens to lose sight of the general concerns of the region, which are fundamental to the idea of strategic vision. Pooling and inter-municipal co-operation takes on much greater significance wherever there are strong – supra-municipal or regional – intermediate, multipurpose structures, as most co-operation initiatives are or can be part of a local community approach that is open to policy debate. The most common approach would be associations or networks of local municipalities within the region, with implementation and boundaries probably decided by higher (national or federated) levels of government. These formulas, typically with opt-in, opt-out possibilities, contribute to flexibility of the experiment by allowing for a step-by-step inter-municipal co-operation according to local circumstances and culture. They provide a driving force towards developing and intensifying cooperation among all or part of the municipalities in an area, encouraging the exchange of good practices and bringing together a greater variety of players in regional development projects.

On the negative side, the presence and above all the increase in the number of inter-municipal agencies can be said to constitute a threat to municipal autonomy; which also can potentially erode accountability, particularly as they cloud the transparency of democratic processes. Co-operation may also lead to awkward situations, as is the case when municipalities join together for a number of their functions while remaining

competitors as regards territorial attractiveness. The former government system adapts to new realities merely by multiplying its actions. As a result only precarious and complicated solutions are found. One of the pitfalls of inter-municipal co-operation is that of political representation which, generally speaking, is indirect rather than direct. In practice, it is local municipalities or member communes who appoint representatives to the decision-making body (political and/or administrative). Serious consideration needs to be given to the democratic deficit that is hereby created. Whatever necessary solutions are found for formal government at the metro-region, the complex and potentially highly conflictual structures that constitute these regions will not be completely managed by these reforms. Vigorous local government and civil society institutions will be essential to the improvement of citizens' daily lives.

3.3. Dilemma V: Metro-regions *versus* central/state government?

There may also be potential conflicts between any autonomous public authority at the metro-regional level and the role of central government, as the former may seek devolved powers or seek to pursue policies at variance with national government priorities. In countries with wider regional or federated levels of government, there will also be complex relationships between metro-regions and these levels. Where is the balance between these to be found?

3.3.1. Role of higher level of governments in metropolitan governance

Higher levels of governments (central government in unitary countries and state/province in federal countries) are increasingly involved in promoting horizontal collaboration among municipalities within metropolitan areas, often through the use of fiscal or legal instruments. Any modification of the administrative framework and any process of decentralisation is initiated or conducted under the aegis of the central state. Whether in the case of merging municipalities, creating sectoral or multi-sectoral coordinating bodies, or even metropolitan governments, rarely have the reforms of metropolitan governance emanated from purely local initiatives in the OECD countries. The state has played a leadership role either by imposing or by encouraging reform, in the conviction that the emergence of metropolitan authorities is necessary to promote the growth of cities and thus national growth.

Centrally instituted metropolitan governance reforms are typically implemented through a *national law* which legitimises the process. The law may be restrictive. Indeed, in certain countries, institutional reforms have been imposed unilaterally by central governments. In Korea, for example, the territorial framework was modified to reflect the growing degree of urbanisation in the country (OECD, 2001c). In 1995, metropolitan cities were

granted the same status as the provinces from which they were detached. The municipality mergers in the provinces of Quebec and Ontario in Canada are another example of state-imposed reform (OECD, 2002a). Even in countries with strong local autonomy, central governments may threaten to pass a national law to force inter-municipal cooperation. For instance, in Finland, a proposal for legislation has been prepared by the Ministry in charge of regional development to force collaboration within the Helsinki Region. No legislation was actually enacted but the debate brought new dynamics to collaboration among 14 municipalities which agreed on areas for voluntary and progressive cooperation in such fields as housing, land-use and transportation through partnership principles and decided as a concrete first, to prepare a common land-use strategy (OECD, 2005c).

Other countries opt instead for a national law to promote inter-municipal co-operation on a voluntary basis. This is the case of Italy with the 1990 law which provides for the creation of metropolitan cities (*Città Metropolitana*) or in France with the law allowing for the creation of Urban Communities or Agglomeration Communities. Generally, in the absence of any form of incentive, the laws rarely lead to any concrete reform in practice. In Italy, metropolitan cities are now specifically mentioned in the Constitution but in the absence of any incentives from above and in a context of political rivalries between the different sub-national tiers, no metropolitan city has been created so far (Giordano and Roller, 2003). The French experiment has worked better than the Italian proposal because the related laws involved fiscal incentives for the newly created supra-municipal authorities. These French laws promote voluntary cooperation by offering participating municipalities an incentive grant, in addition to their existing block grants entitlements. One of the conditions however is that the municipalities accept to devolve certain responsibilities (mandatory and optional) to the new *supra* municipal body and to adopt a unique business tax system within the area (the business tax is the main local tax in France).

In general, national laws which institute or encourage the creation of a metropolitan authority are universal and inflexible in that they envisage only one single framework for metropolitan institutions. They apply identically to all urban areas irrespective of their differentiating characteristics. Often only demographic criteria are taken into account, with minimal differences to the status or structure. However, in certain cases, institutions are created on an *ad hoc* basis, *i.e.*, a specific law establishes a metropolitan institution without there being a nationwide policy for metropolitan areas. In Portugal, a law was passed allowing the creation of metropolitan authorities only for the cities of Porto and Lisbon. The Italian law also provides a framework for only nine metropolitan areas. Such frameworks are common in federal countries where the laws are enacted by the provincial/state government like the

Quebec law for city amalgamation in Montreal, Quebec and Longueuil or the Baden Württemburg German state law that established the Stuttgart Regional Association.

The various experiments with metropolitan reform show clearly that the central state has played a dominant role in the reform process. In all cases, higher governments maintain a solid grip on the management of the new bodies. However, central government sometimes overlooks institutional solutions as a means to address the needs of metropolitan areas. In the United Kingdom, for example, the metropolitan county councils were abolished by the Thatcher Government in 1986. Similarly, the Catalonian government in Spain abolished the metropolitan authority of Barcelona in 1987. In the United Kingdom, local governments were invited to engage in various forms of inter-municipal collaboration on a voluntary basis to provide public services at the metropolitan level by relying on public-private partnerships. With the exception of London, the Blair Government has relied rather on the regional level to develop a more entrepreneurial approach to urban development through the Regional Development Agencies although a more recent approach developed by the Office of the Deputy Prime Minister has recognised the relevance of the city-region concept as the appropriate level of intervention yet without specifying the type of metropolitan structure that would or would not have to be set up (OECD, 2006c) (Box 3.10). The United States Federal Government, which has no explicit prerogatives on urban questions, allocates funds directly to regional councils under its city infrastructure policy. Regional councils are not structures *per se* but more accurately metropolitan forums for the negotiation of major investment projects and the elaboration of a strategic regional vision (Collin, Léveillée and Poitras, 2002).

Even in countries which have carried out significant institutional reforms leading to the creation of a new metropolitan structure, the central government remains sceptical of a strong metro-regional level. This is particularly apparent in countries with a limited number of large metropolitan areas that concentrate a high share of the national wealth and population. The presence of one or more metropolitan regions is a political threat to the central state, impeding its ability to guarantee balanced territorial development. Thus even in the case of the most advanced metropolitan governance models, such as supra-municipal multi-sectoral or metropolitan governments, the institutional, political and fiscal weight tends to be limited when compared with other levels of government. This can be seen in Stuttgart, London and Montreal, where such metropolitan bodies have limited resources and fiscal capacity.

Furthermore, in countries with strong local autonomy, the central state often comes up against the hostility of intermediate or local levels which take

Box 3.10. **City-regions in United Kingdom**

Economic development in the United Kingdom has become heavily concentrated on the "super-region" centered upon London and comprising much of the south east, southern parts of the eastern region and, increasingly, even those parts of the south west and Midlands regions that are best connected to the capital by major transportation arteries. This constitutes a major challenge to remaining regions, especially those in England that lack any important political institutions at the regional level. (The other remote areas – Scotland, Wales and Northern Ireland – have forms of devolved government.) However, a second key trend has been the growing importance of provincial city-regions to regional growth and productivity. The provincial city-regions are increasingly dominating economic growth within their own regions much as London and the south east are in England as a whole.

This has led to a new policy initiative by the UK government to develop the capacities of these city regions as means of reversing the trend toward concentration on the expanding London super-region. The idea has been to aggregate cities to a level similar to that of the travel-to-work area, and to organise strategic planning and policy at that level. It developed out of a range of different research projects – in particular the Core Cities and work for the Northern Way – that have emphasised the role of regional cities in competitiveness and have asked how their contribution could be enhanced. This research work has had an important influence on thinking within government departments, particularly the Office of the Deputy Prime Minister (renamed Department for Communities and Local Government during 2006) (ODPM, 2004).

The government has signalled that it sees potential in developing governance capacity at the level of these regions, possibly through semi-statutory partnerships among local authorities or between them and government agencies. As yet there are no firm decisions on the geographical definitions of these regions. Various combinations of labour and housing markets, economic activity areas and administrative ones have been proposed, with varying assumptions about distances of travel and degrees of self-containment. To date, these have been examined in a series of reports and working papers published by government (ODPM, 2006), but without its formal endorsement. Some consider extensive areas similar to OECD metro-regions; others are much smaller and are based on existing town and city boundaries.

Source: OECD (2006c), *OECD Territorial Reviews: Newcastle, United Kingdom,* OECD publications, Paris, France.

a dim view of the emergence of a new structure which would imply the loss of power and resources. The failure of referendums proposing the creation of a single municipality by merging the communes of Rotterdam and Amsterdam can be attributed to powerful resistance by the existing municipalities. Finally, by supporting the emergence of a strong metropolitan level, central governments in federal countries would become the preferred interlocutor for municipalities in a context where states/provinces strongly defend their own authority against municipalities. Overall, the motives of national government are complex and varied, often leading in directions and in actions that are at times contradictory.

3.3.2. New tools for vertical collaboration

Apart from institutional reforms, one of the principal modes of action of central government in cities is policy implementation. In many countries, intergovernmental negotiation and collaboration have progressively replaced the interventionist approach which previously prevailed. *Urban partnerships* have been widely used in two areas: to attack the multi-faceted problems of distressed urban areas and to redevelop urban brownfield sites. Whether this new relationship constituted an *ad hoc* arrangement or an element of a long-term strategy, partnerships have stemmed from various rationales to: create synergy effects among the partners, spread the risks of a project among several actors, gain additional financial resources, reduce open conflict, and create a consensual policy climate. Now, it is increasingly agreed that such partnerships should be part of a more comprehensive process, *i.e.*, included in a multi-sectoral and metropolitan area-wide contract that should meet the following criteria:

- Involve a multi-sectoral, integrated approach (public-public and public-private) to achieve desired outcomes (for example, more sustainable forms of urban development, regeneration of urban brownfields or distressed urban areas), and be handled at the metropolitan level even if they encompass neighbourhood or city-based partnerships.
- Result from a negotiated planning process among different levels of government.
- Promote participation via incentives.
- Require a structured round of negotiations, with clear objectives, a precise timetable, and with monitoring and assessment components.
- Establish a binding commitment and pluri-annual implementation.
- Tailor to local needs.

This type of tool would be better suited to a multi-sectoral contractual approach. The *contract* formula would allow government mechanisms to be

adapted to local characteristics and replace traditional hierarchical relationships with contracts based on negotiation and a learning process. These mechanisms ensure a degree of sustainability of co-operation since they are pluri-annual. Several OECD countries use this type of mechanism for implementing their regional policy. State-region planning contracts in France or territorial pacts and programme contracts in Italy allow the central government to integrate the requirements of government action in the pool of knowledge and skills at sub-national government level (OECD, 2005a). Some countries have adopted this approach specifically to urban development. By concluding multi-level urban partnerships, both central and local governments have agreed on a list of common tasks and on sharing the responsibility of fulfilling them. In Canada, the federal government developed the Urban Development Agreements (UDA) in the Western provinces, which are innovative partnerships to improve the co-ordination of activities among the federal, provincial and municipal governments by addressing issues unique to each city (Box 3.11). UDAs have proven to be successful mechanisms, bringing stakeholders together and insuring that duplication of effort is minimised. However these agreements are subject to limitations because they are unfunded. In France, City Contracts have been signed between the municipalities and the central government for mutual commitment in distressed areas related matters. In Sweden, local development agreements (LDAs) have been created as the main tool of Swedish metropolitan policies, focussing on 24 housing districts in the three major urban areas. The LDAs are elaborated by the state, the municipalities and the districts but implemented primarily by municipalities. First evaluations of the programme suggest success in increasing employment rates and reducing benefit dependency, but, as with the UDAs in Canada, uncertainty about a renewal of central state funding could well result in a halt of the activities (OECD, 2006d).

While city contracts are valuable in their ability to address specific neighbourhood issues, there is also a valuable rationale for developing a *metropolitan contract*. A contract covering an entire metro-region would allow policy makers to increase policy coherence across the functional area and avoid costs and benefits from a city contract spilling over to the suburban areas. There are a number of cases where partnerships and contracts have been concluded with recently created metropolitan authorities, though largely as *ad hoc* sectoral partnerships. Some countries have begun to introduce or contemplate the introduction of contractual procedures at metropolitan level based on a more multi-sectoral approach. France created the agglomeration contracts that involve the central state, the region and the inter-municipal body of either the Agglomeration Communities or the Urban Communities focussing on human capital improvement and economic development

Box 3.11. **Contractual arrangement in urban areas in France, Sweden and Western Canada**

The ***French*** *City Contracts* (*contrats de ville*) are a tool to enhance collaboration between municipalities and the central government. They were introduced in 1993 to foster cross-sectoral collaboration for urban policy. City contracts are for a period of several years, usually seven, and serve as development programmes for distressed urban areas at the scale of the city or larger urban communities. More than 1 300 areas and 6 million inhabitants benefit today from the actions led under the framework of *contrats de ville* under 247 such contracts. Other stakeholders than the state and local government actors are involved in the process: such as housing and transportation agencies, as well as various associations and NGOs. In a 2005 report, the French Senate recognised that French city contracts have contributed to facilitate horizontal collaboration at the local level – and notably to involve civil society in the decision-making process concerning urban issues.* However, the Senate also criticised in its report the complexity of these contracts and their lack of readability. The report also states that city contracts have reached only 50% of their objectives and recommends simplifying the procedure.

Local development agreements (LDA)s in ***Sweden*** are elaborated by the state, the municipalities and the districts, based on a bottom-up approach focusing on collaboration and management by objectives. The municipality is ultimately responsible for the neighbourhood's development. The LDAs cover over 1 000 different projects in 24 housing districts, comprising 250 000 residents. The districts have used different methods, ranging from the creation of new structures, working groups and sub-structures (*e.g.*: residents councils) to the organisation of large meetings open to all residents, so as to involve local inhabitants in the development of their neighbourhoods (Lukkarinen, 2004). State and the municipalities concerned decide which initiatives will be funded out of the remaining resources in disadvantaged housing areas (Commission on Metropolitan Areas, 2005). Between 1999 and 2003 the government allocated approximately EUR 230 million to the agreements, and metropolitan authorities and the municipalities committed themselves to the same amount. First evaluation of the LDAs concluded on important improvements such as increase in higher employment rates in the 24 districts that participated in LDAs as compared to other districts as well as a decrease in the number of residents dependent on social benefits. Crime has been reduced in some of the housing districts making them more attractive.

In the *Western provinces of* ***Canada***, the federal government has participated in *Urban Development Agreements* programs that are specifically directed to cities

Box 3.11. **Contractual arrangement in urban areas in France, Sweden and Western Canada** *(cont.)*

along with the participation of the provinces. In *Winnipeg*, a five-year tripartite commitment of CAD 75 million has been implemented through seven programs in the areas of community development and security, labour force development, and strategic and sectoral investments. *The Edmonton Economic Development Initiative* (EEDI) was signed in September 1995 and designed to support the long term sustainable economic development of the city for instance through support for the Edmonton Capital Region Innovation Centre, the Edmonton Waste Management Centre and the Edmonton Competitiveness Strategy. The first *Vancouver Agreement* was signed for a five-year period in 2000 and renewed in 2005. The scope of the Vancouver agreement is broader and has three main components: health and safety (including primary health care, substance abuse, policing and justice), economic and social development (including housing), and community capacity building. Its main objective is to promote co-operation between the three levels of government to address local issues of poverty, homelessness, substance abuse, safety, and economic revitalisation, focussing on the Vancouver's Downtown Eastside. While the Vancouver Agreement is unfunded, it makes use of existing mandates, authorities and programs to fund initiatives. There is agreement by each party to use funding available from existing federal, provincial and municipal programs to finance projects and programs, and to strategically focus a portion of those expenditures on agreed activities.

* Quoted in OECD (2006a).

Source: OECD (2002a), *OECD Territorial Reviews: Canada*, OECD publications, Paris, France; OECD (2002b), *OECD Territorial Reviews: Champagne-Ardenne, France*, OECD publications, Paris, France; OECD (2006a), *OECD Territorial Reviews: France*, OECD publications, Paris, France and OECD (2006d), *OECD Territorial Reviews: Stockholm, Sweden,* OECD publications, Paris, France.

initiatives (Box 3.12). However, the approach based on support for economic competitiveness is still too compartmentalised and piecemeal, especially because the contracts do not yet really cover the functional economic area as a whole and this limits their impact. The forthcoming introduction of Metropolitan contracts (as from 2007) will, however, be a major step towards recognising functional economic areas by fostering collaboration among municipalities around a commonly defined project for economic development, without creating a formal metropolitan body. Two tenders put out for metropolitan co-operation have already selected 15 groups of cities, but the funds available are modest. The addition of a new layer of contracts also has raised some concerns about overlapping and transparency of urban policy in France, the complexity of which has been frequently criticised,

Box 3.12. **Contractual tools used at the metropolitan level in France and Switzerland**

The ***agglomeration contract*** *in France* is a bottom-up method based on "one territory – one project – one contract", which is proving increasingly successful and contributing to agglomeration-based governance, bringing together the central government, the region and the Agglomeration Community or the Urban Community. The county council (*conseil general* of the *département*) can be associated with the signature of the contract, in particular for questions related to social policies. This procedure involves four main stages. 1) *The agglomeration project* which is the basic document that contains a diagnosis of the functioning of the agglomeration. It identifies the issues, provides development policy options and an indication of the support areas for these choices as well as the policies and measures to implement these choices, with a phased timetable and identification of priorities. The project must focus on regional development (economic, social and human development) rather than infrastructure development and improvement. The project must be based on dialogue with the municipalities and the main actors in the area by mobilising non-public actors for implementation. 2) *The development board*: that represents a variety of economic, social, cultural and association groups which must be consulted during the preparation of the project and on final delivery of the project prior to signature of the contract. They can also be associated with the drafting of the contract. 3) *The agglomeration contract* that is the financial and programme document on the implementation of the project which identifies the partners, projects, pluri-annual financing and contractors. 4) *The regional coherence plan* (SCOT) which is a spatial projection document of the agglomeration project that translates the project decisions into urban planning law (included in the State-Region Contract procedure).

The ***metropolitan contracts in France*** focus on actions which nurture and expand the development of the metropolitan areas: economic development, access to infrastructure, research, higher education, cultural development, etc. Particular attention is paid to poles of competitiveness, especially on actions which allow the development of synergies between the private sector, research and universities. A metropolitan contract is supposed to unfold in three phases: 1) a government call for proposals for engineering stronger metropolitan co-operation; 2) a metropolitan plan, prepared by governments (2005/2006); 3) introduction of a metropolitan contract as of 2007, based on very specific activities. Fifteen metropolitan areas were selected to compete for State financing in order to prepare a metropolitan plan. Six of these 15 metropolitan areas have the distinction of constituting cross-border territories (Aire métropolitaine de Lille, Région métropolitaine Côte d'Opale-Flandre occidentale, Sarrebrück-Moselle Est, Eurodistrict Strasbourg-Ortenau, Réseau Métropolitain Rhin-Rhône, Métropole franco-genevoise) and two of them have been invited to build this dimension into their metropolitan proposal now being prepared (the Sillon Lorrain with Luxembourg, the Côte d'Azur with Italy and Monaco). The Interministerial Agency for Territorial Planning and Competitiveness (DIACT, former DATAR) and the regional prefects will work with the selected metropolitan areas in preparing their projects, mobilising financial support and enlisting the central government ministries. The

Box 3.12. **Contractual tools used at the metropolitan level in France and Switzerland** *(cont.)*

15 metropolitan areas selected will receive an overall budget of EUR 3.5 million overing 2005 and 2006. That time will be primarily devoted to preparing the metropolitan projects. The deconcentrated State ministry offices placed under the authority of the regional prefects will also contribute. The DIACT expects to introduce a national support mechanism in partnership with the ministries, associations of elected officials, and the national technical agencies concerned in order to help the chosen metropolitan areas exchange good practices during the project preparation phase.

Up to the mid-1990s, metropolitan areas were absent from the ***Swiss Confederation***'s major policies. The concept of "urban policy" was virtually unknown. Areas benefiting from regional aid were primarily rural. The only exception was with areas in economic difficulty which included a few urban areas but mainly old industrial regions based on provisions of the deprived regions law. Sectoral policies only took metropolitan areas marginally into account by providing small federal subsidies to promote regional public transport in urban areas.

It was the general economic crisis in the first half of the 1990s which caused the financial difficulties of cities, instigating political action at the federal level. The amendment to the Constitution in 2001 opened the door to urban policies. The new Article 50, by stating that the Confederation "*shall take into consideration the particular situation of cities, urban agglomerations*" extended the Confederation's scope of action to agglomerations. On conclusion of the preliminary work on metropolitan areas, the Government defined four priorities for an urban strategy: 1) taking into account the challenges of agglomerations in developing federal sectoral policies; 2) greater vertical co-operation between the three levels of government with shared responsibility for the provision of public services; 3) greater horizontal co-operation for the supply of services in all metropolitan areas; and 4) integration of Swiss cities in the network of European cities.

In 2001, a "Tripartite Conference for the Agglomerations" gathering together the three levels of government (federal, cantonal and municipal) was set up to encourage vertical co-operation in areas affecting metropolitan areas. An agglomerations policy network composed of representatives of the federal offices concerned was given responsibility for the technical co-ordination of the various sectoral actions, under the aegis of the Federal Office of Territorial Development (ARE) and the Secretariat of the Economy (SECO). In order to encourage inter-municipal co-operation initiatives, model projects were put in place with the Confederation providing technical and financial support. In the medium term, it is planned to add a legal framework for a pluri-annual programme.

Source: OECD (2002b), *OECD Territorial Reviews: Champagne-Ardenne, France*, OECD publications, Paris, France; OECD (2006a), *OECD Territorial Reviews: France*, OECD publications, Paris, France and Swiss Federal Council (2001), "Politique des agglomérations de la Confédération", Report of the Federal Council of 19 December 2001.

notably by the *Cour des Comptes* in its 2002 report on urban policy.[11] No provision has yet been made to articulate the different types of contract together (City contract, Agglomeration contract, Metropolitan contract and the State-region planning contracts) (OECD, 2006a). The Swiss Confederation is also introducing an agglomeration policy which would better integrate large city problems in sectoral policies in particular by encouraging project implementation through policy incentives entitled the Model Projects. The Economic and Social Committee of the European Union, responsible for preparing policy recommendations, is in favour of creating a community programme METROPOLITAN. This would be along the same lines as the URBAN Programme,[12] which addresses the integration of city districts in difficulty (European Economic and Social Council, 2004).

3.3.3. Summary: dilemma V

Cities are key components in a territorial development strategy. A well rounded national economic strategy cannot ignore the spatial structure of the economy, or the qualities and characteristics of cities that affect economic performance, social cohesion and environmental conditions. Whether a city is growing slowly or rapidly, matters less than whether local and national governments are prepared to develop policies and guide investments appropriate to the needs and potential of cities. But national urban policies in the past have been reactive and remedial, not pro-active and dynamic. Not only must urban issues be given greater visibility and higher priority in national policy; new policies may be needed at national, regional and local levels, and governments at all levels must re-examine their roles and responsibilities.

National policies are clearly essential to the development of strong metro-regions, and regional and city governments cannot expect national government not to become involved in their affairs, given the demographic and economic importance of metro-regions. Governments are in fact generally unwilling to grant much autonomy to entities at levels of this kind, partly because of their national importance, but also because of potential hostility from established levels of local government. There are very few examples of governments imposing new metro-regional authorities, and one risk when they contemplate doing so is that they will impose a uniform system across a country irrespective of different local needs and conditions.

A legal basis frequently plays a role in facilitating co-operation among local authorities at the metro-regional level, which is more flexible than imposition of a national system, and a legal basis does not necessarily imply compulsion. Legal measures can just facilitate and make possible certain developments among freely contracting parties. Particularly important are legal measures that enable urban partnerships, taking the form of contracts

across several authorities. These are most useful when they make possible multi-sectoral collaboration, as this avoids rigid boundaries around functions that often need to be processed together. Typically partnerships involve both a number of public agencies and some private ones. There is a negotiated planning process among different levels of government, with incentives for participation, a structured round of negotiations with clear objectives, a precise timetable, and with monitoring and assessment components. Commitments have to be binding and pluri-annual, but agreements have to be tailored to local needs. From the perspective of metro-regional governance, it is better when all authorities across an identifiable metro-region can be involved, and not just a small number of them.

3.4. Dilemma VI: Participation of private sector actors in public governance?

A further issue of governance is raised by the fact that for the development of policies for economic development, public authorities must involve the private sector in constructing regional partnerships, but can this avoid improper lobbying and a squeezing out of small and medium-sized enterprises by large corporations?

As has been noted at a number of points above, one way in which the construction of strategic visions stays close to market realities and business realities is through the engagement of business associations, firms and other private-sector groups in their work. It is for this reason that both academic and public-policy literature talk of the governance rather than the government of regions. Government refers to the formal actions of legally constituted public authorities; governance implies the extension of such activities as vision construction and public policy development to include a wider range of actors, who do not necessarily have a formal status. It is also important that, within the networks created by this governance, public authorities do not act as though their hierarchical position guarantees that their voice and views should be the dominant one. Consultation, listening, the gradual development of consensus through networks are essential components of the work of public authorities.

3.4.1. *The state of the art*

The involvement of private firms in public governance can be problematic, particularly if it leads to: the protection of special interests, sometimes those of dominant but declining sectors; the exclusion of the concerns of SMEs to the advantage of large corporations better equipped to lobby; or the neglect of other legitimate non-economic social interests in the region. These concerns require careful attention to the architecture of governance and to the professional responsibilities of public officials and the

democratic responsibilities of political leadership. As noted earlier, dynamic clusters normally involve a strong role for SMEs, but small firms have difficulty in accessing political levels beyond the closest forms of local government, where they can often depend on informal social links. They do not have spare resources that can be devoted to lobbying and political activity, and unless special care is taken by policy makers, they may be at a disadvantage at as remote a level as a metro-region where representation by associations of SMEs can easily be overwhelmed by lobbying by individual large firms. For example, business interest representation in plans for major shopping developments can easily become dominated by small numbers of national or multi-national retail corporations, with whom public authorities may find it easier to deal than with large numbers of local businesses. The lobbying of these firms can crowd out both potential consumer preferences and the local entrepreneurial resources embodied by small and specialised shops.

More generally, representation of business interests by chambers of commerce and trade associations provides a far more level playing field for individual firms, and reduces the temptations of improper insider lobbying, than when such representation is left to particular dominant enterprises. Chambers or similar bodies concerned with the geographical level will be more forward-looking than sectoral associations in periods of change when declining sectors may be clinging on to a degree of political influence no longer warranted by their diminished economic importance while new sectors have not yet acquired a representative voice. It is therefore important that chambers of commerce and business associations acquire a capacity to articulate interests at the metro-regional level and not only at that of its constituent parts (*i.e.*, individual cities or suburbs), as is likely to be the case in the early stages of developing such a region. It is also important that, where associations represent both large and small firms, the needs of the latter are adequately represented. It is in the interests of public authorities to ensure the maintenance of these balances, if they are to maximise the potential sources of ideas and possibilities for development. A recent example from Denmark, though not concerned with a metro-region, demonstrates how development policy can ensure that SMEs are not neglected (Box 3.13).

Currently, the participation of the private sector in metropolitan wide cooperative arrangements differs widely among the different models, from representation to implementation of public policies. In the United Kingdom where delivery of public policies at the local and regional level requires the participation of the private sector, the latter has a legal status within the Regional Development Agencies in charge of developing regional economic development strategies. Similarly in the Netherlands, most purpose-oriented agencies such as housing offices provide a significant position to the private

Box 3.13. **Involving small firms in policy making**

It is possible to ensure that SMEs are not ignored by dominant coalitions in the metro-region. A promising approach to encouraging inter-firm cooperation among SMEs has been pursued in Denmark. Launched in 1989 by the Ministry of Trade and Industry, this was a controversial plan that was opposed by national trade associations but favoured by smaller trade associations and the Federation of Crafts and Small Industries. An experimental grant of USD 25 million was approved with a three-year limit, and the plan was implemented in three phases. Phase I (USD 6 million) was devoted to encouraging companies to come up with an explicit idea for networking. Any group of three or more firms could apply for a "micro-grant" of USD 10 000 to investigate the feasibility of a network. The application procedure was intentionally kept very simple and easily available. Applications received a response within one month. The Ministry financed lawyers, accountants and tax consultants at the same time to work out standard contracts, product liability issues and financial issues of the networking feasibility studies. This avoided duplication of efforts across different studies, thereby saving time and reducing costs. The criteria for approving the micro-grant were kept quite lax and almost all applications were approved. Later on, the evaluation of the programme showed that this had a multiplier effect. A large number of initial ideas for networking had turned out to be unsound, but feasibility studies showed new opportunities and options for networking. Virtually all companies which had started with the idea of networking did end up in networks, though not necessarily the same network. Phase II (USD 5 million) focused on detailed planning of how the network would work. Participating companies had to come up with matching investment and grants were not automatically approved this time. During Phase III (USD 14 million), the government provided venture funds up to 50% of the cost of setting up the network in the first year and up to 30% in the second year. The plan was successful, both in terms of the numbers of firms which entered into networking arrangements and in terms of SME empowerment. Within a year, more than 1 500 firms had started operating in networks. This number had grown to 3 500 (nearly half of the country's manufacturing companies) within the next six months. SMEs gained remarkable business power. An even greater advantage of networks was the innovative potential they triggered off. Working together enabled the participating firms to develop a more diversified and higher value-added offer.

sector. Many light cooperative structures such as associations include in addition to Chambers of Commerce and business associations, leading economic actors like Torino Internazionale (20 largest companies including

FIAT, Lavazza and San Paolo Bank) and Bilbao Metropoli 30 (Iberdrola, Bank of Bilbao, in addition to 27 local firms like IBM, El Corte Ingles, Bombardier, La Caixa). A strong regional government like the Madrid Autonomous Community has developed strong cooperation arrangements with Chambers of Commerce, trade unions and business associations and the Greater London Authority has created the London Business Board made of representatives from the business sector as a consultative body. Yet Newman and Verpraet (1999) warn about the relationships between fragmented partnerships and urban differentiation, a potential dissociation of partnerships from existing institutions and the priority in leading partnerships to economic valorisation which raises legitimacy and accountability issues. Quoting Savitch and Vogel (1996) about the US experience, they stress that regional co-operation most often arises from a shared desire to secure economic development rather than resolve spatial or social imbalances.

3.4.2. Summary: dilemma VI

The involvement of private-sector interests is essential to flexible approaches to urban governance, as this ensures that public policy makers are well informed of the needs of firms and can in turn mobilise firms behind the strategic vision. There are however some caveats concerning the organisation of that involvement. Care has to be taken that large enterprises do not exclude SMEs from involvement: small firms often lack capacity for public-policy engagement, but they are vital to most metro-regional development strategies. There are also risks that individual firms will lobby for their own interests in contracts, etc., rather than represent wider concerns. Where they are active and well informed, representation through such collective bodies as trade associations may ensure a more even playing field.

3.5. Dilemma VII: Unequal burdens or distorting subsidies?

Dilemma VII: The large spending needs of metro-regions create major fiscal challenges. Under-funding leads to deterioration of the attractiveness of the region, and this is made worse when the metro-region does not have enough autonomy to raise its own revenues. At the same time, national goals – such as a demand for regional equity – might force metro-regions to contribute financially to the rest of the country.

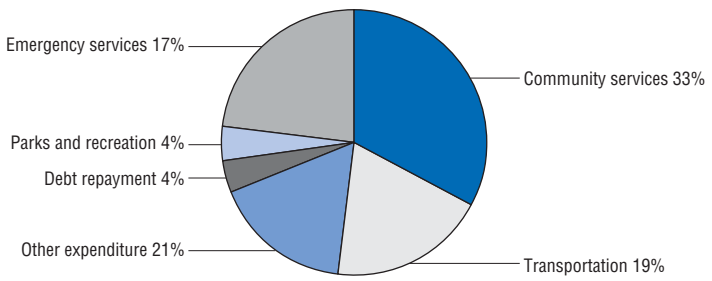
The problems of funding the high costs of maintaining good-quality environments in heavily populated regions without making economic activity within the region uncompetitive require creative solutions; and the search for these must involve consideration of the balance between national cost-sharing and local autonomy. Subsidies to some regions from the rest of a country can involve cost distortions. These will be particularly important when they involve assisting thriving regions at the expense of poorer ones. At

the same time, the central areas of cities and regions sometimes have to finance public infrastructure that will be used by commuting workers who pay their local taxes in the areas where they live. However, much also depends on the specific technical design of financing mechanisms, which can either exacerbate problems of cost-sharing or make them easier to resolve. While introducing a system of the latter kind may initially involve conflicts and challenges to vested interests, the subsequent gains in transparency and fairer and more rational allocations of burdens will often mean less conflict in the longer run. The competitiveness of metropolitan areas could be increased by providing functions at the optimal scale, by adequate funding, diversity in local taxes, sufficient local autonomy and equalisation systems that solve negative effects of urban sprawl and that do not redistribute unfairly from metropolitan areas to other regions.

3.5.1. *Functions and responsibilities of cities and metropolitan authorities*

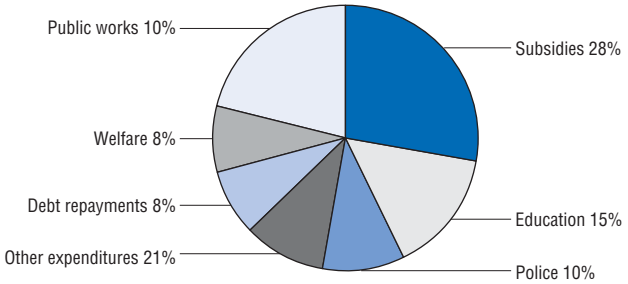
A wider variety of services tend to be provided within metropolitan regions than in other regions in the same country. This is because these areas function as a centre for many services and activities, for example with respect to higher education and culture. There are however large differences between metropolitan areas (municipalities and metropolitan authorities when they exist) as far as functions and responsibilities are concerned. For instance, Toronto is an example of minimal urban government, as so many services are concentrated in the mid-tier, provincial, level of the public sector (Figure 3.3). Tokyo is an example of a city with intermediate assignment of responsibilities (Figure 3.4). A larger share of its expenditures is on education and welfare, compared with the minimal model of Toronto (Figure 3.5). Stockholm represents the model with the maximum assignment of responsibilities. The large majority of its spending items are on health care and social expenditures. Much less space is taken up by more classical municipal tasks such as emergency and fire services.

Figure 3.3. **Assignment of responsibilities in cities: the case of Toronto**



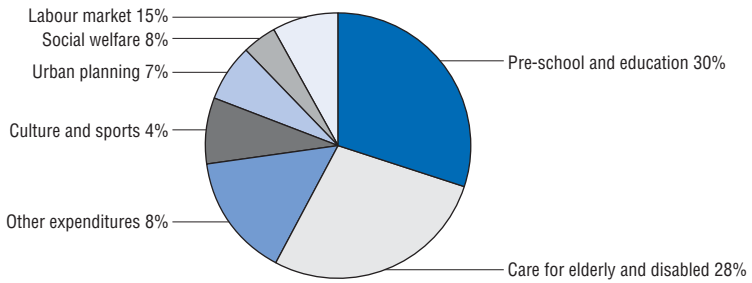
Source: Budget documents Toronto (2004).

Figure 3.4. **Assignment of responsibilities in cities: the case of Tokyo**



Source: OECD (2005d), OECD *Territorial Reviews: Japan*, OECD publications, Paris, France.

Figure 3.5. **Assignment of responsibilities in cities: the case of Stockholm**



Source: Annual financial statements Municipality of Stockholm (2005).

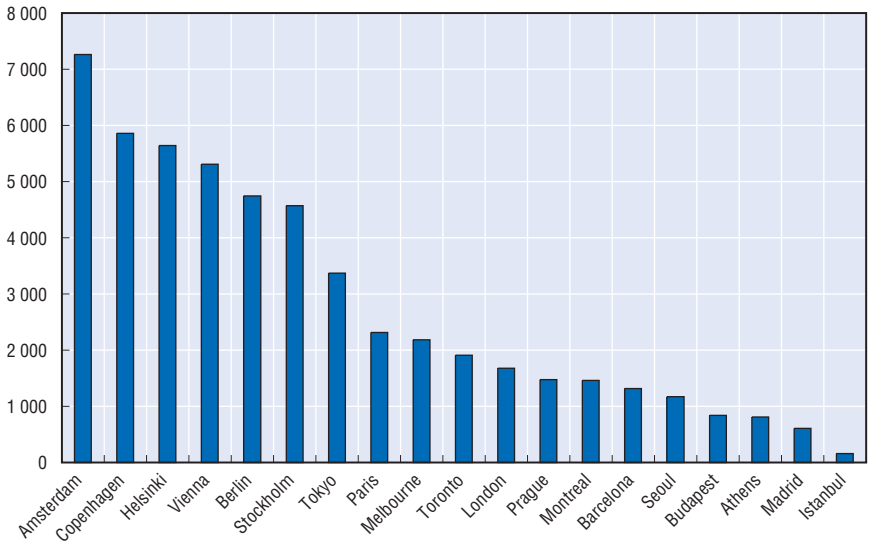
The diversity in OECD practices reminds us that different choices can be made, which can be more or less efficient. Within metropolitan regions, a common question is related to the optimal size at which local services should be delivered. Some academics have formulated a range of possible optimal sizes for several services. For instance, the optimal scale for administration in Denmark is found to vary from 18 000 to 50 000 inhabitants per local government unit (Moeller *et al.*, 2000 and Houlberg, 2000). The optimal scale for health services and transportation projects is found to be much higher. In the same vein, research in the last decades has tried to find the optimal size of cities as well. The idea was that revenues of a larger scale are at some point outweighed by the increasing costs connected to a larger scale. At some point an optimal city scale was found (at 250 000 inhabitants per city), but this finding was discarded later (Arnott, 2004). It also appeared that this optimal point was not static but dependent on several factors that can be influenced, such as city management (Prud'homme, 1996). Another, more recent approach has been to establish the scale of a local government at which it can still be responsive to local preferences. In order to be responsive, units need to be quite small (less than 5 000 inhabitants per unit) as findings for Sweden suggest (Dahlberg *et al.*, 2005). All this research has in some occasions been

used in government policies to establish amalgamation or to set out single-purpose local units.

In some cases it is evident that the delegation of functions raises efficiency problems. For instance, the metropolitan municipality of Istanbul is a very large and populous area, which besides Istanbul consists of several district municipalities that have an average population of 200 000 inhabitants. This size would, according to most research, be more than sufficient for providing several local services, among which sophisticated ones, such as health care services. District municipalities in Istanbul are however not even responsible for tasks that can be considered classical municipal tasks, such as sewerage and local road maintenance. Even worse, the responsibility for road maintenance is shared with Istanbul metropolitan municipality, leading to institutional deadlock (OECD, forthcoming a). In the case of Milan, the problem is that tasks of different levels of government in Italy are not clearly defined, which cause several disputes between the region, the province and the municipalities that fought up to the constitutional court to see who is responsible according to the law (OECD, 2006b). Overlapping tasks cannot only give rise to conflicts of competences, duplication and inefficiency. In Japan, local governments do not have an incentive to engage in overlapping tasks, since they are not inclined to raise taxes if they feel that tasks can be done by the central government (OECD, 2005d). Duplication of tasks is more likely an issue for metropolitan areas than it is for rural areas, since the usually larger capacity or responsibilities of city government, as compared to rural municipalities, could interfere with the regional government level. Although the optimal level of local government units is dependent on local circumstances, a few lessons stand out. First of all, delivery of local services, such as waste management and maintenance roads, should be delegated to a local level. Meanwhile, public goods with externalities such as air pollution and water management have to be addressed at the scale of the metropolitan area or a larger entity and not at the city level. Second, clear delineation of responsibilities is necessary. If there are mixed responsibilities, the division of tasks between local and central governments should be clear.

Since metropolitan regions usually provide a wider array of services, they also have a relatively higher level of expenditures per capita. Comparative data are not available at the level of metro-regions, but we know that the level of funding differs widely among cities, with Amsterdam spending more than EUR 7 000 per inhabitant, whereas Istanbul hardly spends EUR 150 per inhabitant (Figure 3.6). These figures should be interpreted carefully as they might not be comparable. In addition, they do not really say much about under- or over-funding, as cities in metropolitan areas fulfil many different functions in different countries. More quantitative data should be developed

Figure 3.6. **Expenditures per capita in selected areas in OECD cities**



Note: Demarcation of the cities refers to municipal boundaries (except for Melbourne, which refers to the city centre municipality).

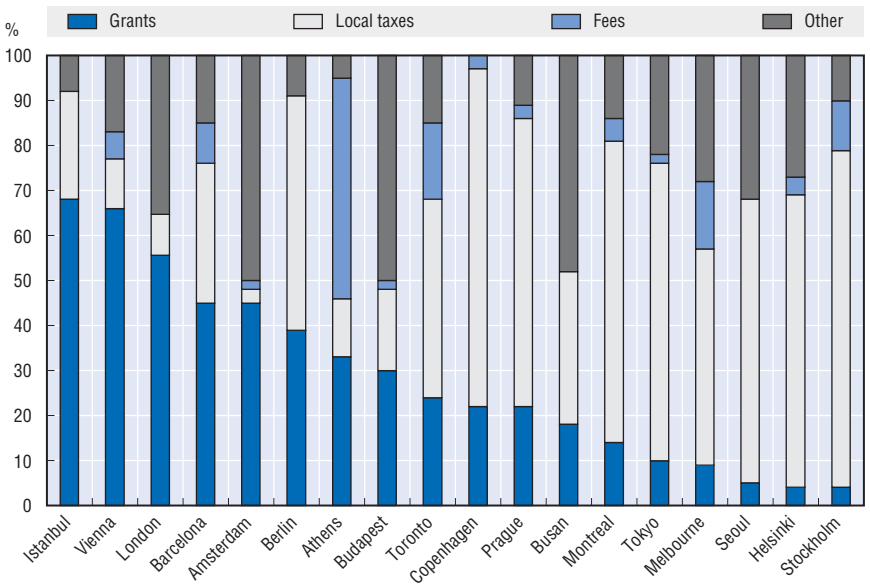
Source: OECD (2005d), OECD *Territorial Reviews: Japan*, OECD publications, Paris, France; OECD (2005f), *OECD Territorial Reviews: Seoul, Korea*, OECD publications, Paris, France and OECD (forthcoming a), *OECD Territorial Reviews: Istanbul, Turkey,* OECD publications, Paris, France, budget documents and financial statements for the other cities. Financial years: Budapest (2003), Istanbul, Toronto, Prague, Barcelona, Copenhagen (2004), Athens, Berlin, Melbourne, Paris, Helsinki, Stockholm (2005) Amsterdam, Vienna (2006).

for groups of metropolitan areas that have comparable functions and responsibilities.

The level of funding available for a metropolitan area affects the amenities and services that are available within the area. Under-funding can lead to areas becoming less interesting places in which companies will not want to base themselves and citizens will not want to live. Qualitative data suggest several examples of inadequate levels of funding for sub-national governments, such as in Budapest, where responsibilities devolved to the local authorities in the 1990s have not been matched with adequate financial means (OECD, 2001b). Similarly, in Montreal some observers found "disinvestments in infrastructure" that could not be compensated by other local sources due to limited fiscal autonomy (OECD, 2004c). Many cases were reported of decentralisation of responsibilities not being followed by that of fiscal resources (*e.g.*, Japan or Italy) (OECD, 2005d and OECD, 2006b). Under-funding can originate from other regions trying to shed the burden of certain costs to metropolitan areas as in Switzerland (OECD, 2002c). In such a case, it is essential that an equalisation mechanism exists that compensates urban areas for the higher costs they might encounter.

In general, grants and local taxes provide the most substantial part of funding for the majority of cities (Figure 3.7). (In the absence of a tier of government at the level of most metro-regions, most of the following discussion has to remain at the level of cities that are constitutive of metro-regions. The problems considered will be magnified if the metropolitan region as a whole is considered, because of the lack of fiscal policy at the relevant level.[13] There are however a few cities that rely for a large part of their income on other revenues such as Amsterdam, Athens and Budapest. Again, the variety between cities is quite large. Istanbul relies for 68% of its income on grants, Stockholm only for 4%. Amsterdam gets less than 5% of its revenues from local taxes, Stockholm 74%. Since every revenue source has its drawbacks, it is important that the revenue sources of a metropolitan area are diversified.

Figure 3.7. **Revenue sources of various cities in OECD metropolitan areas**



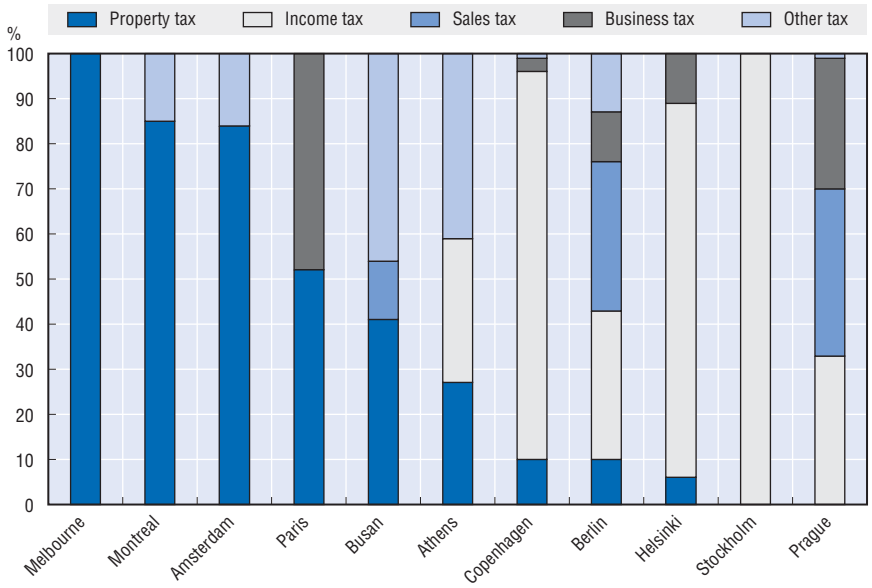
Note: Demarcation of the cities refers to municipal boundaries (except for Melbourne, which refers to the city centre.

Source: OECD (2005d), OECD *Territorial Reviews: Japan*, OECD publications, Paris, France; OECD (2005f), *OECD Territorial Reviews: Seoul, Korea*, OECD publications, Paris, France and OECD (forthcoming a), *OECD Territorial Reviews: Istanbul, Turkey,* OECD publications, Paris, France, budget documents and financial statements for the other cities. Financial years: Budapest (2003), Istanbul, Toronto, Prague, Barcelona, Copenhagen (2004), Athens, Berlin, Helsinki, Melbourne, Stockholm (2005) Amsterdam, Vienna (2006).

i) Local own revenues

An important share of the revenues of a metropolitan area can come from local taxes. The most commonly found local taxes are those on property, incomes, sales and businesses (Figure 3.8). All have pros and cons (Box 3.14). Local governments with property-related responsibilities such as sewerage and waste management are usually funded by a property tax, whereas local governments with more responsibilities within the field of social welfare tend to be financed more often by local income taxes (Bird and Slack, 2004).

Figure 3.8. **Composition of tax revenue sources of various metropolitan areas in OECD countries**



Note: Demarcation of the cities refers to municipal boundaries (except for Melbourne, which refers to the city centre municipality).

Source: OECD (2004b), *OECD Territorial Reviews: Busan, Korea*, OECD publications, Paris, France and OECD (2006d), *OECD Territorial Reviews: Stockholm, Sweden,* OECD publications, Paris, France. Budget documents and financial statements for the other cities, financial years: Busan (2002), Prague, Copenhagen (2004), Athens, Berlin, Helsinki, Melbourne, Montreal, Paris, Stockholm (2005) Amsterdam (2006).

Since these taxes all have certain disadvantages, a case can be made for diversifying the tax revenues of a metropolitan area. High dependence on one sort of local tax revenues can impede effectiveness of local service delivery. An example is Montreal, where around three-quarters of total revenues come from the property tax. From 1993 to 2001, the value of the aggregate tax base in the metropolitan area decreased by 5%, while the non-residential tax base declined by more than 20%. During the same period, the active population

Box 3.14. **Pros and cons of local taxes for metropolitan areas**

The ***property tax*** is widely used in metropolitan areas in the OECD. One of the reasons for this is that it is levied for the most part on assets than cannot easily be moved elsewhere. This immobility of the tax base means that there are minimal risks of tax flight or other forms of manipulation to evade taxation. Furthermore, a property tax is highly visible and therefore fosters accountability. High reliance on the property tax, however, appears to impose restrictions on revenue flexibility. No country seems able to raise more than 10% of total tax revenues from property taxes. This can be debilitating for large urban administrations that find themselves pushed to provide more than a minimal set of services and infrastructures. The property tax should be designed in such a way that it does not distort the local property market. It was found that the Korean property tax, in which the main focus is on taxing property transactions, limits the liquidity of the property market in Busan (OECD, 2004b). Shifting the tax base more towards the value of assets could solve this problem. A further reform recommended by the OECD is to split the property tax rate in a rate for the land and a lower rate for buildings. In this way, urban development and redevelopment could be stimulated. The "split-rate"-approach has been used with particular success in many Pennsylvanian cities.

Income taxes are levied at the local level in 13 of 27 OECD countries. In a few cases – such as Sweden – the income tax is the only local tax. The income tax is highly responsive to changes in the economy and so offers good buoyancy in periods of growth. Some analysts argue that in large metropolitan areas the income tax may be more appropriate than the property tax. This is because the incomes of residents in big cities appear sometimes to correlate better with the consumption of locally supplied goods and services than property values do. The payroll tax (as applied for example in Mexico City) could be considered a variant of the income tax. A payroll tax is levied as a final tax on payrolls at the enterprise level. One of the disadvantages of a local income tax could be its responsiveness to changes in the economy, which could lead to volatile and pro-cyclical revenues. An income tax-centered revenue structure could lead to skewed development incentives. In Stockholm, for example, the municipal authorities appear to be disinclined to invest in upgrading the infrastructure for conveniently located Bromma airport. Investment in the airport would not bring in much new revenue via the income tax. For this reason, OECD recommended that a portion of the national property tax-regime be decentralised (OECD, 2006d). Shifting some of the property tax to the local level would help to reduce fluctuations in local revenues as well as balance local economic decisions.

Box 3.14. **Pros and cons of local taxes for metropolitan areas** *(cont.)*

Local sales taxes are levied by many cities, especially in the United States. This tax base is, however, generally a funding base for provincial and state governments. Local retail sales taxes in general provide moderate sources of revenue. Moreover, the scope of local sales taxes is limited by several distortions. One of them is the erosion of the tax base as economic agents seek substitutes or simply evade the levies. Local sales taxes in the United States are especially challenged by the popularity of e-commerce, as on-line shopping makes it difficult to tax at the point of purchase.

Local business taxes come in various forms. Even within the same state, California, there are business taxes levied on number of employees and those levied on gross receipts. The larger cities appear to prefer levies on the basis of employees, but Beverly Hills charges per professional employee working at the firm. Moreover, there are many Californian cities that either do not charge business taxes, or levy fees on the basis of floor space and other categories. In economic theory, local business taxes are generally seen as a poor choice. They are difficult to administer, encourage tax exporting and are generally only an option for large urban centres. Although competition in business tax rates can attract business, it can lead to destructive tax competition as well, as has happened in Hungary. The example of Helsinki illustrates that business tax revenues can be highly volatile. Business tax revenues reached its peak in 2000 of 26% of municipal expenditure, with a subsequent decline to 7% in 2003 (OECD, 2003a).

increased by almost 9% and GDP per capita by more than 15%. Because of the dominance of the property tax as a revenue source, the financial position of Montreal worsened, which would not have been the case with a more diversified revenue structure (OECD, 2004c). During the last decades different new sub-national taxes have been developed, ranging from fuel taxes in Canadian municipalities to local taxes on nuclear power stations in Japanese municipalities. Several of these taxes have their drawbacks. Fuel taxes might for example stimulate fuel consumption just across the municipal border. Local taxes on nuclear power stations might lead to regional inequities. But these tax bases keep being attractive for generating revenues.

A special case can be made for diversifying tax revenues with so-called smart taxes. These combine two goals. First, they bring in additional resources; second, they try to regulate or solve important constraints for the competitiveness of the area. These constraints might be congestion, environment degradation or other problems. By taxing these, competitiveness is furthered. Successful examples have been the congestion charge in London

and Singapore and environment taxes in several cities. The possibility of a congestion charge has been suggested in the metropolitan reviews of Busan and Stockholm, where congestion in some parts of the metropolitan areas is posing a challenge to competitiveness. Many metropolitan areas also finance part of their expenditures by fees. This is rational for concrete services for which costs can be calculated and for which thus a price can be asked. Examples are permits and licenses. As can be seen from Figure 3.5, revenues from fees can be a substantial part of a metropolitan area. Toronto and Melbourne get more than 10% of their revenues in this way, Athens even more than 40%. The advantage of fees is that they create a direct link between a service and the price that is asked for it to citizens and firms. This enhances accountability and thereby efficiency. When fees are applied on a large scale, attention has to be paid to the accessibility of public services for disadvantaged groups, since fees are usually not progressive or income-related.

ii) *Intergovernmental grants*

Cities also rely on grants from other levels of government. The limited amount of local freedom connected to a grant makes it an attractive local revenue source from the perspective of a national government that is attached to fiscal discipline of sub-national governments. It can also be used as means to implement specific central government policies for instance to promote horizontal collaboration between local jurisdictions within metropolitan areas. Cities can in some cases negotiate on the level of the grant (as is the case in Italy), but as soon as it is set they cannot influence how much revenue come from it. In this respect it is different from local taxes where a sub-national government can set the tax base and/or the tax rate. In addition, cities can have tax revenues that do in fact have the characteristics of grants like tax sharing arrangements. In this case sub-national governments get a certain, usually pre-determined, share of the national tax revenues. Sometimes this is linked to the tax revenues that were collected in this sub-national unit. For example, the tax share for Istanbul has a connection with how much tax revenue was collected within its boundaries. Istanbul is however not able to set base or rate for this tax share, so it bears more resemblance to a grant. The biggest disadvantage of grants for metropolitan areas is that they do not have much leeway over them. Since metropolitan areas do usually have a larger tax base than other regions, some authors (Bird and Slack, 2004) have argued that grants could be reserved for smaller urban and rural areas, leaving room for financing by metropolitan tax resources. This approach does not seem evident when many services provided by the metropolitan area have spillovers to the rest of the country. This can be the case for cultural facilities such as national museums.

3.5.2. Fiscal autonomy

Fiscal autonomy of a metropolitan area is an important factor in making the area more attractive to companies and citizens. When an area is more fiscally autonomous, it can more easily raise additional revenues for services and goods that are needed to make the area more attractive to business and residents. In several countries, sub-national governments within metropolitan regions enjoy more fiscal autonomy than the other sub-national governments in the country like in Korea. Many OECD countries do impose some kind of fiscal limit on its sub-national governments. The purpose is usually to provide fiscal discipline, in which, it is assumed, the usual accountability measures cannot sufficiently provide. The most extreme fiscal limit is not to allow taxing powers to sub-national governments. This is for example the case in Turkey, where even a large metropolitan area such as Istanbul is not allowed to set base and/or rate of a tax source (OECD, forthcoming a).

Less extreme – and more common – limits are a sub-national expenditure limit or tax limit.[14] Such fiscal limits have been most commonly applied in the United States. Limits that are too strict can lead to a dependent relation between central and local governments. This phenomenon has been observed in countries as diverse as Italy, United Kingdom and Norway. There are examples where fiscal limits, in combination with insufficient grants, lead to under-funding of an area. Montreal had already been cited as a case. Also other Canadian cities seem to be highly constrained by the provincial authorities, especially for creating new tax resources. Central governments can also impose non-fiscal limits. The most important of them concerns regulations on staff. Not only are nationally determined salaries very common, but some OECD countries have ceilings for the number of sub-national staff. This is understandable in a context where sub-national governments have run huge debts in order to be able to finance irrational staffing decisions. However, this might be an obstacle to build local capacity, since it limits the possibility to attract sufficient and highly qualified staff. Although competitiveness is furthered by fiscal discipline of cities, ceilings for staff might in some cities, such as Istanbul, be detrimental to competitiveness, as was the case in Busan and Seoul where staff ceilings have subsequently been removed.

Fiscal autonomy could also be considered to be low in a situation where sub-national governments somehow do not feel free to move, despite the fact that the legal framework allows them autonomy. For example, even if Korean authorities allow municipalities to set their tax rates, Busan has only raised its rates twice over the recent decades. A somewhat different phenomenon occurs in Norway, where all the municipalities have since the 1970s set their tax rates at the maximum possible. There might be particular reasons for

cities perceiving certain *de facto* limits. Municipalities in Norway are afraid that lowering a tax rate will be considered by the central government as a sign that they are being over-funded, leading to their grants being reduced.

3.5.3. Financing services and infrastructure: public-private partnerships

An approach of growing importance to financing large public projects in a period of fiscal austerity is that of public-private partnerships (PPPs). PPPs are contractual agreements between a public agency and a private firm. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the potential risks and rewards. From the public sector's point of view, there are two major attractions. First, PPPs enable an authority to lever additional finance without recourse to fiscal means. Second, they split the costs and risks of projects between the public and private sectors, tapping into the expertise and economies of scale available in the private sector that are rarely exploited for public policy. The key issue in assessing the use of PPPs is whether efficiency and effectiveness have increased.

At the same time there are certain risks, requiring appropriate safeguards to protect the public interest. In particular, there are likely to be asymmetries of information and of commitment between the different parties of the agreements. These considerations have now to take into account more "inclusive" PPPs, to which the various local stakeholders of the development projects, profit and non-profit, may contribute. The private partners need to participate at as earlier a stage as possible, so that they can suggest initial infrastructure development plans or alternative plans. On the other hand, early participation of the private sector may produce transparency and accountability problems. Plans proposed by firms may concentrate on their own returns rather than overall socio-economic benefits of a region. It is therefore important for policy makers to ensure procedures of enhancing positive externalities of the projects without sacrificing the private innovations. The public sector should decide the prioritised lists of overall infrastructure projects and undertake feasibility studies for each project before the decision whether a certain one would be implemented with private participation. There is a high possibility that socio-economically unviable projects cannot produce positive results regardless of the project implementation type (whether they are implemented through traditional public procurement or PPI/PPP style). For example, the Australian government stresses that PF (Australian PPP) policy should be within the frameworks of its own existing budgeting and resource management, and that priorities for public sector projects are not distorted by the availability of private sector finance (OECD, forthcoming c).

Governments are increasingly focusing on indirect financial and/or institutional supports for the private sector's investment resources (*e.g.*, developing secondary capital markets for infrastructure investment), rather than direct supports (*e.g.*, grants), that may create these moral hazard problems. If private partners expect direct government supports, they are more likely to neglect the creation of long-term value for money. Thus, public support needs to be more concentrated on creating enabling environments for the private partners' finance, expertise and even plans. Attention needs to be paid to monitoring and other costs, and to ensuring that needy recipients are not excluded from services because of drives to maximise efficiency.

There are risks that excessive use of PPPs can lead to public-sector organisations losing competency in critical functions, private-sector actors gaining leverage over public-sector decision-making, and public trust in government being undermined (OECD, 2004b). Experience in OECD countries suggests that governments tend to retain the majority of the risks. A cost-benefit comparison of PPPs *versus* traditional procurement needs to be rigorously conducted, and PPPs should be subjected to at least the same scrutiny as traditional expenditures in the budget process. Local public authorities need guidance and, as far as is practicable, standardised processes for selecting and operating PPPs. This help does not only concern respect of competition regulations but also the steps to be followed to identify the best partner, evaluate the effectiveness of the PPP option, and diffuse information to other local jurisdictions.

The key issue in assessing the use of PPPs is whether efficiency and effectiveness have increased. Korea as a whole and Seoul in particular have evolved creative responses to the challenge of delivering increasingly needed services with a small public sector and very low tax share (Choi, n.d.), and their use of PPP mechanisms will increase in the future. Even so, Seoul and other cities should perhaps be wary of seeing PPPs as the ever-ready solution to the challenge of meeting the demand for infrastructure and services.

3.5.4. *Dealing with intra-metropolitan fiscal inequalities*

Fiscal arrangements to deal with intra-metropolitan disparities include redistributive grants and tax base sharing. Equalisation mechanisms have often been supported because they ensure a sharing of the costs of public services whose benefit extends to the whole metropolitan area, stem inefficient location choices motivated by differing tax bases, and contribute to an equal ability of municipalities to fund basic public services.

Some large metropolitan areas which are represented by a local government such as Seoul, Tokyo and Istanbul have districts with substantial responsibilities and intra-metropolitan equalisation schemes to allocate funds to the districts (Box 3.15). In those metropolitan regions characterised

Box 3.15. **Metropolitan fiscal equalisation in Tokyo, Seoul and Istanbul**

Tokyo is composed of 23 special wards, or *tokubetsuku*, which are roughly equivalent to cities in their fiscal and administrative powers. The scale of the current equalisation system is quite significant, totaling JPY 1.48 trillion (about EUR 11 billion) in 2003. The system is funded by the sub-national property tax, the corporate share of the municipal resident's tax and the landholding tax levied inside the Tokyo metropolitan region. Tokyo prefecture gets 48% of the funds, allocated to support its provision of area-wide services such as water and sewage, fire services, and the like. The remaining 52% of the funds are allocated among the 23 wards (*ku*) according to need. This need is determined by calculating 14 items of the ward level revenues and comparing the total for each ward with a calculation of standardized costs for each ward. Funds are allocated to the individual ward in the event that their costs exceed their revenues. In recent years, the wards have sought to expand their scope of responsibilities and thus their share of the funds, but the metropolitan administration argues that area-wide provision of such services as sewerage and fire protection offer important economies of scale.

Significant grants flow from ***Seoul*** to its autonomous districts (*gu*). Seoul's total spending on support to the districts totals KRW 2 000 billion (around EUR 1.7 billion). This is 14% of total spending of the Seoul Metropolitan Government. The grants are allocated on the basis of a formula that seeks to fill the vertical gap among the district, which is quite pronounced because fiscal capacity varies greatly among them. The formula for this transfer system has not been revised in over a decade and is heavily weighted towards covering the costs of civil servants. The district budgets are spent on social development costs such as health care, environmental enhancement and social security. The *district* spends relatively little in the economic development sphere.

The financial flows in the metropolitan fiscal scheme in Istanbul are the inverse of those in Tokyo and Seoul. Instead of providing district municipalities with additional means for providing services, the financial scheme serves the metropolitan municipality of Istanbul. District municipalities in Istanbul have to transfer 35% of their tax share to Istanbul metropolitan municipality. This is to finance services that the metropolitan municipality is providing to the district municipalities. Of the remaining 65%, 10% has to be transferred to the Istanbul metropolitan municipality for transport investments. District municipalities complain about this transfer, since they feel that the services provided by the metropolitan municipality are poor and find that they do not have enough left for their own needs.

Source: OECD (2005d), OECD *Territorial Reviews: Japan*, OECD publications, Paris, France; OECD (2005f), *OECD Territorial Reviews: Seoul, Korea*, OECD publications, Paris, France and OECD (forthcoming a), *OECD Territorial Reviews: Istanbul, Turkey,* OECD publications, Paris, France.

by a large number of local governments, an intra-metropolitan equalisation scheme could be useful in resolving some of the negative aspects of suburban sprawl and dealing with income polarisation. In Minnesota, a portion of the property tax in the twin cities area of Minneapolis-Saint-Paul is allocated to a special fund from which distributions are made based on relative fiscal capacity (Box 3.16).[15] Minnesota municipalities are also partially funded by transfers from the state level based on need (using measures such as the age of infrastructure and population decline). In France, the creation of supra-municipal bodies includes a provision for an intra-metropolitan equalisation scheme, the *Dotation de Solidarité Communautaire*. By providing additional means for municipalities that want to co-operate with each other, the intra-metropolitan equalisation scheme provides incentives for reaching an optimal level of service delivery.

The advantages of tax-base equalisation are that public services that are consumed by residents in the entire metropolitan area also share in the costs, that firms and people will be less likely to move from one area of the metropolitan area to another for purely tax reasons, and that all municipalities are put on a more even footing to pay for public services. The disadvantages are that tax-base equalisation grants, like all grants, might be allocated based more on political than economic reasons, may give municipalities less of an incentive to develop since the wealthier they get the less they receive in grants, and may separate the costs and benefits of local public services making it difficult for citizens to make informed public decisions.

3.5.5. *Impact of national equalisation schemes*

A commonly debated and controversial issue within OECD is that national equalisation schemes that generally aim to redistribute resources from richer regions to poorer regions, or from regions with less to regions with more needs, are perceived to be a burden for competitiveness in metropolitan areas. Equalisation schemes can affect competitiveness by reducing the level of funding or leading to lower tax bases.

A large variety of equalisation schemes exist. Most of them take account of cost differences and/or tax capacity. The tax capacity of a city can be expressed as the amount of revenues per capita that a city can collect using an average tax rate. Since a metropolitan region typically functions as the economic engine of a larger area, the tax capacity of authorities within it will usually be above average. By taking account of local cost differences, central government tries to give local governments possibilities for providing equivalent local public services. Metropolitan regions are likely to have larger social and infrastructural challenges, but these might be counterbalanced by

Box 3.16. **Tax base sharing in Pittsburgh and in Minneapolis-Saint-Paul**

The ***Pittsburgh*** agglomeration is one of the most fragmented American metropolitan agglomerations (418 local governments, including 412 municipalities). The alternative to a metropolitan-wide government type of body came in 1994 in the form of a special purpose district that covers the entire region with mandates of supporting and financing regional assets. Allegheny County has been authorised by the State of Pennsylvania to levy a 1% sales tax in order to fund the activities of the District and to provide funds to the county and municipalities. The purpose of this mechanism is to provide additional funds to local municipalities so that they can reduce their property tax rates and their reliance on the property tax.

Of the revenues coming from the sales tax, 25% is allocated to the county and another 25% is allocated to the municipalities that were required to reduce other taxes, mainly the property tax, during the first year. Subsequently, the county and municipalities have to use 25% of any increase of revenues in regional-wide assets or to further reduce the property tax burden of their tax payers. "The other 50% of the tax revenues goes to the District and is distributed to civic, cultural and recreational entities."* The revenue sharing formula among municipalities is an innovative mechanism that allows the central city of Pittsburgh to lighten the property tax burden of its taxpayers and to lower its expenditures. The grant allocation formula takes into account the population, fiscal potential of jurisdictions as well as the fiscal burden of its taxpayers. The tax revenue sharing program resulted in a reduction in the property tax burden for all property taxpayers of Allegheny County, including those of the central city, but at the same time, increased the sales tax burden. Revenues became more diversified.

Since 1975 an unusual Minnesota law has stipulated that a portion of the commercial/industrial tax base in each community within the ***Minneapolis-St. Paul*** metropolitan area be shared. Using 1971 as the base year, each community is required to contribute annually 40% of the ensuing growth in its commercial and industrial (C/I) tax base to a metro-wide pool, from which distributions are made, based on relative fiscal capacity. C/I property includes all businesses, offices, stores, warehouses, factories, gas stations, parking ramps, as well as public utility property and vacant land that are zoned for commercial or industrial use. Not included are properties in tax increment financing districts and the Minneapolis-St. Paul International Airport. The provision has two purposes:

- *To improve equity in the distribution of fiscal resources*. Tax-base sharing reduces the imbalance between some communities' public service needs

Box 3.16. **Tax base sharing in Pittsburgh and in Minneapolis-Saint-Paul** *(cont.)*

and financial resources. The uneven distribution of commercial and industrial properties is thought to be a major cause of imbalance. Communities with low tax bases must impose higher tax rates to deliver the same services as communities with larger tax bases. Consequently, the higher tax rates render the communities less attractive for businesses. Communities then compete by offering special concessions to attract businesses, presuming that these businesses will contribute more in taxes than they require in services. Tax base sharing spreads the benefits of regional development (*i.e.*, large shopping centres, sports stadiums, freeway interchanges).

- *To promote regional planning*. Communities may be willing to accept low tax yield regional facilities (*e.g.*, parks) if they are to share the benefits of other communities' commercial development. By reducing competition for development, urban sprawl is discouraged, reducing the costs of providing regional services such as sewage and transportation.

Distribution from a common tax pool is determined by multiplying each community's share of the metropolitan population by a relative fiscal capacity index, the ratio of average fiscal capacity in the region and the community's fiscal capacity. This means that communities with below-average fiscal capacity have an index greater than 1, while communities with above-average fiscal capacity have an index less than 1. A community with average fiscal capacity will receive a distributive share of the pool equal to its proportion of the entire area's population. Low capacity communities receive shares greater than their share of area population (net recipients) whereas high capacity communities receive shares smaller than their share of area population (net contributors).

* *www.radworkshere.org.*

more geographically constrained expenditure needs in other areas, for example in mountainous areas.

In general, equalisation schemes make metropolitan areas contribute to other areas in a country. This often makes them unpopular in metropolitan areas. Budapest protested against the introduction of an equalisation scheme, since it would mean it would have to contribute (OECD, 2001b). The extent to which metropolitan areas contribute to other areas in a country depends on the concrete expenditure elements that the equalisation arrangement takes into account. A few examples illustrate the point. Stockholm has higher labour costs, but is not compensated for that in the equalisation scheme. Helsinki

has higher land costs, but this is not taken into account. Seoul has huge transportation costs, but the equalisation scheme does not look at transportation. There might be other elements that do not bring profits for responsible behaviour in metropolitan areas. An example is the equalisation scheme of Japan, where debt service is considered one of the expenditure needs. This has contributed to huge municipal debts in Japan. This is not to say that all equalisation schemes that are beneficial to metropolitan areas are by definition good. Switzerland has had a system in which the equalisation scheme matched the amount of local spending. Since rich municipalities were able to spend more, as a result they also received more equalisation transfers. This bias towards rich sub-national governments may well suit metropolitan areas, but is not logical when one considers that the goal of equalisation schemes is to reduce regional disparities. Metropolitan areas are not always net contributors. The Randstad-Holland is an example of a metropolitan area that profits from an equalisation scheme (OECD, forthcoming b).

Since many equalisation schemes are linked to local taxation, they can exert an influence on taxing behaviour. Results could be insufficient tax efforts and reduction of tax bases. The equalisation scheme in Korea is related to actual fiscal revenues. This means that municipalities with low revenues get more from the scheme. This creates disincentives to increase tax efforts, which is not beneficial to Seoul with its large efforts to collect tax revenues (OECD, 2005f). In the economic literature it is mentioned that equalisation schemes might in another way provide disincentives to local taxation. Regions with smaller tax capacity (tax base) are in many countries compensated for it by more equalisation transfers. This might give regions with an above-average tax base an incentive to reduce their tax base, either by investing less in attracting new tax bases, or by evading the definition of a tax base. In Stockholm, it was found that the richest municipalities witnessed the largest relative reduction of their tax bases. This might indicate that the described incentive effect existed (OECD, 2006d).

Fiscal decisions that are often outcomes of negotiations between central and "local" authorities could be seen as the result of politically driven criteria that could be different from the result of weighing benefits and costs of prospective public programmes. In many cases, the central government contribution is no longer just used for revenue balancing but rather for competences that are shared across levels of government and cannot be assigned once for all as well as for inciting regions to make use of their comparative advantages and enhance their competitiveness. In this context, policy strategies are impacted by uncertainty about decisions. With asymmetry of information between the "principal" (the central government) and the "agents" (the sub-national ones), and with the necessity of dialogue between different actors, appropriate strategies for development are more

likely to emerge from having plurality of participation in decision making (with different types of actors, central, regional and local) as well as in policy implementation.

3.5.6. Summary: dilemma VII

Whatever policies are eventually chosen, the most important goal is to reorganise public finances so that they can assist cities and regions to improve competitiveness; this is a different approach to the role of public funds in development from the period when objectives were protective and defensive of existing capacities rather than oriented towards improving them for the future. For a time, in coping with a decline in urban manufacturing and with innovation more generally, industrial policy supported declining sectors; welfare systems inhibited labour mobility; and harmful competition meant that cities attracted investment but were unable to anchor new firms into a local economic fabric. The lessons of policy failure have helped to shape the new political economy for territories. The goal is not to shift jobs from one region to another unless relocation will allow it to function in an area where there is a better "fit" with its territorial capital but to lift overall output by developing the assets of all regions. Key issues involve intangible assets, particularly organised around specialisations, linkages between universities, research communities and the private sector, clustering, and stocks of social capital, as well as natural features, often associated with water or other environmental assets.

Sound urban finances increase the competitiveness of a metro-region. This means that enough financial means should be available to finance the key spending needs. It is important that actors capable of operating at metro-regional level can have access to resources for which they are responsible if they think the current spending level is too low. A well developed local taxation system is necessary. In order to avoid volatility the sub-national tax base ideally consists of several taxes over which those engaged in the metro-region have considerable autonomy. Assignment of functions to the most appropriate government level, without many overlaps, can help the efficiency of spending of metro-regions. Equalisation schemes can lead to transfers of financial resources from the metro-region to the rest of the country. Intra-regional equalisation schemes can help to avoid suburban sprawl. PPPs can play a valuable role in augmenting resources available for public projects, providing the relationships are developed with care and avoiding moral hazard.

Notes

1. In the case of Madrid, the city's surface grew from 66.2 km^2 to 607 km^2 (Tomas, 2002).
2. *http://en.wikipedia.org/wiki/Metropolitan_Service_District* and *www.metro-region.org*.
3. For further details, see *www.septa.org*.
4. Sharpe (1995) quoted in Bird and Slack (2004).
5. *www.lyon.fr* and *www.regionurbainedelyon.fr*.
6. The Karlsruhe Agreement of 1996 was a basic document for cross-border co-operation along the Swiss-German-French-Luxembourg border. It wants to "support and facilitate co-operation of territorial authorities and local public institutions across national borders. [The agreement] thereby accommodates requests of the communal level to provide the means for direct, uncomplicated and legally binding collaboration with their respective neighbours on the other side of the border" (Auswärtiges Amt, 1997).
7. *www.oecd.org/gov/urbandevelopment*.
8. *www.oecd.org/gov/urbandevelopment*.
9. *www.oecd.org/gov/urbandevelopment*.
10. Draft bill 33, law modifying the Charter for the City of Montreal, approved on 18 December 2003 (Projet de loi 33, Loi modifiant la Charte de la Ville de Montréal, adopté le 18 décembre 2003) *http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=5&file=2003C28F.PDF*.
11. Quoted in OECD (2006a).
12. *http://europa.eu.int/comm/regional_policy/themes/urban_en.htm*.
13. Further aspects of the issue of urban funding will be found in the paper by Chernick and Reschovsky in Part II.
14. Expenditure limits usually take the form of a spending ceiling; tax limits are commonly formulated as a range in which the local tax rate can fluctuate. The design can be such that much local fiscal autonomy remains.
15. The relative fiscal capacity index is the ratio of average fiscal capacity in the region and the community's fiscal capacity.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
© OECD 2006

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ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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APPENDIX 1

Definition of Metropolitan Areas in some OECD Countries

Australia	According to the Rural Remote and Metropolitan Areas (RRMA) Classification, **Metropolitan Area** is a Statistical Subdivision containing Major Urban Centres. While the Australian Bureau of Statistics (ABS) has not defined the term "Metropolitan" in its own geography it is often interpreted as the Capital City Statistical Division in each State/Territory with ex-metropolitan being the remainder of the State/Territory. **Section of State (SOS):** This geographical classification uses population counts to define Collection Districts (CDs) as urban or rural and to provide, in aggregate, statistics for urban concentrations and for bounded localities and balance areas. SOS represents an aggregation of non-contiguous geographical areas of a particular urban/rural type. The Sections of State defined include Major Urban (population clusters of 100 000 or more), Other Urban (population clusters of 1 000 to 99 999), Bounded Locality (200 to 999), Rural Balance (remainder of State/Territory) and Migratory, and in aggregate cover the whole of Australia. **Major Urban** is a category of the Australian Statistical Geographic Classification (ASGC) Section of State Structure. This category provides for three sub-categories of urban areas Urban Centres from the UC/L Structure) based upon population ranges: – 1 000 000 or more, – 250 000 to 999 999, and – 100 000 to 249 999. **Other Urban** is a category of the Australian Standard Geographical Classification (ASGC) Section of State Structure. This category provides for five sub-categories of urban areas (Urban Centres from the UC/L Structure) based upon population ranges: – 50 000 to 99 999; – 20 000 to 49 999; – 10 000 to 19 999, – 5 000 to 9 999; – 1 000 to 4 999. *Source*: *www.abs.gov.au/*.

Canada	Metropolitan areas are part of the standard statistical areas and include the **Census Metropolitan Areas** (CMA) and the Census Agglomerations (CA). The general concept of these standard units is one of an urban core, and the adjacent urban and rural areas that have a high degree of social and economic integration with that urban core. **A CMA** is delineated around an urban core with a population of at least 100 000, based on the previous census. Once an area becomes a CMA, it is retained as a CMA even if the population of its urban core declines below 100 000. Census agglomerations (CAs) are centred on urban cores with populations of at least 10 000. **A CMA/CA** describes the zone of influence of an urban core according to the measure of commuting flows derived from census place of work data. It is delineated using adjacent municipalities (census subdivisions) as building blocks. These census subdivisions (CSDs) are included in the CMA or CA if they meet at least one delineation rule. The three principal rules are: 1) The CSD falls completely or partly inside the urban core. 2) Given a minimum of 100 commuters, at least 50% of the employed labour force living in the CSD works in the delineation urban core as determined from commuting data based on the place of work question in the last decennial census (1991 Census). 3) Given a minimum of 100 commuters, at least 25% of the employed labour force working in the CSD lives in the delineation urban core as determined from commuting data based on the place of work question in the last decennial census (1991 Census). Another rule concerns the merging of adjacent CMAs and CAs. A CA adjacent to a CMA can be merged with the CMA if the total percentage commuting interchange between the CA and CMA is equal to at least 35% of the employed labour force living in the CA, based on place of work data from the decennial census. The total percentage commuting interchange is the sum of the commuting flow in both directions between CMA and CA as a percentage of the labour force living (resident employed labour force) in the CA. A CMA or CA represents an area that is economically and socially integrated. However, there are certain limitations to the manner in which this goal can be met. Since the CSDs that are used as building blocks in CMA and CA delineation are administrative units, their boundaries are not always the most suitable with respect to CMA and CA delineation. Especially in western Canada, CSDs may include large amounts of sparsely settled territory where only the population closest to the urban core is integrated with that core. Furthermore, since CMA/CA boundaries for the 2001 Census are based on 1991 place of work commuting flow data, they may not reflect the current boundaries or the current social and economic integration of the urban area. *Source: www.statcan.ca/.*
Finland	**Functional Urban area** (travel to work area). A municipality is considered to be a labour market centre if less than 20% of its resident employed population commute to areas out of the municipality and if no other municipality attract more than 7.5% of this resident employed population. All municipalities which do not meet these criteria belong to the Functional urban Area of the labour market centre to which the greatest number of residents employees commute. If a municipality sends the greatest number of employees to another non labour market centre, which itself send the greatest number of employees to a labour market centre all these municipalities belong to the Functional urban area of the labour market centre. *Source*: ESPON Project 1.1.1 (*www.espon.eu/mmp/online/website/content/projects/259/648/index_EN.html*).
France	**Urban unit** is one or more "communes" which has on his territory a built area of at least 2 000 inhabitants or where each building is separated from the closest by a distance not larger than 200 metres. Moreover the municipality concerned must have more than half of its population living in the built area. If the urban unit is extended on more than one municipality the ensemble of these municipalities is considered an urban agglomeration. (no idea of metropolitan area) *Source: www.insee.fr/fr/nom_def_met/definitions/html/ville.htm.* **Functional Urban area** is an area attracted by an urban pole (group of municipalities with over 5 000 jobs). Municipalities are considered to be attracted by the urban pole if over 40% of the active and employed resident population work there or in any other municipality attracted by it. *Source*: ESPON Proje ct 1.1.1 (*www.espon.eu/mmp/online/website/content/projects/259/648/index_EN.html*).
Italy	784 Local labour systems (Sistemi locali del lavoro) defined on the basis of commuting flows. (Full national coverage, only indirectly related with the concept of metropolitan area.) *Source: www.unioncamere.it.*

Japan	Based on employment patterns, the ***Urban Employment Areas*** (UEAs) are divided between Metropolitan Employment Areas (MEAs) and Micropolitan Employment Areas (McEAs) according to their sizes. The UEA has the following three major characteristics. 1) The core is determined by the size of the Densely Inhabited District (DID) population. 2) The outlying municipalities of a UEA are defined mainly by the condition that 10% or more of employed workers commute to the core. 3) The core of a UEA may contain multiple central municipalities. A Metropolitan Employment Area (MEA) is a UEA whose core has a DID population of at least 50 000 and a Micropolitan Employment Area (McEA) is that with a DID population of at least 10 000 and less than 50 000. *Source: www.urban.e.u–tokyo.ac.jp/UEA/index_e.htm.*
New Zealand	Urban Areas Comprises a three-part classification consisting of main, secondary and minor urban areas which constitute the "urban" population of New Zealand. Main and secondary urban areas are centred on a major city or borough and include neighbouring boroughs, town districts and parts of counties which are regarded as suburban and belonging to that centre of population. *Source: www2.stats.govt.nz/.*
Netherlands	**Urban Districts (Stadgewesten):** groups of municipalities comprising adjacent cities and some nearby municipalities **Large urban districts around around the largest cities (Kaderwetgebieden):** areas comprising several municipalities/cities for which it seems valuable to coordinate certain policy issues. *Source*: ESPON Project 1.1.1 (*www.espon.eu/mmp/online/website/content/projects/259/648/index_EN.html*).
Norway	**Labour market areas** (based on travel time and commuting patterns) – Municipalities located 30 to 75 minutes travel time distance from an urban core area, which send at least 10% of their resident employed population to the urban core area. *Source*: ESPON Project 1.1.1 (*www.espon.eu/mmp/online/website/content/projects/259/648/index_EN.html*).
Portugal	Designation of **metropolitan areas**: The metropolitan areas of Lisbon and Porto, abbreviated as, respectively, AML and AMP, are designated as public territorial entities aimed at pursuing the objectives of the municipalities in their jurisdictions. The metropolitan area of Lisbon has its administrative centre in Lisbon and includes the following municipalities (*concelhos*): Alcochete, Almada, Amadora, Azambuja, Barreiro, Cascais, Lisboa, Loures, Mafra, Moita, Montijo, Oeiras, Palmela, Sesimbra, Setúbal, Seixal, Sintra and V.F.Xira. The metropolitan area of Porto has its administrative centre in Porto and comprises the following municipalities (*concelhos*): Espinho, Gondomar, Maia, Matosinhos, Porto, Póvoa de Varzim, Valongo, Vila do Conde and Vila Nova de Gaia. *Source: http://conceitos.ine.pt/pesquisa2.asp#C.* **Statistical city** (Cidade estatistica) corresponds in the majority of cases to the adjustment of the urban perimeter according to the statistical sub-sections used by INE and BGRI (Geographical Basis Information Reference). *Source: http://conceitos.ine.pt/pesquisa2.asp#C.*
Spain	**Provincias:** (TL3) are considered to be good proxies for the identification of Functional urban areas, principally in regions with a high level of urban concentration.
Sweden	Same method as in Finland.
United Kingdom	**Metropolitan Counties and Districts:** In 1974, a new two-tier system of counties and districts was established across England and Wales. Six of the upper-tier units, all in England and representing heavily built-up areas (other than Greater London), were designated "metropolitan counties" and were subdivided into "metropolitan districts". As with non-metropolitan areas the respective authorities covered all areas of local government, but the distribution of responsibilities was different to that of the county/district structure. In 1986, however the metropolitan county councils were abolished, although the county areas (see map) are still recognised, especially for statistical purposes. The 36 metropolitan district councils were left as single-tier authorities, a status retained to date, and accordingly have more powers than their non-metropolitan district equivalents. **Urban Area:** There is no single definition of an urban area as there are many different approaches to classifying what is urban. These include approaches based on population, on population density and on land use, and all have different advantages and disadvantages depending on what the classification is being used for. However, the Rural and Urban Area Classification 2004 is now available as a National Statistics standard. This classifies Output Areas and wards as either urban or rural depending on whether the bulk of their population falls in a settlement of greater than 10 000 residents. It also offers sub-classifications of urban and rural, based on population density. *Source: www.statistics.gov.uk/.*

United States	**Metropolitan Statistical Area (MSA)** is a geographic entity defined by the federal Office of Management and Budget for use by federal statistical agencies, based on the concept of a core area with a large population nucleus, plus adjacent communities having a high degree of economic and social integration with that core. Qualification of an MSA requires the presence of a city with 50 000 or more inhabitants, or the presence of an Urbanised Area (UA) and a total population of at least 100 000 (75 000 in New England). The county or counties containing the largest city and surrounding densely settled territory are central counties of the MSA. Additional outlying counties qualify to be included in the MSA by meeting certain other criteria of metropolitan character, such as a specified minimum population density or percentage of the population that is urban. MSAs in New England are defined in terms of minor civil divisions, following rules concerning commuting and population density. *Source: http://factfinder.census.gov/home/en/epss/glossary_m.html.*
United Nations	**Urban agglomeration**: a large locality of a country (that is to say, a city or a town) is often part of an urban agglomeration, which comprises the city or town proper and also the suburban fringe or thickly settled territory lying outside, but adjacent to, its boundaries. The urban agglomeration is therefore not identical with the locality but is an additional geographical unit, which may include more than one locality. In some cases, a single large urban agglomeration may comprise several cities or towns and their suburban fringes. The components of such large agglomerations should be specified in the census results. City is a large locality of a country. *Source:* Series M No. 67/Rev.1, Principles and Recommendations for Population and Housing Censuses, Revision 1, United Nations, New York, 1997. *http://unstats.un.org/unsd/pubs/print.asp?mysearch=demographic+population&new=&data=&method=&comp=&id=&electronic=*
EU/ESPON Project	**Functional Urban Areas** can be defined as travel-to-work area. Principally it is an agglomeration of workplaces attracting the workforce from the surrounding areas. If a certain share of the labour force in a defined fringe area are out-commuters it is attached to the municipality to which the largest portion of commuters goes. This method is good for defining the most pronounced employment centres to which the simpler threshold level of commuting applies. In many international studies, a commuting flow threshold of either 15 or 20% is used to determine whether a municipality is attached to a particular centre or not. *Source: www.espon.eu/.*

EUROSTAT, Urban Audit	The Terms of Reference for the **Urban Audit pilot** phase required that indicator scores were generated at the city level, corresponding to the normal administrative area for the participating 58 cities. The Terms of Reference also requested that indicators be generated for a wider urban area. These wider areas of analysis comprised "conurbations" where the reference area had its own administrative identity and Wider Territorial Units (WTU) where "local authority areas adjoining a city partake significantly in the life of the city". The main purpose for considering the indicators at the WTU or conurbation level is that the city level administrative boundaries may not reflect the physical or functional boundaries of the urban area. The generation of indicator scores at the WTU or conurbation level enables comparison with city level indicator scores, it may be appropriate for inter city comparisons to use the score at the WTU (or conurbation) level as well as or instead of the city level. The general approach used to define the WTU in the Terms of Reference and adopted in the pilot phase was that the wider areas should fulfil one of the two criteria below: *i)* That the contiguous administrative areas each have a population density equal to or greater than 500 persons per square kilometre; *ii)* That the proposed group of administrative areas corresponds to a build up area with less than 200 metres between two built units. Furthermore, the total population of the city and administrative areas within the WTU should be at least 50% greater than the population of the city. **Two methods were used to define the WTU** The first was based upon an analysis of land use. Maps were drawn from CORINE data showing the five land uses characteristics of urban areas (continuous urban fabric, discontinuous urban fabric, industrial and commercial units, green urban areas, sports and leisure facilities). If these urban land uses continued with a gap of less than 200 metres across NUTS 5 boundaries then the adjacent areas were included in the wider areas. This approach was applied in Belgium, Denmark, Spain, Greece, Ireland, the Netherlands and Portugal. The second method was based upon population density and was applied in Germany, Austria, Finland, Italy, the United Kingdom and Sweden. In some cases, modifications were made to the boundaries during the Urban Audit pilot phase. In practice in some cases it has been difficult to obtain information to inform the indicators for these wider areas. In some cases, where data availability is good for a similar wider area, during the pilot phase a "shadow WTU" has been used and information collected at this level. For 27 cities, the Individual City Audits provide indicator scores at the Conurbation (seven cities) or WTU (20 cities) as well as at the city and sub-city levels. The **Urban Audit** collects information on the living conditions in 258 large and medium-sized cities within the European Union and the candidate countries (EU27). The Urban Audit builds upon the success of the Urban Audit Pilot Project (1997-2000) which demonstrated that the collection of comparable urban statistics across the EU was feasible and useful. The Urban Audit aims to provide information at three spatial levels: *i)* The Core City (administrative definition), as the basic level (Label "A"); *ii)* The Larger Urban Zone (Label "LUZ"), which is an approximation of the functional urban zone centred around the town / city; *iii)* The Sub-City District (Label "SCD"), which is a subdivision of the city according to strict criteria (5 000 – 40 000 inhabitants in each sub-town/city district). For reasons of comparable analysis, national level data has been compiled – and resented – for the Urban Audit variables. *Source: www.urbanaudit.org/.*

APPENDIX 2

OECD Methodology for Identification of Metropolitan Regions

Regions and metropolitan areas

Regions have meant different things for different fields of social science. Interpretations of the concept go from regional blocs in international trade to sub-national levels of governments and economic analysis. Regions therefore can be the size of a state in the United States as large as Texas, a province such as British Columbia in Canada or Queensland in Australia, or as small as the District of Columbia in the United States, the Distrito Federal in Mexico or the Region of Brussels in Belgium. However, regions are in many cases geographical spaces where political or administrative boundaries define their shape and size.

In contrast, metropolitan regions are social, economic, geographical and political spaces where shape, size, nature and kind are determined by human and business interaction. In fact, the majority of metro-regions in the OECD are composed of a number of regions such as in the cases of Tokyo, New York, Mexico City or Istanbul. The same can be said about larger regions hosting entire metro-regions such as in the cases of Athens, Madrid, Stuttgart or Sydney.

The problems of defining a metro-region are manifold. To begin with, there are several levels of territorial statistical units that can be used; larger areas sometimes yield overestimated areas, whereas smaller areas confront us with the problem of selecting which units are parts of the metro-region and which not. Second, the appropriate estimation of the metro-region based on the larger area poses modelling challenges while the gathering of smaller areas into a single metro-region raise similar questions regarding the statistical methods and the concepts behind an metro-region. Third, even when a methodology has been chosen and implemented some cases yield inconclusive results about the integration of particular territorial units to the

metro-region; hence, there is also the need of looking at those cases with other tools in hand. Fourth, there are – as in many statistical exercises – constraints imposed by the availability of data. Limitations include missing data for some years in some countries such as in the case of Australia, lack of data at the appropriate level such as in the cases of Mexico and the United Kingdom or absence of data such as in the cases of New Zealand and Switzerland, as well as the lack of data for a longer period of time such as employment figures before 1998 that hamper productivity growth estimates or even the absence of data at the appropriate level for some indicators in some countries such as ageing for Canada, Mexico and New Zealand.

Bearing the aforementioned limitations and challenges, the OECD, for the purpose of this publication, has used a methodology to define the metropolitan areas in OECD countries. This methodology tackles many of the issues discussed above, but many others remain caveats for the conclusions of this report.

Developing a methodology to define metro-regions

Territorial level of analysis

The OECD has classified sub-national regions in its member countries. This classification is based on territorial levels (TL), one of which is particularly relevant for identifying MRs, namely territorial level 3 (TL3) which comprises more than 2 300 regions in the OECD. These regions refer to:

- *Statistical Divisions* in Australia, *Census Divisions* in Canada, *BEA Economic Areas* in the United States and *Upper Tier Authorities* in the United Kingdom.
- *Provinces* in Belgium, Italy, Korea, the Netherlands, Spain, Sweden and Turkey.
- *Cantons* in Switzerland.
- *Departments* in France.
- *Prefectures* in Japan.
- *Groups of Municipalities* in Mexico.
- *Regional Councils* or *Authorities* in Ireland, New Zealand and Portugal (*Grupos de Concelhos*).
- *Development Regions* in Greece, and *Sub-regions* in Poland.
- *Gruppen von Politischen Bezirken* in Austria, *Kraje* in the Czech Republic, *Amter* in Denmark, *Maakunnat* in Finland, *Regierungsbezirke* in Germany, *Megyek* in Hungary, *Fylker* in Norway, and *Län* in Sweden.

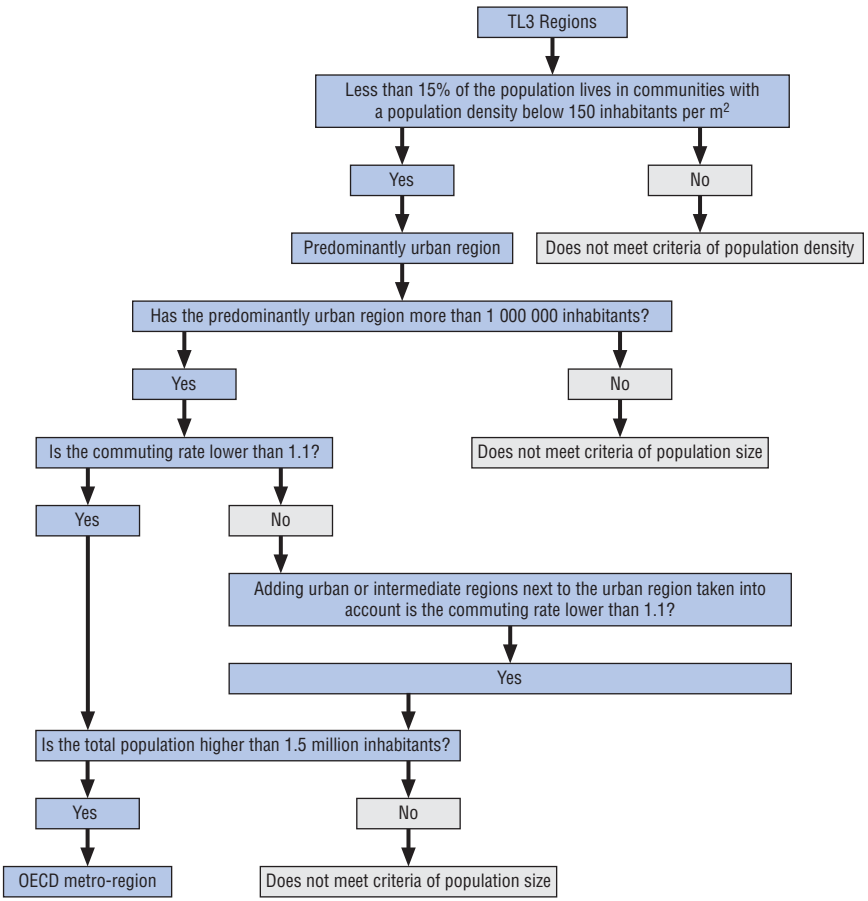
Although the definition of some metro-regions would have benefited from more precision using a smaller unit of analysis, the lack of data available

hindered such analysis. In particular, Busan, Milan, London and Tokyo would have benefited from the use of finer units of analysis.

Criteria to define metro-regions

Studies on the subject of defining metro-regions use five criteria to support that a particular collection of regions or units of analysis conform a single urban space (Figure A.2.1). These elements can be broadly described as: administrative or legal boundaries, labour markets, business linkages, services centres and provision and housing markets.

Figure A.2.1. **Methodology for selecting OECD metro-regions**



Given the available data and bearing in mind the findings from previous *OECD Territorial Reviews*, the OECD established a methodology that includes three criteria:

- **Urban density.** Metro-regions are selected from Predominantly Urban areas (PU) as defined by the OECD Regional Typology, according to which PUs are regions in which less than 15% of their population live in rural areas.
- **Self-contained labour market.** Using commuting flows for each of the regions and calculating of a net commuting rate (NCR) for a combination of PU areas, allowed us to determine whether a number of PU constituted a single and self-contained labour market. If the NCR was below 10% the units comprised a common labour market. If the NCR was above 10%, more neighbouring PU regions were added until the rate became within the metro-region level. The process implied adding one region at a time and even contemplated including intermediate regions (IN) as necessary for the rate to lie within the limits.
- **Population size.** A metro-region was considered to be one if in addition to complying with the two criteria above, its population was above 1.5 million people.

In addition to these criteria, the methodology also contemplated a solution – referred as Rule 2 – for those cases in which data was only available for a region significantly larger than the unit of analysis or for those cases for which data was simply missing. In such cases the procedure implied estimating the values of the missing indicators based on the following two hypotheses:

1. The production function in the metro-region is the same as in the TL2 region;
2. The production function is a constant return-to-scale Cobb-Douglas.

The advantage of this methodology is that it permits productivity to differ between the metro-region and the TL2 region. According to hypotheses 1 and 2, the production function in a metro-region (say Toronto) can be written as:

$$Y_{MA} = A_{MA} \cdot L_{MA}^{\alpha} \cdot K_{MA}^{1-\alpha}$$

where Y and L stand for output and labour, respectively; K indicate all other inputs, and A and α are technical coefficients.

Profit maximisation requires that:

$$\frac{W_{MA}}{GDP_{MA}} = \alpha$$

where $W_{MA} = w_{MA} \cdot L_{MA}$ and $GDP_{MA} = P_{MA} \cdot Y_{MA}$ are, respectively, the wage bill and the GDP in Toronto

GDP data are not available for the metro-region of Toronto but only for the TL2 region (Ontario), where Toronto is located. The wage bill is known for both Toronto and Ontario. Assuming that Toronto and Ontario have the same production function, it follows that:

$$GDP_{MA} = \frac{W_{MA}}{W_{TL2}} \cdot GDP_{TL2}$$

Therefore, GDP of the metro-region (Toronto) is a share of the GDP of the TL2 region (Ontario) and the share is equal to the ratio between the wage bills in the Toronto and Ontario. Notice that this formulation permits differences in productivity – both average and marginal – between Toronto and Ontario. In fact, average productivity is equal to

$$\frac{Y}{L} = \frac{1}{\alpha} \cdot \frac{w}{p}$$

and marginal productivity is

$$\frac{\partial Y}{\partial L} = \alpha \cdot \frac{Y}{L} \equiv \frac{w}{p}$$

Hence, if real wages (w/p) are different in Toronto and Ontario, estimated average and marginal productivity will be different. It is important to mention that the indicators used for the estimations were based on the available data at the larger-area unit.

The OECD metropolitan regions

Using the methodology described above, we can select 78 metro-regions in the OECD (Table A.2.1). It is important to mention that metro-regions for Canada (Montreal, Toronto and Vancouver), Mexico (Guadalajara, Mexico City, Monterrey and Puebla) and the United States (Atlanta, Baltimore, Boston, Chicago, Cleveland, Dallas, Denver, Detroit, Houston, Los Angeles, Miami, Minneapolis, New York, Philadelphia, Phoenix, Pittsburgh, Portland, San Diego, San Francisco, Seattle, St. Louis, Tampa Bay and Washington) were based on the Metropolitan Statistical Areas defined by each country's statistical authorities. It is also important to point out that New Zealand (Auckland), Swiss (Zurich) and Turkish (Ankara, Istanbul and Izmir) metro-regions were defined using literature review as existing transportation networks as commuting flows were not available for such countries. Similarly, metro-regions in Australia (Melbourne and Sydney), Greece (Athens) and Spain (Barcelona, Madrid and Valencia) were considered to be self-contained in their own regions and no commuting rates were necessary.

Table A.2.1. **Definition of metro-regions according to the OECD**

	Metro-region	TL3 units included
AUSTRALIA	Melbourne	Melbourne
AUSTRALIA	Sydney	Sydney
AUSTRIA	Vienna	Wien
		Weiner Umland-Nordteil
		Weiner Umland-Südteil
BELGIUM	Brussels	Brussels
		Oost-Vlaanderen
		Vlaams Brabant
		Brabant Wallon
CANADA	Montreal	Montreal Census Metropolitan Area
CANADA	Vancouver	Vancouver Census Metropolitan Area
CANADA	Toronto	Toronto Census Metropolitan Area
CZECH REPUBLIC	Prague	Praha
		Stredocesky
DENMARK	Copenhagen	København og Frederiksberg Kommuner
		Københavns amt
		Frederiksborg amt
		Roskilde amt
		Vestsjællands amt
		Storstrøms amt
FINLAND	Helsinki	Uusimaa
		Itä-Uusimaa
		Päijät-Häme
		Kanta-Häme
FRANCE	Lille	Nord
FRANCE	Lyon	Rhône
FRANCE	Paris	Paris
		Seine-et-Marne
		Yvelines
		Essonne
		Hauts-de-Seine
		Seine-Saint-Denis
		Val-de Marne
		Val-de-Oise
GERMANY	Berlin	Prignitz-Oberhavel
		Uckermark-Barnim
		Oderland-Spree
		Lausitz-Spreewald
		Havelland-Fläming
GERMANY	Frankfurt	Mittelhessen
		Osthessen
		Rhein-Main
		Bayerischer Untermain
		Starkenburg

Table A.2.1. **Definition of metro-regions according to the OECD** *(cont.)*

	Metro-region	TL3 units included
GERMANY	Hamburg	Hamburg
		Schleswig-Holstein Süd-West
		Schleswig-Holstein Süd
		Bremerhaven
		Hamburg-Umland-Süd
		Südheide
		Lüneburg
GERMANY	Munich	Augsburg
		Ingolstadt
		Regensburg
		Landshut
		Oberland
		Südostoberbayern
		München
GERMANY	Rhein-Ruhr	Dortmund
		Emscher-Lippe
		Duisburg/Essen
		Düsseldorf
		Bochum/Hagen
		Köln
		Aachen
		Bonn
GERMANY	Stuttgart	Stuttgart
GREECE	Athens	Attiki
HUNGARY	Budapest	Budapest
		Pest
IRELAND	Dublin	Dublin
		Mid-East
ITALY	Milan	Novara
		Varese
		Como
		Lecco
		Milano
		Bergamo
		Pavia
		Lodi
ITALY	Naples	Napoli
ITALY	Rome	Roma
ITALY	Turin	Torino
JAPAN	Aichi	Aichi
		Mie
JAPAN	Fukuoka	Fukoka
JAPAN	Osaka	Kyoto
		Osaka
		Hyogo

Table A.2.1. **Definition of metro-regions according to the OECD** *(cont.)*

	Metro-region	TL3 units included
JAPAN	Tokyo	Saitama
		Chiba
		Tokyo
		Kanagawa
KOREA	Busan	Busan
		Ulsan
		Gyeonsangnam-do
KOREA	Daegu	Daegu
KOREA	Seoul	Seoul
		Incheon
		Gyeonggi-do
MEXICO	Guadalajara	Guadalajara
		El Salto
		Tlajomulco de Zúñiga
		Tlaquepaque
		Tonalá
		Zapopan
MEXICO	Mexico City	Distrito Federal
		Tizayuca
		Acolman
		Amecameca
		Apaxco
		Atenco
		Atizapán de Zaragoza
		Atlautla
		Axapusco
		Ayapango
		Coacalco de Berriozábal
		Cocotitlán
		Coyotepec
		Cuautitlán
		Chalco
		Chiautla
		Chicoloapan
		Chiconcuac
		Chimalhuacán
		Ecatepec de Morelos
		Ecatzingo
		Huehuetoca
		Hueypoxtla
		Huixquilucan
		Isidro Fabela
		Ixtapaluca
		Jaltenco

Table A.2.1. **Definition of metro-regions according to the OECD** *(cont.)*

	Metro-region	TL3 units included
		Jilotzingo
		Juchitepec
		Melchor Ocampo
		Naucalpan de Juárez
		Nezahualcóyotl
		Nextlalpan
		Nicolás Romero
		Nopaltepec
		Otumba
		Ozumba
		Papalotla
		La Paz
		San Martín de las Piramides
		Tecámac
		Temamatla
		Temascalpa
		Tenango del Aire
		Teoloyucán
		Teotihuacán
		Tepetlaoxtoc
		Tepetlixpa
		Tepotzotlán
		Texcoco
		Tezoyuca
		Tlalmanalco
		Tlalnepantla de Baz
		Tultepec
		Tultitlán
		Villa del Carbón
		Zumpango
		Cuautitlán Izcalli
		Valle de Chalco Solidaridad
MEXICO	Monterrey	Apodaca
		García
		San Pedro Garza García
		Gral. Escobedo
		Guadalupe
		Juárez
		Monterrey
		Salinas Victoria
		San Nicolás de los Garza
		Santa Catarina

Table A.2.1. **Definition of metro-regions according to the OECD** *(cont.)*

	Metro-region	TL3 units included
MEXICO	Puebla	Amozoc
		Coronango
		Cuautlancingo
		Juan C. Bonilla
		Puebla
		San Andrés Cholula
		San Gregorio Atzompa
		San Pedro Cholula
		Amaxac de Guerrero
		Apetatitlán de Antonio Carvajal
		Apizaco
		Cuaxomulco
		Chiautempan
		Mazatecochco de José María Morelos
		Contla de Juan Cuamatzi
		Acuamanala de Miguel Hidalgo
		Panotla
		San Pablo del Monte
		Santa Cruz Tlaxcala
		Tenancingo
		Teolocholco
		Tepeyanco
		Tetla de la Solidaridad
		Tlaxcala
		Tocatlán
		Totolac
		Tzompantepec
		Xaloztoc
		Papalotla de Xicohténcatl
		Xicohtzinco
		Yauhquemecan
		Zacatelco
		La Magdalena Tlaltelulco
		San Damián Texoloc
		San Francisco Tetlanohcan
		San Juan Huactzinco
		San Lorenzo Axocomanitla
		Santa Catarina Ayometla
		Santa Cruz Quilehtla
		Santa Isabel Xiloxoxtla
NETHERLANDS	Randstad	Utrecht
		Noord-Holland
		Zuid-Holland
		Flevoland

Table A.2.1. **Definition of metro-regions according to the OECD** *(cont.)*

	Metro-region	TL3 units included
NEW ZEALAND	Auckland	Auckland Region
NORWAY	Oslo	Oslo
		Akershus
		Østfold
		Buskerud
		Vestfold
POLAND	Krakow	Krakowsko-Tarnovski
		M. Kraków
POLAND	Warsow	Warsawski
		M. Warsawski
PORTUGAL	Lisbon	Grande Lisboa
		Peninsula De Setubal
SPAIN	Barcelona	Barcelona
SPAIN	Madrid	Comunidad de Madrid
SPAIN	Valencia	Valencia
SWEDEN	Stockholm	Stockholm
		Uppsala län
SWITZERLAND	Zurich	Aargau
		Zurich
		Luzern
		Zug
TURKEY	Ankara	Ankara
TURKEY	Istanbul	Istanbul
		Kocaeli
		Yalova
TURKEY	Izmir	Izmir
UK	Birmingham	Birmingham
		Solihull
		Coventry
		Dudley and Sandwell
		Walsall and Wolverhampton
UK	Leeds	Bradford
		Leeds
		Calderdale, Kirklees and Wakefield
UK	London	Inner London-West
		Inner London-East
		Outer London-East and Northeast
		Outer London-South
		Outer Lomdon-West and Northwest
		Hertfordshire
		Southend-on-Sea
		Thurrock
		Essex CC
		Berkshire

Table A.2.1. **Definition of metro-regions according to the OECD** *(cont.)*

	Metro-region	TL3 units included
		Milton Keynes
		Buckinghamshire CC
		Surrey
		Medway Towns
		Kent CC
UK	Manchester	Greater Manchester North
		Greater Manchester South
USA	Atlanta	Barrow County, GA
		Bartow County, GA
		Butts County, GA
		Carroll County, GA
		Cherokee County, GA
		Clayton County, GA
		Cobb County, GA
		Coweta County, GA
		Dawson County, GA
		DeKalb County, GA
		Douglas County, GA
		Fayette County, GA
		Forsyth County, GA
		Fulton County, GA
		Gwinnett County, GA
		Haralson County, GA
		Heard County, GA
		Henry County, GA
		Jasper County, GA
		Lamar County, GA
		Meriwhether County, GA
		Newton County, GA
		Paulding County, GA
		Pickens County, GA
		Pike County, GA
		Rockdale County, GA
		Spalding County, GA
		Walton County, GA
USA	Baltimore	Anne Arundel County, MD
		Baltimore County, MD
		Carroll County, MD
		Harford County, MD
		Howard County, MD
		Queen Anne's County, MD
		Baltimore City, MD

Table A.2.1. **Definition of metro-regions according to the OECD** *(cont.)*

	Metro-region	TL3 units included
USA	Boston	Norfolk County, MA
		Plymouth County, MA
		Suffolk County, MA
		Middlesex County, MA
		Essex County, MA
		Rockingham County, NH
		Strafford County, NH
USA	Chicago	Cook County, IL
		DeKalb County, IL
		DuPage County, IL
		Grundy County, IL
		Kane County, IL
		Kendall County, IL
		McHenry County, IL
		Will County, IL
		Jasper County, IN
		Lake County, IN
		Newton County, IN
		Porter County, IN
		Lake County, IL
		Kenosha County, WI
USA	Cleveland	Cuyahoga County, OH
		Geauga County, OH
		Lake County, OH
		Lorain County, OH
		Medina County, OH
USA	Dallas	Collin County, TX
		Dallas County, TX
		Delta County, TX
		Denton County, TX
		Ellis County, TX
		Hunt County, TX
		Kaufman County, TX
		Rockwall County, TX
		Johnson County, TX
		Parker County, TX
		Tarrant County, TX
		Wise County, TX
USA	Denver	Adams County, CO
		Arapahoe County, CO
		Broomfield County, CO
		Clear Creek County, CO
		Denver County, CO
		Douglas County, CO
		Elbert County, Co
		Gilpin County, CO
		Jefferson County, CO
		Park County, CO

Table A.2.1. **Definition of metro-regions according to the OECD** *(cont.)*

	Metro-region	TL3 units included
USA	Detroit	Wayne County, MI
		Lapeer County, MI
		Livingston County, MI
		Macomb County, MI
		Oakland County, MI
		St. Clair County, MI
USA	Houston	Austin County, TX
		Brazoria County, TX
		Chambers County, TX
		Fort Bend County, TX
		Galveston County, TX
		Harris County, TX
		Liberty County, TX
		Montgomery County, TX
		San Jacinto County, TX
		Waller County, TX
USA	Miami	Broward County, FL
		Miami-Dade County, FL
		Palm Beach County, FL
USA	Minneapolis	Anoka County, MN
		Carver County, MN
		Chisago County, MN
		Dakota County, MN
		Hennepin County, MN
		Isanti County, MN
		Ramsey County, MN
		Scott County, MN
		Sherburne County, MN
		Washington County, MN
		Wright County, MN
		Pierce County, WI
		St. Croix County, WI
USA	Los Angles	Los Angeles County, CA
		Orange County, CA
USA	New York	Middlesex County, NJ
		Monmouth County, NJ
		Ocean County, NJ
		Somerset County, NJ
		Nassau County, NY
		Suffolk County, NY
		Bergen County, NJ
		Hudson County, NJ
		Passaic County, NJ
		Bronx County, NY
		Kings County, NY
		New York County, NY
		Putnam County, NY
		Queens County, NY
		Richmond County, NY

Table A.2.1. **Definition of metro-regions according to the OECD** *(cont.)*

	Metro-region	TL3 units included
		Rockland County, NY
		Westchester County, NY
		Essex County, NJ
		Hunterdon County, NJ
		Morris County, NJ
		Sussex County, NJ
		Union County, NJ
		Pike County, PA
USA	Philadelphia	Burlington County, NJ
		Camden County, NJ
		Gloucester County, NJ
		Bucks County, PA
		Chester County, PA
		Delaware County, PA
		Montgomery County, PA
		Philadelphia County, PA
		New Castle County, DE
		Cecil County, MD
		Salem County, NJ
USA	Phoenix	Maricopa County, AZ
		Pinal County, AZ
USA	Pittsburgh	Allegheny County, PA
		Armstrong County, PA
		Beaver County, PA
		Butler County, PA
		Fayette County, PA
		Washington County, PA
		Westmoreland County, PA
USA	Portland	Clackamas County, OR
		Columbia County, OR
		Multnomah County, OR
		Washington County, OR
		Yamhill County, OR
		Clark County WA
		Skamania County, WA
USA	San Diego	San Diego County, CA
USA	San Francisco	Alameda County, CA
		Contra Costa County, CA
		Marin County, CA
		San Francisco County, CA
		San Mateo County, CA
USA	Seattle	King County, WA
		Snohomish County, WA
		Pierce County, WA

Table A.2.1. **Definition of metro-regions according to the OECD** *(cont.)*

	Metro-region	TL3 units included
USA	St. Louis	Bond County, IL
		Calhoun County, IL
		Clinton County, IL
		Jersey County, IL
		Macoupin County, IL
		Madison County, IL
		Monroe County, IL
		St. Clair County, IL
		Crawford County, MO
		Franklin County, MO
		Jefferson County, MO
		Lincoln County, MO
		St. Charles County, MO
		St. Louis County, MO
		Warren County, MO
		Washington County, MO
		St. Louis City, MO
USA	Tampa Bay	Hernando County, FL
		Hillsborough County, FL
		Pasco County, FL
		Pinellas County, FL
USA	Washington	Frederick County, MD
		Montgomery County, MD
		District of Columbia, DC
		Calvert County, MD
		Charles County, MD
		Prince George's County, MD
		Arlington County, VA
		Clarke County, VA
		Fairfax County, VA
		Fauquier County, VA
		Loudoun County, VA
		Prince William County, VA
		Spotsylvania County, VA
		Stafford County, VA
		Warren County, VA
		Alexandria City, VA
		Fairfax City, VA
		Falls Church City, VA
		Fredericksburg City, VA
		Manassas City, VA
		Manassas Park City, VA
		Jefferson County, WV

Note: The data for Canada and Korea are for 2003. The data for Japan are 2001.
The labour force and employment data for the US metropolitan areas refer to place of residence (July 2002) and are collected from the US Bureau of Labour Statistics. Unemployment estimates are aggregates of persons previously employed in industries.

Indicators

Most of the indicators used to develop the Metropolitan Database are based on member countries' official data through the OECD Territorial Database and adding PU and IN regions as defined by each metro-region. However, in some cases it was necessary to estimate the values of each indicator using Rule 2.

Population

Table A.2.2. **Sources and years of reference for population**

	Source	Year of reference
Australia	OECD Regional Database	2004
Austria	OECD Regional Database	2003
Belgium	OECD Regional Database	2003
Canada	Statistics Canada	2001
Czech Republic	OECD Regional Database	2003
Denmark	OECD Regional Database	2004
Finland	OECD Regional Database	2004
France	OECD Regional Database	2004
Germany	OECD Regional Database	2003
Greece	OECD Regional Database	2003
Hungary	OECD Regional Database	2003
Ireland	OECD Regional Database	2003
Italy	OECD Regional Database	2003
Japan	OECD Regional Database	2004
Korea	OECD Regional Database	2004
Mexico	INEGI	2000
Netherlands	OECD Regional Database	2003
New Zealand	Statistics New Zealand	2001
Norway	OECD Regional Database	2004
Poland	OECD Regional Database	2001
Portugal	OECD Regional Database	2003
Spain	OECD Regional Database	2003
Sweden	OECD Regional Database	2003
Switzerland	OECD Regional Database	2003
Turkey	OECD Regional Database	2000
United Kingdom	OECD Regional Database	2004
United States	US Census Bureau	2004

Country notes

Canada: Population derives from the Census Population. The data for the metro-regions in the OECD Metropolitan Database for Canada refers to the data referring to the Metropolitan Areas as defined by Statistics Canada which are based on a similar methodology to the OECD's.

Mexico: Data refers to the Population Census of 2000. The metro-regions in the OECD Database corresponds to the Metropolitan Area as defined by INEGI.

New Zealand: Data stems from the National Census and uses the Auckland Region as the geographical definition of Auckland's metro-region.

United States: Data refers to the information provided at the Metropolitan Statistical Area (MSA) by the US Census and to estimated annual values for the year of reference. OECD metro-regions are considered identical as the MSA as defined by the US Census which are based on a similar methodology to the OECD's.

Gross Domestic Product (GDP)

Table A.2.3. **Sources and years of reference for GDP**

	Source	Year of reference
Australia	OECD Regional Database and Australian Bureau of Statistics	2004
Austria	OECD Regional Database	2002
Belgium	OECD Regional Database	2002
Canada	Statistics Canada	2004
Czech Republic	OECD Regional Database	2002
Denmark	OECD Regional Database	2002
Finland	OECD Regional Database	2002
France	OECD Regional Database	2002
Germany	OECD Regional Database	2002
Greece	OECD Regional Database	2002
Hungary	OECD Regional Database	2002
Ireland	OECD Regional Database	2002
Italy	OECD Regional Database	2002
Japan	OECD Regional Database	2000
Korea	OECD Regional Database	2003
Mexico	INEGI	2003
Netherlands	OECD Regional Database	2002
New Zealand	Statistics New Zealand	2004
Norway	OECD Regional Database	2002
Poland	OECD Regional Database	2002
Portugal	OECD Regional Database	2002
Spain	OECD Regional Database	2002
Sweden	OECD Regional Database	2002
Switzerland	Swiss Statistics	2002
Turkey	OECD Regional Database	2000
United Kingdom	OECD Regional Database	2002
United States	Bureau of Economic Analysis	2002

Country notes

Australia: GDP for the metro-regions of Australia (Melbourne and Sydney) were calculated using GDP at TL2 level (state/territory) and Rule 2 was applied using *wage and salary income* for the states and for the metro-region. Recall that a ratio of wages is useful to estimate GDP at the metro-region so that:

$$GDP_{MA} = \frac{W_{MA}}{W_{TL2}} \cdot GDP_{TL2}$$

Canada: GDP for Canadian metro-regions (Montreal, Toronto and Vancouver) were obtained applying Rule 2. Instead of wages, the available data allowed us to use *total earnings* to weigh TL2 level (Quebec, Ontario and British Columbia respectively).

Mexico: GDP for Mexican metro-regions (Guadalajara, Mexico City, Monterrey and Puebla) was calculated applying Rule 2 and using the ratio of TL3 to TL2 of *gross output*.

New Zealand: GDP for metro-regions (Auckland) was obtained applying Rule 2. As TL2 level does not exist in New Zealand, GDP at the metro-region level was considered to be a proportion of national GDP. To calculate GDP *regular salaries* was the variable found to be compatible with our methodology.

Switzerland: GDP for Zurich metro-region was obtained applying Rule 2. As TL2 level does not exist in Switzerland, GDP at the metro-region level was considered to be a proportion of national GDP. To calculate GDP *net revenues for physical contributors* was the variable found to be compatible with our methodology and used as a ratio of national GDP.

United States: GDP for all US metro-regions stem from the MSA level Bureau of Economic Analysis statistics as the MSA are considered to be the OECD metro-regions.

Labour force

Table A.2.4. **Sources and years of reference for labour force**

	Source	Year of reference
Australia	OECD Regional Database	2004
Austria	OECD Regional Database	2004
Belgium	OECD Regional Database	2004
Canada	Statistics Canada	2005
Czech Republic	OECD Regional Database	2004
Denmark	OECD Regional Database	2004
Finland	OECD Regional Database	2004
France	OECD Regional Database	2004
Germany	OECD Regional Database	2004
Greece	OECD Regional Database	2004
Hungary	OECD Regional Database	2004
Ireland	OECD Regional Database	2004
Italy	OECD Regional Database	2004
Japan	OECD Regional Database	2000
Korea	OECD Regional Database	2004
Mexico	INEGI	2000
Netherlands	OECD Regional Database	2004
New Zealand	Statistics New Zealand	2004
Norway	OECD Regional Database	2004

Table A.2.4. **Sources and years of reference for labour force** *(cont.)*

	Source	Year of reference
Poland	OECD Regional Database	2004
Portugal	OECD Regional Database	2001
Spain	OECD Regional Database	2004
Sweden	OECD Regional Database	2004
Switzerland	Swiss Statistics	2000
Turkey	Central Bank of Turkey	2001
United Kingdom	OECD Regional Database	2004
United States	Bureau of Labour Statistics	2006

Country notes

United States: Labour Force was based on MSA level unemployment rates and employment figures stemming from the Bureau of Labour Statistics (BLS). Since labour force is the sum of employed and unemployed population, labour force figures for US metro-regions were based on the quotient of employment figures from the BLS and the employment rate (1- u, where u is unemployment rate). Pittsburgh's metro-region labour force data however, was taken from OECD territorial database corresponding to the Pittsburgh-New Castle MSA.

Employment

Table A.2.5. **Sources and years of reference for employment**

	Source	Year of reference
Australia	OECD Regional Database	2004
Austria	OECD Regional Database	2004
Belgium	OECD Regional Database	2004
Canada	Statistics Canada	2005
Czech Republic	OECD Regional Database	2004
Denmark	OECD Regional Database	2004
Finland	OECD Regional Database	2004
France	OECD Regional Database	2004
Germany	OECD Regional Database	2004
Greece	OECD Regional Database	2004
Hungary	OECD Regional Database	2004
Ireland	OECD Regional Database	2004
Italy	OECD Regional Database	2004
Japan	OECD Regional Database	2000
Korea	OECD Regional Database	2004
Mexico	INEGI	2000
Netherlands	OECD Regional Database	2004
New Zealand	OECD Regional Database	2004

Table A.2.5. **Sources and years of reference for employment** *(cont.)*

	Source	Year of reference
Norway	OECD Regional Database	2004
Poland	OECD Regional Database	2004
Portugal	OECD Regional Database	2001
Spain	OECD Regional Database	2004
Sweden	OECD Regional Database	2004
Switzerland	Swiss Statistics	2000
Turkey	OECD Regional Database	2000
United Kingdom	OECD Regional Database	2004
United States	Bureau of Labour Statistics	2004

Country notes

Canada, Mexico and Switzerland: Data stemming from their official statistical institutions directly for the corresponding years of reference.

United States: Pittsburgh's metro-region employment data taken from OECD territorial database corresponding to the Pittsburgh-New Castle MSA.

Old-age dependency ratio

Table A.2.6. **Sources and years of reference for old-age dependency ratio**

	Source	Year of reference
Australia	OECD Regional Database	1999 and 2004
Belgium	OECD Regional Database	1999 and 2004
Czech Republic	OECD Regional Database	1999 and 2003
Denmark	OECD Regional Database	1999 and 2004
Finland	OECD Regional Database	2000 and 2004
France	OECD Regional Database	1999 and 2004
Germany	OECD Regional Database	2000 and 2003
Greece	OECD Regional Database	1999 and 2003
Hungary	OECD Regional Database	2000 and 2003
Italy	OECD Regional Database	1999 and 2004
Japan	OECD Regional Database	1999 and 2004
Korea	OECD Regional Database	1999 and 2004
Netherlands	OECD Regional Database	1999 and 2004
Norway	OECD Regional Database	1999 and 2004
Poland	OECD Regional Database	2000 and 2001
Spain	OECD Regional Database	1999 and 2004
Sweden	OECD Regional Database	1999 and 2004
Switzerland	OECD Regional Database	1999 and 2004
United Kingdom	OECD Regional Database	1999 and 2004

Further calculations

Further calculations were needed to obtain the rest of the indicators. However, they all are based on the data stemming from the above indicators:

- *GDP in PPPs* was converted to Purchasing Power Parities (PPPs) using the corresponding OECD Reference Tables.
- *Per capita GDP in PPPs* was obtained through the quotient of GDP in PPPs and Population.
- *Regional-National Ratio* was calculated as the proportion that GDP in current prices of each metro-region represents of their corresponding national GDP in current prices.
- *Activity rate* was considered to be the quotient of labour force and population for each metro-region.
- *Employment rate* was obtained by dividing employment and labour force for each metro-region.
- *Labour productivity* is the result of dividing GDP in PPPs and employment as a measure of production per worker.
- *Differences of each* metro-region labour productivity, employment rate and activity rate with respect to the metro-regions average were obtained by taking the differences of each metro-region level with respect to the average of metro-regions expressed in percentages.
- *Differences in per capita GDP* were explained using three indicators, namely activity rate, employment rate and labour productivity according to the methodology described in Appendix 4.

APPENDIX 3

Regressions and Correlations in Chapter 1

Correlations between population size and income

There is a positive and statistically significant association between the size of a city in terms of population and the income level suggesting that agglomeration brings about positive externalities (Table A.3.1).

Table A.3.1. **Correlation between income and population**
Linearised GDP pc in PPPs and population

	Population (linearised)	GDP pc (linearised)
Pearson's Correlation	1	0.323*
Significance (2-tailed)	–	0.024
N	49	49
Pearson's Correlation	0.323*	1
Significance (2-tailed)	0.024	–
N	49	49

* Correlation is significant at the 0.05 level (2-tailed)

If we only take into account large metro-regions over 6 million people the correlation between income and size is not statistically significant. However, it is interesting to see that the Pearson's coefficient is negative suggesting that there may be a different kind of relationship between the variables when very large cities are considered (Table A.3.2).

Table A.3.2. **Correlation between income and population in mega cities**
Linearized GDP pc in PPPs and population for metro-regions over 6 million people

	Population (linearised)	GDP pc (linearised)
Pearson's Correlation	1	–0.202
Significance (2-tailed)	–	0.436
N	17	17
Pearson's Correlation	–0.202	1
Significance (2-tailed)	0.436	–
N	17	17

Correlation between metro-regions and national growth

National economic growth rates are strongly related to metro-regional economic growth as proved by strong and statistically significant Pearson's coefficient in Table A.3.3.

Table A.3.3. **Correlation of growth rates at the metro and national levels**
Average annual growth rates for the 1995-2002 period

		Metro-region growth rates 1995-2002	National growth rates 1995-2002
Metro-region growth rates 1995-2002	Pearson Correlation	1	.598*
	Sig. (2-tailed)	.	.000
	N	44	44
National growth rates 1995-2002	Pearson Correlation	.598*	1
	Sig. (2-tailed)	.000	.
	N	44	44

* Correlation is significant at the 0.01 level (2-tailed).

Beta-convergence regressions among metro-regions 1995-2002

β-convergence regressions are defined by:

$$\dot{y}_{mr} = a + bY_{mr}$$

where $\dot{y}_{mr}$ represents average annual growth rates for metro-region (mr) between the selected period and Y_{mr} refers to the initial level of income measured by per capita GDP in metro-region (mr) at the start year of the selected period.

Running the aforementioned model yields no evidence of either convergence or divergence for the full period (1995-2002) as the results of the coefficient for the independent variable in the model is statistically not significant.

Variables[1] entered/removed[2]

Model	Variables entered	Variables removed	Method
1	GDP 1995	.	Enter

1. All requested variables entered.
2. Dependent variable: average annual growth rates 1995-2002.

However, for the shorter and more recent period of 1999-2002, the results from the regression show a trend towards divergence as supported by positive and statistically significant results for the independent variable's coefficient.

Model summary

Model	R	R square	Adjusted R square	Std. error of the estimate
1	.060[1]	.004	-.020	.0219945

1. Predictors: (Constant), GDP 1995.

Coefficients[1]

		Unstandardised coefficients		Standardised coefficients		
		B	Std. error	Beta		
1	(Constant)	.033	.003		9.567	.000
	GDP 1995	2.828E-13	.000	.060	.390	.698

1. Dependent variable: average annual growth rates 1995-2002.

Variables[1] entered/removed[2]

Model	Variables entered	Variables removed	Method
1	GDP 1999	.	Enter

1. All requested variables entered.
2. Dependent variable: gr9902.

Model summary[1]

Model	R	R square	Adjusted R square	Std. error of the estimate
1	.517(a)	.267	.250	.0245542

1. Predictors: (Constant), Average Annual Growth Rates 1999-2002.

Coefficients[1]

		Unstandardised coefficients		Standardised coefficients		
		B	Std. error	Beta		
1	(Constant)	.033	.004		8.610	.000
	GDP 1999	2.980E-12	.000	.517	3.913	.000

1. Dependent variable: gr9902.

The results for the earlier part of the period, shows no evidence of either convergence or divergence as can be observed in statistically not significant values in the coefficients. These results may suggest that there could be an emerging trend towards divergence among OECD metro-regions. However,

these results are curtailed by the fact that we are considering a rather short period of time.

Variables[1] entered/removed[2]

Model	Variables entered	Variables removed	Method
1	GDP 1995	.	Enter

1. All requested variables entered.
2. Dependent variable: grw9599.

Model summary

Model	R	R square	Adjusted R square	Std. error of the estimate
1	.096[1]	.009	-.014	.0339334

1. Predictors: (Constant), GDP 1995.

Coefficients[1]

		Unstandardised coefficients		Standardised coefficients		
		B	Std. Error	Beta		
1	(Constant)	.033	.005		6.217	.000
	gdp95rea	–7.002E-13	.000	–.096	–.626	.534

1. Dependent variable: average annual growth rates 1995-99.

Regression between income and population size

Table A.3.4. **Results for regressions using intercept and control variables**

1	2	3	4	5	6	7	8	9	10	11
0.043	–0.034	0.053	–0.135	–0.012	–0.017	–0.016	0.056	–0.139	–	–0.207
(–0.139)	(–0.117)	(0.232)	(–0.544)	(–0.039)	(–0.075)	(–0.069)	(0.254)	(–0.671)	–	(–2.209)[1]
–0.141	–0.054	0.000	0.069	–0.115	0.066	0.067	–0.044	–0.074	–0.195	–
(–0.449)	(–0.186)	(–0.002)	(0.276)	(–0.366)	(0.292)	(0.293)	(–0.198)	(–0.366)	(–2.131)[1]	–
–	0.383	–	–	–	–	–0.093	–	–	–	–
–	(3.619)[2]	–	–	–	–	(–0.833)	–	–	–	–
–	–	–0.705	–	–	–	–	–	–	–	–
–	–	(–8.382)[2]	–	–	–	–	–	–	–	–
–	–	–	0.625	–	0.882	0.948	0.949	–1.623	–1.522	–1.613
–	–	–	(6.954)[2]	–	(8.490)[2]	(7.255)[2]	(9.169)[2]	(–2.529)[1]	(–2.449)[1]	(–2.530)[1]
–	–	–	–	–0.126	0.430	0.433	0.361	0.266	0.275	0.268
–	–	–	–	(–1.070)	(4.030)[2]	(4.044)[2]	(3.395)[2]	(2.666)[2]	(2.798)[2]	(2.705)[2]
–	–	–	–	–	–	–	0.242	0.536	0.531	0.529
–	–	–	–	–	–	–	(2.577)[1]	(4.783)[2]	(4.771)[2]	(4.819)[2]

Table A.3.4. **Results for regressions using intercept and control variables** *(cont.)*

	1	2	3	4	5	6	7	8	9	10	11
	–	–	–	–	–	–	–	–	2.681	2.577	2.672
	–	–	–	–	–	–	–	–	(4.052)[2]	(4.021)[2]	(4.065)[2]
R-sq	0.10	0.156	0.486	0.395	0.025	0.503	0.507	0.544	0.627	0.625	0.627
Adj. R-sq.	–0.15	0.122	0.465	0.371	–0.014	0.476	0.474	0.513	0.597	0.600	0.602
F	0.399	4.674[2]	23.924[2]	16.549[2]	0.648	18.959[2]	15.244[2]	17.635[2]	20.495[2]	24.687[2]	24.858[2]

1. Statistically significant at the 95% level.
2. Statistically significant at the 99% level.

Two sets of regressions were performed to assess whether population size has an effect on income. The first set of models used the following formulation:

$$Y_{mr} = a + bP_{mr} + cP_{mr}^2 + d_i$$

where Y stands for per capita GDP in PPPs for metro-region mr, P stands for population of metro-region mr and d represents country dummies and other control variables such as the proportion of national GDP accounted by the mr. The results are shown on Table A.3.4, which do not provide conclusive evidence of the effect of population size. However using the second sets of model based on regressions through the origin we can arrive to more useful conclusions. Although regressions with no intercept are always difficult to interpret, its use is justified by the fact that the absence of population will imply no income. Hence the following alternative formulation – taking Seoul and Tokyo out of the sample as they were considered to be outliers – was made:

$$Y_{mr} \Big/ P_{mr} = a + bP_{mr}$$

where Y and P refer, as before, to per capita GDP and population respectively. This formulation is tantamount to:

$$Y_{mr} = aP_{mr} + bP_{mr}^2$$

Variables[1] entered/removed[2]

Model	Variables entered	Variables removed	Method
1	Per capita GDP		Enter

1. All requested variables entered.
2. Dependent variable: per capita GDP.

Model summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.901[1]	.811	.806	16443.853

1. Predictors: population, population square.

Coefficients[1, 2]

		Unstandardised coefficients		Standardised coefficients		
		B	Std. error	Beta		
1	Population	.013	.001	1.703	14.250	.000
	Pop*Pop	–8.79E-10	.000	–1.007	–8.423	.000

1. Dependent variable: per capita GDP.
2. Linear regression through the Origin

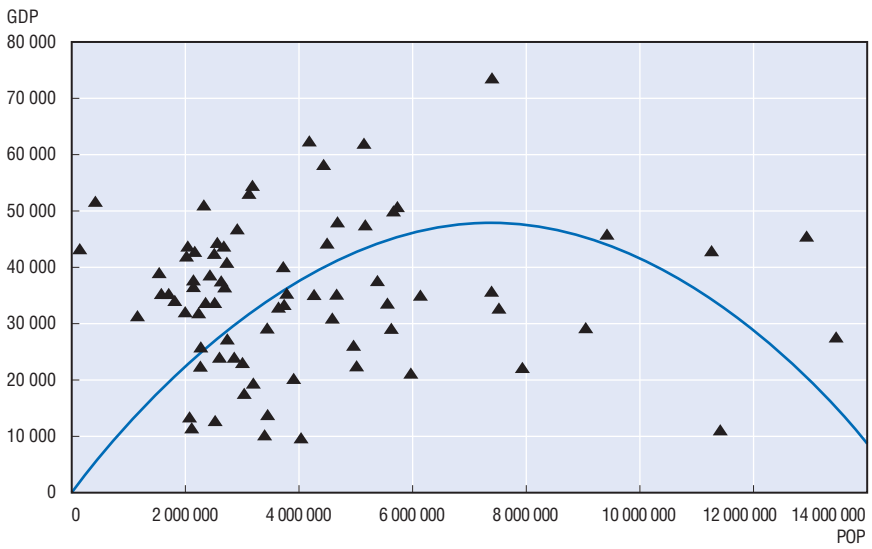
The results shown in Table A.3.4 can allow us to estimate the regression equation as:

$$Y_{mr} = 0.013P_{mr} - 8.8^{e^{-10}} P_{mr}^2$$

where the adjusted R square is .806, according to which GDP pc increases with population for metro-regions smaller than 7 353 134 people and decreases for metro-regions larger than such a threshold. A cautionary note should be made about the fact that these results suffer from heteroskedasticity.

As can be observed in Figure A.3.1 the relationship between income and size is quadratic which implies a positive relationship between the variables until a certain critical value when the relationship is reversed and a negative association emerges.

Figure A.3.1. **Relationship between population size and income**
Quadratic relationship including R-square results from the regression



Regression between national growth 1999-2002 and initial metro-region GDP level

The regression equation to test the influence of metro-regions on OECD country's growth is given by:

$$\dot{y}_C = a + bY_{mr}$$

where $\dot{y}_C$ refers to average annual growth rates for country C between 1999 and 2002 and Y_{mr} is GDP of metro-region mr in 1999.

Variables[1] entered/removed[2]

Model	Variables entered	Variables removed	Method
1	Metro-region GDP 1999	.	Enter

1. All requested variables entered.
2. Dependent variable: nagr9599.

Model summary

Model	R	R square	Adjusted R square	Std. error of the estimate
1	.551[1]	.304	.287	.0139632

1. Predictors: (Constant), gdp99rea.

Coefficients[1]

		Unstandardised coefficients		Standardised coefficients		
		B	Std. error	Beta		
1	(Constant)	.028	.002		12.744	.000
	Metro-region GDP 1999	1.854E-12	.000	.551	4.282	.000

1. Dependent variable: average annual growth rate 1995-99 at the national level.

APPENDIX 4

Identifying the Determinants of Regional Performances

GDP per capita (in logarithms) can be written as:

$$\frac{GDP}{Population} = \frac{GDP}{Employment} + \frac{Employment}{Labour\ \ force} + \frac{Labour\ \ force}{Population}$$

GDP per capita = Productivity + Employment rate + Activity rate

Therefore, the difference in GDP per capita between a give metropolitan region and the average of all metropolitan regions is equal to:

Difference in GDP per capita = Difference in Productivity + Difference in Unemployment rates + Difference in Activity rates

Decomposition of differences in productivity

Average labour productivity in region i is equal to a weighted average of sectoral productivity:

1. $$\frac{GDP_i}{E_i} = \sum_j \frac{E_{ij}}{E_i} * \frac{GDP_{ij}}{E_{ij}}$$

where j indicates the sector.

From-the-average difference in productivity can be decomposed as:

2. $$\left(\frac{GDP_i}{E_i} - \frac{GDP}{E}\right) = \sum_j \left(\frac{E_{ij}}{E_i} - \frac{E_j}{E}\right) * \frac{GDP_j}{E_j} + \sum_j \frac{E_{ij}}{E_i} * \left(\frac{GDP_{ij}}{E_{ij}} - \frac{GDP_j}{E_j}\right)$$

The first term on the right-side of the equation measures the proportion of the difference in productivity due to regional specialisation.

Decomposition of differences in activity rates

Activity rate in region *i* is equal to a weighted average of activity rates by age groups:

3. $$\frac{LF_i}{P_i} = \sum_j \frac{P_{ij}}{P_i} * \frac{LF_{ij}}{P_{ij}}$$

where *j* indicates the age group.

From-the-average-difference in activity rates can be decomposed as:

4. $$\left(\frac{LF_i}{P_i} - \frac{LF}{P}\right) = \sum_j \left(\frac{P_{ij}}{P_i} - \frac{P_j}{P}\right) * \frac{LF_j}{P_j} + \sum_j \frac{P_{ij}}{P_i} * \left(\frac{LF_{ij}}{P_{ij}} - \frac{LF_j}{P_j}\right)$$

The first term on the right-side of the equation measures the proportion of the difference in activity rates due to the age-profile of the regional labour population.

PART II

Proceedings from Conferences and Workshops on City Competitiveness

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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Introduction

The following chapters derive from papers presented at a series of conferences and workshops on city competitiveness organised by the OECD Public Governance and Territorial Development Directorate.

- City competitiveness, Santa Cruz de Tenerife, Spain, 3-4 March 2005; (in conjunction with the government of the Canary Islands).
- Cities attractiveness, Nagoya, Japan, 2-3 June 2005; (in collaboration with the Ministry of Land, Infrastructure and Transport of Japan, the Aichi Prefecture, the City of Nagoya, the Urban Renaissance Agency, the Chubu Economic Federation and the Nagoya Chamber of Commerce and Industry).
- Competitive cities and social cohesion, Montreal, Canada, 13-14 October 2005 (in co-operation with Infrastructure Canada, Government of Canada, hosted by the Metropolitan Community of Montreal).
- Workshop on the Fiscal Challenges of Metropolitan Areas: The Perspective of the Central Government; Paris, 1 June 2004 (organised at OECD headquarters).

They address most of the main issues raised by consideration of the relationship between economic development, particularly of advanced economies, and local geographical space. Different considerations apply when development is seen in this relationship than when it is treated, say, in terms of markets, national economies, sectors, or firms. Although the authors are not always concerned with metropolitan regions alone, the questions they raise all apply with particular force in those regions. First, Allen J. Scott provides a general framework by discussing what he calls the "mainsprings of the creative city". He considers the fundamental role of concentrations of enterprises in related sectors in economically vibrant, more or less concentrated geographical space. He demonstrates clearly the paradox of the continuing importance of the local within the global – what is sometimes called the "glocal". It is not that entrepreneurs in these dynamic locations substitute local contacts for international ones. Far from it; they are among the most globally networked people in the world. But the tacit knowledge and rapid movement of pre-codified ideas that circulate in clusters and similar concentrations are added to the knowledge and ideas that can be found on the web, at international conferences, and in the international literature. While

anyone active within a field can access these latter, those in concentrated areas have the additional resource that they can learn from each other. Scott draws important lessons for policy-makers from his account.

Willem van Winden provides a detailed map of where major cities, including several of what have been identified in this report as metropolitan regions, are to be found. He classifies them into several categories, not all of them dynamic. "World Stars" are cities (and metro-regions) with highly advanced, world-class specialised functions with global reach. They attract top talent from around the globe. Their performance in terms of GDP/capita is exceptional from an international perspective. They are uniquely and internationally successful in several world-class knowledge-intensive clusters, thereby avoiding the over-dependence on single clusters that can handicap smaller, specialised urban areas. A second tier of "World Stars" consists of high-performers also showing extremely high productivity levels, but less pronounced in terms of global command and control functions. Typically, their economies have one or a few distinctive world class specialisations in the context of an overall highly productive and diversified urban economy. They too are highly attractive for international immigrants with specific skills.

"National Stars" are cities that play a leading role in their national context, though they are very well connected internationally as well. Van Winden here discerns two types: Established Stars (located in advanced Western economies) and Rising Stars (located in transition countries with high rates of economic growth). The former are high-amenity places, well connected internationally, with a healthy economic base. Typically, these cities have several universities that offer the full range of disciplines. They have a high share of knowledge based industries, some successful specialised clusters, and a well educated labour force. In their respective countries the Rising Stars benefit disproportionably from rapidly changing macro-economic conditions thanks to their relatively favourable structural asset base. Many capital cities are the prime receivers of the growing flows of FDI, as multinationals have a strong preference to use capitals as their basis in a new market; also, they are relatively well endowed with a knowledge infrastructure, have a highly educated workforce and are traditionally less dependent on now declining manufacturing sectors.

"Metropoles in Transition" share the problem of heavy economic restructuring, with severe impacts on many levels. They have (or had, until recently) a specialisation in sectors such as port-related activities, traditional manufacturing, or other declining industries. They share relatively large problems of unemployment and social exclusion. Although many of these cities have good universities, and "produce" a lot of new talent, many of the graduates leave the city to find a job elsewhere, the main reasons being a lack

of available jobs and low quality of living standards. Typically, the performance of Metropoles in Transition in terms of GDP per capita and unemployment levels and growth is below that of the "stars", and even below the national average. Many of these cities seek to develop new economic growth clusters in order to compensate for the loss of economic activity in declining sectors. Two sub-types may again be distinguished. The first are the "Come-back kids": these cities have shown good regeneration results and managed to stop the downward spiral and diversified their economy. Second are the "Strugglers" where such progress is not yet observable.

There follows a group of papers concerned with different aspects of the locational issues raised by competitiveness in large urban areas. That by Crouch concentrates on the production and governance of "local collective competition goods". These are the resources and services that are produced at the level of local economies to support their dynamism, not necessarily as the result of deliberate policy. The existence of such goods is particularly important to understanding the importance of specialised clusters, and to how small and medium-sized enterprises are able to contribute to innovation and growth.

Helen Lawton-Smith considers a fundamentally and increasingly important example of local collective competition goods: institutes of higher education and research. Many studies have demonstrated the links between these institutions and innovative firms in dynamic regions. Even scientists and entrepreneurs who are globally linked testify to the continuing importance of local relationships of this kind. In creative, knowledge- or fashion-sensitive economic activities, there is an important role for tacit and pre-codified knowledge of the kind that develops in local face-to-face communities. Originating more or less coincidentally, these university-corporate links have become a major object of policy in recent years. Lawton-Smith explores the way in which these links operate, how local and national authorities, and other engaged actors, can help to stimulate them, and the different forms that the relationships can take. She considers, not just obviously attractive "cutting-edge" research-oriented activities, but also the vital role of technical colleges and similar institutions. The great majority of inhabitants of even a leading scientific city will not be scientists. For a good level of general skill and competence benefiting and rendering employable large numbers of people, these ostensibly "lower" level institutions are of the highest importance to a city or region.

Another area of considerable policy interest for improving the competitiveness of individual cities and regions concerns city "attractiveness". Eiji Torisu identifies this as a major innovation in urban policy, not present in the days when planners in old industrial cities devoted their efforts solely to trying to regenerate existing activities in declining areas.

Planners today increasingly recognise that if they are to attract firms to their areas, they must provide attractive areas in which in-coming high-skilled workers will want to live. This means policies for "city branding", and for the development of cultural and leisure facilities and attractive indoor and outdoor spaces. It also often involves trying to win the franchise to stage major sporting and cultural events, for both the reputation and enduring improvements to urban infrastructure that they bring. However, Torisu's chapter also contains warnings against aiming everything at high-income newcomers and prestigious city-centre developments. The quality of life of whole areas of metro-regions, and of the great mass of existing citizens, are in danger of being neglected in many current approaches of these kinds. He warns of dangers of citizen alienation, and also of a waste of indigenous capacity if policy concentrates on attracting new firms and personnel alone.

These last points of Torisu's argument serve as a bridge to a further group of papers concerned with a key problem of contemporary cities and metro-regions: social cohesion. First, Ivan Turok considers the connections between social cohesion and city competitiveness. He concentrates first, not on the social consequences of economic growth, but on the reverse link, the claim that social cohesion is causally connected to economic competitiveness at the level of the city. This is currently a highly popular idea, but Turok warns that the evidence for it is not so strong. He reviews claims that high crime levels, low levels of education, and social conflict and alienation have a negative influence on business networks, draws attention to the lack of substantial research on the subject, and challenges policy-makers, advisers and researchers to go beyond superficial generalisations about cohesion being the key to urban revitalisation. On the other hand, looking at the relationship the other way round, economic success does seem to support some forms of cohesion (particularly social inclusion, equality and stability) *provided* it is broad-based enough to create a range of jobs relevant to the resident population. Narrowly focused growth that excludes sections of the population from improvements in well-being may produce the opposite of these outcomes.

Ian Gordon considers various labour market policies that seem to help reinforce cohesion. He considers a number of specific policy ideas in this field, but his main message is to draw attention to the complexity of labour markets in large urban agglomerations, and the need to understand these if the relationship of policies in this field to social cohesion and to city competitiveness is to be established on useful lines.

The interesting questions whether distressed urban areas, so often seen as the casualties or even the drags on, urban growth, might actually become growth poles is raised by Claude Jacquier. The reason for posing the question is that these areas are, almost by definition, not fulfilling their potential. Land,

labour and capital alike are all under-performing; in areas the size of metro-regions, this constitutes a major waste. What can be done to enable them all to improve their performance? For cities that have gone through the first stages of city-centre revitalisation and the attraction of some new points of growth, the answer to this question may constitute the next best hope for seeking a major improvement in competitiveness.

Manuel Pastor sees a role for local business leaders in working with areas and populations of the kind discussed by Jacquier. Based on numerous examples, primarily from California, Pastor demonstrates how business leaders may be mobilised in this way. To some extent there is profitable business for them in regeneration, but often they are motivated by commitment to their city or locality.

The final papers relate to issues raised in the chapter of the report concerning governance. First, Tony Travers explains how and why the metro-region, an area usually larger than the reach of any local government authority, has become so important – and why the absence of a tier of government at this level can be problematic. His paper places the issue in historical perspective, because this is not the first time that cities have begun to agglomerate together or sprawl beyond their existing boundaries.

As the report shows, some of the most difficult issues raised for relations between different local government areas within a metro-region, or between those authorities and central government, are fiscal. Howard Chernick and Andrew Reschovsky explore these in detail, drawing equal attention to the revenue-raising and expenditure sides of the question. Much of their argument concerns the problematic balance between these two, especially when the area across which revenue is raised through fiscal and other means does not correspond at all closely to those in which it is spent – a common situation in a metro-region.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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Mainsprings of the Creative City: Lessons for Policy-makers

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The origins of urban development and growth in modern society reside above all in the dynamics of economic production and work. These dynamics underlie the shifting fortunes of each individual urban area, just as they account in significant degree for the wider systems or networks of cities found in contemporary capitalism. Actual cities are always considerably more than bare accumulations of capital and labour, for they are also arenas in which many other kinds of phenomena – social, cultural, and political – flourish. We might say, to be more accurate, that localised production complexes and their associated labour markets constitute proto-urban forms around which these other phenomena crystallise in various concrete structures. As this crystallisation occurs, moreover, a process of reflexive interaction is established in which all the different dimensions of urban life continually shape and reshape one another. Still, in the absence of the basic genetic and functional role of production and work, cities as we know them would be immensely different in scale, extent, and substantive expression, perhaps nothing much more than simple service centres or small communities of like-minded souls. As it is, the complexities of the modern city are compounded by the fact that the dense many-sided human interactions that make them up are the source of endless, but always historically and geographically specific, forms of creativity and socio-economic change (Hall, 1998).

These remarks lead on to a fundamental, though by no means exclusive, conception of contemporary urbanisation as a double-faceted phenomenon in which individual cities are constituted as systems of internal transactions embedded in a wider system binding all cities together into a grid of complementary and competitive relationships (Berry, 1964). This conception, in turn, raises issues of the logic of agglomeration (why and how clusters of capital and labour come into being in geographic space in the first place), and of the overall spatial division of labour in society (how cities come to specialise

in particular economic activities in the second place). For policy makers concerned with promoting economic development and growth in given cities, this initial identification of a key field of forces points to the further question of how the competitive advantages of cities emerge, and how they can be enhanced by public action. These advantages include capacities for creativity.

Two points are of special note here. First, cities are complementary to one another in the sense that they are caught up in mutual exchanges of specialised products; but second, they also compete strongly, in that each urban community is concerned to secure its own interests in a world of finite resources. Each, as a community, has a direct interest in securing new inward investments, in widening external markets for its products, and in attracting visitors from outside (Camagni, 2002). This interest exists precisely because of the increasing returns, effects and competitive advantages that accrue to the urban community as a whole, and that are appropriated as externalities by all firms and residents within any given city. Externalities, by definition, are susceptible to severe problems of market failure and misallocation, and hence management of their genesis and allocation constitutes a further concrete interest that emerges at the communal level. In brief, there is always a positive role that agencies of collective decision-making and behaviour can play in rationalising intra-urban externalities. For present purposes their role in enhancing effects on creativity are particularly important (Storper and Scott, 1995). It is in this double sense – the existence of a localised commons and the imperative of strategic co-ordination – that we can say that cities (as distinct from, say, firms) compete with one another.

Each phase of economic history can be described at the outset in terms of its specific technologies, leading sectors, employment relations, and forms of competition (Boyer, 1986). Each is, by the same token, associated with particular forms of urban development. Nineteenth century capitalism gave birth to the classical factory town, as found in Britain, France, and Germany. The rise of Fordist mass production in the 20th century was associated with the growth and spread of the large industrial metropolis, as epitomised most dramatically by Detroit in the United States. The peculiar forms of economic order that are in the ascendant today represent a marked shift away from the massified structures of production and the rigid labour markets that typified Fordism, and they appear to be ushering in an altogether new style of urbanisation that is posing many unprecedented challenges to policy makers around the world.

Perhaps the best way to characterise the new urbanism is to relate to the so-called "new economy", the leading edges of growth and innovation made up of sectors like high-technology industry, neo-artisanal manufacturing, business and financial services, the media and cultural-products industries. Among the complex attributes of these sectors, three are of special importance. First, they are constituted pre-eminently of networks of many

small firms engaged in what Piore and Sabel (1984) call "flexibly specialised" production, though large corporate entities also play an important role in these networks. Second, their associated labour markets tend to be extremely fluid, with many individuals being engaged in part-time, temporary, and freelance forms of work. Third, and in contrast to mass production, final outputs are as a rule destandardised, and compete with one another more and more on the basis of their qualitative attributes as opposed to cost. As we shall see, a derivative feature of many firms in the new economy is that they have a marked propensity to agglomerate in specialised locational clusters. Examples of this phenomenon abound: Silicon Valley, Hollywood, the City of London, le Sentier in Paris, the industrial districts of the Third Italy. Moreover, clusters of these sorts are by no means confined to the more economically advanced countries. Many different segments of the new economy can also be found in agglomerations in various parts of Asia and Latin America, as exemplified by the burgeoning craft industries of South China, the advanced electronics and software complexes of Beijing and Bangalore, and the telenovela production clusters in Bogotá, Caracas, Mexico City, and São Paulo (Christerson and Lever-Tracy, 1997; Nadvi and Schmitz, 1994; Scott, 2002).

The forms of production and work associated with this new economy have a rather distinct proclivity to engender sharp social bifurcations in cities where they are most strongly present. On the one hand, many clusters of new-economy industries are associated with large underbellies of sweatshop factories employing masses of low-wage, low-skill workers, very often immigrants from different parts of the world periphery. On the other hand, many clusters also employ large numbers of highly qualified workers, including professionals, managers, scientists, technicians, designers, artists, skilled craft workers, and so on. Varying mixes of these two strata are found in different sectors and different cities today. Los Angeles can be cited as a rather vivid illustration of an urban area with strong representation of both, as exemplified by its clothing industry focused overwhelmingly (though not completely) on the lower employment stratum, and its film industry on the upper. There are, then, considerable inequalities in many contemporary cities, and especially in major metropolitan areas, in regard to incomes and access to the amenities of urban space at large. This point needs to be kept firmly in mind as we begin to explore more fully the notion of what Landry and Bianchini (1995) have called the "creative city" and the privileged role that highly qualified and well-paid workers play in its efflorescence.

Basic dimensions of the creative urban economy

My objective here is to describe the main economic underpinnings of creative cities. These are in practice common to cities in capitalism at large, but they assume distinctive concrete forms in places where the new economy

is well developed, especially in regard to localised learning and innovation processes. Our inquiries will also begin the task of identifying key variables with which policy-makers must wrestle in any attempt to build dynamic urban agglomerations.

Networks of producers

There are doubtless cities here and there in which producers exist as locally disconnected atoms of economic activity, though such cities would seem to be few and far between, and they assuredly do not coincide with the large metropolitan areas of the more economically advanced countries in the world today. In fact, thriving cities in contemporary society are almost always places in which producers are caught up in deep and constantly evolving social divisions of labour that in turn constitute functionally distinctive complexes or clusters of economic activity.

The social divisions of labour that lie at the root of these clusters are expressed in the first instance in vertically disintegrated networks of production units tied together in relations of specialisation and complementarity. Sectors as diverse as advanced microelectronics, biotechnology, the fashion industry, the film industry, or business services, are in significant ways organised as networks of this type. In the new economy, the vertical disintegration of economic activities and the organisational reintegration of producers within extended inter-firm networks is all the more strongly developed because final markets are apt to be extremely unstable and risky. Vertical disintegration in these circumstances is a strategy that makes it possible for firms to reduce the inefficiencies that would otherwise be transmitted through their internal chains of operation (Carlton, 1979). The high levels of instability and risk that prevail in the new economy reflect in part the tendency for consumers to diversify and individualise their demands. They also reflect in part the competitive strategies of individual firms and their pursuit of insistent product differentiation. In these circumstances, producers are prone to change their process and product configurations at frequent intervals, leading in turn to continual shifts in their linkages to other producers. Dense networks of specialised and complementary firms offer precisely the flexibility that enables individual production units to operate in these ways. When, in addition, producers are located in close mutual proximity, their multifaceted network connections make it relatively easy for them to find new procurements of just the right kind within a limited time frame. They can thus maintain their stockpiles at low levels, and in this manner economise on immobilised capital. These networks are generally composed of small- and medium-sized production units, but large firms also play an important role in the new economy, not only in production as such, but also in coordinating the activities of smaller firms and in distributing their

outputs to wider markets. The Hollywood motion picture industry is paradigmatic in this respect (Scott, 2005b).

These modes of interdependent network operation are susceptible to various forms of market failure, and appropriate policy responses can often help to improve their performance. Breakdowns are especially liable to occur where firms are dependent on complementary producers for non-standard inputs such as high-quality customised parts, or specialised technical services. Obviously, failures at one level in any network (because, say, of inadequate worker skills or managerial know-how) can jeopardise overall functional capacity at other levels. General upgrading in networks, then, often depends critically on the presence of a policy-making body capable of identifying and dealing with their weakest links. Inter-firm networks are also subject to another kind of failure, one that occurs when linkages are structured in ways that impede the flow of information and ideas through the production system as a whole. Cut-throat competition, low levels of trust, or a failure to recognise mutual interdependence, can lead to such dysfunctional outcomes. Relevant action by an appropriate agency, such as an industry association or some sort of private-public partnership, can sometimes provide elements of a remedy. Much recent research on this particular issue has suggested that efforts to educate interrelated producers about the benefits of improved levels of co-operation and collaboration can be of critical importance, notably in cases where networks are composed of many small firms (Rosenfeld, 1992). As we shall see later, inter-firm networks characterised by a relatively free flow of information are also deeply significant elements of the innovation process at large in creative cities.

Labour market processes

The main types of industrial systems under consideration here are usually quite labour-intensive, so that when they form clusters or agglomerations in geographic space, extended local labour markets invariably develop around them. Given the multifaceted nature of these agglomerations, their labour demands as a whole tend to range over a wide palette of worker skills and sensibilities. Of course, large numbers of low-wage, unskilled workers are almost always in demand in segments of these agglomerations. Examples are the assembly operations of high-technology manufacturing, or the manual-labour phases of artisanal industries like clothing, furniture, or jewellery. Other segments require an enormous diversity of professional, managerial, and technical workers, and this is especially the case in large metropolitan areas in the more economically advanced societies where much of the high-quality, innovative production in the new economy is evidently concentrated. The pools of skilled labour that form in these areas are continually being replenished not only by internal recruitment, but also by the

in-migration of talented individuals from less favoured areas, who recognise that these are the places where they can best realise their career ambitions (Menger, 1993; Montgomery and Robinson, 1993).

Many of the more qualified workers in the new economy are involved in labour processes that can best be characterised as project-oriented forms of work. Here, workers assemble in temporary teams in which their different skills and talents are combined in the quest for synergistic outcomes. The team, in other words, is an instrument for boosting each individual worker's creative abilities by means of collaborative interaction with others. According to Grabher (2002; 2004) much of the creative work in the advertising and software industries is carried out in project-oriented teams. As given projects come and go in any firm, so the composition of the teams is adjusted, sometimes quite radically, in order to promote project-specific synergies. This manner of working, in fact, runs roughly parallel to the ways in which inter-firm production networks are organised in the Hollywood motion picture industry. High-budget films, in particular, are made by temporary coalitions of specialised firms (generally under the aegis of a major studio), which break apart again as any project is completed only to re-form in some other configuration as other projects come along.

In harmony with this organisational flexibility, many of the most creative and innovative workers in the new economy are more inclined to pursue careers that span multiple firms and work experiences over the course of time than to commit themselves to long-term employment within a particular firm. The job-hopping habits of engineers in Silicon Valley are a familiar example of this inclination (Angel, 1991). As a corollary, part-time, temporary, and freelance work is much in evidence in this fraction of the labour force. For many individuals self-management substitutes for the more traditional personnel supervisory functions of the firm. Careers are hence typically focused on the establishment of personal reputation and the acquisition of multiple useful contacts. One consequence of this trend is that these types of workers tend to be inveterate joiners of professional organisations and other work-related associations, mostly to gain knowledge about job opportunities, but also to keep abreast of new developments in their field. They are participants in what Ursell (2000) calls an "economy of favours", in which useful information is traded back and forth through multiple relations of reciprocity. Thus, in an empirical study of labour markets for new media workers in Los Angeles, I recorded an extraordinary variety of professional organisations, all of them functioning in various ways as bridges across critical information and training gaps (Scott, 1998a). In view of the recurrent incidence of such gaps in the labour markets associated with the new urban economy, public investments in enhancing the circulation of information and in vocational training for workers can be expected to reap high dividends.

With the passage of time, the labour markets that form around any given agglomeration are liable to acquire a patina of local colour in that they become a locus of peculiar traditions, sensibilities and norms that hang, as Marshall (1919) put it, like an atmosphere over the local community. The atmospherics that materialise in this manner are of prime significance as sources of unique competitive advantages. This attribute of local labour markets is obviously of importance in the case of sectors that generate outputs with high levels of aesthetic or semiotic content, but it also carries weight in other types of sectors (including technology-intensive manufacturing) where informal know-how and tacit forms of knowledge play a major role in production. Similarly, the urban social environment constitutes a milieu that often facilitates the smooth habituation and socialisation of workers, and thus eases their circulation through local structures of employment.

The creative field

Places that are endowed with shifting production networks and flexible labour markets of the sorts described above are presumably scenes in which frequent experimentation by individual firms in regard to industrial processes and products is endemic. The very fluidity of the economies of such places means that the firms and workers that comprise them come constantly into communication with one another in ways that help to unleash diverse innovative energies.

Numerous studies have shown that this process of communication is a critical factor in the generation of new ideas, sensitivities, and insights in industrial agglomerations (see for example Cumbers *et al.*, 2003; Edquist, 1997; Lundvall and Johnson, 1994; Maskell and Malmberg, 1999; Russo, 1985). As extended formal and informal exchanges of information occur in any cluster (*e.g.*, in situations where subcontracted orders are being negotiated, or in project-oriented work teams) a great deal of learning is liable to go on – much of the time unselfconsciously – about different aspects of the production process and the general business environment. This information, in turn, may then be incorporated in small technical innovations and marginal improvements in business practices. The concrete forms of upgrading that flow from this process are unlikely to be systematically recorded in formal texts or patents, but an accumulated stream of them can be of major significance in helping to maintain the competitive edge of an agglomeration of interrelated producers.

I have referred elsewhere to the structures within industrial agglomerations that encourage these sorts of learning and innovation effects as a "creative field" (Scott, 2005a). At one level, this phenomenon coincides with the networks of firms and workers that make up any given agglomeration, and with the multiple interactions that go on within them. At

another level, it is partly constituted by the infrastructural facilities and social overhead capital, such as local schools, universities, research establishments, and design centres, which complement the innovative capacities of these networks. At yet another level it is an expression of the cultures, conventions, and institutions that come into existence in any agglomerated structure of production. Each of these levels of resolution of the creative field offers significant opportunities for policy makers to improve general system performance and to clear away the functional blockages that come into being from time to time. Note, in addition, that neither cultural homogeneity nor exaggerated forms of heterogeneity appear to be conducive to high levels of learning and innovation in the creative field, but that a mix of strong and weak ties and/or inter-personal signals is more likely to maximise overall synergies (Elfring and Hulsink, 2003; Granovetter, 1973; Noteboom, 1999). In this fashion, the information load on any individual combines reinforcement of the familiar with just a sufficient degree of the unfamiliar as to spark off meaningful self-examination about established habits of thought.

The productive core of the creative city

Almost all cities in modern society display at least some of the social and economic features described above. These features constitute the essential foundations for large-scale agglomeration, especially in the context of the new economy. Two main points must be advanced in this connection. First, the costs of the many, varied, and constantly changing transactional relations between producers in the kinds of sectors under scrutiny here provide an incentive for selected groups of firms to converge locationally together around their own centre of gravity. Where these transactions are small in scale and rich in information content (so that face-to-face mediation is necessary) the incentive to cluster is all the greater. Second, networks of specialised and complementary producers, together with their associated labour markets, tend to generate copious flows of positive externalities. These externalities can often best be actualised and appropriated where firms transform them into agglomeration economies by congregating together in geographic space. Agglomeration economies have their roots in a great diversity of phenomena, but among them the networks, local labour markets, and creative field effects described earlier are of major importance. Duranton and Puga (2004) have suggested an alternative but complementary way of categorising agglomeration economies in terms of sharing (*e.g.*, infrastructural facilities), matching (*e.g.*, specialised input and output relations, or jobs and workers), and learning (*e.g.*, inter-firm exchanges of information). It is essential that municipal officials grasp the scope for encouraging these positive externalities, in addition to their traditional task of bringing negative ones under control.

The locational pressures that set in as networks of firms and workers come into existence, and as positive externalities begin to flow, work strongly together, therefore, to encourage agglomeration and to generate proto-urban forms on the landscape. Indeed, the inducements to agglomeration can be so intense that different types of producers concentrated in any given city sometimes disaggregate out at a yet more detailed level of spatial resolution and form discrete – though frequently overlapping – industrial quarters. In large metropolitan areas, there may be several of these, each with its own specialised category of product and relatively distinctive local labour market. Moreover, positive externalities spill over persistently from quarter to quarter in intra-urban space. Los Angeles, which is emblematic of the contemporary creative city, has specialised quarters focused on cultural-products industries (film, television-programme production, music, clothing, furniture, jewellery, and so on), each of which generates fashions and images that are then frequently appropriated by the others. As such, each participates to a greater or lesser degree in a design paradigm that is peculiarly Southern Californian, and that is sometimes described as a mix of styles emphasising the flamboyant, the demotic, and the transitory (Molotch, 1996; Scott, 1996). These quarters lie in a zone that encircles the central business district of Los Angeles. Scattered around the suburban communities is a further set of quarters specialising in innovative aerospace and high-technology industries (Scott, 1993).

Above and beyond the large metropolitan areas, there are also many small and specialised creative agglomerations all over the world, as exemplified by places like Limoges with its pottery industry, the second-hand book centre at Hay-on-Wye along the Anglo-Welsh border (Seaton, 1996), or the craft communities of the Third Italy (Becattini, 1987).

It is useful at this stage to separate creative agglomerations into two principal categories, depending on the spatial conditions that shape their relations to consumers. One of these is represented by the case where products are mobile and can be transported away from the place of production to consumers elsewhere. The other is where the product is completely immobile and must therefore be consumed at its point of production. Noteworthy examples of the second category are tourist resorts, festivals, central city entertainment and shopping districts. Despite the immobility of their products, places in the latter category are genuine agglomerations in that they are typically constituted out of interdependent firms, a local labour market, and concomitant creative field effects, all concentrated together within a polarised and narrowly defined geographic space.

Whatever the type of product – mobile or immobile, technology-intensive or craft-intensive, utilitarian or cultural – substantive and formal variety is fundamental in the new economy. Consumers may discriminate between

different but competing products as much on their qualitative aspects as on their relative prices. Competition is becoming increasingly monopolistic in the sense proposed by Chamberlin (1933), and this injects further significance into the notion of the creative city. As I have already suggested, the particular traditions, conventions and skills that exist in any given urban area help to infuse local products with a unique aura that can be imitated by firms in other places but never completely reproduced. This is particularly important in the new cultural economy. Place of production represents an authentication of substantive and symbolic quality, and the economic value of this property is so great that localities frequently seek to protect it by means of trademarks or certificates of geographic origin (Santagata, 2002).

Economy, culture, and place

In cities where large cohorts of skilled and well-paid workers are employed in different sectors of the new economy, we can often, as already noted, observe something like an emerging balance between the forms of production and urban culture that come into existence. In ideal circumstances, each side of this duality enhances and empowers the qualitative functioning of the other, and together, they constitute the essential foundation of the creative city.

Policy makers around the world are beginning to recognise this interdependent duality in the modern city by pressing ahead with local economic development programmes in combination with cultural promotion efforts of various sorts. The latter efforts are often expressed in place-making and place-marketing activities and in elaborate programmes of urban renovation. Cities that are already well-endowed with strong historical and cultural associations clearly have a marked advantage in this respect (cf. Philo and Kearns, 1993), but even where past historical experience would appear to militate against the formation of a new creative economic and cultural dispensation, there is often a great deal that policy makers can accomplish. One of the more outstanding illustrations of this kind of shift is presented by the Ruhr region where much of the old heavy-manufacturing infrastructure and plant has been recycled to accommodate new cultural projects and alternative productive uses like media and business services (Gnad, 2000). Similar, if less ambitious projects can be found in the Northern Quarter of Manchester, the Cultural Industries Quarter of Sheffield, or the Westergasfabriek in Amsterdam. The re-imaging and rebranding of places is increasingly – though perhaps over-optimistically in some instances – being resorted to by policy makers as a tool for attracting flows of tourists, for generating new inward investments, and for raising local economic expectations generally. The Guggenheim Museum in Bilbao is one of the more dramatic recent examples of this phenomenon. In the light of these remarks,

it is scarcely surprising to note that many major metropolitan areas around the world are more and more drawn to a developmental formula that combines a focus on the new economy, investments in cultural resources, and an attempt to create a vibrant sense of place. Cities like Hong Kong, Osaka, Singapore, and Sydney, have staked out a future for themselves that incorporates at least part of this vision, which they see not only as a means to achieving higher income and quality of life, but also as a way of expanding their global influence (*cf*. Hong Kong Central Policy Unit, 2003).

Florida (2002) has alluded to some of these same ideas in his work on the "creative class" and its alleged role in fostering a new urban dynamic. He has suggested, most notably, that a significant positive correlation exists between the incidence of this class in different cities and local economic growth. He advises city officials that they should accordingly focus on mechanisms for drawing as many creative individuals as possible into their jurisdictions. This advice boils down in turn to the recommendation that cities with creative ambitions need to invest heavily in urban amenities and to ensure that high levels of diversity exist in local social life. No doubt Florida's argument is correct in identifying an important element of the contemporary creative city, but once this has been said, he fails signally to articulate the necessary and sufficient conditions under which skilled, qualified, and creative individuals will congregate together in particular places over any reasonably long-run period. The key to this conundrum lies in the production system. Any city that lacks a system of employment able to provide these individuals with appropriate means of earning a living is scarcely likely to induce significant numbers of them to take up permanent residence there, no matter what other encouragements policy makers may offer. At the same time, the mere presence of "creative people" is not enough to sustain urban creativity over long periods of time. Creativity needs to be mobilised and channelled in order for it to emerge in practical forms of learning and innovation. This is why I have insisted above on the notion of a creative-field effect.

An ingredient of Florida's argument hinges on the idea that once a creative class is in place, its innate entrepreneurial and cultural dynamism will automatically be activated in the construction of a vibrant local economy, in a causal sequence that can be expressed in its bald essence as $X \rightarrow Y$, where X is the creative class and Y is local economic development. This argument, however, neglects to take into consideration the complex synchronic and diachronic interrelationships that must be present before a dynamic creative environment is likely to emerge. Above all, in modern cities, virtually all dimensions of urban life evolve recursively in association with one another. This means that any viable policy programme focused on the creative city must deal simultaneously with building a local production system, attracting or training a relevant labour force, and appropriate programming of urban

space. No one of these dimensions can function as a simple independent variable. Moreover, all of them must be brought into mutual interaction so that they begin to work together in virtuous circles of urban development and growth. Neither Hollywood nor Silicon Valley sprang forth as the creative centres that they are because the creative class was already in place in advance of the speculative developments that characterise these particular clusters. Even if they had done so, what would account for the unusually high proportion of writers, directors and actors in the former case, and the unusually high proportion of engineers and scientists in the latter? Florida's euphoric policy recommendations about the new creative class and its miraculous effects on cities have some of the over-simplifications of the nostrums put forth by many consultants in the 1980s about "growing the next Silicon Valley" (Miller and Côte, 1987).

The tempting but elusive vision held out by these remarks should not be confused with anything even approaching a new urban utopia. Some of the traditional stresses and strains of urban life may perhaps be assuaged by the advent of the creative city as it is understood here, but they are certainly not on the point of disappearing altogether from the contemporary urban experience. At the best of times, the search for the creative city will inevitably be vitiated in some degree so long as there are countervailing trends generating massive numbers of unstable, low-wage jobs and concomitant economic polarisation and social marginalisation in large urban communities. A few fortunate centres perhaps may achieve something that approaches a creative, high-quality environment across the board, but in most metropolitan areas developments of this type will most likely continue to exist only as enclaves in an urban landscape where poverty and social deprivation still widely prevail. The formulation of specific policies to ameliorate those parts of urban space that continue to lie outside the more privileged foci of production, work, and social life must therefore be a high priority in any effort to build a thorough-going creative city.

Global connections

The above discussion is overwhelmingly focused on issues of the internal structure and functions of urban space. We need now to turn our attention to some critical issues of inter-urban relations, and, above all, to the impacts of globalisation on contemporary urban development. The market reach of many contemporary cities extends well beyond immediate national boundaries, and cities with a strong incidence of new-economy sectors are generally in the vanguard of this trend. The fortunes of these cities are tied up with an escalating process of globalisation in four distinct but interrelated senses.

First, with the extension of markets due to globalisation, trends to urban agglomeration are actually intensifying across much of the new economy. Growth of output allows divisions of labour at the point of production to deepen and widen, just as it leads to the amplification of external economies of scale and scope. One consequence of this reassertion of agglomeration – above all, in the guise of large metropolitan areas – is that the modern world system can at least in part be described as a mosaic or archipelago of complementary and competing regional economies (Scott, 1998b; Veltz, 1996).

Second, the forms of competition that exist between different cities are increasingly Chamberlinian in their constitution. If we lived in a world where substitutability between different producers' outputs were high, the localised increasing returns effects that set in as places expand would tend eventually – over the very long run, to be sure – to result in a situation where global supply of each particular type of good was monopolised by a particular agglomeration. With Chamberlinian competition, there are definite resistances to such locational concentration, for in these circumstances individual centres are able to compete on the basis of differentiated products with place-specific characteristics that substitute very imperfectly for one another. This observation is of special significance in regard to the cultural economy. Whereas it is often claimed that the modern world is moving toward standardised patterns of cultural consumption, a plausible counter-argument can be advanced to the effect that there is no reason in principle why alternative centres of cultural production cannot co-exist. One important caveat behind this remark is that these alternative centres must also be capable of mounting effective systems of commercialisation and distribution of their outputs. This, of course, is another area in which policy makers can play a decisive role. My argument, if it can be sustained, points here to a possible future world that is considerably more polycentric and polyphonic than the cultural pessimists of today would have us believe. The recent resurgence of film and music industries in different parts of the globe outside North America would seem to be consistent with this point.

Third, and as a corollary, many of the most dynamic firms in creative cities all over the world are engaged in building international networks of creative partnerships with one another, such as joint ventures, strategic alliances, co-productions. These arrangements reflect the synergies that can be obtained by bringing together unique combinations of talents, skills, and ideas from different agglomerations with different cultural traditions and creative capacities. From this perspective, the cities of the global mosaic offer many and no doubt rapidly increasing opportunities for complementary interaction.

Fourth, and despite the above comments about the reinforcement of agglomeration under conditions of globalisation, an opposing trend toward

decentralisation is also in evidence in certain segments of the modern economy. As the costs of world-wide communication and transport continue to decline, it becomes ever more feasible for producers in major creative cities to dispatch certain kinds of work tasks, or packages of tasks, to satellite centres that offer advantageous production conditions. These tasks generally consist of relatively standardised operations that can be disarticulated without undue damage to production as a whole from more skilled and creative operations (which usually remain concentrated in major agglomerations) and then dispatched to low-cost locations (Henderson and Scott, 1987). The clothing industries of cities like New York, Los Angeles, London, and Paris, for example, are now deeply caught up in relations of this sort with subcontractors and manufacturers in many different parts of Latin America, Asia, and North Africa (Kessler, 1999). In the same way, more and more of the film shooting activities of Hollywood production companies are being detached from more creative front-end and back-end functions and then transferred to studios in Australia, Canada, Eastern Europe, South Africa, and other places where advantageous cost conditions can be found (Goldsmith and O'Regan, 2005).

Globalisation is thus fraught with both threats and opportunities for creative cities, and policy makers need to be alert as to what actions might (and might not) allow them to hem in the former and to capitalise on the latter. But we need also to have a due sense of just how imperfect our understanding of the relevant issues is, and hence of our capacity for remedial action.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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Globalisation and Urban Competitiveness: Challenges for Different Types of Urban Regions

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How different *types of urban regions* contribute to national growth is an important policy question. For advanced economies, Henderson's (1997) analysis suggests that the contribution of different types of cities (medium sized and large) to national economic development does not change significantly over time, as the size distribution remains constant, and also, urban specialisations are relatively persistent. The data used for the analysis are from before 1990. The question is whether this pattern still holds for the 1990s and beyond.

Although no sound empirical analysis is available, there is some evidence that the contribution of large and diversified urban areas to national growth has grown, at the expense of others. Figures B.1, B.2 and B.3 present recent European data (mainly defined at NUTS 3 level) on employment growth, gross value added (GVA) growth, and population growth in the 45 largest cities, for the period 1995-2002. On average, in the period 1995-2002 population grew faster in urban regions (0.45% p.a.) than in the 27 countries as a whole (0.3% p.a.). However, in some regions population declined (Berlin, Budapest, Prague). Employment and GVA also increased faster in the cities than the 27 country average, with some (most of them capitals) showing very high GVA growth compared to their national average. Figure B.4 plots the growth of value added of the largest 45 European urban regions against national growth. It shows that the majority of the cities are located above the 45° line, meaning that they outperformed the national growth rate in the period 1995-2001.

How can this tendency be explained? First, major sectoral shifts may play a role again as in the early days of urbanisation. Large and diversified metropolitan areas have an over-representation of sectors that have grown strongly during the late 1990s: media, publishing, financial and commercial services, creative industries, and especially the ICT sector are concentrated in these cities (van Winden, van der Meer and van den Berg, 2004).

Another explanation is the increasing pace of knowledge and technology advancement. Due to globalisation and the use of new ICTs, the diffusion speed of information and knowledge has increased dramatically. ICTs, particularly the Internet, facilitate the codification and diffusion of knowledge (van Winden, 2003). New technologies, ideas and concepts become public very quickly, and are very easy to copy, which speeds up advances in a number of knowledge fields. It has become a crucial ability to select and interpret new information and knowledge, and to turn it into profitable activities (Castells, 2001). This puts a premium on human capital that uses new technologies to improve service and products, and become more productive. This tendency favours large and diversified cities with a highly educated workforce.

Third, the relative growth of diversified metropolitan areas may be caused by increasing linkages between different sectors. For instance, the ICT sector has become increasingly linked up with many others, as ICTs are crucial enablers of business processes. Logistics and manufacturing are increasingly integrated with just-in-time delivery systems. Design and technology are increasingly linked, as the design of high-tech products increasingly becomes a critical selling point. In new product development many companies have set up multi-disciplinary research teams consisting of engineers, designers, marketing professionals and finance experts. More research is needed on the extent of inter-sectoral linkages and the effect on different types of urban regions, but it may well be that diversified urban regions benefit from increasing economies of scope and variety.

Figure B.1. **Employment growth 1995-2002**

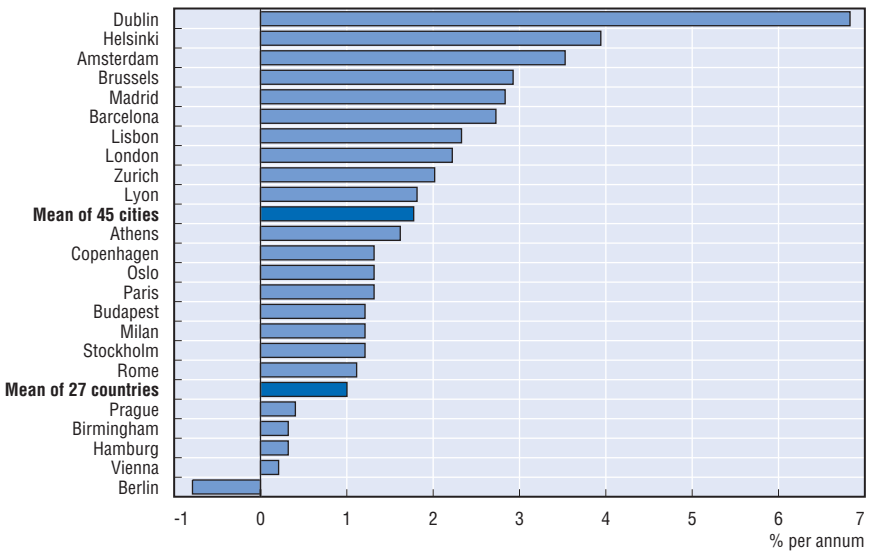


Figure B.2. **GVA growth 1995-2002**

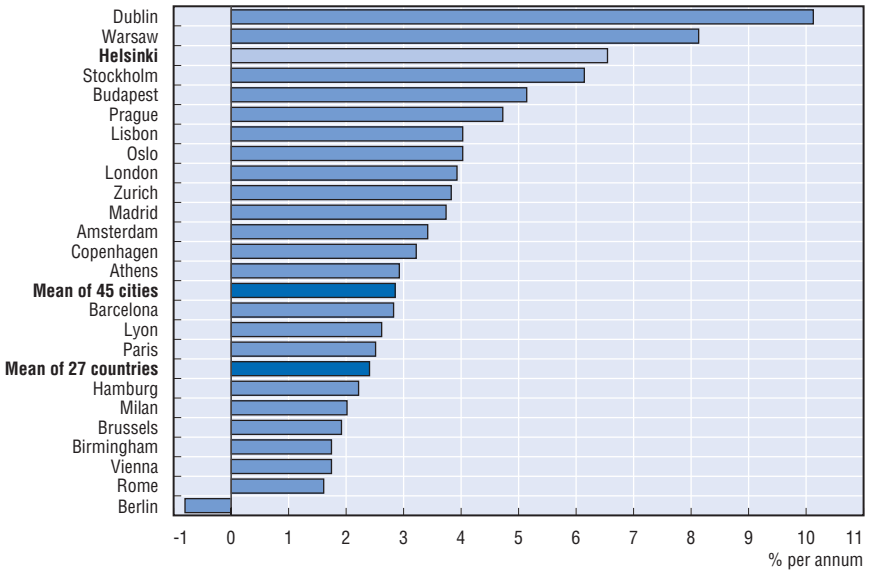
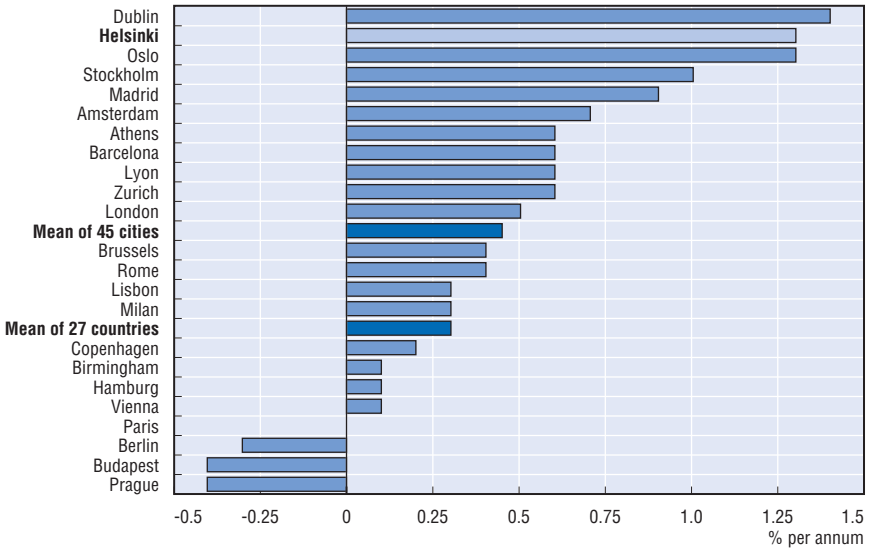
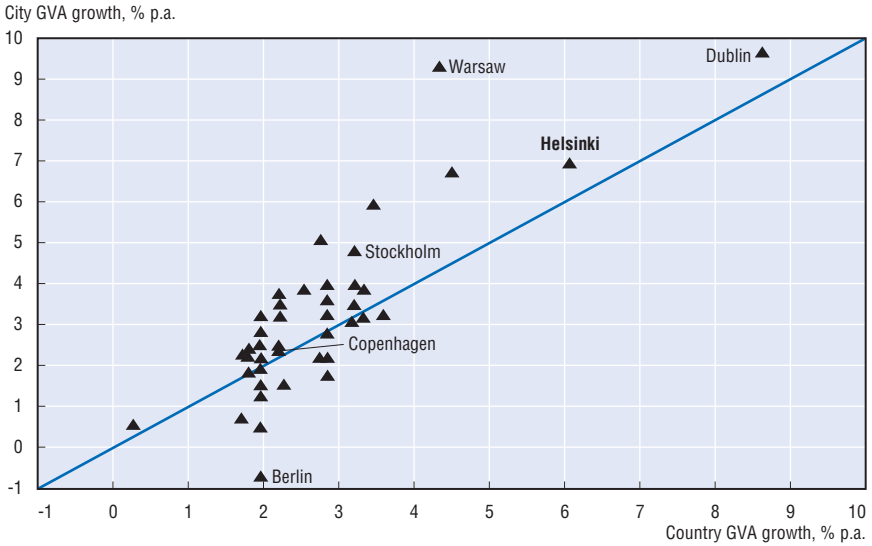


Figure B.3. **Population growth 1995-2002**



There is a growing policy interest in the role of urban regions as engines of national growth. The UK government has assigned increasing importance to the competitiveness of the countries' cities as part of its reorientation of national and regional policy (ODPM, 2004). The European Union, under

Figure B.4. **GVA growth 1995-2001**

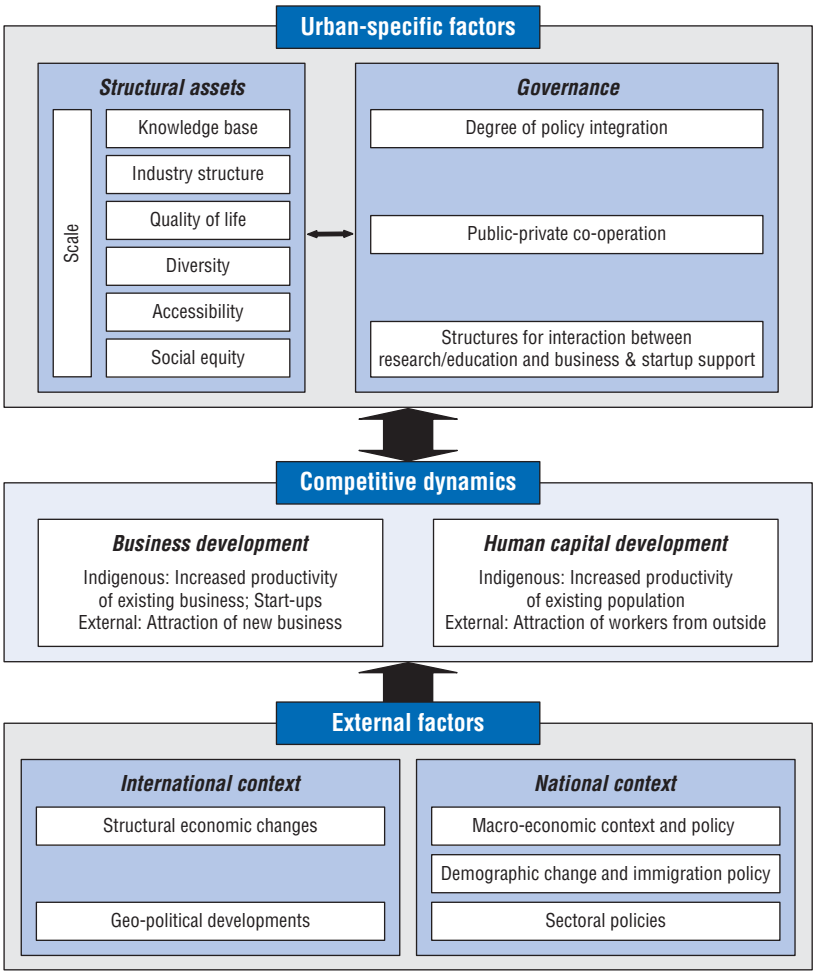


Source: ERECO (The European Economic Research Consortium) (2004), *European Regional Prospects, Analysis and Forecasts to 2008*, The European Economic Research Consortium and Cambridge Econometrics in Helsinki City Urban Facts (2004), *The Regional Economy of Helsinki from a European Perspective*, Web Publication No. 31.

influence of the Lisbon agenda, also increasingly recognises the role of urban regions as sources of economic dynamism. Recently, EU ministers explicitly acknowledged "the role of cities and urban regions as driving forces for regional, national and European development, especially in achieving the goals of the Lisbon and Gothenburg agendas" (conclusions of EU Ministerial meeting on Urban Policy, 2004). If it is true that (some) urban regions are increasingly important as drivers of national growth, then it becomes highly relevant for national policy to identify the sources of urban economic growth, and design policies that capitalise on the potentials of urban regions. In the next section therefore, we will deal more in-depth with the sources of urban competitiveness.

The framework of analysis set out in Figure B.5 shows two sets of factors that determine urban competitiveness: Urban specific and external ones. The former are localised assets, including the quality of urban/regional governance, whereas external factors include the national and international economic and policy context. The *outcome* of urban competitiveness is conceptualised in terms of two closely linked dimensions: 1) the development of the productivity of the business sector and 2) the development of human capital in the city. The development of the *human capital stock* is reflected in the development of educational qualification (or skills level) of the existing

Figure B.5. **Determinants of urban competitiveness**



population, and the migration surplus of higher educated workers. The competitive outcome of the *business sector* is reflected in the productivity increases of existing firms, the number of start-up firms, and the degree in which the urban region has attracted companies from outside. The relationship between urban assets and outcomes is two-way: competitive outcomes are the result of the asset base, and also they influence the future asset base.

Towards a typology of cities?

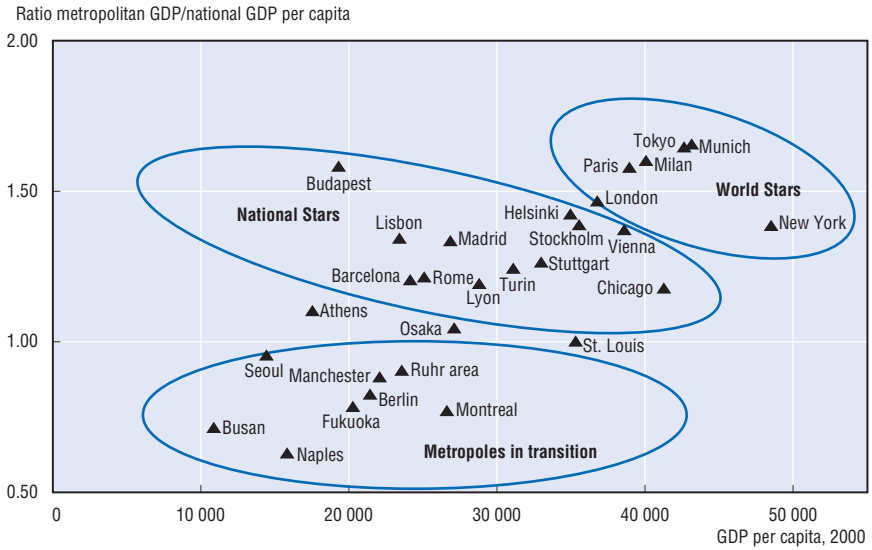
It may be possible to classify cities according to their economic performance and their stock of the above assets. For a number of urban regions in the OECD, Figure B.6 shows the absolute levels of GDP per capita, and also the ratio of the urban GDP to the national average. The absolute level gives an idea of the "wealth" of the city from an international comparative perspective; the ratio shows the degree to which a city performs better or worse than the national average. Three main types of cities can be seen: "World Stars", "National Stars", and "Metropoles in Transition". Within each category, two sub-types can be discerned; finally, two further types will be added.

Making a typology of cities is a risky business. One potential pitfall of thinking in terms of city types is to overlook the uniqueness of individual urban areas in terms of asset base and historical developments. Urban development is very much a path dependent process, and contemporary competitive outcomes have deep historical roots. Nevertheless, a typology can be helpful to structure our thinking about common causes and factors that may explain differences in performance, and helpful for benchmarking. Below, the typology is also used to differentiate the impact of globalisation on various city types.

"World Stars" are cities with highly advanced, world-class specialised functions with global reach. They are core hubs in dense international networks of firms and people. They attract top talent, not only from their home nations but from around the globe. This is reflected in a high share of high-skilled immigrants, many of them temporary. Figure B.6 shows that their performance in terms of GDP/capita is exceptional from an international perspective. Their strength is derived from a very strong structural asset base. In particular, they are uniquely successful in several world-class knowledge-intensive clusters, with international standing ("the place to be" for a certain activity).

Prime examples of "World Stars" are New York, London, Paris and Tokyo. Not only are these cities the hubs in global financial industry, they are the main control centres of the world economy: in the headquarters located there, investment and divestment decisions are made that affect many other places and people around the globe. Furthermore, these cities are the centres of booming creative industries such as advertising, design, fashion music, and the arts, with an international radiation. The large, dynamic and international stock of human capital creates demand for a whole range of amenities – hip cafés, restaurants, galleries, etc. – that add to their attractiveness, and international trends in many domains are set in these places.

Figure B.6. **Absolute and relative GDP per capita at PPP, 2000**



Source: Data from OECD (2004a), *OECD Territorial Reviews: Montreal, Canada*, OECD publications, Paris, available at *www.oecd.org/publications/e-book/0404011E.PDF*.

A second tier of "World Stars" consists of high-performers such as Boston, Munich and Milan; these cities also show extremely high productivity levels but are less pronounced in terms of global command and control functions. Typically, their economies have one or a few distinctive world class specialisations (*i.e.*, high tech industries in Munich and Boston, fashion and creative industries in Milan) in the context of an overall highly productive and diversified urban economy. This also makes them highly attractive for international (temporary or permanent) immigrants with specific skills.

"National Stars" are cities that play a leading role in their national context, though they are very well connected internationally as well. We discern two types of national stars: Established Stars (located in advanced Western economies) and Rising Stars (located in transition countries with high rates of economic growth).

Examples of Established Stars are Madrid, Amsterdam, Barcelona, Vienna, Sydney, and Chicago. They have strong structural assets: a modern and diversified economy, and a strong knowledge base. These are high-amenity places, well connected internationally, with a healthy economic base, and they do not suffer from an economic legacy of heavy industries or other declining sectors. Typically, these cities have several universities that offer the full range of disciplines. They have high share of knowledge based industries, some successful specialised clusters, and a well educated labour force.

Compared to World Stars however, they are less unique in terms of having world class advanced clusters with global radiation.

The second sub-category is the Rising Stars. They are found in emerging economies in Central and Eastern Europe and other rapidly expanding countries. Examples are Budapest, Prague, Warsaw, or Bratislava. In their respective countries, these cities benefit disproportionably from rapidly changing macro-economic conditions thanks to their relatively favourable structural asset base. They are the prime receivers of the growing flows of FDI, as multinationals have a strong preference to use capitals as their basis in a new market; also, they are relatively well endowed with a knowledge infrastructure, have a highly-educated workforce and are traditionally less dependent on now declining manufacturing sectors. GDP per capita and productivity is far above the national averages. Budapest's GDP is 160% of the Hungarian average, and in Bratislava it is over 200% of the Slovak average. Despite their good performance from a national perspective, these cities face threats, too. Often, the knowledge base is hollowed out because of a brain drain of well-educated young people to Western Europe or the US. Governments do not have sufficient resources to invest in knowledge facilities and bring them to Western standards; the knowledge spill-overs of foreign multinationals remain limited as they do not always work with local suppliers and hardly carry out R&D (Bratislava).

"Metropoles in Transition" share the problem of heavy economic restructuring, with severe impacts on many levels. They have (or had, until recently) a specialisation in sectors such as port-related activities, traditional manufacturing, or other declining industries. Western European examples are Liverpool, Rotterdam, Lille, Liege, Bilbao, and several cites in the Ruhr Area; behind the former Iron Curtain there are also many examples of manufacturing cities whose specialisation has become obsolete after the transition towards a market economy. In the United States, a series of "Rustbelt cities" (Pittsburgh, Cleveland) fall in this category. In South Korea, Busan qualifies.

These cities share relatively large problems of unemployment and social exclusion. Western European cities of this type have relatively large migrant communities that are low skilled. Attracting knowledge workers is a problem for these cities due to their "working class" image, pollution and crime rates, a poor housing stock (former working class neighbourhoods), and limited cultural amenities compared to the National Stars. Although many of these cities have good universities, and "produce" a lot of new talent, many of the graduates leave the city to find a job elsewhere, the main reasons being a lack of available jobs and low quality of life standards. Typically, the performance of Metropoles in Transition in terms of GDP per capita and unemployment

levels and growth is below that of the "stars", and even below the national average.

The problems of "Metropoles in Transition" provide an incentive to develop innovative policies. Many of these cities seek to develop new economic growth clusters in order to compensate for the loss of economic activity in declining sectors. Examples are Rotterdam (the media sector, the health sector), Manchester (creative industries, ICT sector). Also, they seek to change their image, and to upgrade their housing stock by encouraging the construction of more expensive dwellings (Rotterdam) or by reconverting warehouses and docklands (Liverpool). Some cities have used major events as a catalyst to upgrade their infrastructure and quality of life and change their image.

Some cities in this category are more successful in their regeneration efforts than others. Therefore, two sub-types may be distinguished. The first are the "Come-back kids": these cities have shown good regeneration results and managed to stop the downward spiral and diversified their economy. Examples are Manchester, Lille, or Glasgow. The second category is the "Strugglers" where such progress is not yet observable. One example is Busan. Others can be found in Central and Eastern Europe: during the 1990s several East German cities (Magdeburg, Schwerin, Chemnitz) lost over 15% of their population, most of them talented youth, and the end of the decline is not yet in sight (Rietdorf, 2004).

Two further city types may be distinguished: niche players and university cities. The former are relatively small and highly specialised in one specific sector. Examples are Eindhoven (some high tech segments) and Oulu (ICT). Typical for these cities is the excellent co-operation between business and university: personal and institutional networks are very dense, there is a shared feeling of local pride and identity, and key actors are willing to embark on projects for the benefit of the city. Big corporations play an important role (Philips in Eindhoven, Nokia in Oulu); they have many international connections that they "feed into" the region, they put high demands on the local knowledge base, they are an important source of spin-out companies, and they attract suppliers. These cities tend to do very well in their niche, and they manage to attract engineers also from outside the region or even abroad. Their specialisation is their strength, but also their weakness: these cities are very vulnerable to the volatility of the high-tech sector, and, more specifically, to the performance of the leading company. Also, globalisation puts pressure on them. To remain "top" in certain technology fields, even more specialisation might be needed.

Typical for university towns is that they are dominated by a big "general" university. The student population makes up a large part of the city, and

amenities are highly geared towards their needs and preferences. The economic structure of these cities is diverse. Münster (Germany) is a good example. One problem for them is how to capitalise on their knowledge base. Students come to the city during their study period, but leave after graduation because there are so few jobs. Levels of interaction between university research teams and local business are relatively low because the industrial basis in such a city is relatively small.

The impact of globalisation on different types of cities

Globalisation affects the several city types in varying ways. They will be considered by examining briefly different aspects of the process.

Larger export markets. Globalisation enlarges the market for companies and gives them growth opportunities. In many cities, exports have risen consistently in the last decade. Urban areas benefit from the opening of new markets as long as their productivity is high enough. It is important to note 1) that the degree of globalisation differs among sectors, some being much more exposed to global competition than others; and 2) the vast majority of economic activity in urban areas serves local and regional markets.

An increased concentration of finance, command and control. The increased share of multinational companies in the world economy has increased the need for global command and control. Warf (1995) points to the potential of ICTs to widen the span of control of companies enormously. They can therefore become larger than before, and from a central point drive and steer many more activities over far greater distances. That may explain the wave of concentrations and scale enlargement in many sectors during the 1990s. This tendency has benefited the World Stars, and, to a lesser extent, the Established National Stars that are the core locations for multinational headquarters. This tendency also implies that the economy of other cities has become more dependent on location decisions that are taken in remote headquarters.

A higher speed of economic restructuring. The integration of world markets in combination with ever decreasing transport costs enables multinational companies to benefit from large local differences in factor endowments and prices. This explains the massive shift of low-complexity production (and increasingly also services) to China and other low cost locations. This shift has hurt Metropoles in Transition relatively hard. These shifts are disruptive for large groups in urban areas. Many cities contain a growing urban "underclass" of people who are unqualified to find a place in the restructured urban economy. Often, they are concentrated in deprived neighbourhoods, characterised by high levels of crime, deteriorated housing conditions etc. The

urban elites, the highly skilled professionals, tend to withdraw to luxury neighbourhoods or high-grade downtown apartments or gated communities. This "dual city" development potentially undermines the city's economic future.

An increasing pace of knowledge and technology advancement. Due to globalisation and the new ICTs, the diffusion speed of information and knowledge has increased dramatically. ICTs, particularly the Internet, facilitate the codification and diffusion of knowledge (van Winden, 2003). New technologies, ideas and concepts become public very quickly, and are very easy to copy, which speeds up advancements in a number of knowledge fields. Because so much information and knowledge is available, it has become a crucial ability to select and interpret it, and to turn it into profitable activities (Castells, 2001). This places a premium on human capital that uses new technologies to improve service and products, and become more productive. This tendency favours cities that manage to produce and exploit new knowledge adequately.

An increasing "critical mass" for some clusters. In some sectors, globalisation and market integration lead to increased clustering economies, especially in highly advanced activities. This entails a heavy concentration in a limited number of places. The financial sector is one example in which only a few cities – World Stars and some National Stars – have developed into key financial centres, at the relative expense of other city types. In biotechnology, there are also indications that the number of substantial clusters is reducing. Despite efforts of numerous cities to develop biotech clusters, only attractive places that combine a superior knowledge infrastructure with a large biotechnology and pharmaceutical sector are likely to emerge as true centres of excellence. Leaders of smaller cities are faced with the question where to focus on: they need to pick a niche where the critical mass required is not too big.

Intensifying competition for knowledge-intensive activities. Cities compete heavily for increasingly mobile knowledge-intensive activities. In this game, the "Stars" are in the winning positions, as they have the right asset mix to attract them. Key assets are excellent research institutes, quality of life, amenities and diversity (to attract and retain (foreign) knowledge workers), international accessibility (to maintain the international networks); and the quality of links between research, education and business. A relatively recent trend is the entrance of new competitors – mainly Rising Stars from Asia and central/East Europe – for high level functions. These cities become more interesting for multinationals because of their rapid upgrading of the knowledge infrastructure and the growing pool of knowledge workers that work for reasonable wage levels.

Increased international competition for talent. The international mobility of high-skilled people is increasing, for a number of reasons (Iredale, 2001). First, national policies, bilateral and multilateral agreements have facilitated the flow of skilled workers. Second, higher education is internationalising at a fast pace. In Anglophone countries, higher education institutes have managed to attract an increasing number of foreign students. In fact, higher education has become a major export product. In this market, reputation is crucial: cities with high-quality and outward looking universities benefit most. Third, the rise and increasingly global presence of multinational companies has increased the number of temporary migrants, the "ex-pats". The lion's share of this (wealthy) type of migrants is received by the Stars, where multinationals have concentrated their higher-level functions. Fourth, new skilled labour markets have developed: the IT sector is an example, where growing demand has created intense international competition for experts.

An important consequence of globalisation is that urban regions – especially the Stars – become more detached from their national context. There are three reasons for this. First, their economy is increasingly integrated in global webs and less dependent on national demand or supply. Second, these areas are part of an international labour market and recruit internationally. Third, in some parts of the world, notably in the EU, political and economic integration makes macro-economic conditions and institutional frameworks more similar, and limits the influence of national governments.

At the same time, urban areas become more interwoven with their functional hinterlands. These become an essential element of "quality of place", providing space for recreation and second homes there. The radiation of the metropolitan area increases, and the hinterland becomes a "derived economy". These hinterlands can be quite large, over 100 km beyond the core metropolis. The enlargement of hinterlands asks for integrated forms of spatial planning on a larger geographical scale.

Key policy challenges

Urban regions face a number of policy challenges. All must *improve their urban assets* and simultaneously reach at times conflicting goals: improve their economic vitality, limit social exclusion, improve quality of life and accessibility. To generate sustainable economic growth, cities need to be attractive places. The increasing mobility of human resources and companies will punish cities that fail to invest sufficiently in their attractiveness. Second, cities are challenged *to better exploit their current assets*. Cities should focus on their strong points to promote economic development. They should seek to promote those clusters in which they have a relative advantage. In the global

economy, places can benefit enormously if they become concentrations of specialised knowledge (embedded in people, firms, and institutions): this will enable them to attract similar activities from elsewhere, further strengthening their local clusters. One policy challenge in almost any city is to increase knowledge spillovers, mainly between universities and the business sector. Third, in every urban area, *governance can be improved* with positive impacts on performance. Cities may take on initiatives to improve co-operation with central, regional or local governments; they may design a metropolitan vision to promote policy integration and channel investments. Given intensifying competition, urban marketing and branding (preferably at the metropolitan level) become more important to promote the strong points of the metropolitan area. Integrated city marketing can be an important instrument, not only to promote and develop the region with all the stakeholders but also as a platform where the stakeholders meet and negotiate common goals.

Other challenges relate to specific types of city. World Stars and Established Stars are the main beneficiaries of globalisation and the transition towards a knowledge-based economy. The key challenge is to manage growth, and make sure that it does not harm the assets that were behind the region's success. Core aspects are how to deal with gentrification, crowding out processes and increased pressure on hinterland. Steeply rising costs of living may drive certain vital categories of workers – nurses, policemen, teachers – out of the city with negative repercussions of quality of life, and the same holds true for artists and creative industries. Furthermore, the quantity and quality of basic research, one of the foundations of innovation in many respects, may be hollowed out when wages in public research are falling relative to wages in the booming private sector.

The outlook for Rising Stars is good, as they will continue to benefit from FDI inflows and rapidly improving overall macro-economic conditions. One challenge is to encourage spill-overs and spin-offs from FDI. This can be done by encouraging partnerships between the multinationals and indigenous firms, by promoting spatial co-location and clustering, and by promoting the link with the local knowledge infrastructure. Furthermore, Rising Stars should not lean on FDI only but focus on entrepreneurship and improvement of indigenous business, in preparation of the inevitable transition towards a knowledge based economy in the (near) future. From this perspective, investments in sustainable urban growth may pay off in the longer run. A final challenge for Rising Stars is to deal with a brain drain to more advanced economies, and the lack of government resources to upgrade public research.

The key challenges for Metropoles in Transition are to improve the quality of life, to renew the economic base and to attract/retain knowledge workers. For these cities more than for the others, investments in quality of life are needed for future competitiveness. This can be done through

intelligent housing policy, investments in culture and events, a reduction of pollution, investments in the quality of urban public space, recreation facilities etc. Cities may develop innovative financial instruments to do the investments in public-private partnerships (PPPs). Another key challenge is to fight their existing negative image; besides real quality of life improvements, integrative city marketing strategies are therefore needed. Concerning the economic base, these cities should resist the temptation to support declining industries. This may not always be easy, especially when there are powerful defensive institutions or interest groups. To overcome their problems, these cities are also tempted to invest massively in new physical infrastructure (port areas, science parks, stadiums). However, softer policies based on indigenous strengths often yield much higher returns. To broaden their economic base, these cities are challenged to develop integrated new growth clusters/niches; also they could facilitate innovative activity that prefers low-cost urban locations, such as artists or certain segments of the creative industries.

In the knowledge-based economy, smaller cities that are located far away from a major metropolitan area face the threat of losing skilled people and knowledge-intensive business to larger agglomerations. They will find it hard to benefit from increasing international (temporary) migration and FDI. Their lack of scale brings a number of disadvantages in terms of international accessibility and infrastructures such as international schools and ex-pat communities. For these cities, one challenge is to develop a distinctive niche or cluster, preferably one in which the city has strengths in both the business sector and the university. Another is to artificially create scale, for instance by co-operating with neighbouring cities in setting up joint facilities and amenities. Because of their quality of life assets, some of these cities are in a good position to develop tourism or to attract (wealthy) elderly people.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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Specialisation and Networking in Medium-sized Cities

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Medium-sized cities in search of new sources of dynamism face a difficult agenda. The dynamic high-tech developments with which every place would like to be associated are difficult to grow. By definition, innovative, entrepreneurial ventures are risky and might fail. They are also unlikely to create, by themselves, high levels of employment. Quicker, less exacting routes to providing large numbers of jobs are more likely to be found at the other end of the scale of knowledge intensity. But these will not bring much autonomous development, and some, though by no means all, are vulnerable to global competition. Crucial to local dynamism are local collective competition goods, which, as explained below, can provide the focus of a city-level policy agenda. However, the fact that many advanced sectors of the new economy tend to favour capital and other large cities raises doubts over the continuing capacity of individual medium-sized ones to "go it alone".

Sectors in the services economy

Manufacturing industry in the advanced economies today seems to be as declining a sector as agriculture; everyone wants to be in services. This raises a number of problems. For several years scholars have struggled with the fact that there is no such thing as a single services sector that would constitute a straightforward "tertiary" sector to complement the "primary" (agriculture and extraction) and "secondary" (manufacturing and construction). This is especially the case when there is a tendency to see a simple "evolutionary" trend from primary to tertiary. Observers have eventually distinguished between: the originally tertiary sector, the transport and distribution of goods; a fourth sector comprising financial and other services to business; a fifth consisting of social and community services; and a sixth of private services to individuals (Castells, 1996; Singelmann, 1978). At this level of generalisation, these sectors do have some distinctive characteristics (Crouch, 1999, Chapter 4).

Transport and distribution is a rather stable sector in terms of the provision of employment, mainly in large enterprises, and the employment it provides has a similar profile as manufacturing, though it tends to employ more women. It has a workforce with relatively modest levels of formal education, with a small managerial and professionally qualified staff. Business services are a small but rapidly growing sector, providing highly skilled as well as routine non-manual employment. Both genders find employment in this sector, though women tend to be concentrated in the routine jobs. There is a mix of large organisations (like banking and insurance firms) and small ones, and also some self-employment. Social and community services constitute a large sector; in several countries they have overtaken manufacturing as the single largest sector of employment. Especially in education and health services they employ particularly high concentrations of highly educated personnel. In fact, in nearly all countries this sector employs the largest number of university-trained people. The sector grew massively from the 1960s onwards, and continues to strengthen, whether as public- or private-sector activity. The majority of its employees are women. The sixth sector is small and comprises a mix of activities ranging from leisure and tourism to domestic cleaning, usually in small enterprises. Its workforce has in general a low educational level. The sector, much of which comprised the 19th century servant class, entered a long period of decline in the 20th century, but is growing again today in several countries.

However, each of these sectors can be deconstructed and demonstrated to include some very heterogeneous parts. For example, the idea of a transport and distribution sector originated in that of transporting goods from a production site and then selling them. But it was not practical to distinguish the transport of persons and messages from that of goods; as a result, postal services, and then by derivation the whole telecommunications sector find themselves included here. There are also problems in distinguishing between social and community services and personal ones. Behind the distinction is some idea that the former deliver collective goods of various kinds, while the latter serve only the private needs of individuals and families. This is useful, but produces some anomalies: Education counts as part of "community and social", but cultural activities are usually included in private services; health services are in the former, but fitness and bodycare activities in the latter. As a result of these and other difficulties, it is unwise to draw conclusions about the character of a service activity from the name of the sector in which it is included. The same is true of skill levels, where not just aggregated sectors but individual industries contain diverse activities. For example, we have an image of the telecommunications industry as comprising very advanced, highly up-to-date high-tech skills. But if a city reports rapid growth in

employment in telecommunications, it is likely to mean that it has become a preferred location for call centres.

It has also frequently been noted that the boundary between manufacturing and services becomes obscure, when the added value of a product is primarily embedded in the knowledge services that have been used in it, rather than in the production of the material objects of which it is made. This is often said to be uniquely true of high-tech products: computer chips, CDs and DVDs. It is however also true of many more traditional products: a dress is made far more valuable than the material of which it is made because of the designer's skill that has been used in its construction; "design" is seen as a service. Similarly, viewed as a physical object, a painting by an Old Master is just a piece of canvas daubed with coloured chemicals.

There is a real danger today that stereotypical, over-generalised images of sectors are leading policymakers to make inappropriate decisions as they seek desperately for what is "modern". For example, it is almost universally agreed that employment in agriculture is backward but that in services is advanced. It is therefore seen as a mark of progress and convergence if women in, say, an area of Hungary move from working in the fields to working in a supermarket. However, the supermarket is likely to be owned by a Dutch or French chain that sources its outlets centrally and without much use of local products. There is therefore a decline in demand for products of the local agriculture, which had distinct comparative advantages, while the women lose their rich but uncertified farming skills in exchange for the low skills of check-out staff. From the perspective of the experts checking off their list on convergence and transition criteria the region has undergone a successful convergence towards a western pattern of economic activity: agriculture is declining and services are advancing. But what has in fact happened is a decline in comparative advantage, and a loss of real skills and of a real local resource. People in these areas might do better to look to regions like Murcia in southern Spain, where new comparative advantages are being found in improving the efficiency of agriculture.

More generally, it may be more useful for local policy-makers to look at characteristics of local value-added and comparative advantage rather than determine to enter certain sectors. Indeed, it may well be that in post-industrial society the attention of policy makers, scholars and statistical agencies should shift away from sectoral classification towards analysis of value added, irrespective of the nature of the activity concerned. "Agriculture aversion" in transition economies and "manufacturing aversion" in advanced economies may be distorting perceptions of comparative advantage, opportunities for technological advance, and possibilities of job creation throughout the skill range.

All this indicates a further dilemma for choices of local economic development and regeneration strategies. Should those concerned seek niches for highly competitive products, successful engagement in which markets will certainly upgrade the quality of local capacity, but at a constant risk of loss of competitive advantage to lower-wage areas of the world? Or should they seek protected, stable employment possibilities but at a risk of low productivity?

Governance and local collective competition goods

There is a dispute in the academic literature over whether competitiveness is a characteristic of firms or of geographical areas (Krugman, 1991; Porter, 1998). It is both. In the last analysis (as Krugman would have it) it is firms that have to bring together the resources and skills that make and sell products. But, as Porter has argued, cities and regions can differ in the kind of environment they provide for firms. If this were not the case, there would be no disparities between areas and no differences in local production specialisms apart from those produced by natural geography. Both firms and localities are also relevant to competitiveness in another sense: what is left after an industry declines? In some cases, nothing remains. In that case, all competitiveness did reside in the firms alone. But in some circumstances the skills and the capacities remain in the area and can be turned to something new. In that case the competitive unit was also the city or region itself. Some of these locations are able to sustain capacities and to promote them into new activities. When this happens, an area has achieved autonomous development rather than exogenously induced growth. The area then acquires adaptability for the future.

A key feature in this process is the presence of local collective competition goods (Crouch and Trigilia, 2001). A *competition good* is a good, the acquisition of which assists a firm's competitiveness. For example, acquiring a skilled labour force, or good market research data, are competition goods. *Collective* competition goods are those competition goods that a firm does not have to buy in the market, but which it receives as club goods or as public goods. It is able to use them, but acquisition of them is not a cost. This can then give the firm competitive advantage over competitors who lack such access and either have to go without the good in question, or must pay for it. For example, a dress design firm located in a dynamic fashion district will benefit without cost from the tacit knowledge about new fashion concepts that circulate in the informal discourse of the district. A firm located remotely from any other firms in the sector will probably have to buy these ideas from consultants. Of course, from the point of view of strict neo-classical economics, free goods are always suspect: if the firm has not paid for them, it is not motivated to appraise their efficiency; it may find that it depends too

much on the free resources of the district instead of searching for the most profitable opportunities. However, for much of the time the difficulties of acquiring knowledge will continue to deliver competitive advantage in these cases.

Local collective competition goods identify those where the locality, rather than national, or sectoral, or some other level is involved in their provision. Alternatively, national or other higher-level actors decide to privilege a particular region, consciously or unconsciously assisting the growth of the industry(ies) concerned. As already noted, several decades of major military research contracts directed by the US Defense Department to southern California produced the rich scientific environment from which today's biopharmaceuticals and information technology industries grew.

Today the local level, while vitally including levels of formal sub-national government, increasingly implies groups and networks of other institutions, with which local government works. To better understand this process and how to manage it requires some knowledge of available forms of governance.

Governance

Many object to the use of the term governance, as it seems to be a pretentious synonym for government. But this is not the case. Government is a sub-set (the most important sub-set) of governance, and a sub-set cannot be a synonym for the set of which it is a part. Government refers to a particularly formal and explicit form of governance; but less formal, more implicit mechanisms can also be used to sustain institutions and maintain conformity. As Rosenau (1992: 4) puts it, governance is more encompassing than government. It includes government, but also non-governmental mechanisms whereby "those persons and organisations within its purview move ahead, satisfy their needs and fulfil their wants". Kooiman (1993: 4) similarly uses governance to stress the multi-actor nature of governing; no actor, public or private has enough knowledge to solve all problems or enough overview or action potential (see also Scott, 2001: 140). The growth in the use of the concept of governance results from the growing complexity of these mechanisms and of the relationships within complexes of them between government as such and the other forms. This complexity results from several causes. One is the privatisation of many formerly governmental activities, which rarely leads to a simple substitution of market for state but new relationships between government, market and some other institutions. Another is the local regeneration process itself, as local government seeks new partners in order to create an economic future without its former stable associates in now declining industries.

Hollingsworth and Boyer (1997; Hollingsworth, 2002) have usefully identified a number of key governance forms. They identify: government (or state), market, the corporate hierarchies, and managerial structures of large firms, business and trade associations, communities, informal networks. It is also useful to add to this list formal law, as distinct from government (Van Waarden, 2002). Local development and regeneration projects are likely to involve a number of these. There will be several levels of government, from the local up to the national and, in the case of European Union member states, the EU level too. Local branches of business associations, less formal networks of firms, and in some cases neighbourhood communities will be involved, usually in dialogue with local government, but sometimes taking initiatives themselves. The managerial hierarchies of large firms in the area will also be part of the policy-making discussion. The law and the market will be ever-present as the contexts of action, but may also be more specifically involved, in the case of, for example, specific laws for local development and specialised local labour markets.

The presence of the corporate hierarchies of large multi-nationals within the apparatus of local governance raises a number of issues. Some forms of inward direct investment by such firms may not enhance local capacities; others may well do so. In the first scenario, multi-nationals bring branch plants, are motivated solely by cheap labour and other costs, and transfer to the local population very little competence in managerial, high-level, and entrepreneurial skills. As cheaper regions of the world become available, there is the risk that the firms will move out, leaving little behind of lasting importance to the region. During the 1990s several British cities became favoured locations for telephone call centre operations. Increasingly this kind of work has moved to Bangalore in India, where there is a large supply of well educated, Anglophone people working for far lower wages than their often less educated British counterparts. Virtually nothing is left behind of value to a city after a call centre has departed. Similarly, many governments and large firms locate their back offices in medium-sized cities away from the capital, keeping all strategic staff at the latter. There is a major saving in property and wage costs, and for governments there is also a useful reduction in congestion in the capital and a boost to employment in the medium-sized cities concerned. In the case of government employment of this kind, there is not so much risk that this work will eventually move off-shore. With this exception, this is a form of investment that resembles that of the old Fordist industries: single employer, narrow range of skills. The gain in employment to the city will be lasting, and of course generates further employment in the form of shops and other facilities to support the workers in the back offices, who are normally mainly women. It is therefore likely that cities will be happy to have the opportunity to have some of this activity as part of their future

employment portfolio. But it does not confer an autonomous development capacity.

On the other hand, an example of how direct inward investment by a multi-national can boost such development is provided by the Hungarian city of Györ (Keune, with Kiss and Toth, 2004). Already, before the fall of communism, this city had developed major capacities in engineering and in business skills, through links with Austrian firms. During the 1990s VW-Audi established an engine-building plant there. As time has passed, the firm has increasingly enriched its presence in Györ. It has assisted local suppliers to upgrade themselves, and an extensive supply chain now exists in the area. It has recently also developed research and development facilities. There has been considerable transfer of skills to a local population, and some vigorous local enterprises have developed – though it remains uncertain how many of these would be able to find continuing markets if Audi did eventually leave.

The role of SMEs

Alternative sources of some outstanding cases of autonomous local economic development have comprised local concentrations of small and medium-sized enterprises (SMEs) in specific production fields. Most of these cases are of continued development in existing strong areas rather than of recent regeneration of cities trying to shape a new future. However, many of them have an earlier history in economic depression and difficulty. And recently there have been important signs of local dynamism in previously very depressed areas in southern Italy, in particular in furniture in Puglia and textiles and clothing in Campania (Aniello, 2002; Burroni and Trigilia, 2001).

Much of the well known literature and many of the cases of local economic development based on SMEs concern Italy, particularly the industrial districts of central and north-eastern Italy (Bagnasco, 1977; Burroni and Trigilia, 2001). These take at least two forms. In the first, mainly characteristic of central Italy, firms are of small or medium size, all located within or around a particular *comune* or group of *comuni*. A variety of institutions provide shared and common services that motivate the firms to cluster in this way: informal networks and community ties, local government, the church, political parties, formal business associations. Because community and family links are so strong in these regions, external observers are often particularly impressed by the role of these informal but deeply rooted institutions in sustaining co-operation and in creating trust among firms who are in fact competing with each other. However, there is a danger that in doing this, observers distort two elements of the classic industrial district.

First, there is a tendency to exaggerate and romanticise the role of trust and co-operation between firms. These enterprises are engaged in serious market activity. If from time to time they co-operate, it is on the basis of well based understandings that trust will be reciprocated or defection punished within the wider circle of community and network (Cafaggi, 2004; Dei Ottati, 2004; Farrell and Holten, 2004). In fact, the strength of these institutions is to a considerable extent the result of the lack of trust that Italians have in large-scale formal structures. Second, and more important for our present purposes, there has been a tendency to under-estimate the role of local (and sometimes regional) government in sustaining the districts and in supplying the shared resources that constitute many of the benefits of the district for individual firms. This has been a particular problem in understanding the Italian districts since Richard Putnam (1993) used them as instances of "civil society" activity that did not require politics. In reality, local government – and political parties – are nearly always involved in providing various resources: direct services (*servizi reali*), such as assistance with design techniques or marketing; or the establishment of the image and brand of the town as a famous centre for the product concerned (Piselli, 1999; Trigilia, 1999). Formal business associations are often also important in this latter process – an activity developed originally and long ago among French wine and cheese makers, but spreading increasingly to other products in many countries.

Some of these key activities that sustain the classic Italian industrial districts can be found elsewhere too. For example, although German industrial clusters usually feature larger firms than do the central Italian cases, and community and family-based ties are often absent, services made available to firms within a sector and a region or district are fundamental (Glassmann and Voelzkow, 2001). These are often provided by national structures but are locally delivered by responsive technological institutions, like the Fraunhofer Institutes, Max Planck Institutes, and the Steinbeis Foundation. These usually involve local levels of government and formal business associations in their management. Professors from local universities often also become engaged. For some time there was a tendency for outside observers (*e.g.*, Sabel *et al.*, 1989) to believe that the *Land* of Baden-Württemberg was unique within Germany in sustaining this kind of system of strong medium-sized enterprises using local resources of scientific and technological support. In reality the system is a general one; Baden-Württemberg happened to be particularly successful, and to be explicitly promoting its model at the time that foreign observers were becoming interested in the general issue.

There is evidence that the pure SME model of industrial districts is experiencing difficulty in marketing on a global scale, and there seem to be increasing advantages in a second model of industrial districts mainly

associated with north-east Italy and also some German and Japanese sectors (Burroni and Trigilia, 2001; Crouch and Trigilia, 2001). Here, a large, multi-national customer firm operates at international level but maintains strong relations with districts of SME suppliers. To determine the use of this model for autonomous local development requires knowledge of the internal structure of the customer-supplier relationship. How much knowledge of design, strategic management, finance, marketing, etc., is shared with the supplier firms, and how much is retained by the large customer firm alone? Is this a compromise form that can sustain the local advantages of SME clusters while giving them global reach? Or is it just another version of the old dependency-creating Fordist model? Firms using the Japanese model of relations with suppliers, or that of VW-Audi in Györ do work to up-grade the autonomous competence of at least first- and second-tier suppliers. But others follow the model of, say, the British clothing industry, where supplier firms in the districts simply produce standard items to order, developing no capacities in design or marketing (Crouch and Farrell, 2001).

A third firm of local specialised cluster has become evident in recent years in several so-called "high-tech" sectors, particularly information technology and biotechnology (Crouch *et al.*, 2004: Part 3; Trigilia, 2004). Here, there are some basic similarities with the traditional industrial district, which have been most commonly found in industries where changes in fashion are central (such as clothing, footwear, jewellery). In both fashion and high-tech sectors, knowledge moves very rapidly, and there are great gains to be had by those able to take advantage of new developments before they have been codified and widely discussed. Groups of producers in these sectors exchange views and information in a continuous, informal and often even unconscious way, producing the "tacit knowledge" that is so valuable. These cases differ from classical districts in that the producers are scattered over a wider geographical area, and are more loosely connected to each other through professional networks rather than community and family ties.

It is also characteristic of high-tech clusters that a university or other advanced research centre is usually to be found associated with them. Scientists from the university or centre have "one foot" in the scientific world, which also serves to stabilise the geographical concentration, and one in the world of the firms and their innovative processes. A similar role may be provided by other institutions that existing partly in and partly out of the sector, exogenously stabilising it geographically. There is, for example, the role of the Silverstone and Imola motor racing tracks in the United Kingdom and Italy respectively in sustaining the relative proximity of clusters of firms specialising in the development of advanced motor vehicles and their components (Crouch and Farrell, 2001). The lively production centres of television films that exist in Cologne and central London are partly "anchored"

by the proximity of large national state broadcasting institutions (Baumann, 2002; Elbing, 2004; Glassmann, 2004).

The information technology sector in so-called "Silicon Valley" in California and the neighbouring and related San Francisco biopharmaceuticals sector are major examples of a similar phenomenon (Kenney, 2000; Saxenian, 1994). Initially, major military research and production programmes from the US Department of Defense were targeted in southern California from the First World War onwards (Leslie, 2000). These were reinforced during the major nuclear and other weapons programmes of the Cold War period, and more recently by military-related information technology research and development that produced, inter alia, the internet. This developed initial concentrations of scientists and science-related firms. From the 1970s onwards the universities became increasingly interested in a serious involvement with commercial research and production activities, not only with existing large firms, but also with new spin-off ventures in which university scientists became personally involved (Sturgeon, 2000). This attracted the attention of lawyers and venture capitalists who settled in the area and began to network with the firms and the scientists (Kenney and Florida, 2000; Suchman, 2000). Dense webs of collaboration and interaction have now developed, some in the information technology sector, others in biopharmaceuticals. Highly skilled people with relevant qualifications are attracted to the area because there will be a choice of job possibilities for them; firms similarly acquire knowledge of the labour force that is available. The venture capitalists acquire deep knowledge of the sector, and the tacit knowledge generated in such an environment supports and pushes further the scientific endeavour. Individual firms may rise and decline, but the resources involved in a declining firm – financial, human, knowledge, physical – are not lost to the region. They remain in it and are reused. The region has therefore developed its own regenerative capacity (Kenney, 2000). Another remarkable aspect is that, although the people working in these sectors are internationally linked, they still benefit from the speed and depth of interaction possible in such a rapidly moving knowledge environment. Similar characteristics to these are found in the other high-tech areas of science-related business in other parts of the world.

Different though these cases may be from classical industrial districts, in both forms there is a university or some other institution, or often a plurality of these, that sustains the importance of the locality for the industry. Local government may well not constitute that institution itself, but as the entity with prime responsibility for looking after the local "place" as a collective, public thing, it usually plays some role in it. This may be only to provide material that draws attention to the phenomenon and its attachment to the city or area in question.

City networks

But the scope for city-level policies for tackling these questions is currently in some doubt. Different criteria affect the geographical location of many services sectors in contrast with manufacturing. Some, such as much tourism, do resemble some manufacturing industries in being favoured by natural and social geographical characteristics. Developing specialisms in these obviously requires either realising or cultivating the potential of a location. Some other services are found wherever there is population and in proportion to that population: transport and much distribution, personal banking, education, health and most other community and social services. There is not much that can be done by local strategy either to attract or repel them. Others seem, at first sight, to "travel light": to have no geographical needs but also no requirement for universal coverage, and therefore seem to be capable of being attracted to almost anywhere that makes the effort to win them. This may be particularly the case with many distinctively up-market and high-tech services. However, precisely because these activities can choose where they locate themselves and operate in up-market niches, they show a very strong tendency to prefer already highly favoured locations: capital cities, or beautiful places, overlapping with tourist centres.

Capital cities in particular seem to be attracting increasing proportions of these high value-added services activities, and thus of the highly paid, highly educated people working in them – to the disadvantage of the rest of the country (Rodríguez-Pose, 1998; 1999). Even Italy and Spain, the least centralised of Europe's larger nation states, are seeing the rise of Rome and Madrid as dominant locations for the employment of highly educated workers (*ibid.*: Chapter 6). Even though property costs in capital cities are high, space needs for these activities are often low per unit of added value. Until congestion costs become unsupportable, these tendencies are likely to strengthen. Not only do these firms gain easy access to government offices and the cultural resources of the capital, but large concentrations of population (and capital cities are usually the largest cities in a country) make it easier to recruit specialised staff who can change firms without moving house. In addition, ambitious dual career couples often find they must live in or near capital cities in order for both to have good career prospects.

The main casualties of this process are medium-sized cities, which might have expected to be able to attract precisely this kind of up-market employment. There are some exceptions for exceptional locations (for example, the French Riviera attracts many high-tech firms), but only one major factor seems to offset the magnetism of a capital city or natural beauty: the location of a highly advanced university, generating spin-off firms in high-science activities. It must also be noted that, while these activities produce

high-quality employment, it is often employment of only very small numbers, as they are capital-intensive. Also, the workforce, being highly specialised, is likely to be recruited from outside the city in question.

It will often be impossible for individual provincial cities to offer any kind of alternative poles to capital city or other particularly favoured locations. However, city regions may be able to do so. These involve networks of cities, and smaller towns between them, collaborating on development policies, attracting resources to a number of linked, neighbouring, but geographically distinct points. Sometimes the linking mechanism may be a formal government tier or consortium; at other times it may need only informal governance collaboration. Such developments may also help to counteract the present reality that frequently the concentration of dynamism within a leading city has virtually no spillover into its surrounding rural and small-town region. Some growth poles based on high-technology activities tend to be spread over a much wider area than traditional industrial districts (Trigilia, 2004). These sectors typically employ small number of highly mobile people. They tend to be spread out across a wide but clustered space. This is the case, for example, of Silicon Valley, and of the exceptional high-tech region around Helsinki. In any case, and particularly in conditions of rapid development, formal city and other local government boundaries do not correspond to the boundaries of economic clusters. There is therefore often scope for consortia of local authorities to be the significant actors. This is often difficult to achieve, as city governments are often motivated by their rivalry with neighbours. They may have to rethink the relevance of these rivalries if future dynamism is seen to favour mutually networked cities within a region.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
© OECD 2006

The Impact of Tertiary Education on Urban Development

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Cities with the highest innovation levels and more skilled workforces are attractive to the private sector as being the best places in which to locate (ODPM, 2004). The scope for tertiary education to help cities compete in the global economy is illustrated by the taxonomy in Table B.1. This classification of activities falls into five main categories: innovation; developing an entrepreneurial culture and supportive environment; human capital; direct economic multiplier effects; and governance – that is, participation in city-wide decision-making across a wide range of economic development issues.

The taxonomy is intended to be inclusive. It takes into account that technical innovation is essential in more traditional as well as high-tech sectors and in services, and that social innovation is required in education and city-wide institutions in order to improve communication and flows of knowledge between the different actors. Some impacts will be direct, others will be indirect, with research training, recruitment from universities and of graduates from other firms, while background knowledge and professional networks contribute to business firms' own problem-solving activities (Patel, 2002). Some of these effects resulting from the close proximity of firms and universities take the form of "knowledge spillovers" whereby the benefits of accumulations of knowledge are shared collectively by organisations within the city.

At the same time, while these impacts are desirable, tertiary education's widening roles require incentives, resources, and protection for their core missions of teaching and research in order that these activities are indeed mutually beneficial. Core funding for research from national governments is decreasing throughout the world. The government's share, including both direct government support for academic R&D and the R&D component of block grants to universities, has fallen by 8 percentage points or more in five of the G-7 countries since 1981 (the exceptions are France and Italy, which have had lower percentage falls) (OECD, 2002).

Table B.1. **Taxonomy of kinds of relationships between tertiary education and business**

	Innovation
Knowledge production and transfer of knowledge	Formal research collaboration Links to global technological and scientific networks Take up of patents and licences Published papers – *e.g.* joint academic industry articles Contract research Specialisation in new technologies and leadership of new industries
Technological Applications of research, expertise and in-house facilities	Testing services *e.g.* carbon dating, equipment testing Prospects of application (*e.g.* X-rays, lasers). Engineering design tools and techniques – including modelling, simulation and theoretical prediction Product and process development Instrumentation
SME support	Prototype development, Consultancy services Testing Contract research
Entrepreneurial culture, entrepreneurship and cluster development	
Entrepreneurship Buildings Networks Image	Spin-offs Science parks Incubators Cluster focused technical assistance Network facilitators, developing academic and non-academic networks Mentoring services Place marketing and development, promoting brand image, organisation of showcase events
Human capital	
Recruitment Training Vocational Public access to knowledge	Recruitment of graduated undergraduate and post-grad students Vocational courses – technical and teaching *e.g.* technicians training Placement schemes Continuing professional development and extension programmes Public lectures and public access to libraries, museums, galleries, sporting facilities
Direct multiplier effects	
	Staff, student and visitor spending Purchase of goods and services Contribution to tourism Support for inward investment
Governance	
Engagement in decision-making processes	Economic Cultural Sustainability Transport
Contribution to sustainable development	Contribution to the quality of the built environment Contribution to property-led urban regeneration Provision of student accommodation Effects on parking and traffic problems Other land use issues

Sources: Patel, P. (2002), "Measuring Third Stream Activities", Final Report to the Russell Group of Universities, *www.clo.cam.ac.uk/final_russell_report.pdf*; Glasson, J. (2003), "The Widening Local and Regional Development Impacts of the Modern Universities – A Tale of Two Cities (and North-South Perspectives"), *Local Economy*, 18, 1, pp. 21-37; author's survey.

In terms of innovation, cities have a role to play in brokering interactions between tertiary education and the industry-business community, identifying educational needs, providing incentives for those needs to be met and rewards for their implementation. This may involve leveraging national and international funding for these activities, for example from the European Union, for support for technological advance, application, and emerging industrial sectors. Some universities have been identified as being leaders in fostering innovation in industry. In the United States, for example, emerging roles for universities take the form of developing coherent strategies focusing on the needs of industry. Rather more universities offer a narrower range of expertise. For example, some universities offer engineering services, including rapid prototyping and tooling and which are supported by their city and regions. They can be found in the United States, France, Germany, Italy, Sweden, Belgium, and the United Kingdom.

In the case of supporting the growth of new industrial sectors, cities have a critical role in providing the physical and knowledge infrastructures and networks that knowledge-intensive firms need. For example in the case of the biotechnology clusters worldwide, it is the incubation and entrepreneurship facilities linked to venture capital and the presence of major hospitals that produce much of the modern innovation (Cooke *et al*., 2002).

In addition to services and knowledge made generally available, tertiary education has the potential for offering a wide range of support to its city-region's diverse small-firm economy. SMEs are important targets of policy because of their job generation potential, but have particular problems due to a lack of physical and human resources. Universities, technical colleges, and national laboratories in OECD countries have developed a range of initiatives to help both small firms which are highly innovative and play an important role in new product development and process innovation, and those which are laggards in technology development. It is technical colleges more than other educational institutions that have a remit of working with SMEs by providing specialist services.

There are, however, a number of caveats to the universality of linkages as a number of barriers exist. First, most surveys show that universities and public research institutes are not main sources of external knowledge and that sector and firm size (larger firms having more links than SMEs) are important factors in the incidence of links and whether they will be localised. The third CEC Community Innovation Survey (2004) shows that only 5% of innovating firms indicated that universities were highly important for innovation (3% for government or private non-profit research institutes) compared with 28% from clients or customers (the highest external source). Second, barriers to interaction lie not with the universities but with private firms who still under-spend on R&D and innovation (Coombs and Metcalfe, 2000). In the case of

technical colleges, Rosenfeld (1998) finds that the interest in serving SMEs is often counter-balanced by the reluctance of SMEs to invest in education and training, and their inability to employ and profitably use the skilled graduates. Third, cities may be targeting sector clusters that are also being pursued in other, even neighbouring, cities, while university-city strategies may well be most effective when pooled with the efforts of other city/university consortia (see Peck and McGuiness, 2003). This provides a clear direction for cities as they develop innovation policies designed to develop entrepreneurial cultures.

The different forms of university links

City-wide entrepreneurial cultures develop from the nexus of innovation in firms, universities, business support systems and city institutions, all of which foster new firm formation, inward investment and retention of existing businesses.

Academic spin-offs are emblematic of both the entrepreneurial university and the entrepreneurial city-region. Cities, however, need to be aware that not every university can be so entrepreneurial, that many spin-offs fail, that while some grow to be international corporations such as Hewlett Packard and Intel, the general pattern is that they do not, and the rate of firm formation and job creation is generally small compared to other start-ups. Research from the United States indicates that the key characteristics of universities associated with successful spin-offs are 1) the intellectual eminence of the university; 2) policies of making equity investments in start-ups; and 3) maintaining a low inventor's share of royalties (Lawton Smith, 2003). Di Gregorio and Shane (2003) found no effect of local venture capital activity and only limited support for an effect of the commercial orientation of university research. Moreover, university spin-offs, particularly in high-tech sectors, are only one form of technology transfer, and others may be more effective.

A majority of the currently existing *science and technology parks* in the world were created during the 1990s. In research-intensive metropolitan regions, formal science parks have a role to play in the development of research/manufacturing activities in new or emerging sectors not in the regional mainstream. They give visibility to new activities, create a localised critical mass of professionals and services, and provide localised access to the specialised technical and business services needed in the emerging sector. In other large metropolitan areas with research/"medical-doctoral" universities, the most successful parks tended to be created/managed by regional development agencies with the strong co-operation of local universities (Lindholm, Dahlstrand and Lawton Smith, 2003). Overall, many studies show that university science parks are performing better than non-university based ones. This is because they are a good mechanism for transferring university

research into the local economy and as such are supported in some OECD countries such as the United Kingdom and are seen as part of a strategic city-wide economic development plan in which a university plays a central role.

University *incubators* come in various forms. Some are for fledgling high-tech companies in any sector, some are sector specific, often for biotechnology, others in fact have no premises but operate virtually. While some remain focused on their internal activities, others expand their roles. It is not only universities that have established incubators; some technical colleges have also been active in this kind of technology transfer activity.

Well functioning *networks* are seen to be so essential to the innovation process that they are prescribed by policy makers as the stimulant to the well-being of local and regional economies. Technical colleges as well as universities can play important roles in putting companies and services in touch with one another and encouraging technology transfer and information exchange. Technology is diffused most effectively through personal contact and companies learn best from other companies. Faculty who are well-connected to industry become the purveyors of the "untraded transactions" that represent technology and knowledge transfer and diffusion. The technical college provides SMEs with their best source of information and best *de facto* human resource department for the firm too small to support a human resource development function internally. Colleges provide neutral environments for association – through evening continuing education programmes, symposia and meetings, CEO breakfasts, and other social/professional/educational events in which local business people have a chance to discuss common economic issues. The entrepreneurial colleges understand the value of associative behaviour and assume roles as brokers and facilitators. The more pro-active colleges have organised business alliances to intentionally accelerate learning, collaboration, and business transactions (Rosenfeld, 1998).

Mentoring is likely to become increasingly popular as the potential for "baby boomers", those who were in the first wave of academic entrepreneurship in the 1980s, have begun to retire from the hassle of running a business themselves but maintain the energy for and interest in helping future generations of entrepreneurs. Cities have a role to play in supporting these activities, through their networks opening access to entrepreneurs in general, and providing backing.

Attracting and producing the right kinds of skills and a high supply of highly skilled people – human capital – are perhaps the most critical of all of the roles that tertiary education can make to urban development. Evidence for the importance of access to the highly-skilled comes from Simmie *et al.* (2002) analysis of innovation in five European cities (Amsterdam, Milan, Paris,

Stuttgart and London). This found that of the 25 reasons why firms would choose to locate the development of a new innovation in their city region, availability of professional experts specialising in technology scored the highest. Bachtler (2004) proposes that attraction of star academics, researchers, and highly skilled knowledge workers is increasingly replacing inward investment attraction as a key role for regional development agencies (Young and Brown, 2002). One example is in strategies for *graduate recruitment and retention*. This means finding jobs for people from the universities within the city-region. A particular problem is matching supply to the demand for skills. While some parts of an economy may have a high demand for graduates and technicians for example, other firms, particularly small firms, are not able to meet the challenges presented by new technologies.

Some sectors, because of their rapid growth and complex operating environments, face a wide range of skill shortages. These have been met by responses across the spectrum of tertiary education from research universities to technical colleges for the provision of long-term and short-term courses and input into the design of degree courses: *sector specific skills training*. There is scope for city business organisations to help define demand for and content of courses. In biotechnology, for example, human capital issues of interest to firms have been more often concerned with finding experienced managers and regulatory personnel than with technical staff.

As well as being in increasing demand, *technicians* find that their careers are undergoing radical change. In some sectors, such as biotechnology, pharmaceutical and medical diagnostics, a technician is generally a life science graduate, and may be referred to as a scientist. Thus universities and other institutions such as national laboratories as well as technical colleges have a responsibility for training technicians.

Another form of industry-oriented training is through *industry placements* in which students gain experience and contribute to innovation in small as well as large companies. A further form concerns the training and retraining of the highly skilled through *CPD and Extension Programmes*.

A direct contribution of tertiary education to urban development is through economic multipliers on the GDP of cities. Several economic impact studies have been undertaken in the United Kingdom. For example, Universities UK (2002) have estimated that for every 100 jobs within HEIs, a further 89 jobs are generated though knock-on effects in the economy and for every GBP 1 million of HEI output, a further GBP 1.56 million of output is generated in other sectors of the economy. The effects too are amenable to policy intervention.

Suggested actions for each kind of institution

This paper has proposed a paradigm of three-way mutual contributions among the education, business and city authority sectors in which the key drivers can be put into gear in the different kinds of cities. Some cities have university-based economies; others need the universities to address urban problems on a broad scale. This paradigm encompasses three tasks for cities:

- to gather intelligence on educational needs, for example for innovation, SME support, entrepreneurship skills and human capital development;
- to identity how those needs can be met within the city's tertiary education institutions, taking an audit of expertise and resources. Academia's core skills of data collection, critical analysis, and interpretation can be harnessed by cities;
- to work with universities and colleges and business to identify where policy intervention is likely to be most appropriate and effective and what incentives and policies are needed to ensure mutual benefit.

The realisation of policy requires a co-operative focus within the tertiary education system with each kind of institution contributing to a collective strategy according to its own core competences and remit. Underlying this is the need to network within and between each of the three spheres at the working and leadership levels, especially to find the energy source to make all these things happen by drawing down resources from national and international funding bodies. It also requires that more openness to marketable research and better communications between universities and the industrial world are developed. Dialogues between universities and business are needed to break down barriers to cooperation in order that a framework for orientating university R&D to local and regional demand in the city-region can be established so that competitiveness can be enhanced. This will help avoid the dangers of top down "technology push" approaches to innovation which focus on manufacturing and overlook the contribution to social sciences and humanities can make to innovation by "thinking outside the box", not least in the delivery of services (Goddard, 2004). Hence it is important to note different roles within government and within the private sector that are necessary to perform these tasks. The tasks require co-opting major companies that have a national focus, entrepreneurs who tend to operate outside business organisations – but who may have academic ties – and local business groups such as Chambers of Commerce.

To explore further how this can be done, tertiary education is classified into three categories: universities and national laboratories, modern universities and polytechnics, and technical colleges.

Universities and national laboratories

Universities provide research and development resources for first stage innovation. They can take the lead in creating an entrepreneurial culture and providing a range of expert services to industry and business. As the focal points of new industry specialisations, universities have the potential to increase the level of entrepreneurship and support cluster development in city-regions, both through academic spin-offs and also by attracting large and small firms. The reality is, however, that only a few places can develop successful biotechnology or nanotechnology clusters such as those in California, but a strategy of bringing a major company within a co-ordinated development initiative early on is something that cities should consider. The potential for upgrading more established industries and diversifying economies through targeting particular industries is illustrated by initiatives in Helsinki and Oulu in Finland.

Flagship areas of expertise in many disciplines can be highlighted by city-authorities in branding their city as centres of innovation and creativity. The potential for universities and colleges to raise the profile of cities is there for universities that take seriously publicising their role as leaders in research, technology transfer, innovation, and entrepreneurship. Science parks and incubators can be an important part of that strategy. Although they are traditionally established by research universities, they are increasingly common across the broad range of tertiary education institutions, developed in conjunction with city authorities within city-wide innovation strategies. The Barcelona Science Park in Spain exemplifies the potential role for university-city-government interaction.

The core role of teaching provides enormous potential for fostering creativity and the focal point for influencing national policies. Universities and cities working together can take the initiative in influencing government agendas about the kinds of certificate, degree, and CPD training courses that are needed in the rapidly changing world of work. The experience of the CONNECT programme in San Diego in the US suggests that CPD and extension programmes are crucial to the success of cluster development strategies. Universities can work with other research institutions, such as national laboratories, to develop a city-focused training strategy that covers the whole value-chain of employment. An important example is at Grenoble, France. Such a strategy would encompass high-level skills, technicians and business skills, and include business schools and technical colleges. The maintenance of linkages between universities and alumni enables many of these objectives to be met and forms a link between them and the governance role. This is because endowed income, especially in the US, provides crucial funding for research (people and equipment), teaching, and infrastructure. This in turn

facilitates linkages with firms, permitting the purchase of equipment at preferential rates opening up new services that can be offered by polytechnics and universities. Thus the stronger resource base increases the possibilities for their participation in economic development.

The emerging role of universities as participants in systems of governance is illustrated by examples from the US CEOs for Cities and the GCU. These demonstrate the close links between universities, business, and government in formulating holistic strategies for helping cities compete in the global economy and in overcoming economic and social problems.

Modern universities and polytechnics

Traditionally these institutions have been more embedded in their city-regions, having more regionally focused student catchment areas and outreach activities. Many have grown alongside the industries within their city regions, offering dedicated training programmes and innovation support systems, providing for example prototyping services, as illustrated by the case of Cardiff University in the United Kingdom. This is further illustrated by the retraining programmes provided by the Technical University, RWTH, in Germany. Examples from the United Kingdom of Oxford Brookes and Sunderland universities show the potential for engagement at the city level which extends beyond their traditional teaching and research activities (Glasson, 2003). This includes contributions to workforce skills, at undergraduate and graduate levels and through placements and targeting sectors. In an integrated system their role could be to co-ordinate placement programmes for the city-region in conjunction with business and state agencies. This could include organising seminars and networks on university research and applications. These institutions also have the potential for locally focused sustainability strategies, with concerns of transport, environmental and regeneration issues. Like the universities, polytechnics have a crucial role in working with cities in leveraging funding from national and international funding agencies. In the EU for example, this includes structural funds, which many of course, have already established programmes. The challenge for such polytechnics is to raise the profile of these activities within city and government circles.

Technical colleges

Technical colleges provide the fuel for implemented growth. Like polytechnics, technical colleges have a strong local focus, and unlike universities, are more likely to provide services for SMEs than universities. Rosenfeld (1998) finds that the trend appears to be towards a more expansive role for colleges, not less. Technical colleges, which are regionally committed and connected, possess a store of technical expertise and knowledge, and are

able to adapt quickly to change, are better able to successfully bridge the gap between civic and economic, individual and industry interests than most institutions. The major evidence is the views of employers, especially SMEs who look to a contract with technical colleges for an increasing range of services. The Steinbeis Foundation colleges in Germany and the Northwest Wisconsin Manufacturing Outreach Center are examples of ways in which technical schools can develop programmes to improve innovation in SMEs in general and focus on particular sectors. The potential for targeting skills development in older sectors – plastics, clothing, and seafood – is illustrated by initiatives run by technical colleges in Toronto Canada, Ieper (Belgium), and Nelson Polytechnic in New Zealand.

Common to all of three types of institution is the potential for networking and engagement in governance. It is clear from this discussion that there is scope for each kind of institution to take the lead in particular areas of urban development. For their efforts to be effective, there needs to be a willingness to break down the traditional barriers within hierarchical tertiary educational systems found in many countries. Cities could be the catalysts for this to happen. At the same time, it should be recognised that there is a danger of unrealistic expectations being placed on the capacity of universities and colleges to tackle city-region problems of performance. Universities in particular have to fulfil multiple societal roles, some of which may be in conflict with the now normative role of being central players in economic development strategies (Goddard, 2004).

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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Policies to Enhance City Attractiveness: Achievements and New Challenges

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A major change in urban governance, particularly by old industrial cities that have experienced an unprecedented magnitude of industrial decline, has been the adoption of attempts to achieve economic regeneration by promoting cities as attractive locations for new businesses and workers that belong to the knowledge economy. This paradigm shift in urban policy has posed a formidable challenge for planners, because traditional policies, particularly redistributional measures, have either become obsolete or ineffective under current circumstances where many cities are fiercely competing for internationally mobile capital and talent. It has become clear that urban economic regeneration demands a pro-active and pro-growth approach which encourages wealth creation in the private sector. Such an approach necessitates, first, innovative mobilisation of diverse policy tools and resources, such as: flagship property developments in city centres with spectacular architectural designs; establishing new cultural facilities, hosting major cultural and sport events, festivals and fairs; promoting public art, preserving and restoring heritage; and city branding. Second, close partnership with the private sector to reflect its needs and interests in policy planning is increasingly becoming a key feature in the institutional framework for regeneration. Partnership and entrepreneurialism are the guiding principles in these coalitions. This market-led approach has also changed the role that governments (central and local) perform – as enabler and facilitator, rather than regulator and provider.

Measures to enhance city attractiveness

City promotion by city branding

City promotion has a long history as one of the basic tools to attract people and money, such as visitors, immigrants, firms and new investment, to cities for economic development purposes. However, the recent surge of interest in city promotion, particularly in city branding, may be ascribed to the

widely shared recognition that reconstruction of a city's image is the starting point of urban renaissance, since many cities are realising that their images as industrial cities are excluding them from the cognitive map of knowledge workers in their location decisions.

In place marketing, a city as an entity is often likened to a "product" that supplies labour market, land and premises to businesses, and housing, urban services, security and places to socialise to residents as well as the basic utilities of infrastructure. The reason for doing this is to apply the established methodology for commercial product marketing, of which the most important aspect is branding, to city promotion. A brand is defined as "a multidimensional assortment of functional, emotional, relational and strategic elements that collectively generate a unique set of associations in the public mind" (Aaker, 1996). This unique set of associations forms a "brand image" of the product, which differentiates it from other similar ones by summing up what it connotes or means in the eyes of the public (Patterson, 1999). Hence, brand images help consumers to identify a product by simplifying diverse attributes that the product possesses. Place branding tries to apply the same methodology employed in commercial product marketing to geographical locations. One of its important functions is to differentiate a place in location decisions. Similarly, the branding of a location is understood as "an attempt to create and nurture the narratives that give meaning to a place" (Julier, 2005) and differentiates it from many others in location choices by highlighting its core benefits, style and culture (Bennett and Savani, 2003). The rise of interest in place branding for marketing purposes may be partly explained by the fact that many cities can be easily substituted for others in location decisions because of the increasing mobility of people and capital and the decreasing importance of location constraints imposed by transport costs, which had decisive impacts in the industrial era. When place branding is used to fundamentally alter the prevailing perception of the place and establish a completely new brand image, it is called re-branding, which has been extensively employed by major post-industrial cities whose place images are deeply associated with a myriad of economic, environmental and social problems. These images, which are often reinforced by occasional media portrayals of crimes and public disorders in those cities, tend to be perpetuated.

On the other hand, there are limitations to applying branding methodology for commercial products to place branding to form a place-identity. One of the most serious difficulties is the "issue of multiple identities", which refers to the situation where a brand image suitable for one group of stakeholders may be inappropriate for others (*ibid.*). The attributes of a city are basically not a singular product but an agglomeration of identities and activities that are not conducive to a simple summing-up as is customary

in the branding process of commercial products. If planners try unreasonably to simplify such a complex entity into a brand image that targets corporate investors and upper-class urban professionals, the citizens may feel that it does not correctly reflect or promote their reality, and it may fail to secure their support. Experience shows that place branding only works if the values of the brand are rooted in the aspirations of the people. Hence, the brand image to be employed in a place re-branding process should reflect the local distinctiveness, characteristics and identities. Diverse local ethnicities and a range of social class groups also make it difficult to develop a brand image that appeals to the aspirations of a wide range of stakeholders. It is often said that the inconsistent attitudes of local politicians make it difficult for a clear brand image to develop.

Therefore, the challenge for policy planners is to coalesce the multiple identities of the various stakeholders into a concise and easily understood brand that appeals to the types of people and businesses they want to attract without compromising indigenous cultures, local distinctiveness and identities. Achieving this requires an institutional framework whereby various stakeholders are brought together to discuss and develop a shared version of a new brand image. However, an investigation of 22 urban regeneration units in some major cities (*ibid*.) revealed that this type of framework is not being established. In most cases, key decisions concerning brand identity were "handed down" to the regeneration units, which were then charged with the task of implementing them. Many units conducted formal and routine consultation procedures with representatives of trade, business or employers' associations, but few possessed formal and regular procedures for consulting representatives of residents' groups. In addition, the investigation found that the period of time for making decisions concerning re-branding was far too short compared to that necessary to build relationships with local residents and businesses.

The issue of multiple identities often led to "one brand, many messages" practices among local governments, by which they transmitted different messages to different stakeholders, such as businesses, property-owners, and pre-existing and potential residents (*ibid*.). This approach was in part a reaction to the fear that the uniform projection of certain messages would antagonise particular interest groups. For example, messages implying rising living costs, property prices and rents were not incorporated into materials intended for existing residents. This situation made it extremely difficult to apply integrated marketing communications, which ensures that audiences perceive a consistent set of messages.

A more fundamental question is the effectiveness of the current practice of place branding as a method of place marketing. First, branding images often appear bland and undifferentiated to the external audience. For example, a

survey on language employed in place branding among city authorities around the world revealed a substantial degree of homogeneity in their use of terms. They frequently describe their cities as dynamic, cosmopolitan, diverse, vibrant, and cultural (Julier, 2005). It is essential for "a strong sense of identity to emerge from the words and pictures if a promotional publication is to make an impact" on audiences (Burgess, 1981). However, because virtually every city tries to project a similar set of brand images in promotional publications, audiences can spot little difference between them. This would explain the weak impact of city promotion activities on their target audiences.

Second, there is a problem that information disseminated by city promotion can be assimilated by the audience only in an extremely selective way. This is because individuals tend to be more receptive to information that conforms to the beliefs and thinking they already possess, while they tend to ignore that which contradicts those beliefs (Gold, 1980). In this regard, regional stereotypes, or "negative images", play a particularly important role, since a branding image that fails to conform to a particular stereotype is normally treated either as untrue or as an unimportant exception to the general rule (*ibid*.). For example, a survey that sought to measure the effectiveness of promotional advertising by the northern centres and areas in Britain revealed a remarkably low awareness of them among managers. Resistance to promotional information that is not in accordance with regional stereotypes widely held by the public makes it very difficult to alter them.

Although it would be possible to develop clear, easy-to-understand narratives of a city by applying the same branding method used for commercial products and communicate them to the expected audience through various media, they would sound hollow if they failed to reflect the reality and the material circumstances of the city. Therefore, the formation of place identity through place branding should be regarded as a process of nurturing the pre-existing attributes of a city. However, the adoption of place branding in city promotion creates a risk that it will be perceived merely as a tactical sales operation whereby convenient imagery is attached to messages directed towards various constituencies, rather than an important strategic framework to organise all the urban regeneration efforts based on the new brand. The latter could be called a strategic approach, while the former could be called an operational approach. Past experience clearly shows that place branding should be conceived as a strategic approach where a new brand is positioned as a guiding framework around which broad urban regeneration programmes are organised to establish the new brand image as a reality, not simply as sales talk.

At the core of this approach is strategic planning to put the various policy components in a cohesive context, with city branding playing a crucial role in producing the cohesive image that the city wants to convey. Originally

developed by large corporations, strategic planning became an intellectual approach that was widely used by urban practitioners in the 1980s. Although a great deal of variation can be found in its usage, there are some common features, such as: 1) creation of a long term strategic vision; 2) setting short-term achievable goals; and 3) involvement of a wide range of stakeholders. Although this was a major innovation in urban economic regeneration policy, some pitfalls still exist. For example, by rushing to obtain a consensus with the backing of many stakeholders, strategic visions sometimes end up being just a series of safe objectives that do not offend established interests and reflect a lowest-common-denominator, a list of projects and an institutional mechanism (Griffiths, 1995). However, a strategy that does not clearly define the content of the image that it is seeking to construct for the city does not constitute a strategy. This is most likely to occur when the institutional mechanism to involve a wide range of stakeholders is remote from any effective public or private sector power and when there is no effective leadership with adequate institutional capacity (*ibid*.).

Physical renovation by flagship developments

Physical environment provides the tangible basis for city attractiveness. It not only provides the basic functionality of a city but also gives it character. Superb physical environment is in itself an important element in attractiveness while physical decay and derelict land have severely detrimental effects on it. Hence, physical renovation has been the first challenge that planners of former industrial cities faced when they attempted the economic restructuring, and physical renovation projects played the central role in city marketing by providing a material expression to the city image that city branding attempts to create. The image of a city as a "vibrant" and "cosmopolitan" place that city branding is trying to deliver can be realised in the physical form of the buildings and public places that visitors encounter in the city. The use of architecture for city branding is sometimes called "hard-branding" (Evans, 2003), and has become an important feature in city promotion.

In this context, city centres have been chosen as the most strategic locations for policy planners to concentrate their limited public resources because they serve as focal points for urban life, and often contain important social and cultural heritage, making them the most conspicuous elements in the physical attractiveness of a city. Waterfronts, where they exist, often play a major role in this, especially since in the industrial cities of the 19th and 20th centuries this was almost exclusively allocated to industrial use, with the general public being denied access.

Flagship city centre developments have some common characteristics. First of all, physically they are large scale so that they have a significant

impact on city image. They have high profiles because they feature innovative designs by internationally famed architects. The use of internationally known professionals has also been essential for securing the financing necessary for such developments. Second, they are multiple-use developments with residential, office, commercial, entertainment and leisure uses, which are strongly characterised by the consumption of the types of urban services and cultures that appeal to the highly qualified urban professionals. It is assumed that the extension of consumerism into all areas of private and social life, including art, leisure and pleasure, has brought about a situation where it constitutes an important factor in quality of urban life, particularly for knowledge workers, and that a city should be well equipped with these functions in order to present itself as an attractive place for these people to live and work. Similarly, residential developments strongly reflect the preferences of these people.

Third, private investment was eagerly sought to finance the developments, and was sometimes used, in a form of leverage ratio, as a criterion to gauge the potential of various projects. In most cases, the decision of private investors is based on the expectation of the project's potential as a property development, and, thus, the project assumes the nature of property-led development. In order to secure this, project locations were carefully chosen so that economic potential could be realised with minimum public investment in infrastructure improvements. Lastly, planning practice was often made flexible to encourage private investment.

It is undeniable that successful flagship developments have produced remarkable achievements that are demonstrated by impressive urban landscapes that have materialised on sites which used to be run-down areas with a concentration of economic, social and environmental problems. For example, Canary Wharf in the London Docklands, together with other deregulatory changes in the financial and stock market, considerably contributed to the strengthening of London's status as a world class financial centre. However, it has been pointed out that private developers, especially international developers, are not particularly interested in developments in cities at the lower end of the scale of the urban hierarchy, such as regional and provincial centres (Ward, 2002). This shows that projects are very much dependant on the economic potential of the project location or of the city where they are located.

It has also become apparent that flagship developments are neither sufficient nor adequate for urban regeneration of wider areas. It has been repeatedly pointed out in academic literature that they have failed to demonstrate effectiveness in addressing the long-standing problems that urban communities have. It has even been argued that the effect has been divisive and marginal and that many cities have become more unequal in the

last twenty years (Imrie and Thomas, 1993). It is sometimes the case that links between these projects and existing local economies are weak and that they are sometimes reduced to a closed economic enclave detached from the existing local economic fabric. For example, in spite of the remarkable success of the waterfront development in Baltimore, which was attracting 22 million visitors annually by the late 1980s and has provided the template for subsequent waterfront developments worldwide, economic and social problems persist in areas that are at a distance of just a few blocks (Ward, 2002).

Culture and event strategy

Although it sometimes happened that cultural elements were included in public urban intervention, they have generally been adopted "essentially as a type of welfare service in which the main concern was to provide access to an artistic and cultural heritage" (Griffiths, 1995). Later, by linking cultural elements with city promotion, they acquired a status as a strategic tool for city promotion and are increasingly becoming an essential ingredient in urban economic regeneration policies for multiple reasons. First, they are regarded as an effective tool to boost urban tourism in the hope that a substantial number of jobs would be created indirectly by cultural investment in the form of jobs that serve visitors and audiences in restaurants, shops and hotels. The increasing dependence of the economy on tourism is driving this trend further (Griffiths, 1993). This is particularly the case in the former industrial cities, which have lost a considerable number of jobs, especially unskilled jobs, in the course of economic restructuring. It is hoped that tourism related service sectors will provide job opportunities for them.

Another reason is the widely perceived potential of cultural elements in enhancing city image and attractiveness. Behind this has been a widely shared assumption that culture possesses a strong attracting power over highly skilled and creative workers. There is some empirical evidence to support this assumption (For example, Skrodzki, 1989). Cultural investment is also thought to contribute to the diversification of the local economic base by sowing the seeds of new economic sectors that could eventually grow into major growth engines in knowledge economies. For this strategy, production, rather than consumption, of culture is emphasised.

Culture-led urban regeneration policy played a crucial role in many city centre renovation projects, where cultural facilities constitute a central part of the flagship redevelopment. A prime example is the Guggenheim museum in Bilbao. There have also been attempts to create "cultural clusters". Although the famous cultural quarters, such as 1900s Montmartre, 1960s Rive Gauche, 1970s SoHo, were actually never planned as such and developed more or less spontaneously, it was envisaged that the planned creation of agglomerations

of cultural activities would produce a similar climate and initiate the self-reinforcing process of attracting creative people to the area. In many cases of planned cultural clusters, not only arts and cultures but also various leisure and entertainment facilities, such as bars, restaurants and health and fitness centres are also included. Although the extent to which these elements are mixed varies from project to project, many of them are distinctively consumption-oriented, which reflects the crucial role they are expected to play in place marketing, directed particularly to the knowledge workers. Cultural elements are positioned in the context of branding strategy to give prestige or spatial identity to the location.

In recent years, there has been a growing awareness of the economic potential of hosting major events for urban regeneration. Most city promoters think that an actual visit to the city is highly effective in overcoming the limitations inherent in city marketing, such as regional stereotypes and public doubt about its impartiality. Major events, particularly international events, such as Olympic Games and World EXPO, also attach prestige to the host city and raise its profile on the international stage. The concept of "event city" has come to be known to policy makers as describing the fact that an event can be used to give a special character to the city that hosts it, change its image, and thus change the local economy. Hosting a major event also has a significant impact on improvement of the physical environment. Investment in infrastructure, such as airports, public transport, road networks, hotel accommodation, water and sewage systems and urban landscaping, is necessary to ensure the effective operation of an event. Such investment leaves a considerable legacy that provides an important foundation for future economic development. Major events act as a catalyst to secure the public consensus on putting these investments on the fast-track by attaching first priority to public expenditure programmes. This has particularly been the case when such major events appealed to national aspirations.

It is noteworthy that many of these events were not intended to perform roles in urban economic regeneration when they were originally conceived, and that their potential for urban economic regeneration was astutely identified and exploited by policy planners. In some cases technological advances, notably the advent of global media coverage and transport, significantly increased their economic potential to be harnessed for urban regeneration. The most significant case is the Olympic Games. While the television coverage rights for the 1960 Olympic Games in Rome were purchased for USD 440 000, the rights for the Games in 2008 have been purchased for USD 3.6 billion (Chalkley and Essex, 1999). This surge in global media interest in the Games has strengthened significantly their influence on the economic regeneration of the city which hosts them.

Some issues have arisen in culture and event policies for urban regeneration. It has been argued that linking cultural policy to urban regeneration may sometimes have detrimental effects on local cultural development, particularly if public resources are diverted from existing cultural policies to prestigious cultural projects. For example, some such projects were made possible at the expense of substantial cuts in the budgets for education and culture. It has also been pointed out that in many cases their consumption, instead of production, oriented nature prohibited them from acting as catalysts for developing spontaneous local cultural activities that would eventually grow into new industries (Mommaas, 2004). "Functionalisation" of culture for the purpose of boosting urban tourism and consumption and exploiting its potential for city promotion may, it is argued, have negative effects on the development of local cultural activities by favouring "safe", unchallenging works and by marginalising other, sometimes more critical, voices (Griffiths, 1995). This could have prohibitive effects on the development of local culture with a strong identity and distinctive characteristics, like those of 1960s Rive Gauche and 1970s SoHo, where cultural activities developed spontaneously.

Crosscutting issues

Globalisation and local distinctiveness

Global and local context influence urban policy planning at the same time, sometimes in a conflicting manner. Globalisation inevitably has homogenising effects on locations whereas localism demands local distinctiveness and character. City attractiveness necessarily reflects both elements; a city should meet the sort of global standards that multinational firms and internationally mobile talents demand if it is to attract them. On the other hand, place identity is an essential element in distinguishing and differentiating a city when promoting it on the global market.

However, what has emerged from past experience is an ironic situation where such policies have, in many cases, ended up undermining the local distinctiveness and uniqueness that a city originally possessed, and brought about homogeneous identities of many global cities. For instance, it is widely known that a successful model of waterfront development in Baltimore has been copied by many urban planners in various countries and has appeared in virtually every city with developable waterfront space, sharing similar features such as an aquarium, waterside promenades, festival market places, restored ships, converted warehouses and so on. This has resulted in a paradoxical situation where everywhere seems like everywhere else (*ibid.*). Similarly, museums, which played a leading role in culture-led attractiveness policies, have become a common factor to such an extent that in Britain it was

estimated that during the 1980s new museums were opening at the rate of one a fortnight (Griffiths, 1993). With virtually all major cities having museums, this type of cultural policy caused a severe oversupply of cultural facilities in major cities, and they are hardly a distinguishing factor for attractiveness anymore. In event driven policies, similar problems have arisen. In accordance with the extent to which cultural policies are integrated into place marketing, "safer" and more consumption-oriented cultural contents are selected, marginalising local indigenous cultural activities.

The degree of freedom of local government officials, who work within the framework of best practice, best value and statutory responsibilities, is considerably restricted. When these policies are not based on the backing of strong political leadership, planners tend to avoid taking risks by deviating from much acclaimed success cases, such as the Baltimore model (Chatterton and Unsworth, 2004). Local governments which are suffering from perpetual funding shortfalls are under heavy pressure to maximise the revenue from land disposals. This inevitably results in their picking up development proposals that will provide the best commercial value. This situation, which could be described as lack of effective public ownership of physical space to be used for urban regeneration, results in the inability of local governments to move beyond simply specifying what will be acceptable on the project site (ibid.). Similarly, property developers, who fund renovation projects from bank loans and have a responsibility to shareholders, prioritise the financial returns from the project site which they usually acquire at a high cost by open tendering. This "bottom line" profit motives make it very difficult for developers to make riskier plans. Thus, strong commonality occurs among a number of projects, which tend to consist of a similar set of architectural and land use elements.

Global standard and local distinctiveness are not mutually incompatible. With policy innovation, it is possible to integrate local character, or "signature", with higher standards of urban environment by identifying and mobilising the potential assets that a city possesses. More diverse strategies should be developed by paying careful attention to the unique assets a city possesses, such as cultural and historical heritage, and by avoiding simple copying of a few successful cases. Strong leadership is vital to enable planners to take calculated risks and adopt innovative approaches; policy innovations cannot be obtained without their courage to experiment.

Market and community

The entrepreneurial approach towards urban economic regeneration aims essentially at exploiting market forces to the maximum through such measures as encouragement of private investment, urban marketing, deregulation and new institutional mechanisms (public private partnership,

development agencies, etc.). However, despite the overall nature of such projects as market-driven and privately initiated, their success still very much depends on public investment and interventions, such as transport infrastructure provision, subsidies, tax incentives and land acquisition and assembly. This has been most evident in the development of waterfront areas, quite often equipped with poor local access for historical reasons (Gordon, 1996). Therefore, considerable investment in transport is necessary to change their image of isolation. For example, the take-off of the Canary Wharf in the London Docklands as the second financial centre in London was partially but crucially supported by the extension of London Underground to the area and the upgrading of the road connection to central London. Also, land use conversion from low-density industrial uses to higher density mixed use requires considerable public investment to upgrade basic infrastructure.

The concentration of precious public resources on a small number of selected projects has often caused strong criticism from citizens who feel they were "left out" of the process. Such locations are usually selected for their potential to initiate economic development and consequently located in the city centres. The concentration of public money on areas that already have significant economic advantage appears, in the eyes of general public, as unfair, especially where such locations were subsequently occupied by the urban rich. Deprived community groups have often gained little or nothing (Jones, 1998).

Similar criticisms have been directed against hosting major international events, which has been increasingly perceived as extravagant by the general public. For example, some cities met strong local hostility to hosting Olympic Games, because ordinary population questioned the appropriateness of the huge amount of investment required to stage the Games while severe social problems which also require public investment still remain. Strong public opposition sometimes forced governments to scale down planned investment in infrastructure, which could otherwise have provided an important foundation for a city's long-term development. The risk of long-term indebtedness resulting from hosting major events has also fuelled opposition. Such a situation is particularly detrimental for strategic projects, because citizens' support is the precondition for their long-term viability.

A visible link with quality of life

Efforts are being made to establish a visible link between such projects and an increase in the quality of life for citizens so that they can feel a sense of ownership in such projects. The physical urban environment being the most visible result of urban regeneration, and having significant implications for citizens' lives, its inclusiveness and openness will provide such a link. In this regard, public space plays a crucial role. It is the physical expression of the

inclusiveness that the strategic approach for urban regeneration has. It not only contributes to social cohesion by providing a milieu for citizens' social life but also helps local cultural production by providing cultural venues accessible to local artists who have limited access to the upper-market cultural venues in the city centre. It is widely accepted that the cultural vibrancy in many continental European cities is underpinned by the existence of large public open spaces in city centres.

However, this role of public spaces is predicated on their "openness". It has been argued that the emergence of leisure economies and the predominance of consumerism in every aspect of urban life have brought about a "privatisation of public space" (McNeill and While, 2001). This can be observed in many physical renovation projects with cultural and leisure facilities only for people with considerable disposable income, and in managed shopping environments and defensive design strategies, which exclude those who are not the envisaged target as consumers of the types of goods and services they provide. Restoring public space that is accessible, enjoyable and psychologically welcoming, is an effective measure to counteract this trend.

An inclusive process

The process of strategy planning and implementation should be inclusive in order to reflect and coordinate various and often conflicting interests in the communities, which can only be reconciled by effective and active participation. Participation is facilitated by partnership, and public private partnership has already been established as a key element in entrepreneurial metropolitan governance. The importance of representing businesses' interests in these strategies is well appreciated by most policy planners, and it should continue to be so. In some cases, as in the growth coalition model in the United States, the business sectors often take the initiative and play a predominant role throughout the policy planning and implementation process. Experience shows that in successful cases, strong leadership, which often comes from the private sector, is a key precondition for effective partnership. However, it is not always the case that such partnership reaches out to citizens and civic society, beyond the local business circle. Information dissemination to the general public is a fairly common practice, but integrating the public fully into the planning and implementation process still poses a major challenge: capacity building of local communities and an institutional framework by which their interests are truly represented are essential if their representation is not to be hijacked by pressure groups with their own policy agenda.

Spillover effects

The strategic concentration of investment is expected eventually to bring wider economic benefits, known as "spill-over effects". However, empirical evidence to support them is not particularly strong. The strongly consumption-oriented nature of such strategies often prevents their economic impacts from extending beyond service sectors immediately related to tourism. The newly generated jobs are often not of the quality that diversify and modernise local economic structures. This is particularly evident in the strategies of hosting major events that are held on one-off basis rather than on a regular basis. More generally, wider issues of regeneration, such as education and training and investment in basic infrastructure, have often not been given sufficient attention.

Similarly, indigenous sectors have not been paid sufficient attention and given adequate resources in a situation where too much preoccupation with city-promotional objectives, prompted by the urgency and sheer magnitude of rapid industrial decline, eclipsed other "sober" approaches. Policy planners' urge for an expedient solution is understandable, but neglect of local assets will cost a city dearly in the long term. Given that internationally mobile capital limits its interest to a small number of cities, exogenous growth cannot easily be grafted from outside on to a city. In the worst cases, it simply causes various types of dislocation within the functional region where a city is located and produces no visible impact on the overall regional economy. For a city without much profile on the global market, economic success by indigenous sectors is important to achieve wider recognition as a business location. Such success is also important to fully assimilate the economic impact brought about by any inward investment that does occur, and spread the gains into the local economies. Exogenous and indigenous sectors are not an "either or" choice, but need to be fully integrated into long-term strategies so that a self-reinforcing process occurs, where indigenous sectors contribute to strengthening the city's profile on the market and exogenous sectors, in return, contribute to an increase in their competitiveness.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
© OECD 2006

The Connections Between Social Cohesion and City Competitiveness

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The purpose of this paper is to explore the relationship between social and economic conditions in cities. The emphasis is on the influence of the social environment on economic performance, rather than in the other direction. This is partly because the impact of economic change and material conditions on social well-being and human relationships is better understood and more widely accepted. This cannot be said for the effect of social circumstances on economic outcomes.

Policy and academic interest in the relationship between the "social" and the "economic" is not new of course. Some strands of economics have long maintained that there is a simple trade-off between efficiency and equity, such that greater equity or fairness implies inferior economic performance because incentives to individual endeavour and competition are blunted. During the 1980s, certain governments advocated individualism and competitive markets at the expense of social concerns. The pursuit of material wealth and competitive advantage in the global economy was said to require liberalisation of markets and more freedom for private enterprise. It also required stronger rewards for individual effort and a weakening of collective institutions that burdened business and interfered with personal choices, such as the welfare state and trade unions. Unemployment was a price to pay for low inflation, and inequality aided growth by rewarding effort and creativity. Some believed that lack of social consensus allowed genuine tensions to emerge from which learning occurred and organisations adapted. Real trade-offs and latent conflicts could be exposed and lasting resolutions achieved by permitting open challenges to vested interests. In a fast-changing economic environment, business practices could adjust quicker without complex negotiations and elaborate compromises that might sacrifice efficiency and growth.

Underpinning these ideas was a belief that competitive markets were the key to lasting economic success, since they increase the efficiency with which

resources are used and stimulate innovation, thereby raising productivity and growth. Markets also allow for consumer choice and reward initiative and risk-taking. Society should consist of firms and individuals acting in their self-interest and competing actively in markets for labour, housing and other products and services. The benefits of wealth creation filter through to less-advantaged communities in more jobs and higher incomes, so everyone gains from growth. Equality of opportunity and social mobility are important in this kind of meritocracy in order to maximise human potential and talent. Equality of outcome could be detrimental if it reduces the motivation to work, invest and generally get ahead.

During the last decade, concerns about a growing malaise in society with the potential for unrest and instability have prompted a shift in thinking. These ideas cover a range of themes with different emphases. One impulse has been a growing concern about social disintegration and conflict associated with increasing individualism, diminishing respect for other people and for civic institutions, declining electoral participation, and intensified exclusion of some social groups. This may be associated with the more competitive economic environment, the extension of market processes and increasing pressures for flexibility. Affluence and poverty seem to have grown side-by-side, undermining the integrity of cities, eroding the hopes and expectations of marginal groups, and causing resentment and insecurity. Some worry that this could hold back the economy by corroding individual skills and motivation (human capital) and by weakening trust and informal networks (social capital).

Second, markets seem to have become more differentiated and segmented rather than inclusive and rewarding to all. Some people have more choices and opportunities open to them than others. Instead of meritocracy and equitable rewards for individual endeavour, privileged groups somehow ensure that their offspring inherit their advantages and wealth. In some neighbourhoods and cities unemployment coincides with outstanding social needs and simple work pressing to be done, such as support for child-care and basic environmental improvements. Segregation could be associated with increased apathy, disengagement and disaffection, with the potential for increasing crime and disorder.

A third concern is economic instability and volatile financial markets. Turbulence and uncertainty damage investor confidence, encourage speculative behaviour and reduce long-term productive investment in products, processes and skills. In a more competitive, deregulated environment, regions and nations may precipitate a dangerous “race to the bottom” by seeking advantage through cutting taxes and environmental regulations, reducing workers' protection and wages, and offering special concessions to capture mobile capital. Meanwhile, the quality of public goods,

infrastructure and social safeguards may suffer from under-funding and neglect.

The key idea that has emerged to link these concerns is that *social cohesion improves economic performance*. This is a more positive way of saying that social division and fragmentation undermine long-term economic success. Communities that pull together may be able to reverse the tide of urban decline creating a stable environment, restoring confidence and assisting each other. A strong social fabric comprising active civil institutions, connected communities and common values is said by some commentators to function better economically. Different elements of society contribute to the collective endeavour through some shared sense of purpose, mutual support or simply agreed norms and rules of behaviour. This helps to limit selfish practices, conflict and instability, and generally improves the durability of economic relationships.

The attractiveness of the core idea coincides with a period of more restricted freedom of manoeuvre for national governments in macro-economic policy and increasing fiscal pressures to limit welfare spending in the face of global competition and resistance to higher taxes among the better-off. It also coincides with reservations in some quarters about the efficacy of the traditional centralised approach to social and economic policy of national governments. A less uniform, less compartmentalised, more locally based approach with a stronger voluntary sector, more community involvement and enhanced business participation is perceived to offer advantages, both in terms of delivering more responsive services and mobilising civil society, to the benefit of social development and international economic competitiveness.

The new thinking can be described as a new conventional wisdom (NCW) because it covers a set of shared ideas and assumptions within the policy community that differ substantially from the old perspectives. The fundamental basis of the new thinking is a more positive view of the contribution of cities to economic growth. At the heart of the NCW is the idea that cities have important advantages for businesses in modern economies where innovation is perhaps the most important attribute of enhanced productivity and competitiveness. Innovation, creativity and the production of sophisticated goods and services depend on human capital and the generation and exchange of knowledge. Cities offer firms a greater choice of highly educated labour and advanced skill-sets. They also facilitate the sharing or spill-over of knowledge between firms, collaborators, research institutions, specialised business services and suppliers of technology and venture capital. This occurs through informal learning in business networks, workers changing jobs and people exchanging information in social settings after work. The creation and use of knowledge and new ideas are social

activities dependent on face-to-face interaction that is facilitated in dense cities. Here firms can compare, compete, collaborate and communicate more effectively through proximity and shared social infrastructure.

What is social cohesion?

Social cohesion is an abstract, complex and somewhat ambiguous concept. It conflates different kinds of social phenomena and encompasses different aspects of the social fabric and ultimately the quality of life. These dimensions may affect each other, but they are not necessarily directly connected, and some may be more important than others for economic success. They also imply different kinds of policy actions, so the way cohesion is defined in practice within particular cities and nations matters to what public authorities actually do when committing resources.

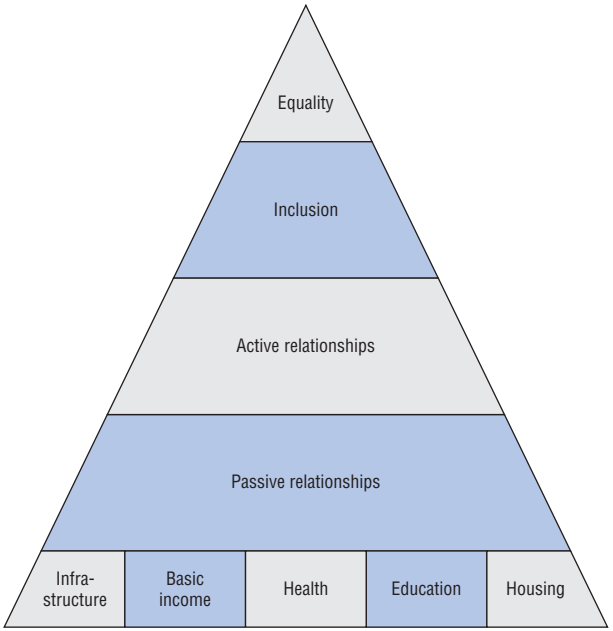
One important dimension is all about the nature of *social relationships*. This has a *passive* aspect that refers to the tolerance of difference between communities, which tends to mean a state of order and stability. The opposite is intolerance, conflict or disorder, and therefore stress, insecurity and uncertainty. Social order, safety and freedom from fear are the first and most basic tests of cohesion. There is also an *active* aspect that refers to the positive interactions, exchanges and "connectedness" between individuals, firms and communities, including active citizenship. Such connections are potential resources for places since they offer people and firms mutual support and credit of various kinds.

The second dimension is about the extent of *social inclusion* or integration. This refers to the involvement or participation of people in mainstream economic, political and social institutions, including work, schools, media, culture and sport. It also includes people's sense of belonging or attachment to a place. This is related to the question of identity and the strength of shared identities between people from different social, cultural and religious backgrounds. A cohesive urban community may have a strong overarching identity and external image or profile that reflects civic pride. The opposite is social separation and insularity, residential segregation and social exclusion or isolation.

The third dimension is *social equality*. This refers to the level of disparity in material circumstances, such as income, health or quality of life, or in future opportunities or life chances. The opposite is inequality in living standards, prospects for upward social mobility, or other aspects of life. Large and persistent inequalities may matter to society, through more anxiety, poorer social relationships, more violent crime, less involvement in community life and worse health (Wilkinson, 2000).

In addition to the three main dimensions, there are important underlying material conditions or "drivers" of cohesion, including employment, income, education, housing, health, crime, access to services and civic engagement. Figure B.7 presents a simply summary framework as a hierarchy of different degrees of cohesion.

Figure B.7. **A hierarchy of social cohesion**



Spatial scale and social cohesion

Spatial scale is a potential source of ambiguity in discussing social cohesion. Is one considering cohesive place-based communities, such as neighbourhoods, cities, regions or nations, or communities of interest that may not have a particular location? Highly cohesive neighbourhoods may exist within a divided or fractured city if they involve self-centred behaviour, segmentation, exclusion and discrimination against other groups and communities. The classic example would be middle-income suburbs *versus* low-income inner cities. In addition, tolerance and cohesion between different social groups or cultural communities can obscure conflicts within them (*e.g.*, between young and old, men and women, rich and poor). It is important, therefore, to be more explicit about whether one is talking about cohesion at the neighbourhood scale, the administrative area of city or the wider city region, since they do not necessarily go together.

The point about spatial scale also applies to the notion of city competitiveness – judgements about economic performance may be very different depending on whether one is considering the city centre, the wider built up urban area or conurbation, or the whole functional city region. In recent years there has been a revitalisation of many city centres associated with increased commercial activity, higher consumer spending and a rediscovery of the benefits of central city living and socialising, particularly for single people and young couples. However, this does not automatically equate to a revival of the city as a whole. Similarly, a strong performance for the urban fringe and surrounding towns may not translate into economic improvement for the core city, especially if their growth is at its expense. Within a city, the degree of social cohesion may also be very different depending on the particular form of social division being considered (income, ethnicity, gender, etc.). In some cities, social relationships may be stronger and disparities narrower between different socio-economic groups than between some cultural, religious and ethnic groups. As far as possible, it is important therefore to be clear about what aspects of the social structure that cohesion is referring to.

The effects of social cohesion on city competitiveness

While much might be said about the impact of city competitiveness on social cohesion, the present discussion is concentrated on the reverse relationship. In fact, the effects of cohesion on competitiveness are generally less direct and harder to identify than the other direction. It is helpful first to untangle the different forms of competitiveness, or markets in which cities compete, since cohesion impacts differently on each. They can be simplified for present purposes to:

- competition to attract, retain and improve the performance of businesses serving external markets; and
- competition to attract and retain well educated and resourceful people by enhancing the quality of life.

The following arguments do not consider the possibility of links between aspects of cohesion and economic outcomes that benefit particular groups and communities without increasing aggregate output, productivity or employment in the city. One example is the potential benefit of mutual support among poorer families and communities. They may lend money to each other, exchange favours and skills, and generally help to cope with adversity and sustain their livelihoods. This is undoubtedly important, but it is a different matter from improving the economic performance of the city as a whole. The evidence available to support the following arguments is fragmentary and tentative rather than definitive or conclusive. It also draws

much more heavily on some countries and cultures than others. Therefore, one should be cautious about generalising to other circumstances.

Crime and retention of skilled workers

The first and most commonly quoted link is the negative connection between crime (reflecting social disorder and inequality) and the attraction and retention of a skilled workforce. "The single most important thing to ensure that a city will do well is to attract skilled residents … Safe streets are particularly important … the skilled fear living among the poor" (Glaeser, 2005, p. 85-87). Freedom from fear and security of property are foundations of social and economic stability. Burglaries and robberies can impose direct costs on households through loss of income, property insurance and increased policing. A city's reputation may also suffer from perceptions of a high risk of crime and concerns about personal safety. Crime prevention is the top priority of some versions of the new urban paradigm (Lee, 2003). It is not difficult to think of examples of cities where sustained violence has deterred skilled labour (from living, working, studying, socialising and visiting as tourists) – Belfast, Beirut and Baghdad.

Yet, this apparently simple argument is not quite so straightforward. The examples quoted above are extreme cases. Among cities within the United Kingdom, Leeds, Bristol and London have some of the highest rates of crime, but they also have among the highest rates of net in-migration (and tourism) (Turok *et al.*, 2005). Crime does not feature among the factors affecting residential location decisions between cities and regions. One of the complications is that crime rates vary considerably within each city and skilled workers can generally avoid locations of high crime by living in neighbourhoods where they feel safe. Crime does appear to be a factor in suburbanisation (Allison, 2005), although this does not mean it affects the city's economic performance. In addition, people can often adapt and take precautionary measures to limit the effects of crime or to displace it to other districts, including creating "gated communities", underground car parks in workplaces and shopping centres, neighbourhood and city centre surveillance schemes and extra policing, and driving to work to avoid vulnerability to street crime. There may be some additional non-trivial costs associated with each of these.

The connection is also complicated by the varied composition of crime and the likelihood that there are threshold levels below which crime is generally accepted. Some types of crime are much more influential than others, just as a certain "background" or "normal" level of common crimes may be tolerated before it affects residential location decisions. Violent crimes tend to be low volume but have a disproportionate effect on the fear of crime because of their character. The effects of major one-off incidents are likely to

be temporary and have no discernable impact on longer-term migration patterns. Tolerance thresholds are likely to vary greatly for different people, and according to the regional and national context, since people get acclimatised to different situations and vary in the amount of choice they have. It is very uncertain how far social inequality and relationships would have to deteriorate to cause crime levels to have a major negative effect on the image of cities as places to live and work. There are exceptional situations of course when crime may become a significant factor. Cities with a particularly large disaffected and resentful population (*e.g.*, young people from a sizeable deprived and disenfranchised community lacking much of a stake in society) may have a sufficiently high overall rate of crime and visible anti-social behaviour to become an important deterrent to skilled migration. Cities with high rates of crime in their inner residential areas may also be less successful than others at attracting university students and recent graduates who cannot afford to live in the suburbs or gated communities and who do not want to be isolated in this way anyway. Students and recent graduates tend to be the most mobile section of the population.

Yet, security is far from being the only aspect of social cohesion that can affect migration decisions. Florida (2004) argues that a climate of openness or tolerance of difference is a vital attractor of creative talent, designers, scientists, inventors, young entrepreneurs and other highly skilled workers. He suggests that cultural diversity and social interaction are the most important qualities of a place, rather than residential segregation that produces socially separate, homogeneous communities that are not very hospitable or convivial. Skilled graduates and other creative types are more willing to consider living in places that are not (or do not feel) particularly safe on the basis that this is part of their (edgy) image and character, or that there are other compensating desirable characteristics of lifestyles in the midst of diversity, including the variety and richness of urban amenities available. Interestingly, in his latest book Florida (2005) warns the United States against an over-emphasis on security (resulting in tighter restrictions on immigration) at the expense of openness to foreign talent because of the damage to the economy that is likely to result.

Crime and business performance

There is also a connection commonly made between crime (reflecting social disorder and inequality) and business performance and location decisions. The conventional wisdom is that higher rates of crime damage economic performance because they impose higher costs on business operations, deter productive activity and discourage long-term investment decisions, thereby making growth less secure. Firms may suffer directly or be anxious about the potential impact on their assets, property values and staff

security. Their profitability may be damaged by repeated burglary of stock and equipment, and vandalism of buildings. Mobile firms may avoid cities with high crime rates or move away from cities experiencing rising levels of crime.

Yet the evidence suggests that there is no simple connection between low crime and high prosperity or *vice versa* (Turok *et al.*, 2005). Among UK cities, the coincidence between high crime and net in-migration in London has already been mentioned, and London also has the strongest business performance of UK cities over the last decade. Liverpool and Newcastle have some of the lowest rates of crime, but are among the least prosperous cities. Four major surveys of businesses in London, Bristol, Glasgow and Edinburgh found that crime was rarely mentioned, either as a constraint on business performance or as a factor in business location decisions. Relocation decisions were dominated by traditional concerns with the size, suitability and availability of premises, accessibility to markets and suppliers, and (sometimes) labour supply (Boddy *et al.*, 1999; Buck *et al.*, 2002; Docherty *et al.*, 2001).

There are several reasons why there may be no simple connection between crime and economic performance. The effects of crime are often quite localised and therefore do no damage to the overall metropolitan economy as they mainly affect where *within* the city investment occurs, not whether it comes to the city at all. The distance between the poor and run-down neighbourhoods (prone to the highest rates of crime) and commercial and industrial centres may limit any adverse effects on the image of cities as places to invest or visit. Businesses can also take avoidance measures to limit the effects of crime, including support for business improvement districts, private surveillance procedures and enhanced security measures. In selected city centres where violent crime has reached very high levels, there have been instances where the majority of the business occupiers have moved wholesale to completely new suburban centres, without apparently damaging their performance. For example, Greater Johannesburg's economy continues to be the strongest in South Africa, despite the almost complete relocation of the central business district to the suburb of Sandton during the 1990s. Shopping centres and high streets (accommodating firms providing local goods and services) are probably the areas most vulnerable to repeated theft, but it is difficult to relate this to the performance of externally oriented businesses, and therefore to the competitiveness of the city's economic base. Surveys of non-retail firms in London that are likely to serve wider markets have found that many experience repeated crime, yet it is rarely seen as a major problem since to a large extent it can be dealt with by effective and affordable security measures (Buck *et al.*, 2002).

Education, skills and business performance

The third proposition is that the quality of local labour supply (reflecting the characteristics of the population and the contribution made by the local education and training system) affects business performance and location decisions. This applies particularly to middle and lower range skills, since these are far more likely to be drawn from the local population than professional, managerial and technical jobs. Contemporary cities providing regional and national consumer and business services tend to require disproportionate numbers of workers with office/administrative/clerical skills and customer services/interpersonal skills (for call centres, shops, hotels, restaurants, etc.). This is a particular challenge for former industrial cities with a dominant culture, career aspirations and a vocational education and training system geared to manual occupations, particularly for males. It is not surprising therefore that the bulk of opportunities in the hospitality sector and lower level white collar jobs are filled by women.

Several aspects of social cohesion seem to affect educational attainment and therefore the supply of skills. The combination of social inequality and residential segregation appear to undermine school performance in deprived neighbourhoods of UK cities through peer group effects, reduced expectations, limited parental support and lack of positive role models. Socialisation within families and communities where "learning" and "earning" were not strongly linked historically might be partly responsible for relatively poor educational outcomes in working class localities. Government policy and pressure from other parents to raise educational qualifications has also led in many areas to the disaffection and exclusion of less able and more disruptive pupils, who then appear to contribute disproportionately to anti-social behaviour in the wider area.

The educational options available to motivate pupils who are not academically inclined may also be restricted. In countries like the United Kingdom, vocational skills and core transferable skills receive inadequate recognition in the modern curriculum, especially bearing in mind employers' increasing requirements for "soft" skills, *i.e.*, handling customers, verbal communication, team working and problem solving. Some of these personal attributes may be beyond the scope of education and could be tied up with social class and gender in employers' stereotypes of what makes a "good" employee. Young working class men may be less willing to assume the image wanted by service sector employers if this conflicts with their own strategies for maintaining self-respect or securing identity.

Overall, there appears to be some basis for thinking that the quality of local labour supply for lower and middle range jobs may be an influence on business location decisions and performance. However, several points of

qualification are important. First, the significance of this connection between the supply of middle range skills and economic performance is likely to depend on the scale and number of deprived neighbourhoods within a city. Second, it is also likely to depend on the state of the local labour market and is bound to be a bigger problem in fast growing cities with tight labour markets. That is, it is more likely to be a restraint on cities whose economies are already successful (a reflection of growth) than a major barrier to growth in cities with stagnant or declining economies. Third, business surveys tend to attach more importance to traditional concerns with property, transport links and government bureaucracy.

Social networks and business performance

The most positive proposition is that strong personal networks (active social relations) generate mutual understanding and trust between businesses and that this facilitates collaboration for ultimate commercial benefit. Mutual understanding and trust are also said to help limit selfish practices and opportunism. Firms learn, compare and cooperate with each other in various ways without an immediate business or trading relationship (un-traded interdependencies). Furthermore, business collaboration, collective learning and ultimately the formation of strong industrial clusters (that combine cooperation and competition) are facilitated by geographical proximity that enhances social interaction, face-to-face contact and the transfer of all kinds of tacit knowledge and intelligence (Cooke and Morgan, 1998). Key workers may share ideas and information in social settings after work, or firms may sponsor local industry associations to lobby on their behalf or to provide shared support services.

These conditions are said to be particularly important in a context of new and relatively uncontrolled markets, where there is rapid change, considerable uncertainty about the commercial possibilities of new products and processes, and a high risk of failure. These circumstances clearly apply to activities involving a high level of innovation, creativity and knowledge-intensive work. Given the contemporary importance of these activities to the competitiveness of advanced economies, it is not surprising that the proposition about the significance of business networks and collaboration has attracted so much interest from the policy community. There are some well-known examples of successful local or regional industrial clusters where there appears to be empirical support for the proposition, including Silicon Valley, the Third Italy and the City of London (Saxenian, 1994; Cooke and Morgan, 1998; Buck *et al.*, 2002). However, these are all quite specialised and seem rather rare, reflecting unique social and cultural traditions (the Third Italy) or highly specialised industry segments that have developed for particular historical reasons (the City of London) or major government investment early

on (Silicon Valley). There are two reasons for believing that the role of business networks and innovative local clusters of this kind are not more general phenomena.

First, while agglomeration advantages (in the form of a large labour pool, connectivity and shared business and consumer services) are important for many firms, surveys suggest that the more innovative kinds of business also look well beyond the immediate locality for high level skills, advanced suppliers and state of the art ideas generally (Boddy, 2003; Buck *et al.*, 2002; 2005; Simmie, 2001; Turok and Bailey, 2004). Specialised technical, scientific or creative labour may be drawn from a wide regional or national scale. Business partners and suppliers, especially those involved with sophisticated goods and services, are also just as likely to come from other regions and nations as to be close at hand. And leading edge products and processes are frequently stimulated by the demands from international clients and customers. Therefore it is vital for ambitious firms to develop a broad outlook and international connections.

Second, surveys suggest that relatively few firms with markets beyond the locality attach much value to shared local institutions or the opportunity to build strong local relationships with other firms, who are probably regarded more as rivals. Rather than have a limited network of enduring links with other local businesses, most go getter firms seem to prefer to have access to a wider array of potential suppliers and partners that they can "pick and mix" according to their particular requirements at the time. Large diverse agglomerations give firms much more flexibility of this kind than specialised local clusters. Big metropolitan regions also offer better access to markets, transport and telecommunications infrastructure (such as international airports), world-class universities and a wide range of high quality cultural and recreational amenities for their staff. Knowledge spillovers are also more likely to occur through workers changing firms than through social activities and informal interactions.

Conclusion

Looked at in detail and in the light of available evidence, the new conventional wisdom that social cohesion is causally connected to economic competitiveness at the level of the city looks less convincing. The impact of social circumstances on economic performance appears weaker than the effects of economic change on social conditions. Economic success seems to support some forms of cohesion (particularly social inclusion, equality and stability) provided it is broad-based enough to create a range of jobs relevant to the resident population. Narrowly focused growth that excludes sections of the population from improvements in well-being may increase inequality,

insecurity and social stress. Given the lack of substantial research on the subject, these are not definitive or universal conclusions but more a challenge to policy-makers, advisers and researchers to go beyond superficial generalisations and platitudes about cohesion being the key to urban revitalisation. It also questions over-optimistic assumptions about the benefits of joined-up policy and challenges people to identify and analyse more closely how urban social phenomena affect economic performance, especially at different spatial scales – neighbourhood, city and city-region.

For one thing, some aspects of social cohesion are not inherently a "good thing". Cohesion may have paradoxical or double-edged effects: in some ways helping and in other ways hindering competitiveness. Cohesive groups and well-organised neighbourhoods can be exclusive and selfish. Settled, close-knit communities of all kinds may become inward looking and limit the emergence of creative tensions and external sources of economic dynamism. Organised interests may become complacent and institutions inflexible or even corrupt, which could stifle economic adaptation, modernisation and increases in productivity. Perhaps some degree of social tension and dissatisfaction acts as a spur to upward mobility, entrepreneurial behaviour and economic change?

Thresholds are bound to be important. Beyond a certain level, various aspects of lack of cohesion must become significant, including the rate of crime and disorder, deficiencies in the supply of local skills, divisions between communities, and lack of trust and co-operation of any kind between businesses. Specific incidents may also play a part in triggering negative effects. Such incidents may also have consequences in other cities, indicating a degree of interdependence between these processes. The London bombings in July 2005 had knock-on effects for tourism and consumer spending in the city, but the people responsible came from disadvantaged communities in another city 200 miles away and were influenced by events in another country several thousand miles away. Cities are relatively open social and economic entities, not self-contained systems. Individuals, firms and other organisations within them interact with other cities, regions and nations in many different ways. Individual cities are also made up of diverse communities of interest, social groups and cultures, the cohesion of which does not have a simple, direct or automatic bearing on local economic decisions and outcomes. This all adds to the difficulty of drawing direct and straightforward connections between cohesion and competitiveness at the level of the city.

Many social problems are important in themselves and policy responses do not need to be justified simply or chiefly because these concerns are believed to be instrumental to economic outcomes. Tackling problems such as social exclusion, ethnic tension, cultural intolerance, political disaffection,

fear of crime, low educational attainment and relative poverty can be justified on the grounds of social justice without resort to economic rationale. Some of the social challenges in cities are deep-seated and cannot be tackled by local action alone, or even mainly. They reflect broader economic processes and wider divisions in society. National governments have a role to play alongside city-based policies. They can help to protect cities from more extreme social inequalities, conflict and cumulative processes of decline that might otherwise arise from economic shocks and systematic differences in the economic potential of different places. They can also provide a framework of rights and obligations that help to protect citizens from discrimination and injustice on the grounds of race, religion, gender or status.

A focus on social phenomena in cities should not occur to the exclusion of more direct drivers of economic performance and job creation, such as an effective supply of land and property (for economic and housing uses), efficient transport infrastructure with good internal and external connectivity, a high quality environment and public realm, and direct support for economic modernisation, innovation and creativity. There are always difficult choices and balances to be struck in urban policy-making. Platitudes about cohesion and competitiveness going together can disguise the need for clear thinking and rigorous analysis of the costs and benefits of different options.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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Labour Market Integration Policies to Enhance Social Cohesion

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During the 1970s and 1980s we had become accustomed to the idea that, despite the race to urbanisation across the developing and industrialising world, in mature societies modern communications were making major cities obsolete as a form of development. Worse still, they were a drain on the rest of the society, since their chronic economic decline produced deepening concentrations of social problems in their cores, which required major commitments of public expenditure to avert open conflict. In particular action seemed necessary to reverse the continuing flow of business capital out of cities which pure market judgements warranted. Some of the real issues highlighted in this pessimistic view clearly remain. But, during the last decade and a half, general attitudes to cities, and the policy issues which they raise for OECD countries, have developed in ways that reflect three major steps forward in our understanding of their roles.

First, there is a renewal of the perception that *many* kinds of city have the potential for economic success in the contemporary world, both on their own account and as key sources of strength for their national and regional economies. Their *density, diversity and openness to change* are again being seen as the keys to success, rather than the roots of urban pathologies. These qualities are, however, no longer a monopoly of the traditional urban cores, but can apply more widely across extended metropolitan regions where their high order business functions now operate on a networked basis.

Second has been the recognition that the degree to which particular cities can realise and sustain this potential for economic success has much more to do with making them function better than with simply sucking in more investment in the form of mobile firms. A simple empirical observation is that the difference between places which prosper and those which fail, even in crude employment terms, lies preponderantly in the growth performance of their existing businesses not the flow of establishments in or out (Cheshire and Gordon, 1998). Less simply, it has been very persuasively argued (from

Porter, 1990 on) that the keys are to make the most in qualitative terms of the assets associated with density, diversity and openness, and to build around potentially distinctive sources of strength in a particular metropolitan region. For the local public sector this implies a degree of strategic selectivity combined with a strong focus on identifying and attending to areas of both market and governmental failure.

Third, following on from this, is that the quality of social/institutional relationships of various kinds can be very important for urban competitiveness, alongside the more obvious economic assets. This has been a common thread in a range of otherwise quite distinct analyses of urban and economic systems during this period. Variously these have highlighted institutions, social capital, untraded interdependences, networks of trust and business milieux as key factors in the differing capacities of specific places to prosper in an increasingly competitive environment. The central shared argument is that there is a whole series of requirements for successful business, and especially for innovation and quality-based competition, which conventional markets cannot assure. In some circumstances many of these might well have been adequately provided within the framework of large corporations – but in a more flexible economy this can no longer be counted on. And, in any case, places which can provide these assets through distinctive forms of locally co-operative competition should be much less at the mercy of mobile capital, and of the potential for getting caught up in "races to the bottom", than where local firms are each self-sufficient. In this context it seems to be the urban scale which matters most – though this may be narrowly or more broadly conceived depending on the particular activity involved. Hence this kind of argument provides some of the strongest reasons for believing that cities/metropolitan regions can now represent crucial assets (rather than liabilities) for their national economies.

The notion of "social cohesion" – as a shorthand way of indicating all the various respects in which social relations within particular places can (increasingly) make a difference to their economic performance – may be more of an obstacle than a help to taking these further steps. There is a real temptation (within a new conventional wisdom about policy for cities) to see this as actually representing some single kind of quality which places can develop in order to simultaneously remedy the shortcomings of markets in terms of both social outcomes and economic performance (Gordon and Buck, 2005). At one level this may be helpful in building consensus, but at the same time it can obscure real and difficult issues, since within the urban policy arena uses of social cohesion typically seem to refer to one or more of four quite separate elements :

- fairness in the distribution of rewards/conditions of life;

- connectedness with others and across urban society;
- social order and individual security; and
- some sense of collective identity.

Clearly these do not necessarily go together and do not always fit straightforwardly with the dictates of competitiveness. For example one UK study reported that of six plausible channels connecting aspects of cohesion at a local level to a stronger competitive position for the cities concerned, only one (via educational outcomes) currently appeared to be of practical significance (Gordon, 2005). There are also radically different visions of what are the most appropriate combinations of connectedness and social order to secure urban competitiveness, with Putnam's (2000) version of social capital implying more formal associations and a more recognisably suburban set of shared social norms than Florida's (2002) tolerantly bohemian cities. In the literature on urban environments favouring successful innovation, there are similar tensions, with contrasting models, each of which might actually be optimal for different types of product and business (Gordon and McCann, 2005). In the labour market too there are tensions between the values of flexibility and stability, with higher rates of turnover in more flexible (highly connected) labour markets possibly discouraging investment by employers in training activity (Brunello and De Paolo, 2004; Brunello and Gambarotto, 2004). There can also be major conflicts within any one of the elements we have distinguished – for example one group's connectedness (or social capital), within the labour market for instance, may often actually generate disconnection/exclusion for others.

To recognise the relevance for economic as well as social goals of issues falling under the umbrella of "social cohesion" (or of social capital or inclusion) is then only an entry point to understanding the issues that have to be faced and the kind of actions that do (or do not) have a potential to advance these goals.

Centrality of the labour market

The labour market is a really central arena for addressing competitiveness, cohesion and the ways in which these intersect at an urban scale, for three main reasons. Firstly, paid work is the key source of both economic resources and of social status/identity in modern societies – for individuals, for households, and collectively for communities. Secondly, in all the processes around paid work – recruiting, motivating, developing controlling – economic and social factors are deeply intertwined, so that information, expectations, identities, stereotypes and so on all play crucial roles alongside hard-headed calculations about productivity, turnover and pay. Thirdly, the range, flexibility, openness and depth of urban labour markets are potentially the

most crucial asset that cities have to offer, both to those who live and those who run businesses there. Analyses of urban economic performance find human capital availability as the most consistent predictor of, for example, population growth (Glaeser and Shapiro, 2001). Urban labour markets are crucially important then for the development of cities, in ways that cut across the divide between social and economic processes – though they cannot be counted on to satisfy the various dimensions of "cohesion" and competitiveness simultaneously. And policy-makers are clearly very well aware that they have to pay attention to them. But this is much easier said than done, and practitioners as well as researchers have learned – both from study and from experience – that this is a very complex arena in which to operate effectively. There are basically two reasons for this, both of which involve rather contradictory characteristics of urban labour markets.

The first of these relates to their character as very powerful, but quite peculiar markets. On both the demand and supply side of these labour markets, people adjust strongly to all kinds of change, and interventions which ignore this are very unlikely to have the intended results. This can be the case at a macro-level, as when it is assumed that unemployment figures represent a simple measure of the gap between labour supply and demand, and thus of the scale of action (for example of job creation) required to fill that gap, or that part of it which is regarded as unacceptable, from either a competitiveness or a cohesion perspective. In practice, the hole always seems to take very much more to fill it than this calcul suggested us, because other elements of supply and demand respond to the intervention in ways that require more. One factor is that demand "leaks away" to other areas (or perhaps more realistically, supply "leaks in"), as in-commuters or new migrants respond to opportunities newly created by public interventions. Such adjustments have probably been going on all along, which is why the immediate "gap", in terms of numbers of unemployed, tends not to be nearly as large as the shocks which gave rise to it in the first place. But there may also often be asymmetries of a seemingly malign kind, such that the "adjusting" market responses operate more strongly in the upswing and in circumstances of expansion than in the downswing, particularly in the context of large numbers of involuntary job losses occurring in an already slack labour market. In this case, with a stronger "leakage" being stimulated by the remedial measures than by original job losses it may well take creation of several times as many jobs in a particular area to undo the local effects of a given original job loss (Gordon, 2003; Gordon and Turok, 2005).

Unforeseen consequences may also follow, for rather similar reasons, in response to more micro-level kinds of intervention. Thus actions to build economic capacity on either or both the supply and demand sides of the labour market may have much of their expected effects off-set through

"displacement". On the demand-side, businesses which are assisted to improve their competitiveness may well succeed in part through taking local market shares from established local enterprises. That is really a product rather than labour market issue. But similar kinds of displacement can be expected in the labour market, in response to supply-side action, as when training or employability programmes boost the capacities, and hence the competitive power of some, currently less-advantaged member of the local labour force. Because this is an intervention in an active market, not simply a step toward filling a (measurable and exogenous) "skill gap" or case of "skill mismatch", these work largely through enhancing the competitive performance of some individuals within a labour market, which may be in large part local. Though the effects should not actually be zero-sum, since some real additions have been made to usable human capital, the fact is that some others' competitive prospects will have been weakened in the process – unless in the particular context there is an especially elastic demand for this kind of labour. In the worst cases, particularly when supply-side interventions are effectively targeted at some specific segment of the labour market where demand is not particularly elastic, the effect may well be an almost zero-sum kind of "churning" among the target group and their peers (*cf*. Sunley *et al*., 2001). At best, the overall effects may simply be substantially less than hoped for. But in any case there is a need to take a serious account of the market context, and how supply and demand may reasonably be expected to adjust in a particular situation if there are to be realistic expectations of effects, and design of reasonably cost-effective initiatives.

On the other side of this contradiction is the fact that labour markets in general are quite peculiar kinds of market, because of the heterogeneity and self-consciousness of the particular commodity in which they deal. Employment practices have to be adapted, in one way or another (depending on circumstances) to the sheer difficulty of evaluating what capacities and productivity a worker will actually deliver and designing circumstances to enhance the chances of them doing so effectively and reliably. A consequence is – as Thurow (1972) pointed out long ago – that a large part of the labour market operates not on a simple model of "price competition", where the cheapest satisfactory workers are hired (with floating wages), but rather on a version of "job competition" where those who are perceived to be most suitable are recruited from among those responding to an advertisement offering a fixed salary.

This has many consequences, including a large role for stereotyping, signalling and subjectivity in key processes, and the importance of *quantity* signals in terms of the availability of discrete opportunities. But a particularly significant effect is the process characterised by Reder (1964) as "bumping down", whereby in a slack labour market unemployed workers may effectively

"price themselves back into" a job, not by renegotiating a particular wage, but by stepping down a tier in the market and successfully presenting themselves as the (qualitatively) best candidate for a job which has always attracted a lower salary. This second best kind of adjustment process (from a neo-classical perspective, which would prefer flexible wages) effectively minimises the wastage of human capital during such times and places, by concentrating unemployment among those with the least desired talents at the bottom of the market, where a willingness to take wage cuts would not get nearly enough of them into work in a part of the market acquiring a gross excess of supply. The problem – beyond the inequity of the way in which suffering is distributed – is that it may be not nearly as easy to reverse this process when demand starts to recover, or when supply-side interventions have upgraded the capacities of a proportion of those at the bottom of the market. This is admittedly not a very sophisticated model of market behaviour, and too crude in its assumptions about wages, but it does actually capture some very important aspects of the issues facing those addressing under-employment in some core parts of metropolitan regions. In particular, it highlights the fact that there *are* crucial market processes which need to be dealt with, but not ones which can be understood simply in terms of price mechanisms.

The second tension stems from a very obvious diversity within urban economies and labour markets, both in terms of activities/occupations and spatially, combined with the fact (not always quite so obvious) that everything is connected to everything else, by a complex of indirect paths, as well as the more evident direct connections. Neither of the straightforward textbook alternatives actually works in this context. These are of treating "the" labour market either 1) as though it was indeed fully integrated, effectively singular and homogeneous; or 2) as though it comprised a set of identifiable and separable sub-markets for particular categories of job in particular "labour market" areas. So there is a need to understand on a more empirical basis quite how strong connections and differences actually are in particular cases and situations, and work through the implications of these.

Arguably, this is an important characteristic of all labour markets, but viewing them spatially does make a difference, since it becomes evident that:

- regional contexts have a major effect on outcomes;
- some places are more isolated or less well connected than others; and
- no sub-market is ever closed to commuting and migration flows, which are by no means fixed but rather respond to spatial shifts in the pattern of supply and demand.

Similar observations might be made in relation to the structure of occupational sub-markets, where there are similar relations of proximity, in the sense that it is easier for workers to switch between some sets of "nearby"

jobs than between others with more radically different requirements and entry criteria.

But in the context of big cities what is especially important – and indeed characteristic – is that there are extended areas across which there is a dense overlay of sub-markets. At the micro-level each individual worker and/or each employer might be seen as at the centre of a kind of sub-market (or field), representing the area within which they would expect to find a job or a recruit for their jobs. More realistically perhaps, this view might be applied to each residential neighbourhood and/or employment centre, with fields varying in size according to the types of job and worker involved. These fields *are* likely to represent the market context within which individual parties think they are operating, and may reasonably be seen as reflecting spatial constraints on their individual ability to adjust to changes in the pattern of opportunities. But since, particularly in and around major cities, these fields overlap with a number of others, indirect effects arise, via vacancy (or displacement) chains. These may occur when a job (in one field) is filled by a worker who has a current job (in another), leaving a vacancy to be filled by a worker who has a current job (in yet another), and so on, until a job in the chain is filled by a long term unemployed worker. As cities have turned into metropolitan regions with decentralisation of both jobs and people to centres beyond the original suburbs, the potential for such chains to diffuse the impact of supply or demand changes a long way from their origin has clearly become very great, at least in principle. The real test, as to how far afield this goes, has to be an empirical one, however – for example by examining the degree to which labour market outcomes in one place are actually determined by supply/demand shifts in the immediate vicinity, in the adjacent ring, or a whole series of others beyond that. In British studies, at least, the evidence from such analyses is that the effective labour market area can be very extensive, stretching well beyond the bounds of the city (or even OECD metropolitan regions), and in London's case embracing most of South Eastern England (Gordon, 2003).

This kind of observation has some very obvious policy relevance – or perhaps more accurately some obvious implications about the irrelevance of particular kinds of policy seeking to relate urban economic development to social cohesion. Specifically, it implies that there may be little advantage in targeting job promotional initiatives specifically at those areas where improved employment rates are required, if there are less costly alternatives elsewhere within the extended metropolitan labour market area, since the impacts would be much the same. And, in a context where economic development initiatives are largely undertaken on a bottom-up basis, it suggests that the temptation for many areas, in and around cities, each to promote such initiatives to address local concerns over employment

opportunities, may not simply involve wasteful forms of "zero-sum" competition but actually produce very little advantage for workers in the winning areas (even if there are gains for local landowners). An understanding of this implication should make localities much more willing to co-operate in the pursuit of integrated economic development and employment policies across the metropolitan region.

This is actually far from a novel argument (see *e.g.*, Cheshire, 1979), and strong evidence in support of it has been available in the United Kingdom since at least the 1980s, without apparently having had much impact on either central or local policy. These continually return to an emphasis on the employment benefits of locally targeted regeneration projects. There may be a variety of reasons for this, possibly including the fact that the task of resolving the underemployment issue in major cities *seems* more tractable if it can be addressed on a targeted local basis. But there are two kinds of evidence which are commonly (and repeatedly) produced in defence of this approach. The first is that there are typically strong and persistent concentrations of under-employment (and associated kinds of deprivation) to be found in particular parts of cities, whether in actual ghetto areas, in other inner city localities, or in more peripheral social housing projects. Sometimes these are actually close to areas of major job loss, or maybe far away from areas of growth in relevant employment opportunities. But in any case the existence of such concentrations hardly seems consistent with the proposition that there are highly integrated metropolitan labour markets. Or, this would be the case, were it not for the fact that such integrated markets still produce very different outcomes for different types of people, and that those in the weakest position in the labour market tend also to be in the weakest position in the housing market, and consequently to be concentrated in quite specific areas with the kinds of housing to which they have access. Hence, unsurprisingly, studies have shown extremely high levels of correlation between the spatial pattern of underemployment within metropolitan regions and the residential distribution of those with characteristics – in terms of class, ethnicity, marital status, education, occupation, health, housing tenure, etc. – which are known to be individually disadvantageous in job competition.

The immediate upshot of these arguments is that neither text-book theory nor everyday experience (within particular parts of this system) is much of a guide to telling us either what is going to be a problem, or (still more) what is going to be effective by way of intervention. The reasonable implication is that policies need to be grounded in hard empirical research of a fairly sophisticated kind, and in the kind of general understanding of urban labour market processes that we have just outlined, and applied to specific local situations and the circumstances of different groups within these markets. But, at a more strategic level, there are already a series of quite clear

policy-relevant conclusions that can be drawn from the more general analysis, and from existing local and regional studies undertaken within this framework.

General lessons from urban labour markets research

The very large body of policy-related research from the last decade or so on general labour market initiatives clearly has some implications at the urban scale. In particular active labour market policies (as reviewed by Martin, 2000) commonly require some implementation at the local level – ideally integrated in "one stop" offices linking them to local opportunities. More specifically, such approaches as the use of "profiling" for early identification of new claimants at risk of longer term exclusion from employment have particular, distinct implications in places with different employment structures and histories. Understanding their applicability to the particular challenges of making city labour markets work more effectively at resolving the particular problems of under-employment in some metropolitan regions requires a different kind of analysis. Here we shall concentrate on the broad implications of this, in relation first to three simple general principles, and second to some of the kinds of action which are more likely to have a significant impact at this scale.

Big problems normally have big causes and will take equally big action to resolve

This seemingly banal piece of common sense has a particular relevance at the urban scale, because of the fact that spatial sub-national labour markets are characteristically open, with the potential for strong adjustments to operate through migration and commuting. Unless there is an obvious immediate cause for disequilibria, it is to be expected that significant disparities in employment outcomes between places reflect either an equilibrium differential produced by continuing long term differentials in competitiveness (*e.g.*, in terms of employment growth rates) or the structural residue of large scale past changes, the bulk of which had been absorbed through spatial adjustments. In either case, the scale of the forces which created the problem (and in the first case are continuing to reproduce it) are likely to be substantially greater than the currently visible problem suggests. If the current problem is really one of demand-deficiency, the required response in a spatial labour market is not going to be simply a one-off stimulation of demand (however large), which will eventually all get absorbed by migration and commuting shifts, but of raising the long term rate of growth (underpinned by a shift in competitiveness) relative to other parts of the national economy. Alternatively the current issue may be one of structural unemployment, involving a larger part of the local labour force who are

personally disadvantaged in competing for jobs, wherever they happen to be resident, as a residue of past periods of demand-deficiency. The corresponding requirement would then be something like the maintenance of a full employment pressure of demand for a broadly equivalent period. A serious approach to such problems at a metropolitan scale involves:

- uncovering the forces which have acted to create them, over whatever period they have operated;
- recognising that it is going to take an at least equivalent scale of action (maybe substantially more) to reverse their impact; and
- making an appropriate commitment to pursuing this on a continual basis, and adopting realistic expectations both as to the likely scale of impacts and the period over which action would need to be sustained.

The temptation is to believe that "cleverness" – the exercise of reasonable intelligence – can get round this. But where the basic problems are quantitative ones (*e.g.*, shortfalls in labour demand or in relevant human capital) the most that can be hoped for on this count is avoidance of waste of resources.

Although problematic outcomes are concentrated around specific-labour sub-markets the basic causes will often not lie there

This also follows from the expectation, and evidence, that in spatial labour markets adjustment processes are strong, but this time in a more local context (within metropolitan regions), where there is an even stronger presumption that internal disparities in supply-demand pressure ought to be eliminated. In the spatial case, where strong concentrations of under-employment are found in particular sets of localities within a metropolitan region, the most general explanation is that this pattern reflects social/structural unevenness, rather than geographical ones, with under-employment simply concentrated where the least advantaged/competitive groups live. These might in principle be exacerbated by local spatial externalities in the labour market, if (for example) residents in areas of concentrated unemployment were further disadvantaged by a weakened local access to informal channels of information about job opportunities. In practice, however, available evidence about such effects suggests that they are weak relative to the direct effects of individual characteristics as in conditioning labour market competitiveness. The implication is that the effective causes of strong spatial concentrations of under-employment lie not in the areas concerned, but in a combination of: disparities across groups in marketable human capital; discriminatory practices in the wider labour market; and shortfalls in the pressure of demand for labour at the aggregate level across the metropolitan region. Beyond this, the bumping down

processes mean that inter-group disparities in competitiveness may also reflect wider forces; in the context of deficient demand they serve to translate rigidities in mainstream labour markets into unemployment for groups at the bottom/margins of the market. In such cases it is unlikely to be effective to concentrate remedial action around these sub-markets, for example by increasing the efficiency with which they work.

Targeting job growth or supply-side initiatives heavily on particular sub-markets is not generally a solution to the "effort" problem

Targeting has been a very strong theme within labour market policy initiatives in recent decades both in cities and outside, for a combination of good and less good reasons. Among these has been the danger of substantial deadweight when public funds end up subsidising activities or placements which would have occurred in any case, or where they produce inflationary outcomes by enhancing demand in markets already experiencing capacity constraints. A rather general consideration has been evidence that untargeted initiatives on any sizable scale have proved relatively expensive (in terms *e.g.*, of cost per job) because effects are spread across markets in most of which there is no problem. An underlying belief is that, if there are problems of structural unemployment, it must be because there are groups and sub-markets that are effectively disconnected from the mainstream. In that case it should be possible to achieve proportionately greater effects (within affordable budgets) from initiatives by concentrating efforts and expenditure there. In the case of spatial targeting of demand-side initiatives, the counter to this is the evidence that the sub-markets of targeted areas are by no means disconnected, but rather leaky buckets, from which a very large part of the benefits get dispersed as most worthwhile jobs end up with stronger contenders from outside the area. In the case of targeting supply-side initiatives on particular groups in weak labour market positions, the problem is rather the reverse: there are too few knock-off effects beyond the immediate low-end sub-market, with the major overall effect being to produce intensified competition for opportunities within that sub-market.

Relevant policy approaches

While all these principles tend to suggest (rather negatively) that there are no easy options in dealing with under-employment issues in urban labour markets, the same lines of analysis do suggest that there are particular policy approaches which should be especially worthwhile (if not easy).

Equal opportunities policies. Analyses of the incidence of unemployment within metropolitan regions, both across individuals and across areas, show strong associations with many different individual characteristics, ranging between those which seem to be obviously related to productivity and those

which seem not to be. At one extreme would be educational qualifications and (maybe) the skill characteristics of a past job. At the other would be ethnicity which, when all such characteristics have been controlled for, seems likely to reflect the kind of prejudicial discrimination for which more direct evidence can still be found in experimental studies. Between these extremes lie a series of attributes, including factors such as (in the British case) marital status, gender, age, housing tenure etc., where the connections with productivity are unclear, and where there is also a strong potential for prejudice to play a substantial part in the "job competition" process. As Duster (1995) has argued, the significance of such factors seems to have been substantially increased with deindustrialisation, since in many service activities a worker's social identity seems to matter much more than it did in manufacturing. These factors are strongly associated with spatial concentration of underemployment, as well as with more fundamental "cohesion" questions about fairness of allocation of opportunities. And, as was noted in the last section, there are important issues about the effective integration of new immigrant flows, which also underline the importance of a vigorous application of equal opportunities policies in metropolitan labour markets. The issues may, however, generally be as much of class and age as the traditional dimensions of ethnicity and gender, and certainly involve questions about the allocation of training and promotion opportunities as well as hiring and firing.

Sustaining a strong pressure of demand across metropolitan regions. There are two important points here. The first is simply that with effective integration of the sub-markets of more local areas, the scale at which the aggregate balance of supply and demand actually makes a real difference (even for those at the bottom end of the labour market) is no smaller than that of the metropolitan region – and probably broader in some cases. The second point is that strong demand does not just directly involve a better use of available labour resources with less underemployment, but is also a condition for labour markets to operate effectively. Slack demand is the context which produces bumping down and the *progressive* concentration of underemployment (and thence effective exclusion from the labour market) among the weakest groups so long as it persists – a hysteresis. It also serves to discourage the mobility between employers which is the basis for metropolitan regions particular flexibility, and a major motivator for on the job human capital development.

Minimising risks of large scale redundancy. There is evidence of a substantial asymmetry in adjustment processes particularly in spatial labour markets. Specifically, it appears that the effects of employment growth are most effectively dispersed, with availability of identifiable job opportunities and vacancy chains stimulating migration and commuting. Forced job losses, on the other hand, appear to produce the weakest adjustment responses, particularly when large and in the context of already depressed labour

markets. The implication is that, other things being equal, job preservation can make a proportionately greater contribution to mitigating underemployment at a metropolitan scale than can stimulation of employment growth. All is not equal, of course, and there is a bad track record in several countries of efforts to save collapsing firms, in which good money ends up getting thrown after bad. Crisis responses typically make for bad policy. But outside the context of such extreme cases and situations, the principle is a good one, namely that reasonable actions to reduce the risks of possible future large scale job losses, particularly where these might be caused by governmental failure, are more likely to be worthwhile than efforts to boost employment levels.

Promoting upward mobility at all levels in the workforce. The point of departure here is the evidence that in the wake of periods of deficient demand, the effects of bumping down may not rapidly get reversed, so that there is both a pervasive tendency toward qualitative underemployment within the workforce and an overcrowding of entry-level sub-markets which slows re-absorption of the quantitatively underemployed. In order to both raise productivity and employment rates, it is therefore appropriate to encourage movement "on up the car" (as in a metro train with congestion around the doorways), rather than concentrating human capital development initiatives heavily on those currently out of work (to give them access to the "doorway"). In the highest segments of the labour market where vacancies are habitually filled from much wider labour markets, the case may be weaker, but in principle actions to encourage upward mobility right through the occupational hierarchy are to be encouraged from this perspective.

Securing adequate levels of educational achievement among the mass of the local population in relation to the requirements of worthwhile jobs in the local economy. The relevance of formal educational qualifications to effective performance in a large proportion of mainstream jobs may be questioned. And, in the United Kingdom at least, employers, who increasingly seem to emphasise their need for "soft skills", are unclear about their importance for non-graduate kinds of job. But they are one of the few objective kinds of information readily available to recruiters, especially for younger people and those who have not already occupied particularly responsible positions. And lacking at least some minimal level of achievement clearly increases individuals' chances of being out of work by a substantial margin. In cohesion terms at least this is clearly an important priority among urban policies with labour market relevance, while below the level where jobs are filled from national labour markets, the stock of reasonably qualified locals is liable to be a significant competitiveness factor.

Attending to specific instances of demonstrable and intelligible market failure. This seems rather a catch-all category for a list of "particularly worthwhile"

approaches. But there is, firstly, a general point to recognise about the difficulty of judging in the context of real, diverse and interconnected urban labour markets where intervention would actually be worthwhile and appropriate – so the market failure test is a caution. However, secondly, there are situations in which a *prima facie* case of this kind can plausibly be identified, and potentially checked with local information. One such example involves the issue of who (if anyone) takes responsibility for the training and socialisation of high turnover positions in activities with relatively weak quality competition, as may (for example) be the case in independent tourist hotels in centres where there is little dependence at that level on repeat business. In such instances there are both competitiveness and cohesion cases to be made for some form of intervention to identify and counter these specific market failures. This might take the form of inspection and grading as much as a training initiative.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
© OECD 2006

Can Distressed Urban Areas Become Growth Poles?

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The subject of deprived areas has aroused new interest during the last decade with the accentuation of the phenomena of social and spatial fragmentation in cities and metropoles. These systems of urban polarisation, with the expansion of "living together" in communities and ghettos, including the ghettos of the wealthy and "gated communities", together with the phenomenon of urban sprawl, have shown clearly that we are in a new period of metropolitan organisation. The transformation of these metropoles is far from over and has not yet enabled the concepts required to describe it accurately and robustly to be created. Thus the contradictions hitherto used between, for instance, the centre and the periphery, the city and the countryside, the urban and the rural, the internal and the external, have become less and less clear-cut. Well-established paradigms are being outflanked on all sides, while new ones are finding it difficult to make their intellectual ends meet.

We shall here describe the forms taken by the stigmatisation and instrumentalisation of deprived areas and their inhabitants within metropoles, with a view to reconstructing this category of urban thought, highlighting their diversity and the potential that lies dormant within them. Most of the results and data have been taken from research carried out in Europe and in North America, for the former making use of a research programme that took place from 2000 to 2003 under the name of UGIS (urban development programmes, urban governance, social inclusion and sustainability – Vranken *et al.*, 2003) and in another, currently under way, which brings together 160 European cities and towns under the name of URBACT.

It is difficult to apply the expression "deprived area" to the zones of a given city. What sort of deprivation are we talking about: blighted urban fabric (quality of materials used, upkeep); problems stemming from the geographical location of a neighbourhood within a city (state of public transport and

existence of access, pollution, problems with industrial plants, and so on); difficulties arising from the people living in a neighbourhood (poor people, ethnic concentrations, etc.); economic, institutional, or political difficulties? Whether these problems appear in isolation or together, they are often linked to the relative position of these areas within the urban hierarchy, which converts them into areas containing everything that other parts of the city do not want. These areas can be perceived as a product of the workings of the metropolis, indeed of a whole urban region, urban sprawl conferring a specific role within the urban and social fabric: refuge, lodging, safe haven, containment zone, and so on.

The positive features of these areas are rarely alluded to, though they often have a great deal of potential if only because low land and property values coupled with the low resistance of their inhabitants means they are sources of hitherto unrealised capital gains. These areas thus constitute opportunities for redeveloping major cities. Most of the world's urban renewal processes have taken place within them: the urban renewal of the 1950s and 1960s, restoration of working class neighbourhoods and suburbs in the 1980s and 1990s. Such programmes did not benefit local residents as a rule. They went hand in hand with spectacular prestige operations such as restructuring harbours and docks (marinas, seafronts, riversides, etc.), barracks, and industrial wastelands (abandoned workshops and depot).

The fact that negative features of these areas are stressed rather than these ones is understandable both from the strategic standpoint (dealing with these areas' problems) and the tactical one (keeping quiet about the money to be made from such operations). Such an interpretation is encouraged by most formulations of national policy, which stipulate that the recognition of negative features is a condition for the release of funds. In doing this, problems and difficulties are often merely moved from one part of the city to another. Clearly very few diagnoses are produced in common with local residents; these programmes depend on political strategies that play with transparency rather than seeking to enhance it. The policies, programmes and projects of urban renewal are really closer to the military arts of conquest and occupation. Secrecy can be and often is called for. The dialectics of words and problems lies at the very heart of the formulation and implementation of urban policies.

Contrary to homogenising categories, "stigmatised" urban areas are highly diverse. Some of them are very old city centre neighbourhoods, some are working class areas dating back to the 19th century, some are factory or working class, purpose-built housing, some are mega tower blocks built in the post-war years, some are low rise, more recently developed areas, and some, as in the Third World, are shanty towns or temporarily occupied areas. In Europe, for example, of the 114 areas chosen for the 1994-1999 "Urban" CIP, a

European programme for problem areas, 55 were very old neighbourhoods, often located in historic city centres (particularly in Spain and Italy), 12 were *grands ensembles* or similar (six of them in France), and the rest were in areas of mixed, residential-industrial, land use: suburbs (late 19th century working class neighbourhoods), purpose-built worker housing from the early 20th century, low-rise residential areas or almost shanty town areas (*e.g.*, in Greece and Portugal).

In order to make sense of this diversity we can look at, on the one hand, how they are located with respect to the rest of the city and greater urban area and, on the other hand, how they are located with respect to the rest of the world. For this it is useful to use the tem "connected or unconnected zones"; this is even more appropriate when one remembers that such problem areas are thought of as being in enclaves, *i.e.*, inaccessible and cut off from the rest of the city by physical and, even more importantly, symbolic barriers (the image of the ghetto). The different zones of a metropolitan are not the same in term of their links to the flow of resources – whether these be financial and monetary, goods and services, ideas and information, or people. In fact areas that are disconnected in terms of traditional economic flows (money, merchandise) are not cut off from the flows of ideas, information and people. This is the case with respect to those zones accommodating immigrants who are very well connected to far-away regions of the planet; moreover they can benefit from flows of "informal" and indeed illegal economic resources: the "poachers" economy. On the other hand paradoxically, those inhabiting such areas often have difficulty in linking up with rest of the local urban area: they may lack transport, be cut off in their own social-ethnic group, or be reticent in the face of job discrimination.

Some parts of the city have better access to metropolitan resource flows and those coming in from the outside world economy than others. Connected to the globalised economy and frequently to resources emanating from central authorities, these are hubs for wealth generation (they are simultaneously attractors, traps, accumulators and reallocators). It is from them that resources are supposed to trickle down and out to problem areas (salary payments to local residents, sub-contracting, business and personal services).

Urban and metropolitan landscapes are dotted with areas that were once flourishing and located at the cross roads of multiple resource flows, but which have seen these flows dry up and shift their courses to other areas. Some areas turn into urban or industrial wastelands and sometimes the city or indeed the whole metropolis sinks into a spiral of decline. This is what happened to many towns whose prosperity was rooted in the sea and which were hit by transport revolutions: ports on the West coast of the United Kingdom, for instance, (Liverpool, Glasgow), or, in France (Marseilles and the changes in commerce with former French colonies), mining and

steelworks (the Ruhr in Germany, Northern France (Lens, Valenciennes), southern Belgium (Charleroi), Lorraine in France, Wales, the rust belt and the frost belt in the United States (Pittsburgh, Detroit), textile industry cities, etc.

Non-industrial towns which thrived for years on their past glories literally collapsed when exposed to the chilly winds of open, globalised markets. The same thing has happened to more recent mono-industrial towns such as those built around chemical works, cars, and domestic appliances. They have spawned cultures that it is difficult to change and to recycle for re-use in other economic strategies. Other cities, on the other hand, have long since diversified their economic export base and only some of their components have experienced difficulties. Lastly, other metropoles have adopted change as a basic principle and have periodically renewed their economic bases.

Using recent research carried out within the framework of the URBACT European exchange and capitalisation programme (2004-2007) (*www.urbact.org*), we have been able to start on a classification of the profiles of cities and their neighbourhoods. Some have rooted themselves in a sustainable economic base and feature a long building tradition from the late 18th to the middle of the 19th century: old industrial towns such as St. Etienne, Glasgow and Turin. Others have undergone profound transformations, indeed mutations, over time while maintaining an architectural heritage that has been recognised fairly recently, *e.g.*, Lyon. Still others can be considered to be young cities (Barcelona). Others again are in a permanent state of change and their tradition appears not to have any tradition other than that of constantly changing to cope with new challenges (*e.g.*, Grenoble).

Integrated programmes of sustainable urban development

An optimal articulation between area, project and atmosphere helps to make up what is known as controlled development and growth. This is probably the opportunity for a deprived area to become a growth pole, or rather a development pole. François Perroux opposed his concept of development to that of growth. While :

> "*la croissance est l'augmentation soutenue pendant une ou plusieurs périodes longues d'un indicateur de dimension : pour une nation, le produit global net en termes réels (…) le développement est la combinaison des changements mentaux et sociaux d'une population qui la rend apte à faire croître, cumulativement et durablement, son produit réel global*" (Perroux, 1990, pp. 115 and 339).

Today's post-industrial societies must face up to the challenges rooted in the three spheres identified by the Brundtland report (Global Commission on the Environment, 1987):

- *The economic sphere*: In the context of globalisation and generalised open competition, economies have to occupy very high-value-added sectors incorporating very highly qualified labour and they must get rid of less competitive sectors, which use less well-qualified human resources. So what happens to these sectors and their workers? What can their social role be now and what room is there for the poorest people in open extroverted economies (where the export base takes precedence over the domestic base)?
- *The system of social reproduction:* The response of institutions to the economic challenge mentioned above has reached a limit. In a way, these limits of welfare are made much more serious by the wearing away and the destructuring of traditional solidarity systems. Public and private systems of distribution and redistribution are now stretched to the utmost and are incapable of ensuring social reproduction on a broad base. Given the average levels of consumption attained in the western world, a single salary is no longer enough to guarantee the reproduction of a worker and his or her family. Thus we see a general decline in the capillarity of socio-economic systems. This accounts for the difficulties of disseminating a recovery within society (not much trickle down and low leverage effects).
- *The spatial issues within the environmental sphere*: While it is true that the gap between different geographical areas is being reduced, social fragmentation seems to be expanding within urban areas and in addition is linked to a major environmental issue: the exhaustion of non-renewable resources, pollution and the degradation of urban ecosystems, augmentation of the ecological footprint with ever-growing exploitation of renewable natural resources, and increased natural and social risks.

While the Bruntland report recommends a link between these separate spheres by dovetailing them one into the other, it does not pay enough attention to the fact that this cannot take place spontaneously by simply relying on market forces, and that the political sphere must intervene. In fact, the main challenge for so-called developed societies lies in their ability to rearrange these three spheres of activity and to endow politics with the place it deserves (*cf.* the World Bank's 2005 report). The hoped-for development can only be achieved by building up co-operation of a conflictual type (a formulation inspired from the cooperative struggles evoked by Perroux in 1964) between those active in these spheres, and by jointly regulating three interlinked systems of contradictions.

Contradictions between economics and the social sphere arise because economies must participate actively in global competition, which generate wealth but also social exclusion, while at the same time maintaining social cohesion in their area and thus running the risk of handicapping, through taxation, the performance of their economic sector. Those between the economy and the environment occur because economies in competition generate spatial fragmentation, waste and pollution. Public policies designed to ensure spatial cohesion must be implemented, despite the risk of exacerbating competition for land. These are again financed by taxes that can reduce economic dynamism. Finally there are contradictions between society and the environment. Public policies for social and spatial cohesion are far from being systematically compatible with one another. The social equilibrium of some areas can only be achieved by refusing to satisfy certain social demands. Neither the market nor legal conventions are capable of regulating this triple linkup of contradictions. To co-ordinate it and make it coherent necessarily calls for public action at the local, national and European levels. Usually, this should be carried out in a combined way respecting the principle of subsidiarity on the basis of local political initiatives whose integrated programmes of sustainable urban development offer some sort of perspective.

These programmes come in a variety of formulations because of the different paths followed by public policy in each country. Over the last two decades we have thus seen, especially in Europe, a blossoming of these new approaches, side by side with traditional initiatives, whether in the fight against poverty and exclusion or in regional planning and the environment. In fact none of these programmes have achieved the status of integrated sustainable urban development, neither in their formulation nor in their implementation. Each, however, has contributed in its own way to this generic idea.

Although some of these programmes are still prisoners of the sector-orientated approach, those seeking to physically transform areas often feature projects concerning social and institutional dimensions. Sometimes, as in France with the Urban Renewal Programme, we see a return to radical demolition measures. (Ironically, this programme, which was started in 2002, bears the same name as that begun in 1958 to get rid of slums in city centres and to modify cities.) All these programmes, nevertheless, emphasise the concept of extended development as being necessary to move beyond approaches that are too sectorised, and to focus on people and place that ignore the institutional dimension and the necessary politico-administrative reforms to be implemented. Despite formulations that are occasionally "stigmatising", many programmes seek to underline the resources of these deprived areas, and the opportunities that they afford for development

strategies. They place the accent on people, social groups in all their diversity and their ability to participate in projects and programmes, indeed to drive them forward. Often these programmes feature training for residents and empowerment strategies.

However, there is a big gap between a sympathetic feeling for residents to full recognition of their role as motors for development. It is difficult for the authorities, promoters and those in charge of projects and programmes not to seek to use their power, to project on the urban areas their vision of what a good neighbourhood and a good city are in accordance with prevailing standards, technical criteria and financial principles. Their social background, their culture, their training, the institutional constraints to which they are subjected, all put these people in a position where they merely reproduce what has already been tried and tested. Such an attitude is fairly common in programmes managed by centralised bodies (be they public or private), which work in a top-down way. The aims of these programmes are often made explicit and they leave much room for the implicit: the physical transformations that must go hand in hand with these programmes must be correlated with changes in the social patterns in these areas and in the systems of regulation bequeathed by the past that are not always made clear in these programmes. And this is hardly surprising; ambiguity is often desirable and, above all, sought after in politics.

To escape these top-down approaches and the ambiguities of their formulations we need structured communities and favourable *rapports de forces*. The programmes that do this best and which in a way innovate because they make full allowance for the components of urban areas (places, people, and institutions), are those that avoid to some degree the system of centralised, stereotyped procedures. There have been some remarkable urban renewal projects born of local dynamics that no central authority has sought to imitate. It is often when there is no stereotyped centralised policy or rather when these central policies have stressed not the strict respect of procedures (control and monitoring objectives), bur merely the creation of synergies among potential partners (incentive and mobilising programmes and projects, provision of financial, technical and human resources) that new approaches, new paradigms, new concepts and new conceptualisations have seen the light. Often particular fields (education, health, security, etc.), whose main feature is to stimulate naturally co-operation and co-production between those in the field as well as professional staff, association and community leaders, turn out to be facilitators and vectors for such synergies.

The regulation of the system of contradictions discussed above means mobilising the appropriate politico-institutional bodies. Henceforth we have to think locally and act globally because we have to "make the best of" that which already exists and thus co-generate new arrangements (Certeau, 1980).

It is no longer possible to consider only the role of central government and ignore the intermediate levels of regions, cities and local organisations and authorities, as well as of those who live in the city on a daily basis. In fact, faced with these multiple contradictions and the need to take them on board, central government had tended to pass the buck to cities and urban regions when it comes to regulating the three cornerstones of sustainable development. For example, the European Commission had already clearly identified the role of cities in 1997 and the Vienna Forum report also highlighted this in 1998 (European Commission, 1997, 1999b). These documents, in addition to the fact that they followed the three fundamentals of the Brundtland report, stressed a fourth element, one that had been ignored for years, namely urban governance.

Therefore it is within this city that the various required forms of co-operation between socio-economic partners and institutions can be imagined and actually put into practice. In some cases such co-operation will be longstanding and in others it will be more recent: spatial co-operation between private- and public-sector participants began early in the 20th century (water supply, electricity, sanitation, public local transport, and so on). There has been vertical co-operation between levels of institutions (contract-based approaches from the 1970s onwards), horizontal or cross-department co-operation between different skill types and services (in the 1990s). Such co-operation is necessary – often conflictual – and lies at the frontiers of traditional action zones. It is difficult to initiate, but constitutes factors and vectors that are essential in terms of innovation within contemporary societies and economies.

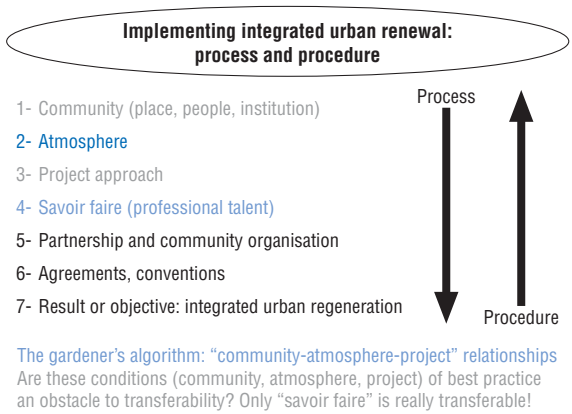
Integrated policies of sustainable urban development have become necessary because of the move from extensive urbanisation, which all industrial countries went through from the middle of the 20th century, to the *rearranging* of previously urbanised areas: a move from "making the city" to "making the best of the city". Research carried out on development policy has enabled some basic guidelines for shared action to be identified. They make up a sort of "algorithm" of sustainable urban development and best practice of urban regeneration. The heart of this algorithm consists of the interplay between place and project, the place suggesting potentially new arrangements for the resources that are present while the project seeks a possible place for its implementation. This dialectic constitutes new fora for debate and generates new combinations among participants. For this a certain "atmosphere", or climate is required. Best practice is to be found in the relationship that is always a little special between the three basic components: place-project-atmosphere.

The quality of the link between the three always flows from the savoir-faire and the talent of the professional staff involved (whence the importance

of human resources recruitment and training), and also from the leadership to be found in these places. In this place-project-atmosphere dialectic, cooperation among agents can then be built up. Such co-operation can be conflictual on occasion, but helps to cement the partnership that is usually sought. This partnership-based co-production can then give rise to contracts or agreements, thereby stimulating the relationships among participants. A contractual agreement can lead to greater integration of the resources of the partners and, eventually, to a remake of all or part of the organisations and of their fields of expertise to enable the elaboration of fresh projects. The "algorithmic spiral" can then reach closure at a higher level, by strengthening the principles of action integration and self-perpetuating movement of development (integration of sector-based policies, sustainable development).

Generally, in top-down (procedure-oriented) approaches, "partnership" and "contracts" are thought to be prerequisites for action. In fact this is not so. The true process of sustainable urban development or integrated urban renewal is built up by iteration – the inverse of a linear procedure: progressing through 1, 2, 3, 4, 5, 6, 7 in terms of Figure B.8. This is the inverse of a linear procedure that would follow the sequence 7, 6, 5, 4, 3, 2, 1.

Figure B.8. **Implementing integrated urban renewal programmes and projects**



The theme of economic development within deprived areas has periodically led to consideration of the relevance of such approaches to areas of such small size. In a way these approaches run across the principles set by industry, particularly the principle of a certain osmosis between local communities and business activities. We should therefore consider how these areas can connect up with resource flows by attracting, trapping, and reallocating wealth. They are not void of activity, and certainly they are more

active than many residential neighbourhoods. Many areas feature substantial economic heritage (former industrial activities or craftwork), which, in certain cases, have been, adapted to current economic conditions. These traditions of savoir-faire have on occasion been re-used to support training or integration for problem youth. Moreover, these areas are often remarkably well located with respect to transport networks and can feature rent and housing opportunities that are not found elsewhere.

Furthermore, many of these areas benefit from a commercial backbone capable of providing local services. Such trade and services have adapted to the new requirements of residents, both in terms of product features (rise of ethnic business) and its flexibility (product diversity, flexible opening hours). Thus we see new retail, service and craftwork activities appearing serving these captive markets (food and catering, home and personal appliances, specialisation as a function of consumer origin, information processing services). In many countries such activities are tax-free in certain zones.

These areas also feature the development of domestic and neighbourhood activities (solidarity economy, community economy). These activities, which are rooted in free labour exchange, bartering, mutual help, informal economy and indeed financial help (by personal loans and *tontine* systems) are the very stuff of subsistence or survival economies. They are often essential for people who have few monetary resources. Such activities must not be sneered at as being anachronistic or archaic because they are not monetarised. The difficulty encountered in quantifying them because they slip through the official statistical net often leads people to believe they are of but little importance. Nevertheless, they contribute to the economy, in the broadest sense of the word, of these neighbourhoods and often constitute a cushion for economic shocks.

Lastly, it is not possible in this inventory to ignore the development of the illegal underground economy, small time fencing and drug dealing, etc. Even more than the preceding activities, this economy is invisible in statistical terms. It can constitute a non-negligible source of income for the inhabitants of these areas. It is by no means certain that this economy really benefits deprived areas, but its activities form a part of the local economy to which we must not turn a blind eye.

Deprived areas are not completely disconnected from monetary flows. Most of their inhabitants have a paid job to which they add income from the other activities considered above. To this can be added transfer payments of all sorts, which enable these people to participate in market exchanges. No one so far has dared try and quantify the monies involved and the roles played by the inhabitants of these areas therein – especially women. In general, there is no spatial accounting. These monetary resources are then used in diverse ways. Usually they are sucked out of the areas by shops and services, financial

establishments (banks, savings, transfer of funds to home country), or taxation. Most of these resources do not come back to benefit these areas, including the taxes that they pay. In a way "the balance of payments" is biased against these areas. Often, given the position of their inhabitants in the socio-economic constellation of cities, these areas suffer from discrimination (little public and private investment, small operating budgets allocated to them, discrimination of financial establishments when it comes to granting loans). Such practices, which local residents are aware of, contribute greatly to their lack of interest for managing local affairs and their general lack of responsibilities.

Conclusions: paradigm changes

The movement from "making the city" to "making the best of the city" is part and parcel of and contributes to a mutation in ideas and concepts that, hitherto, seemed to be firmly established. Top-down approaches (power of a central authority over an area demarcated by a border) that were characteristic of traditional policies and state workings now have to be organised as a contractual bottom-up co-operation between public- and private-sector participants working in networks within more homogeneous areas: less polarised, sometimes more fragmented, and with fuzzy boundaries.

The "making the best of the city" and "project-area-atmosphere" dialectic that characterises these new urban policies by stressing processes, allocates first and foremost greater importance to the social side and urban "software" with respect to what lay at the heart of "making the city", namely, its solid, physical dimension or hardware. Actual people and active participants have thus taken on greater importance. With the expansion of services, interpersonal relationships are becoming ever-more important and are moving towards supplier-client co-production systems. The cooperation issue (another dimension of the economy) seems to be coming back into vogue, notably with the development of the social and solidarity economy, but also with the development of various forms of partnership (public-private-sector partnership institutions, businesses, etc.). But we must not think that these forms of cooperation exclude conflicts.

The question of time is also brought to the foreground, whereas formerly it was space that dominated ponderings concerning cities. Over the last few years, we have been hearing about city time, duration, and city rhythms. In contrast with the suddenness and speed of "making the city" (building thousands of new dwellings on "virgin" agricultural land in just a few months), "making the best of the city" takes time, precautions, and sometimes slowness. It requires coming to terms with pre-existing area components. And

this requires constant negotiation with institutions and their inertia, with the behaviour and routines of their employees at the very time when the emergence of new IT and communication technologies are making decision deadlines shorter.

Also affected are the categories of border, centre and periphery, which we may consider to go to make up the city in traditional terms and which contribute to defining politics. In its stigmatised form, the periphery, the term often used to refer to deprived areas, must not be limited to its topological dimension (an area kept at bay). As observations of European and world-wide urban reality have shown, such areas can be found right in the city centre. Just as it is possible to define peripheral centrality, it is possible to speak of a central periphery.

Such observations lead us therefore to reorient our work. City fragmentation is far from being homogeneous, and deprived areas are not necessarily to be found on the outskirts of town. If we want to use a quality comparative approach, we have to show how cities have had and still have various ways of secreting zones of residential choice and zones of house arrest in both space and time. This spatial hierarchy can be distributed over a continuum of places that are valued differently (the European city model) or, on the contrary, find themselves cheek and jowl with very different places just across a demarcation line (the American city model).

This change in the meaning of "periphery" also leads to a fresh approach to the concept of border. Borders are no longer materialised by fortifications, by the pale around the city or by the limits of a military buffer zone between them and other powers or menacing people out in the wilds with "neither hearth, nor home". Nowadays this concept corresponds less to an external limit (the topological meaning of periphery) than to a range of fractures, discontinuities or "hinges" disseminated over urban territories. The entrance to a territory occurs less and less while crossing its periphery (access by seaports and custom posts on traditional borders). Rather, it takes place increasingly via its core, through cities, generally by railway stations and airports. Thus the border is now actually within the core of metropolitan areas. It is these latter-day harbours that provide direct access to urbanised areas. It is often in the airports, in these new urban harbours, that "off-shore" territories are now decreed and it is here that those awaiting ingress to national territory are parked. Borders are also to be found within the core of fragmented cities: physical borders between urban areas and social groups. The "gated community" or "rich ghetto" models are not a US-specific phenomenon. They can also be observed in Third World countries, and also in Europe, in its American guise, but also, in a more subtle way, through the balkanisation of metropolitan areas arising from the refusal of the richest neighbourhoods to show financial solidarity with the others.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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Cohesion and Competitiveness: Business Leadership for Regional Growth and Social Equity

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Traditional economic theory and business practice have tended to pose a contradiction or trade-off between efficiency and equity: what is good for one may be bad for another. Yet recent years have seen the emergence of a group of business and other actors, particularly at the regional scale, that have begun to highlight the important of paying attention to fairness, inclusion, and sustainability in their economic strategies and planning. Why this new attention to equity, and why is it emerging at the regional scale?

In fact, the two issues seem to be deeply related. On the one hand, globalisation has yielded what seems to some to be a surprising result: even as it has levelled the playing field such that national boundaries matter less and less, it has raised the importance of regional economies, with their attendant industrial clusters, as key units in the world economy. As a result, economic geography, far from being erased under the pressures of global competition, has instead reconfigured at the level of significant metropolitan regions. National policies and national leaders continue to matter but mayors, regional business groups, and municipal and metropolitan practices are often setting the stage for business investment decisions through their actions to improve basic infrastructure, local educational assets, and residential quality of life. Sustainability, often conceived of at a regional level, has become not just the plea of concerned environmentalists but also a business mandate and a key factor in decisions regarding the location of design, production, and management facilities.

Increasingly, this emphasis on regional or metropolitan sustainability has led to a reconsideration of the place of social equity, inclusion, and cohesion. Traditional thinking would have us believe that consideration of equity or fairness might tend to lead us away from the imperatives of economic growth: higher wage requirements, first source hiring strategies (common to ensure that less advantaged residents get a crack at employment), and affordable

housing mandates are all thought to impose efficiency costs. Likewise, inclusion can be seen as problematic: while democracy in theory welcomes all voices in the decision-making process, the cacophony that results, it is sometimes argued, can sometimes muddle decisions and render government less able to act as rapidly or clearly as business partners need. Finally, cohesion and collaboration are not evident goals to be pursued: after all, the traditional model is exactly about how autonomous actors can, with only limited coordination via market forces, lead to Pareto-optimal outcomes.

Yet the region is a level at which the costs of inequity, exclusion, and fragmentation are often most clearly manifested. This is partly because of scale itself: when one is up close to pockets of poverty, this can quickly change one's preferences about the degree of policy attention to be paid to alleviating hardships. But it is also because of another element of regional economic thinking: researchers are increasingly finding that regions marked by higher levels of inequality, in fact, find their economic performance damaged. The reasons are complex and still under-specified, but may have to do with the resulting under-investment in basic education, the impact of social tensions on economic decision-making, and the erosion of the social capital that can tie a region together. Whatever the cause, the simple fact is that equity and efficiency can be mutually consistent.

Some business leaders have recognised that set of facts and exercised leadership in this new social arena. At least in the US cases that we highlight here, such leaders have formed regional business groups that work with community as well as government partners. They have encouraged (and undertaken) investment in disadvantaged urban communities most in need, noting both the market opportunities and the social benefits. They have focused attention on challenged educational systems, with particular emphasis on improving opportunities for those currently left behind. They have fought to encourage housing that will accommodate all residents, struggling with others to overcome the local resistance that leads to spatial segregation by race and class. They have collaborated on the creation of workforce development systems that can both feed their industries and provide avenues of advancement for those with lesser skills.

Yet the terrain of regional equity is also fraught with tensions and tightropes. Business leaders are reluctant to endorse the sort of state interventions espoused by many who usually hold up the equity banner. The pressures of globalisation make short-term cost-cutting by municipalities seem immediately superior to long-term community partnerships that may have high entry costs in terms of the investment of time as well as money. And because the field is new, the examples seem few and the shift in underlying economic theory and strategy seems large.

The data and examples used below are drawn from US experience. This is not necessarily because the United States has always been the best in terms of blending inclusion and competitiveness – indeed, one of the compelling reasons to examine headway made here is precisely that this is very challenging ground for equity proponents given what seems to be a US tendency to tolerate more unequal outcomes. However, it is a particular region of the world I know well, partly because of my geographic location and past studies but also because of my own role as a participant in making the case and working with business and community groups involved in the emerging regionalist movement. Despite the US focus, I try to draw general lessons and relevant comparisons along the way.

Regional competitiveness and social cohesion

If the private sector is to be engaged in linking city competitiveness with social cohesion or fairness, it must first be convinced that the argument is sound. Note that this is a difficult and very particular task. It is one thing to suggest that business ought to elevate considerations of fairness in its investment decisions. This represents the usual trade-off in which economic agents are asked to include enough of a preference for equity, even at the cost of aggregate output, to achieve some social desirable outcome. But the standard of linking competitiveness and cohesion is higher: it relies on an argument that economies are operating on the inside of their production possibilities frontier (that is, below maximum output) precisely because of the distribution of benefits.

Of course, the economic development literature now includes an ample number of studies seeming to demonstrate just that. In particular, some economists have stressed that countries starting from more equitable distributions, such as South Korea and Taiwan (Rodrik, 1994), have tended to experience more sustained and long-run growth, while those deeply entrenched in inequality, such as Brazil and Mexico, have experienced more volatile and ultimately more mediocre performance. The initial focus on case studies has given way to a cottage industry of research efforts, including multi-country panel regressions rooted in endogenous growth theory, that suggest potential positive mechanisms of transmission from equity to growth. These causal mechanisms include a tendency for more equitable societies to invest more in education and other general public goods, as well as both to arrive more consensually at tough decisions about economic restructuring and, in fact, to be more protective of property rights, primarily because the potential of gains from innovation are seen as more likely to be evenly spread (Thorbecke and Charmilind, 2002; Alesina and Drazen, 1991; Birdsall and Londoño, 1997).

A parallel set of theories and studies has emerged considering the regional or metropolitan level, at least for the United States. Here, the argument takes two essential steps: the first is the insistence that the US economy has regionalised, and the second is that at the regional level higher levels of poverty and inequality can be anathema to economic prosperity for the median household.

The regionalisation of the economy is well-documented and is a fundamental building bloc in the philosophy underlying any global initiative on sustainable cities: why bring together mayors and municipal actors if it was not thought that this was a fundamental level of agenda-setting and decision-making in terms of economic competitiveness and the quality of life? Economic analysts have attributed the rise of regions to the changing nature of economic relationships in an information age and, in particular, to the importance of business clusters and networks at a metropolitan level (Sabel, 1988; Storper, 1997; Saxenian, 1997). For the United States, various studies have demonstrated that the national economy has become less of a unified whole and that regional economic performance is now more heterogeneous within the United States than it was in earlier decades; as a result, the US economy might now be better thought of as a "common market" of regional economies (Barnes and Ledebur, 1998).

How does this "new regionalism" impact the relationship between equity and efficiency? Basically, the notion is that the emerging regional scale may help either to ameliorate or sometimes transform the usually negative relationship assumed between fairness in outcomes and incentives for production. Regional economic clusters, after all, tend to be based on sets of relationships between firms and firms, as well as between firms, businesses, and communities (Saxenian, 1996). These relationships generally involve repeated interactions that lead to mutual trust: firms know who their suppliers are, know what sort of public policies to expect, and are secure that they will be able to garner public support for their efforts. This sort of setting, it is argued, can lead then to innovation and productivity gains, with a highly educated workforce another key ingredient in the growth equation.

But if a region's success is defined partly by this dense set of relationships or social capital (Putnam, 1993), as well as by the level of human capital, surely inequality, concentrated poverty, and spatial segregation by class and race could be inimical to growth. All these factors work against social cohesion – and conflicts that arise, for example, from sharp inequalities can lead to a lack of consensus on growth policies and then induce misguided government policy that is focused solely on the redistribution side of the economic ledger (primarily because some political actors do not believe that they will benefit from aggregate growth). Inequality can also create, as in the developing world, a failure to invest in education (as wealthier families depart from the public

system and reduce their willingness to finance the basic systems that raise overall labour productivity). Finally, to the extent that deprivation and inequality have an impact on crime, this tends to reduce the overall quality of life, and can thus impact the ability to attract the knowledge workers so essential to regional survival in the new global economy.

Empirical evidence

While the causal mechanisms still remain rather under-specified, the empirical research has gone forward in intriguing ways. In one of the earliest of the regionalist studies in the United States, Savitch *et al.* (1993) focused on 59 metropolitan areas and found that wider city-suburb disparities – one measure of the lack of social cohesion across metropolitan geography – were associated with a higher likelihood of regional stagnation. In explaining the finding, Savitch *et al.* (*ibid.*: 347) argue that that "[t]he blight of the inner city casts a long shadow. Companies will not grow or thrive in, or move to, a declining environment." The authors also found that the links between city and suburban incomes have become closer over time, suggesting that the importance of equity may be rising as economies have regionalised, a point stressed in the analysis above.

In a study originally done for the League of Cities, Barnes and Ledebur (1998) examined 78 metropolitan areas in the United States and found that those regions with the widest gap between central city and suburban income in 1980 had the most sluggish job growth during the following decade. Furthermore, the 25 fastest growing set of metropolitan suburbs (identified by change in median household income) all had central cities that also experienced income growth. The authors also suggest the presence of large multiplier impacts from the revitalisation of the inner city: when the incomes of central city residents increased, the incomes of people living in that city's suburbs increased by an even larger amount.

Paul Gottlieb (2000) provides a useful review of these and other studies under the rubric of examining the impact of poverty on metropolitan area performance. He notes correctly that the Savitch and Ledebur and Barnes efforts have serious methodological problems due to their tendency to focus on simple bivariate correlations or regression models. With other variables that might impact growth left off-stage, one cannot be sure that that it is inequity and not some other uncaptured factor that is limiting regional economic growth. A second problem with these studies has been their tendency to, for example, consider growth rates of two geographic locations over the same period, raising issues of causality: is it higher central city growth causing high suburban income growth, or the other way around? By contrast, Gottlieb praises the efforts of Voith (1998) and Pastor, *et al.* (2000), for

adopting multivariate approaches and attempting to correct for possible issues of simultaneity. Both studies are careful to include other variables and also to control for issues of timing and mutual causation. Voith (1998) continues to find a positive association of suburban growth with city growth; while Pastor *et al.* (2000) find that various measures of inequality (the city-suburb poverty ratio, the geographic concentration of the poor, the change in central city poverty, and more direct measures of income disparity) all have a negative impact on per capita income growth over the 1980s in 74 regions. Gottlieb concludes that there is some reason to believe that equity and efficiency, at least at the metropolitan level, can be mutually reinforcing.

Has this relationship persisted in the 1990s? To get at that, I conducted a simple set of regressions utilising elements of the model in Pastor *et al.* (2000) and data from the 1990 and 2000 Census. The sample is 341 metropolitan regions (or Metropolitan Statistical Areas [MSAs]) in the United States. The dependent variable was real per capita income growth at the MSA level, with the control independent variables and hypothesised signs as follows:

- % working-age residents who are college-educated, 1990 (+).
- Manufacturing concentration in central city, 1990 (–).
- % of metro population in central city, 1990 (+).
- MSA unemployment rate, 1990 (–).
- Median household income, 1990 (ratio to United States) (–).
- South (?), West (?), Northeast (?).

and with the distributional or equity variables of interest being:

- Ratio of city to suburban poverty, 1990 (–).
- Percent of poor residents in high poverty neighbourhoods, 1990 (–).
- Ratio of household income at the sixtieth percentile to household income at the twentieth percentile, 1990 (–).
- Index of dissimilarity (black-white) at metro level, 1990 (–).

The results of these regression exercises can be seen in Table B.2. All variables follow the expected pattern with the three spatial segregation measures (the ratio of city to suburban poverty rates, the concentration of the poor, and the residential dissimilarity of blacks and whites) all having a negative effect that is significant at the .01 level. Our more direct measure of income inequality in the metro region, the ratio of the income of those households at the sixtieth percentile to those at the twentieth percentile of the household income distribution) is significant at the .05 level (and, as might be discerned from the size of the t-statistic, misses the .01 sign level by just a bit). Importantly, note that all these spatial and distribution variables are set prior to the income growth period being considered (along with the other

Table B.2. **Simple model of the determinants of per capita income growth in US metropolitan areas, 1990-2000**

	Coeff.	T-stat	Sig.	Coeff.	T-stat	Sig.	Coeff.	T-stat	Sig.	Coeff.	T-stat	Sig.
% working-age residents who are college-educated, 1990	0.528	*6.184*	***	0.578	*6.582*	***	0.545	*6.198*	***	0.483	*5.674*	***
Manufacturing concentration in central city, 1990	–0.141	*–1.908*	*	–0.210	*–2.771*	***	–0.205	*–2.621*	***	–0.205	*–2.707*	***
% of metro population in central city, 1990	0.185	*2.266*	**	0.201	*2.422*	**	0.195	*2.260*	**	0.176	*2.152*	**
MSA unemployment rate, 1990	–1.057	*–4.426*	***	–0.402	*–1.225*		–0.686	*–2.130*	**	–0.950	*–3.830*	***
Median household income, 1990 (ratio to US)	–0.227	*–8.710*	***	–0.252	*–9.605*	***	–0.252	*–9.362*	***	–0.212	*–7.923*	***
South	–5.307	*–6.121*	***	–5.135	*–5.943*	***	–4.829	*–5.534*	***	–5.787	*–6.449*	***
West	–7.864	*–8.156*	***	–7.987	*–8.163*	***	–7.325	*–7.662*	***	–8.781	*–8.153*	***
Northeast	–5.128	*–5.119*	***	–7.051	*–7.169*	***	–5.449	*–5.325*	***	–6.718	*–6.937*	***
Ratio of city to suburban poverty, 1990	–0.512	*–3.813*	***									
% of poor residents in high poverty neighbourhoods, 1990				–0.114	*–3.569*	***						
Ratio of income at sixtieth to the twentieth percentile, 1990							–0.044	*–2.436*	**			
Index of dissimilarity (black-white) at metro level, 1990										–0.101	*–3.454*	***
Number of observations	326			327			327			327		
Adjusted R-squared	0.420			0.419			0.407			0.418		

* significant at the .10 level, ** significant at the .05 level, *** significant at the .01 level.

variables); as a result, causality issues, while still relevant in a broader sense of specific chains of causation, are less of a concern.

The bottom line: doing good and doing well can go hand in hand. Overcoming the fragmentation wrought by residential segregation, income inequality, and concentrated poverty can have positive effects on per capita income growth. Beyond competitiveness, new research is demonstrating that including equity considerations can have important fiscal benefits as well. For example, a study from the Brookings Institution argues forcefully that, in tight fiscal times, we cannot afford to continue to support more expensive infrastructure on the fringes of metropolitan development, the sort of urban spatial arrangements often dictated by the forces of segregation and separation (Muro and Puentes, 2004). Muro and Puentes argue that adopting rules that would force a more compact style of development over the period 2000-2025 in the United States could reduce road-building costs at the national level by nearly 12%, save 6% on water and sewer spending, and also save 4% on annual spending for operations and service. (For a more general argument on equity, efficiency [fiscal and otherwise], and infrastructure, see Pastor and Reed, 2005).

The compatibility of equity and efficiency in the context of globalisation finds intriguing support in an econometric study by Pastor (2001). A regression exercise looking at the determinants of trade performance in 70 metropolitan regions in the United States found that those regions that had more equal distributions of income – as well as more foreign-born, a higher level of education, and a large urban core – tended to do better in international trade (Pastor, 2001). Again, the explanation is related to the relative ease of achieving consensus: when everyone perceives a chance of winning, engaging in international trade can be seen outside the "zero-sum" framework (see Rodrik, 1997).

Some business leaders seem to be taking the lessons to heart. A survey of 45 regional business-civic organisations in 29 different US regions found that 40% had strategies that had implications for reducing the kind of socio-economic disparities that can diminish regional economic performance (FutureWorks, 2004). Some were direct, such as those aimed at improving the economic conditions in poorer neighbourhoods and reducing differences between urban and suburban school districts; but many were more implicit but nonetheless crucial to social equity and cohesion.

This is not an entirely new development. Saxenian (1996) and Pastor *et al.* (2000), for example, discuss the important role of the Santa Clara Manufacturing Group founded in 1977 (later renamed the Silicon Valley Manufacturing Group and recently rechristened the Silicon Valley Leadership Group), noting that they have lobbied for higher (not lower taxes) in order to

fund public transportation, coalesced with community groups to lobby for affordable housing, and generally maintained a positive relationship with the public sector. But it is striking that this broader view was taken early in one of the most regionalist and globalised of US regions, the Silicon Valley, making the point that we might be looking at something new.

Several authors have tried to capture this new leadership under the term "regional stewardship" (Foster, 2001, and Henton *et al*., 2004). As the Alliance for Regional Stewardship, a group created to promote such activities, notes in a study of regional civic business organisations, such stewards "work at the creative intersection of the inter-related issues of economic development, social equity, community liveability, and participatory governance by leading initiative and building partnerships with other sectors and organisations" (ARS, 2004: 5). But this sort of broad and inclusive role is not necessarily a natural one for business, and understanding that stewards are made, not born, may be critical to helping even more business leaders play a constructive role in regional equity efforts.

Two levels of business engagement

There are two levels of business engagement in these issues: the *transactional* and the *transformational*. *Transactions* refer to business deals in which actors realise previously unrecognised "win-win's" that can lead to what are deemed more socially equitable outcomes. A major example in this category is business investment in deprived communities – driven not by a sense of *noblesse oblige* but rather by a notion that profits are to be made in markets unseen by most entrepreneurs (see Porter, 1995). *Transformations* refer to a broader change in business thinking such that equity and social cohesion become one of the maxim ends in business performance. A major example in this category is taking leadership in the promotion of affordable housing in suburban communities, something that leads business to align with equity proponents, often at the expense of challenging both wealthier communities and the broad pattern of urban sprawl that reflects economic and racial segregation.

These two levels of engagement are not disconnected: as game theory would tell us, repeated transactions can lead to relationships and hence a transformation in the actors in question. That is, preferences for equity (as well as implicit models about how equity and cohesion interact with economic gains) are not fixed. As strategic interactions accumulate, so does trust in the actors on the other side of the table – or at the least, a sense that doing right by the other actors will, in a second round of negotiations, lead to a fairer outcome for those who once had the upper hand. Conducting transactions, for example, around the development of key inner city

neighbourhoods can lead to new relationships between business leaders and community developers that can, in turn, lead to broader agreement on both the positive contribution of fairness and the commitment of business to inclusion and equity. (For more on what game theory and experimental economics tell us about fairness and deal-making, see the reviews in Thaler, 1988 and Rabin, 1993.)

The classic example of such transactions is Michael Porter's emphasis on the competitive advantage of the inner city and the unrealised profits there to be garnered. It is also the spirit behind the so-called "new markets" approach in which policy makers have argued that there is untapped economic potential, particularly in terms of retail sales, in America's under-served communities (USHUD, 1999, Boston Consulting Group, 1998, Nowak, 1997). In both cases, the arguments rely on informational gaps, perhaps accompanied by racial and other bias, in market transactions: if only investors knew about the unrealised retail (due to, say, the density of consumers despite lower incomes) or the skill and commitment of the workers and suppliers in inner city communities, they would be willing to make substantial investments. For example, USHUD (1999: 9) notes that Sears and Roebucks found that its city-centre stores had sales three times its nation-wide store average. The Boston Consulting Group (1998) attributes the failure to invest to "bad strategy", but surely past perceptions, informed to some degree by biases, play a role. (See Blackwell and Fox, 2004: 15; and Funders' Network, 2005: 82-88) for a discussion of the Market Creek Plaza project in San Diego; this inner-city revitalisation was actually led by a local set of philanthropists but had at its core the attraction of new retail.)

This powerful argument relies on profit rather than altruism. A new literature and practice has emerged around a "double bottom line" – the idea that there are opportunities to make both money and social progress. There are significant early examples, such as Detroit Renaissance, a non-profit organisation including major business players, which sought the revitalisation of the downtown where such businesses were headquartered. Another is Shorebank, a Chicago-based financial institution that has helped pioneer a new approach to lending in areas once ignored by major banks. It has recently moved into promoting retail development (Wiessbourd and Bondini, 2005: 19-20). The banner of this transactions-led approach has been more significantly taken up in recent years by the Initiative for a Competitive Inner City (ICIC) and its promotion of the strategic assets of inner city communities, including the celebration of home-grown companies and a thriving set of consultations helping forge matches between investors and communities.

As important as these transactions may be, there is what might be thought of as a higher or deeper level of action. Consider the typical prisoner's dilemma sort of game applied to an inner city neighbourhood, specifically one

where potential investors may face community leaders concerned about maintaining "local" control (and motivated by an anti-business attitude due to a perception of past business discrimination or neglect). In the absence of information about consumer purchasing power and labour skills in a particular community, investors will tend to eschew rather than raise investment, while the community "players" may choose to resist rather than welcome outside investors. A "double bottom line" strategy brings the players to a point where they can move out of the "lose-lose" corner and into the "win-win" corner of a solution box.

But a more important transformation is when business takes a lead when the "win-win" is neither so obvious nor so short-term. Consider the example of a tax increase to, say, improve the educational outcomes or workforce skills in a community. This is a case where the results are more diffuse (it will benefit business in general and not a particular retail investor in particular), more long-term (the benefits will come years in the future), and more uncertain (if the region continues to slump perhaps the newly educated or newly trained will move away). Business thus has reason to move to a short-term strategy of resisting the tax burden, while the community players might be too eager to raise issues for very similar reasons: keeping the tax burden low is diffuse (it could help the economy but cause spending declines that hurt particular constituencies), long-term (the benefits of the induced economic growth come much later), and uncertain (business may choose to move after they have thrived in the region that gave them tax incentives). Finding the point where there is the trust to collaborate – and the willingness to determine the right tax burden and its phasing – requires a whole new way of doing civic business.

It is exactly this new approach to civic vitality that is called for by the Alliance for Regional Stewardship, Metro BusinessNet, the California Center for Regional Leadership, and a variety of other business-friendly groups promoting the new regionalism. Often labelled "inclusive stewardship", this seeks to combine the imperatives of an "innovative economy", "liveable communities", "social inclusion", and "collaborative governance" (ARS, 2003). The notion is that innovation is necessary to stir growth, liveability is important for attracting high-skill workers, social inclusion is necessary because of the equity-efficiency complementarity, and collaborative governance is key to generating the mutual understandings that will lift regional economies from zero-sum politics to the sort of mutual and repeated interactions and long-term "win-win" outcomes that can result from improved communication. ARS (*ibid.*) labels this process a "cycle of trust" in which compatible interests are discovered, common purpose is found, and negotiations are continued in work groups through inevitable setbacks and

conflicts: the *transformation* approach identified above. The United States is now host to several efforts that exemplify this new and broader approach.

There is both reason for hope and examples of success. Table B.3 provides a list of both the signals and strategies around both social separation and social cohesion. There are numerous markers by which to judge a region, and numerous strategies, but the most important of the transformational

Table B.3. **Some signals and strategies for competitiveness and cohesion**

	Social separation	Social cohesion
Markers and markets: factors that lead to separation or cohesion	Residential segregation by race and class	Expanded mix-income housing opportunities throughout region
	Pockets of poverty and unskilled workforce	Minimal city-suburb gaps and high levels of basic skills
	Lack of retail in inner city communities	Investor interest in meeting retail demand
	Private transportation with poor city-suburb connections	Regional transportation systems with mix of public and private
	School systems with large disparities in test scores and amenities	School systems committed to improvement in resources and outcomes in all communities
	Environmental disamenities distributed by race and class	Adequate open space opportunities for all communities
	Significant gentrification and displacement due to "successful" redevelopment	New opportunities for local home ownership for long-time residents of distressed communities
	Public infrastructure with few localised benefits	Public infrastructure that includes local ties and benefits
	"Zero-sum" politics and focus on "business climate"	Business leadership for broader social good and environmental sustainability
Policies and strategies: methods to generate separation or cohesion	Fiscal segregation and reliance on local retail sales taxes	Regional tax-sharing with programs to benefit low-capacity areas
	Privatised job training programs that are only employer-based	Employer consortiums with community partners to improve workforce skills
	Lack of inner-city investment programs and no requirement on hiring or contracting	Partnerships to generate retail investment in central cities, including minority business development
	Fragmented transportation authorities and reliance on highways	Unified transportation planning across jurisdictions, and support for public transit
	Multiple school districts and uneven financing	Fewer or coordinated districts and adequate targeted funding
	Environmental planning focused on aggregate measures	Environmental targets for "hot spots" and brownfields redevelopment
	Urban renewal programs aimed mostly at attracting new middle class residents	Equitable development strategies that promote both mixed-income and residential stability
	Subsidies for public investment with no accountability goals	Community benefits agreements between business and communities
	Specific sectoral leadership groups with limited indicators for success	"Boundary-crossing" leadership groups with broad measures to judge region

approaches may be the sort of "boundary-crossing" leadership highlighted above: ongoing conversations with equity actors can humanise those on both sides of the usual bargaining table and lead to increasing areas of common ground.

There are however gaps and contradictions that must be taken into account. For example, while we have discussed the interactions of this cohesion-vitality couplet with the ongoing processes of globalisation, the comparative or international dimensions of this have not been highlighted here. This is partly because of focus and expertise – as well as the desire to keep some degree of control in terms of the social milieu in both our quantitative and qualitative comparisons (that is, looking at different regions in different countries with very different histories in terms of preference and attention to social equity can render any general comparative conclusions about, say, the equity-output relationship more far-reaching but also more problematic). But truly to make a general case it would be necessary to develop a more substantial base of cross-country comparisons, ones that can tell us how, when, and why business engages in the realms of social cohesion and social equity.

Further, while we have highlighted here how capital mobility can lead a region to market its human and social capital, it is also true that there is a pressure for cost-cutting – were this not the case, WalMart would not be both the massive corporation that it is, nor would it pose what many see as a threat to liveable wages. While cost-cutting can be achieved through either improving productivity or slashing payments to inputs, it requires far more social co-ordination to pursue the productivity-enhancing "high road" to competitiveness than to pursue the "low road" offered by wage cuts and lessened environmental protection. Understanding the social and economic conditions under which firms hunker down for the long-term and forge compacts with their workers and their communities is important for both research and policy.

It is also important to consider the importance of developing assets in multiple communities. In the United States, for example, race is an important determinant of both social outcomes and wealth – and assisting the development of new minority businesses can broaden the stake in the society, resolve employment dilemmas (given the tendency to hire co-ethnics), and contribute to a vibrant network of supplier firms to major industrial clusters. This inter-ethnic inclusion in the development of wealth is a different sort of social cohesion but it is one that is important in many multi-ethnic societies, and is increasingly relevant to developments in Europe, where levels of immigration are rising.

A final issue to consider is the relative balance of social forces and the necessity for such forces to be in contention. There may be a tendency to take the comforting possibility that equity and efficiency are linked, to listen to the heartening stories of business transformations, and to assume that collaboration and not conflict will be the order of the day. In fact, business sometimes needs pressure – from unions, from communities, from consumers, and from government – to do the right thing. Some of the stories celebrated began with intense differences in opinion between actors. Social cohesion, in short, does not mean the absence of class interests, ethnic differences, and economic conflicts (or the end of the Tiebout-style decisions about housing choices that often lead to municipal fragmentation). However, it does mean coming up with new methods of negotiation and collaboration to find areas of common interest – as well as new rules and policies that can help raise the attractiveness of the potential "win-win" outcomes we have emphasised. And it suggests that business leaders may need to exercise both patience and understanding as they "cross boundaries" and find new partners in the struggle for both economic competitiveness and social equity.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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Governance for Metropolitan Sustainability

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The world's major cities have evolved systems of governance that vary significantly from one to another. In some cases, for example Paris and New York, historic boundaries and government models play an important role in determining contemporary systems. In other cities, notably Toronto, London and Berlin, significant changes have recently been made to governance arrangements. Major cities often have administrative and political arrangements that differ significantly from those used elsewhere in their respective countries. Urban agglomerations in developing countries are often struggling with boundaries that are significantly exceeded by the geographical spread of their physical development. Some cities' governance arrangements are further complicated by their national and/or regional capital status.

Governance systems in major cities are required to achieve many (often competing) objectives. At the simplest level, they must secure the provision of public services to a population that is likely to live in densely populated neighbourhoods and which may be transitory and/or new to the city. Such services are generally best delivered at a local or metropolitan level, though there may be tensions between the two. There are also demands for cities to achieve economic competitiveness. It is rarely possible for a traditional "core" city or metropolitan authority to fully represent the economic needs of a city region. Federal/national government must secure effective governance at this level, or a regional authority must be created, or weaker voluntary arrangements put in place, or there will be no capacity for the city to deliver at this wider economic level.

International trends or "globalisation" have added to the pressures on governance arrangements in major cities. Rapid economic change has led to de-industrialisation in many older urban economies. City governments have had to attempt to regenerate their economies within a very short period of time. Some have been more successful than others in handling this process (Fainstein *et al.*, 1992).

Developments in the global economy have also led to an increase in international migration, particularly as poorer people have sought work in richer economies. Cities such as Los Angeles, New York, Toronto, Sydney, London and, increasingly, centres such as Milan, Barcelona, Dublin, Vancouver, Frankfurt and Amsterdam have become home to millions of in-migrants. Such migrants help to supply urban labour-markets, but also generate the need for political management.

The move from traditional "government" arrangements towards more broadly-based "governance" has involved the development of urban coalitions designed to mobilise public, private and NGO resources in ways that are designed simultaneously deliver public services, manage complex populations and achieve economic growth. The extent to which individual cities have been successful in using growth coalitions to deliver particular social or economic objectives is rarely susceptible to measurement. Cross-national comparisons of such arrangements are rarely published. Quality-of-life measures are increasingly available, though often disputed.

City governments have – during the past two decades – increasingly evolved a role for themselves in seeking to enhance their economic competitiveness. This trend has been reinforced in many countries by initiatives from federal or national government and by decentralisation of power to cities (Robson *et al.*, 2000). Traditional "growth coalition" policies have been joined by more thought-through efforts in many large cities to improve economic performance while simultaneously enhancing the wider quality of life, including the environment. Few urban centres do not now have a strategy or plan to develop the city in a way deemed consistent with "sustainable" environmental standards.

The systems of government that must deliver such public service, economic and quality-of-life objectives are only accidentally designed for the maximisation of any particular policy objective. Different systems have evolved from country to country and city to city. This paper examines a number of city government arrangements within OECD countries, considering them each in terms of their fitness for purpose in delivering economic, service delivery and quality of life.

The evolution of metropolitan government

Metropolitan government was generally introduced in the earliest modern mega-cities during the 19th century. More recently however, with the perceived triumph of "market" economies and a general increase in distrust of government, the supposed advantages of metropolitan government have often been subject to debate (if not always to conclusive research). Before looking at recent developments in metropolitan government in a number of

major OECD countries/cities, it is important to summarise the key arguments for and against government systems designed to deliver particular "good government" objectives.

First, it has long been argued that large local government units are better able to deliver public goods and services efficiently and effectively, as they can make use of greater economies of scale (Lefevre, 1998; Swanstrom, 2001; Keating, 1995; Newton, 1982). These arguments were particularly important in the period from the 1950s to the 1970s: "Critics of fragmented local governments argued that they were too small to achieve economies of scale" (Swanstrom, 2001, p. 481). Smaller authorities would provide some services uneconomically, while others – "local public goods" – would not be provided at all. This latter would happen in the case of facilities such as libraries and parks, which entail classic "free rider" problems – the facility must be paid for by local citizens, while benefits are enjoyed by those in the whole metropolitan region.

Second, it is argued that metropolitan government can promote redistribution between rich and poor areas of a metropolis, reducing social segregation and promoting cohesion between citizens. There is powerful evidence – notably from the United States – that smaller government units in areas such as Los Angeles will tend to separate and segregate themselves into rich and poor jurisdictions, creating a continuously reinforced pattern of social separation. Metropolitan authorities, whose legitimacy derives from their city-wide population can take strategic decisions to balance resources and development across the whole city area as well as (explicitly or implicitly) redistributing incomes and/or resources through their taxation and spending policies. Urban governments with widely drawn boundaries can, in theory, achieve more. The post-1998 Toronto or post-2000 Greater London Authority (GLA) offer the possibility of transfers from one part of the metropolitan area to another.

Third, metropolitan institutions are more likely to conform to economic and social realities. Administrative boundaries of central cities are largely historical, ignoring the fact that such places are now merely a part of a much larger economic and geographical reality. The City of Paris is but a small area at the centre of a vast urban agglomeration. Similarly, suburbs and other outlying areas are no longer self-contained semi-rural communities but part of a densely-connected labour market and travel-to-work area.

Thus, historical boundaries are often challenged by proponents of new authorities that would more accurately reflect contemporary realities. In addition, metropolitan authorities themselves can fulfil a role in creating and enhancing social cohesion and political solidarity:

> "*Residents of cities and economic clusters within cities undertaking similar functions may see themselves as having more in common with residents of cities*

> *in other countries than they do with others of the same nationality. This may weaken governance based on regional characteristics or geographical areas. Hence the need to create, through good governance, stronger local solidarity and a 'feeling of belonging' at the level of the city-region. This is a major task of metropolitan governance" (OECD, 2001).*

Fourth, metropolitan government is often advocated as a solution to excessive fragmentation and a lack of co-ordination between a range of competing and parochial lower tier authorities. This was one of the arguments deployed in favour of the re-creation of a metropolitan tier in London in 2000. The British capital had a relatively powerful lower tier of boroughs, but no democratically-elected city-wide government. Fragmentation was a serious problem which the GLA was intended to solve (Travers, 2004).

Finally, and more recently, metropolitan or city-region government has been advocated on grounds of economic growth and development – one of the key issues to be considered here. It is argued that major cities are engaged in a process of global competition to attract investment, residents and events (Sassen, 2000). In order to develop competitive advantage and to prepare and implement effective urban strategies, government – or rather governance – is needed at the metropolitan or regional scale, corresponding with the geographical reality over which the city economy functions. Once again, fragmentation, and excessive localism are problems to be solved.

In response to the metropolitan case, a number of arguments have been deployed, often from the "public choice" school of political theory. There are also objections from supporters of existing local or neighbourhood governments who see city-wide governments as posing a threat to their freedom. Despite many years of study, evidence for economies of scale in the provision of public services is equivocal at best:

> *"the evidence that less fragmented policymaking would improve regional economic performance is weak and contradictory. The factors that influence economic development are so many and so intertwined that it is difficult, if not impossible, to separate out one factor from the mix" (Swanstrom, 2001).*

London's economy and population stopped declining and started to grow during the period (1986 to 2000) when it lacked metropolitan government.

Second, public choice theorists have suggested that smaller authorities could anyway obtain the benefits of economies of scale by contracting with upper-tier or ad hoc authorities for the provision of services – that is, it is possible to separate the funding and the provision of urban public services (Swanstrom, 2001). The evolution of new public-private models of service provision since the late 1990s has further increased the possibilities of scale through contracting. Moreover, having a large number of small authorities may anyway deliver benefits: "for the supporters of public choice, institutional

fragmentation and smallness are essential elements in maintaining competition; they alone permit individual choice" (Lefevre, 1998).

Third, even if the arguments about the need for economic strategy and city competition are accepted, in the current era the economic city-region is simply too big to merit serious consideration as the basis for an acceptable political and administrative unit. In the case of New York, the 17-county New York-New Jersey region would be a bi-state mega-authority (population 19 million) with innumerable centres. In London, the "economic city" is not even Greater London, but the truly leviathan Greater South East (population 20 million). In such cases, multi-agency "governance" and not traditional metropolitan government is generally the best that can be achieved, and the argument for a single authority becomes very limited.

At least two solutions present themselves to the "problem" of metropolitan government: the "supra-municipality" or the "inter-municipality". That is, there can either be an upper tier authority with defined functions, powers and revenue; or there can be some kind of formal or semi-formal arrangement of existing municipalities who generally retain their basic municipal or city-wide powers. True supra-municipality requires elected political legitimacy, proper financial autonomy and multiple powers exercised over a defined territory (Lefevre, 1998).

In the 1990s there was something of a renaissance of metropolitan government. Various experiments were tried in Italy, Spain, Germany, the Netherlands and Canada; Toronto has evolved towards a full metropolitan government. But these have generally been limited moves in such a direction. There are evident difficulties in moving from the proposition (often supported by planners and academics) of the need for a "rational" solution to the problem of metropolitan government and the creation of a political structure which enjoys democratic legitimacy. The creation of new political institutions is particularly difficult at a time when all forms of deference to "expert" authority are in decline and distrust of government almost universally on the increase. So metropolitan reform attempts in Amsterdam and Rotterdam foundered when put to referenda. A new London government, on the other hand, was voted through by a 3:1 margin.

Metropolitan government is not just about cohesion, efficiency and competition – it also involves the politics of identity, as indeed recognised by earlier reformers and theorists who spoke about the creation of a "metropolitan community". Hence in comparative context, the creation (or re-creation) of metropolitan government in London in 2000 was seen to be a highly unusual if not unique event. Similarly, the Toronto reform of 1998 is an unusual move towards a wider, metropolitan, level of government (though

not, of course, to cover the full extent of the city's economic influence). Other cities struggle with similar issues.

City and metropolitan government systems

Notwithstanding the theory and analysis quoted in the paragraphs above, the practice of governance in major cities varies enormously, given historical, cultural and political factors. Within the OECD countries, there is no particular approach to urban govern administration. Major cities may have elected, tax-raising, government structures at some or all of the following levels:

- "Economic" region;
- Urban agglomeration;
- Administrative city;
- Municipalities or boroughs;
- Neighbourhoods.

Table B.4 summarises the formal government arrangements for New York, London, Berlin, Toronto and Paris. Other cities could have been included. But the simple implication of such a table is the predominance of government institutions at the "administrative city" level (although this level is very different in, say, New York and Paris) and the relative lack of such institutions at both the regional and neighbourhood levels. A number of major urban areas have lower-level municipalities within the wider administrative city, though the strength of such bodies varies from the significant (in London) to the weak (Paris, New York).

Table B.4. **Summary of elected government arrangements in five major world cities**

	Economic region	Urban agglomeration	Administrative city	Municipality/ borough	Neighbourhood
New York	No	No	Yes	*Yes*	*No*
London	No	No	Yes	Yes	*No*
Berlin	No	No	Yes	Yes	No
Toronto	No	No	Yes	No	No
Paris	Yes	No	Yes	*Yes*	No

Notes: New York City's boroughs, though headed by an elected Borough President, provide few services.
New York City has a tier of appointed "community boards" throughout the city, whose role is representative and advisory.
Paris's arrondissements are elected, though responsible for relatively little provision.
London, it has been announced, is to introduce an "urban parish" level government.

It is difficult to fully capture the significant differences that exist between cities such as New York and Berlin, which operate within highly-federal

government systems and those of, say, Paris and London operating as urban centres within unitary states. Toronto appears to have some of the characteristics of both "federal" and "unitary" systems. Moreover, there are also significant differences between the operation of civil society in particular societies. Most countries and cities operate with party political systems, Toronto does not.

Visible civic leadership appears to becoming an important feature of major cities. The decision in recent years to adopt directly elected mayors in London, Toronto and other places (particularly in Germany and Italy) appears to be a trend that has evolved in parallel with efforts to increase economic promotion and regeneration by cities. Competition and urban self-awareness have manifested themselves in the growing number of comparative studies, marketing conferences and benchmarking exercises now undertaken. The use of the term "world city" and its attendant academic literature points in the same direction. The experience of the cities summarised above suggests that autonomous and self-confident city government is possible. Indeed, the substantial differences that exist between the economic, demographic and ethnic make-up of many larger cities and most of the countries of which they are a part implies that a fair degree of autonomy would be a condition for sensitive and effective government. Attempting to deliver good government in a city such as London, New York or Toronto based on the "average" political views of electors in Middle Britain, the US Mid-West or rural Canada would surely be a recipe for disaster. Cities need to be able to direct their own destiny.

Relationships with the regions surrounding major cities are almost always complex and often unsatisfactory. Formal, semi-formal or informal arrangements exist to co-ordinate the economic and/or infrastructure needs of different parts of urban agglomerations and their rural hinterlands. Rarely, if ever, does it prove possible to create arrangements that allow directly elected region-wide authorities to affect significant resource allocation. Ad hoc agencies also play a role. For example, the Port Authority of New York and New Jersey provides some regional co-ordination to airport and other infrastructure policy. In Paris, the Syndicat des transports d'Ile-de-France (STIF) co-ordinates rail, bus and metro activities in the wider region. Berlin also has a regional transport body. But London does not: Transport for London is based closely on the city's built-up area.

There also appears to be a growth in the number of private and public institutions working together to create a system of urban governance. City governments have increased the extent to which they work with upper-tier administrations, business representative organisations, developers, non-governmental organisations, trades unions, philanthropists, universities and powerful individuals to create a growth coalition. The need to regenerate older industrial areas of major cities, in particular, has generated the need for

renewal and economic progress. Some of the players in these coalitions seek to add a social cohesion and/or environmental sustainability agenda to the economic objectives that generally create the original pressure for joint action.

The quality of urban leaders is probably the key determinant of effective city/city regional government. This observation would, of course, also be true of any other public or private organisation. Efforts to measure the impact of different styles or systems of government on the outputs or outcomes of city government are limited. But there is clearly a trend towards the identification of city leaders and governments as key elements in shaping the economic competitiveness and social cohesion of their increasingly complex cities.

Looking ahead, the likelihood of increased globalisation, international trade and trans-national migration (based on recent patterns) suggests that major cities will face growing challenges and needs for improved political management and government. No one system or model provides a simple solution to problems of how to achieve improved competitiveness, social cohesion and environmental sustainability. But there are good and bad features of existing arrangements that provide clues as to where improvements may need to be made. Understanding existing systems of urban government is a way of starting a debate about change.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
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Local Public Finance: Issues for Metropolitan Regions

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The goal of this paper is to discuss the links between the fiscal health of cities and their suburbs and the economic health of the metropolitan areas. Metropolitan areas are widely recognised to be important engines of growth in modern economies. Our premise is that for metropolitan areas to be economically healthy, they must have a local public sector which can provide at reasonable costs needed services for households and business firms. We consider two separate questions. First, how do the fiscal institutions in a city and in a region – taxing authority, spending or service mandates, inter-jurisdictional and metropolitan arrangements for sharing of costs and tax base, and intergovernmental grants-in-aid – contribute to fiscal health? What is the effect on fiscal health of fiscal decentralisation and fiscal competition? Are there public policies that governments at the national, regional, and local level can follow that will reduce the fiscal problems faced by many cities? Second, what is the relation between the fiscal health of big cities and the economic prosperity and success of the greater metropolitan region? What lessons for metropolitan finance can be learned from the metropolitan areas and central cities that are doing well?

To discuss the relation between economic health and fiscal health of metropolitan areas, we need to be able to measure the fiscal health of the local governments within each metropolitan area in a consistent way. The literature on intergovernmental fiscal relations provides a good comparative measure of the fiscal condition of local governments, namely the *need-capacity* or *fiscal gap*. This measure can be defined as the difference between the *expenditure need* and the *revenue-raising capacity* of each local government.

Revenue-raising capacity

The foundation for any measure of revenue-raising capacity is the economic base of each local government. The existence of any tax base, whether it be the income of residents, business profits, wealth, consumption expenditures, or the value of real property, does not automatically confer revenue-raising capacity on a local jurisdiction. As emphasised by Ladd and Yinger (1991), the capacity actually to raise revenue depends on the ability of local governments to have access to various tax and revenue *instruments*. Across all OECD countries, it is exceedingly rare for local governments to have complete freedom to decide how they will raise their own revenue. In almost all cases, the ability to decide which revenue instruments local governments can utilise, rests with a higher level government, or in some cases, has been codified in the country's constitution. In the majority of OECD member countries, tax assignment decisions are made by the national government. In some countries, for example, in the United States, decisions about tax assignment rest with state or provincial governments. It is thus impossible to measure the revenue-raising capacity of any local government without first knowing what tax and revenue sources have been assigned to that local government by higher-level authorities. In the next section, we provide an overview of local government tax assignment in OECD countries.

Table B.5 shows the differences in tax assignment in some OECD countries. The dominant local tax is the property tax. Australian municipalities are the most reliant on the property tax. Property taxes account for more than ninety per cent of all local revenue in five (Australia, Canada, the United Kingdom, Ireland and New Zealand) of the twenty-seven OECD countries. At the other extreme, nine of the countries get less than 10% of their tax revenue from the property tax. Income taxation (corporate and personal) is the most important source of local tax revenues in 13 of the 27 countries. In Denmark, Finland, Luxembourg, Norway and Sweden, it accounts for more than 90% of local revenue.

Generally, local taxes absorb the highest proportion of GDP in countries with the heaviest reliance on local income taxes. All local taxes combined absorb the highest proportion of GDP in Denmark, Sweden, Finland and Norway – from 10 to 16%. Local taxes absorb the smallest proportion of GDP in Australia, Belgium, Hungary, Ireland, the Netherlands, New Zealand, Portugal, and the United Kingdom – 2% or less. The local government's share of GDP absorbed by taxes in Canada (3.3%) is equal to the unweighted average for federal countries and well below the average for unitary countries.

The fiscal (or revenue-raising) capacity of a local government provides a measure of the amount of revenue it can raise at any given tax rate or tax burden borne by its residents. The underlying determinant of fiscal capacity is the level of economic activity in the jurisdiction. Within a metropolitan area,

Table B.5. **Differences in tax assignment in OECD countries**

	Tax sources as a % of total local tax revenues				Local taxes as a per cent of GDP
	Income	Sales	Property	Other	
Federal:					
Australia	0.0	0.0	100.0	0.0	1.1
Canada	0.0	1.5	92.7	5.7	3.3
Germany	79.1	5.7	15.0	0.2	2.8
Switzerland	84.3	0.3	15.4	0.0	5.2
United States	6.3	21.0	72.8	0.0	3.5
Unitary:					
Denmark	93.6	0.1	6.3	0.0	15.8
France	0.0	10.2	50.6	39.1	4.7
Hungary	0.1	76.6	22.6	0.7	1.7
Italy	12.9	14.9	17.3	54.9	4.9
Japan	47.2	20.8	31.1	1.0	7.2
Netherlands	0.0	37.1	62.8	0.0	1.2
Spain	26.4	35.4	34.6	3.5	5.7
Sweden	100.0	0.0	0.0	0.0	15.8
Turkey	27.7	30.1	2.3	39.9	4.7
United Kingdom	0.0	0.0	99.5	0.5	1.4

Source: OECD, *Revenue Statistics 1965-1999* (Paris: OECD, 2000), Tables 133 and 134.

the fiscal capacity of any given jurisdiction will also be affected by economic activity in other jurisdictions. For example, a person may reside in one jurisdiction (either as owner or a renter), be employed in another, and shop in yet another jurisdiction. In this basic way the fiscal health of any one jurisdiction is tied to the economic health of the entire metropolitan area.

One quite standard way of measuring fiscal capacity is to calculate the amount of revenues a jurisdiction would be able to raise if it imposed standard tax rates on a standard set of tax bases. This approach is known as the *representative tax system* (RTS). The standard tax bases include all of the taxes used by any of the jurisdictions within a metropolitan area, a province, or a country, *i.e.*, the reference group. The "standard" tax rates are generally taken to be the average rates utilised by the jurisdictions in the reference group. Fiscal capacity is thus the weighted sum of N potential tax bases in a jurisdiction, where the weight for each base is the average tax rate $_{\bar{i}}$ for tax i.

$$FC_{RTS} = \sum_{i=1}^{N} \bar{t}_i BASE_i$$

The measure in this equation is hypothetical, in that there may be no single jurisdiction that actually uses such a tax structure. Economic and political conditions may vary across cities, so that a particular tax structure might be either legally or economically infeasible in some cities. If there are

differences in the taxes allowed in various jurisdictions, with cities granted a wider range of tax options than smaller municipalities, then the RTS approach is less satisfactory (for a detailed discussion of the measurement of fiscal capacity see Chernick, 1998). Suppose for example that some cities in a country are allowed to impose both an income tax and a property tax, while other cities can only impose a property tax. The RTS measure for both types of cities would be $FC_{RTS} = (t_{prop} \times B_{prop}) + (t_{inc} \times B_{inc})$, while the restricted fiscal capacity of a city that can only use the property tax would be $FC_{restricted} = t_{prop} \times B_{prop}$. In this case, however, FC_{RTS} overstates the relative fiscal capacity of the city that is not permitted to utilise an income tax, while $FC_{restricted}$ understates that city's relative fiscal capacity. The understatement stems from the fact that the lack of a local income tax means that the property base could support higher than average tax rates without adverse economic consequences.

Two alternative approaches are simply to equate tax capacity with the total size of the economy in a jurisdiction (Total Taxable Resources), or to measure the Maximum Revenue which could be raised. Maximum Revenue incorporates the behavioural relation between the size of a city's tax base and the tax rate on that base. The underlying premise is that there exists for every local government a maximum amount of revenue that it can raise. It is assumed that individual and business responses to higher tax rates lead to a decline in tax bases. This response can take the form of reduced consumption, reduced work effort, reduced saving or investment, or out-migration from the community. As tax rates increase, revenue increases are reduced until at some point further increases in tax rates lead to an actual decline in revenue. The more responsive tax bases are to tax rate increases, the lower the tax capacity of a city government.

What is the relationship between economic development in a metropolitan region and the tax capacity of the constituent local governments? The answer depends on the degree of fiscal decentralisation, and the particular taxes used by various jurisdictions. The greater the degree of decentralisation, the more the taxable capacity of a jurisdiction depends solely on economic development within its own boundaries. If an infrastructure project improves the economic competitiveness of an entire metropolitan area, then all jurisdictions will benefit. However, the fiscal benefits of such projects may affect different jurisdictions differently. In an intriguing study of US cities, Haughwout (1999) finds that highway projects funded by state governments tend to *lower* the value of property in both central cities and suburbs, with the negative effect on property values slightly bigger in central cities than in suburbs. This reflects the fact that highway spending, by encouraging decentralisation, reduces the special locational advantages of large metropolitan areas, suggesting that state spending on highway capital projects may actually lower the fiscal capacity of central cities.

The rules of tax assignment and tax base sharing determine how the fiscal proceeds of economic growth (or the fiscal losses from economic decline) are divided among the various jurisdictions in a metropolitan area. If all taxes are levied at the local government level, and the only source of revenue is from local sources, then growth in revenue in a jurisdiction depends solely on growth of the fiscal base in that jurisdiction. Under this type of fiscal regime, where each local government raises its own revenue and retains all its revenue for its own use, each jurisdiction has a strong incentive to maximise its fiscal base. This incentive to maximise the fiscal base can have a positive effect on the overall economic competitiveness of the metro region, if jurisdictions try to increase their base through the efficient delivery of high quality public services. On the other hand, a highly decentralised system of metropolitan taxation may also encourage less socially productive forms of tax competition. Individual local governments within metropolitan areas have a strong incentive to offer special tax breaks or other types of incentive to attract new business enterprises. From the perspective of an individual local government, the fiscal benefit from a new business may outweigh any added fiscal costs associated with the new business. At the same time, business location decisions can be inefficient from the perspective of the rest of the metropolitan area. The environmental, social, or congestion costs associated with a particular locational decision may be considerable, but these costs are likely to be borne by the entire urban area, while the fiscal benefits of the new business accrue only to the local government in which the business locates.

Individual local governments may also attempt to create an attractive fiscal climate by limiting activities with high net fiscal costs, such as the provision of public housing or social services. Through zoning and other land-use regulations, they may also attempt to exclude residents who may require above average levels of public services. If fiscal improvements in one jurisdiction come at the expense of losses in neighbouring ones, then the net benefits of fiscal competition for the entire metropolitan area may be zero, or even negative. Most OECD countries, whether federalist or unitary states, recognise the potential problems with unlimited local fiscal competition, and use a variety of approaches to try to mitigate the most harmful aspects. One is through tax-base sharing at the metropolitan level. The most well-known example of this approach is the tax-base sharing plan in Minneapolis-St. Paul metropolitan area in the United States, which has been used since the mid-1970s (Reschovsky, 1980; OECD, 2004b). Because of the political difficulties of getting all of the municipalities within a region to agree to join a tax sharing scheme, there are very few examples of this approach either in the United States or in other OECD countries.

A more common approach is for a higher level government (either a province or the national state) to redistribute fiscal resources among all local

governments in a province, or a nation, via a programme of fiscal equalisation. Sweden provides an example of almost complete equalisation of local government fiscal capacity, with equalisation transfers flowing from the national state to municipalities (Chernick, 2004). Equalisation programmes combine fiscal equalisation within metropolitan areas with redistribution of fiscal resources from richer to poorer (typically more rural) regions of a country.

Fiscal equalisation can promote horizontal equity between richer and poorer jurisdictions, and reduce the incentives for wasteful competition. However, an ambitious program of fiscal equalisation, under which resources are actually taken away from high capacity jurisdictions, is like a tax, in that it takes away some of the fiscal benefits from economic development, thus reducing the strength of the efficiency incentives that are promoted by competition. The politics of grants-in-aid can also wind up vitiating the goals of fiscal equalisation. Jurisdictions are likely to compete politically for a favourable share of intergovernmental grants, with the net result being that in some countries the amount of equalisation benefit is small, given the tax costs. The cost of inefficient targeting of intergovernmental aid is that higher central or provincial taxes must be levied to finance a given amount of equalisation. These overlapping taxes reduce the effective fiscal capacity of local governments and the willingness of citizens to pay for public services.

Yet another way to share taxable resources among jurisdictions in a metropolitan area is through the establishment of supra-municipal governments. These can be region wide, or encompass only a portion of a metropolitan area. This kind of regional government, generally devoted to a specific purpose, such as transportation, water supply, or waste disposal, are common in OECD countries. Taxes (or frequently fees) are levied on residents within the boundaries of each such regional government, or as they are frequently called, special districts. However, the establishment of such entities also raises the possibility that the overall burden of municipal taxation may rise, as has been the case in France (Leprince, n.d.). Larger municipal entities can be superimposed over smaller municipalities, creating a two or multi-tier governmental structure, or they can be created by merging jurisdictions. Merger allows the complete sharing of fiscal base. Mergers are politically difficult to accomplish, however, in part because they may impose significant fiscal losses on the more affluent parts of the newly merged entity, and because they are disruptive to long-standing relationships between the citizenry and their local governments. Large merged entities may also find it difficult to respond to differences in preferences for public services among its residents. The difficulties with merger in Montreal, Canada, are a case in point (OECD, 2004a).

If a city is at or close to its maximum revenue capacity for any of its major taxes, this would suggest that tax rates are too high, and these taxes are likely to have an adverse effect on competitiveness. Tax rates could be too high because services are provided inefficiently, or because of defects in the political structure of a local government that allow some groups to extract economic rents. Taxes may also be too high because of a structural imbalance between expenditure needs and tax capacity. Whatever the cause (or causes), rates that are too high are indicators of fiscal stress, and with that increased stress comes a weakening of economic health. A general rule for taxation, going back to Ramsey (1927), is that tax rates should be inversely proportional to the elasticities of the various tax bases. Since real property is in general less elastic than income or consumption, this leads to the recommendation that local property tax rates be high relative to other local government tax rates. As discussed above, local governments' reliance on the local property tax varies substantially across OECD countries. If the property tax base were uniformly less elastic than the income tax base, we might expect that locally raised revenues would be proportionally greater in high *versus* low property tax countries. In fact, the situation is the reverse, with income tax-reliant countries tending to larger local public sectors than property tax-reliant countries.

The substantial differences in local tax structures among OECD countries suggest that elasticities of the various tax bases also vary across countries. One factor influencing the elasticity of the tax base is the degree of Tiebout competition that exists within a metropolitan area. One rough way to measure Tiebout competition is by the number of independent government jurisdictions per capita within a metropolitan area. We would expect that the greater the number of jurisdictions in a metropolitan area, the greater the range of fiscal choices for both residents and firms. This greater choice implies that each jurisdiction's tax base should be more sensitive to variations in tax rates, as long as such variations are not offset by differences in public services. This is the essence of the competitive model of metropolitan finance. The desirable feature of the model is that jurisdictions face an automatic fiscal penalty if their tax rates rise relative other jurisdictions. All other things equal, such competition should lead to less variation in tax rates, and a more uniform tax structure, within metropolitan areas. It is also likely that metropolitan areas with more jurisdictions may be characterised by more homogeneity of public good preferences within jurisdictions, but more variation across jurisdictions. In general, one would expect that the greater variation in both preferences and fiscal capacity in a highly fragmented metropolitan area will lead to greater variation in tax rates.

From the point of view of local budgeting, tax revenue stability is also important. Since municipal expenditure requirements are relatively stable

from year to year, a tax system that produces significant year to year fluctuations in revenues will lead to recurrent fiscal problems. The severity of cyclically-based fluctuations in tax revenues can be dampened by relying on a mix of taxes whose bases are not all perfectly correlated with the city or region's business cycle. For example, the property tax base is less cyclically sensitive than the income or earnings tax base. The sales or consumption tax base is somewhere in between these two. Hence, the appropriate mixture of these taxes will allow the city to capture the immediate fiscal benefits of improved economic performance, while providing a fiscal buffer against cyclical decline in the most volatile tax bases.

Another important feature of local revenue systems is their responsiveness to the economy. If the elasticity of the tax base with respect to growth in the local economy is substantially lower in the short than the long run, then a city may experience temporary shortfalls or surpluses in revenue. If expenditure needs are rising continuously, or there is a sudden increase in needs – caused for example by the need to replace a major infrastructure facility – then a low short-run response can lead to recurrent fiscal stress. A low short-run response of the property tax has been one of the sources of fiscal stress in Montreal and other Canadian cities (OECD, 2004a).

Given the key role of central cities in the economic health of their regions, and the strong relationship between economic health and fiscal health, it is particularly important for central cities to have tax structures that are conducive to fiscal health. Recent research emphasises the importance of agglomeration economies in enhancing the economic competitiveness of metropolitan region. These agglomeration economies are concentrated in central cities. The public sector costs of supporting the agglomeration economies are high. However, if tax policy has the effect of undermining these economies, by unduly raising the cost to firms of concentrating in central cities, the economic cost to both the city and the region could be quite high. Such a cost would show up in a decline in land values not just in the central city but in the entire region (Haughwout, 2000). The challenge for tax policy in the metropolitan region is to raise sufficient funds to support and enhance the city as an efficient place to do business, without undermining its competitive advantage. What types of tax structures are most likely to promote the fiscal and economic health of central cities? The answer depends critically on the degree of monopoly power possessed by cities. Two views may be compared.

Under one extreme, cities are basically like perfectly competitive firms in geographical space. Hence, their fiscal policies will be tightly constrained. Since firms located in cities must earn a competitive return on their capital in order to stay in business, city government tax policies that raise costs to firms located within city boundaries above costs of alternative locations will provide an incentive for capital flight, declines in land values, and reduced wages paid

to workers. Under such an competitive environment, the taxes imposed on firms should be akin to charges for services, set at rates equal to the value in production (or cost reduction) of the public services received by firms. Cities must resist the temptation to shift tax burdens to firms. Taxes which fall directly on firms should be strictly limited. Earnings taxes should not be imposed on non-residents, or should be kept at very low rates. To compensate cities for the direct costs imposed on a city by commuters and other day-time users of city services, fees should be imposed on commuter related activities such as parking. If these are insufficient, then need-based intergovernmental grants should make up the difference.

An alternative view is that central cities have some degree of monopoly power in the production of particular goods and services, and monopsony power in terms of demand for specialised labour. The larger the city, the greater the monopoly power. Increasingly, large central cities specialise in high-end business services such as law, accounting, finance, and specialised medicine, as well as in providing unique cultural facilities (Hill and Lendel, 2005). The main source of the high value added for these specialised firms is highly skilled labour. Central cities are the main location of employment for such workers. Both sources of market power allow the largest agglomerations more leeway than smaller jurisdictions to export taxes to non-residents. If the supply of skilled workers is inelastic, then such workers are receiving substantial rents due to the advantageous production conditions provided by central cities. If so, earnings taxes on non-residents will largely be borne by workers and commuters, rather than raising wage costs to central city firms. Monopoly power in products and in the labour market is likely to vary across cities, and over time. Hence, different rates of taxation of capital and earnings would be appropriate. In those cities with the least monopsony power, and a relatively elastic supply of workers, the earnings tax will mainly serve to raise costs in the central city, and reduce the level of economic activity. In cities with more market power, and a more inelastic supply of skilled labour, earnings taxes will be borne primarily by the workers themselves, with little negative effect on the cost of doing business in the central city.

Cities can export tax burdens by setting differentially higher property tax rates on commercial property than on residential property, or by using earnings taxes and excise taxes such as a hotel occupancy tax. Because municipalities are legally dependent on the states, use of these taxes must be authorised by the state government. As suburban populations are generally growing at a much faster rate than urban or central city ones, at least in the United States, approval of such taxes by state legislatures is less and less likely.

In countries that rely heavily on the property tax, an important question for city competitiveness concerns the extent to which cities impose higher tax rates on commercial as opposed to residential property. As noted by Kitchen (2002), the amount of tax in excess of costs for services consumed by the non-residential sector is like a fixed cost, which must be paid regardless of the level of profitability of the firm. This fixed cost component has the potential for creating distortions that could hurt the competitiveness of cities. Kitchen suggests that these distortions could be reduced through the use of variable tax rates designed to capture cost differences across properties or property types. According to the benefits principle of taxation, taxes paid should be approximately equal to benefits received. Following this principle would seem to give clear guidance as to how business property should be taxed. The problem of implementing this principle is determining how to allocate the benefits of public services among business and residential users. Some portion of urban public expenditures are for pure public goods, providing benefits to all who live, work, or recreate in the city. Assignment of a portion of the costs of these public goods to business firms, even though no direct fiscal benefit can be traced, is therefore appropriate. The test of whether too much of the burden of taxation is placed on firms is ultimately empirical. One needs to determine whether a city could expand its economic base, and raise land values or average income levels by shifting a proportion of its revenue burden from business firms to residents. Empirical studies of this issue in an international context will be extremely valuable.

The measurement of expenditure need

The expenditure need of any government can be defined as the minimum amount of money that it must spend per resident in order to provide the public services for which it is responsible. To determine the expenditure need of any particular local government in any given country one must answer two basic questions. First, what are the public services for which that government is responsible? And second, what are the *costs* of providing those public services?

Variations in public service responsibilities

The public service responsibilities of local governments differ substantially among countries, and in some countries, between states or provinces. There are no available data that provide a consistent picture of the magnitude and breadth of these. Data from the World Bank on the sub-national share of total public expenditures and total tax revenue do provide a very rough indicator of the relative magnitude of the local (and provincial) public sectors in various countries.

Data on expenditure patterns provide only a partial picture of service responsibilities. Joumard and Kongsrud (2003) report that in OECD countries central governments are increasingly imposing public service norms and minimum quality standards on the public goods produced by local governments, for example on the curricula of schools. These actions have a direct impact on local expenditure needs. In many countries the assignment of responsibilities to local governments depends on the size of the jurisdiction. In general, larger local governments are assigned a broader range of public services, with central cities of metropolitan areas often having the largest number. Some services are in almost all countries the responsibility of local governments. These include sanitation, refuse removal, street repair, street cleaning, fire protection, libraries, and the provision of recreation facilities. The assignment of other, and generally more costly functions, such as primary and secondary education, public safety, and public health, vary among OECD member countries with responsibilities for these functions resting with local governments in some countries, with provinces in other countries, and with the central (or federal) government in still others.While local governments may be responsible for delivery of specific public service, the financing of that service may be shared jointly by several levels of government.

Variations in costs

Even when the service responsibilities of all local government jurisdictions within a metropolitan area are identical, the expenditure needs of local governments are likely to differ because the minimum amount of money needed by these governments to meet these service responsibilities is likely to differ substantially. These monetary differences are generally referred to by economists as differences in *costs*. It is important to emphasise that costs differ from spending. While cost differences among local governments will always be reflected in spending differences, observed spending differences do not by themselves imply that costs differ. Costs represent differences in spending that only reflect factors that are outside the control of the local government. Spending differences may reflect those in costs, or local preferences for public services, or the existence of waste or inefficiency. Within metropolitan areas, costs are likely to vary among local governments because both the size and the characteristics of the populations served will differ. In some areas, physical characteristics of each jurisdiction, such as the topology, may influence costs. Here we focus on the role played by population size and changes in population composition in influencing costs.

Population size can play an important role where economies of scale exist in the provision of a service, though such economies are not always present. They are particularly pronounced for central administrative and governance

functions and for services with large capital inputs. Thus, the per capita cost of running a city council or a mayor's office should fall steadily as the size of the jurisdiction rises. Likewise, scale economies are substantial for public utilities, such as water and sewage systems, and for public transportation, where infrastructure costs are large relative to operating costs. Some scholars have argued that higher municipal spending per capita in many central cities can be attributed to the fact that cities are simply too big to deliver efficiently. Although there is some evidence to suggest diseconomies of scale, it is by no means conclusive. The relatively high levels of per capita spending observed in many large cities may well be due to other factors that tend to be associated with such cities and with higher than average costs of delivering services. Examples include high concentrations of low-income or immigrant households. There are scale economies associated with many public services frequently provided by local governments, for example, police and fire protection. There is a substantial literature, at least in the United States, on this question as it relates to primary and secondary education. Recent work based on the estimation of education cost functions has consistently found strong evidence of sharp scale economies in school districts with fewer than about 3 000 students (Andrews, Duncombe and Yinger, 2002). There is also strong evidence of diseconomies of scale when public education is provided by large local governments.

Population density has also been shown to have an impact on the cost of public service provision. This relationship is complex. To the extent that high density is associated with poorly constructed housing and over-crowded living conditions and/or high-rise buildings, density will tend to raise the costs of fire protection and public safety. On the other hand, there is evidence that higher population density can reduce the costs of delivering some public services, such as solid waste collection.

As pointed out by Helen Ladd (1994), on the basis of economic theory it is not possible to definitively predict that population increases are associated with rising public sector costs. Rapid increase can raise costs because of the need to rapidly expand capacity to deliver services to new residents. Population growth can also be associated with rising costs if expanding population leads to increased land values and increases in other factor prices. On the other hand, rising population may allow local governments to exploit scale economies. Likewise, population decline can signal higher costs for reasons not directly related to the falling population. Thus, decline may well reflect adverse environmental conditions in a jurisdiction, such as high rates of unemployment or crime, or old and dilapidated housing stock, factors that result in high municipal service costs.

The demographic composition of the population can also have a large impact. Establishing simple correlations between demographic characteristics

of a population and costs can be quite straightforward. For example, if local governments are responsible for the provision of primary and secondary education, then communities with relatively high concentrations of young people will have higher education costs. Similarly, a large population of elderly citizens will lead to higher health care costs. Identifying exact relationships here, however, is very difficult, because the demographic composition of a local population probably also has a big influence on the mix of services preferred by local residents. Separating demand and supply (cost) factors is far from straightforward. Most attempts to disentangle demographic impacts on costs and preferences have occurred in the United States and in Australia, where this conceptual difference is seen as important. In Europe there is less acceptance of the distinction between costs and preferences, actual spending by municipal governments on public services being more likely to be viewed as a reflection of differences in need.

A great number of metropolitan areas in OECD member countries include large spatial concentrations of low-income households within their urban areas. In some the poor are found primarily within the central city, while in other areas, the poor are concentrated in suburban jurisdictions, often in the older inner ring of suburbs surrounding central cities. In some countries, for example Norway, local governments are responsible for providing direct income support for their low-income residents. Although funding for these transfer programmes generally comes from central government, unanticipated increases in the number of persons eligible for assistance or related administrative costs can place fiscal burdens on municipal governments. Even in countries where municipal governments have no such responsibilities, they are frequently responsible, explicitly or implicitly, for the provision of public services that are primarily consumed by the poor. Perhaps more so in the United States than in most other OECD countries, municipal governments often function as *service providers of last resort*. There has been very little empirical work on the direct poverty-related expenditures made by municipal governments. In one study, however, Summers and Jakubowski (1996), after completing a detailed analysis of the budget of the City of Philadelphia, concluded that in 1995 the city devoted 7.6% of its own-source revenues to direct poverty-related services. In another study, Pack (1995) reports that larger cities spent more money per capita on direct poverty functions than smaller cities.

One of the consequences of economic growth and prosperity in urban areas is that the price of housing tends to rise rapidly. This creates severe housing affordability problems for low- and modest-income households, generating social, economic, and fiscal problems. As rents rise, low-income households are forced to move frequently, often to locations far removed from their employment. Social isolation and associated ills generally result (Green

and Malpezzi, 2003). In extreme cases, homelessness occurs. Thus paradoxically, economic success increases demands on municipal governments to subsidise land and housing costs for low-income residents.

Policy changes at higher levels of government often have fiscal implications for local governments. Expanded public service responsibilities often come in the form of mandates from both the federal government and state governments. Such mandates are likely to impose greater costs on cities than on suburbs. For example, the widespread de-institutionalisation of the mentally ill that has occurred over the past couple of decades in a number of countries has often forced cities to deal with those who end up on the street, become public nuisances, commit crimes, or need medical care. There is substantial evidence that concentrations of low-income populations increase the costs of delivering various public services that are not directly related to poverty. For example, research conducted in a number of countries suggests that the costs of achieving any given level of public safety or of educating children to meet any given level of educational performance are generally higher in locations with concentrations of low-income households. Not only is the incidence of crime higher in poor neighbourhoods, but community attributes associated with poverty and social isolation, such as high density and poor housing conditions, increase the resources required to provide public safety. Studies also suggest that smaller class sizes, specially trained teachers, and extra classes are necessary to compensate for the social and economic disadvantages faced by most children from poor families (Duncombe and Yinger, 2000; Reschovsky and Imazeki, 2003).

In addition to the above, cities have higher costs than their suburbs because their infrastructure is older, and consequently the costs of maintenance and repair are generally higher. It may however still be considerably cheaper to maintain or even expand existing infrastructure in denser and older cities than to build new infrastructure in the suburbs. Further, costs measured on a per resident basis tend to be higher in central cities relative to suburbs because cities must provide services for significant number of non-residents, whether they be suburbanites commuting to central city jobs or tourists. In particular, providing services to non-residents contributes to the costs of public safety, sanitation, and cultural and recreation services. Finally, the cost of inputs may well be higher in urban areas, and in some cases in central cities compared to their suburbs. Labour is clearly the most important input in the production of most public services, and the costs of hiring employees will tend to be higher in urban than in non-metropolitan areas. It is important to point out that in some countries, for example, Germany, Italy, Norway and Portugal, public sector salaries are negotiated at the national level. Thus, while salary levels may be identical in urban and non-urban areas, it is likely that recruiting public employees will be

more difficult in areas where costs of living are higher. This suggests that the quality of public employees, for example school teachers, is likely to be lower in high-cost areas. This conclusion may not hold to the extent that the amenities associated with urban areas are sufficient to attract high quality public employees who are willing to accept a lower real salary in order to live in desirable urban areas.

The impact of spatial variations in fiscal health

Measuring the gap between the revenue-raising capacity of a local government and the needs of its area provides a good measure of its fiscal condition *relative* to the fiscal condition of other local governments. The appropriate reference group of jurisdictions could be all municipalities within a metropolitan area, a region, a province, or an entire country. Need-capacity gaps will vary both across countries and within countries. Our focus in this paper is on variations in need-capacity gaps within metropolitan areas. The direct implication of wide variations within metropolitan areas is that residents of different municipalities within a metropolitan area will receive different levels of public services even if they face identical tax burdens. These differences, which by definition are due to factors over which local governments have little control, are often referred to as *fiscal disparities*.

Differences in the fiscal health of local governments within metropolitan areas provide an incentive for both households and businesses to move to locations within the metropolitan area that are in better fiscal health. The out-migration of both businesses, and moderate- and high-income households from communities in weak economic health creates *fiscal externalities*. By this we mean that the departure of a high income resident or a business enterprise from a jurisdiction with low fiscal capacity or a high concentrations of low-income or otherwise "high cost" households will have fiscal impacts on that jurisdiction. First, the tax base or fiscal capacity of the community will be reduced, further reducing the community's ability to finance public services. And second, the departure of the non-poor further increases the concentration of low-income households and as a result the average cost of providing services to the remaining residents may actually rise.

These fiscal and economic forces appear to point to the "cumulative deterioration" of urban areas and especially central cities. This process of cumulative deterioration was first noted (and modelled) by Oates, Howry, and Baumol (1971). In fact, a look around the world shows that some urban areas can best be characterised by a whole set of urban ills – physical deterioration, aged infrastructure, high crime, homelessness, and continued loss of population and economic base. At the same time, other urban areas are growing and prospering and are characterised by clean streets, low crime

rates, adequate housing, and attractive central cities. Although there have been a number of case studies of individual metropolitan areas, there has been almost no systematic research that has attempted to identify the set of factors that are most likely to contribute to fiscally and economically successful urban areas.

The existence of fiscal disparities may result in a pattern of inefficient locational choices within an urban area. Inefficiencies may be created for several reasons. For example, while moves away from the centre of a metropolitan area may be perfectly sensible from the perspective of an individual business enterprise, these individual decisions may well reduce metropolitan area efficiency by degrading the environment of the metropolitan area or increasing traffic congestion. Even more important, the deconcentration of businesses within metropolitan areas may actually *reduce* the aggregate economic productivity of a metropolitan area. As Andrew Haughwout (2000) has argued, both the density and the diversity of employment within central cities contribute to the economic productivity and growth of metropolitan areas. Both individual decisions and government policies that contribute to reductions in density will reduce the *agglomerations economies* that contribute to metropolitan area productivity. In sum, the evidence suggests that prosperous metropolitan areas that fully exploit their potential agglomeration economies are dependent on having vibrant central cities with effective fiscal institutions and good fiscal health. If cities stagnate because their fiscal institutions are weak, and they are unable to provide their residents and businesses with high quality public services at reasonable rates of taxation, this is likely to have a direct negative impact on the economic prosperity of the entire region.

The impacts of tax and expenditure assignment on the fiscal health of cities

Among OECD countries, the expenditure responsibilities of the local public sector range substantially – from minimal to very expansive. Canada is at one end of the spectrum and Sweden at the other end. One must take care, however, in comparing unitary to federalist states. Because most unitary states have only two effective governmental tiers, a national and a local sector, the local share in unitary states is more appropriately compared to the combined provincial-local share in federalist states. The share of spending by municipalities, as fraction of total government spending, ranges from relatively low in Canada to relatively high in Sweden. The assignment of functions may roughly be divided into three ranges: minimal, intermediate, and maximal. Under minimal assignment, local governments provide only a core of services, which are mainly of local interest. These would include local police, fire protection, parks, emergency services, water supply, property

regulation, local environmental conditions, garbage disposal, plus limited services for the neediest citizens – medical clinics, child welfare services, homeless services. Intermediate assignment would include core services plus those with limited external benefits, such as elementary and secondary education, and communicable disease. Maximal assignment would add substantial redistributional expenditures, such as income transfers, health care, and housing.

Assignment has three aspects: 1) service provision; 2) financing; 3) accountability, monitoring, and policy control. If service provision is local, but financing and accountability are primarily assigned to higher levels, this can lead to wasteful expenditures and the need for local government bailouts. Wasteful expenditures compromise the fiscal health of municipalities. Central monitoring and accountability, without adequate central financing, can lead to unfunded central mandates. Unfunded mandates may be particularly harmful to big cities, because they are likely to face higher costs of achieving the mandated level of services. Pressure then arises for categorical grants to fund the mandated service levels. For example, in Sweden there is considerable central regulation and monitoring of local schooling, but little specific central financing (Boadway and Mörk, 2004). In Canada, education expenditures have been reassigned to the provincial level in most provinces, in response to perceived wasteful expenditures at the municipal level.

As in all aspects of local public finance, the various assignment rules have both advantages and disadvantages. Maximal local assignment, with local responsibility for both service delivery and financing, increases the problem of fiscal disparities. The greater these disparities are the greater the incentives for inefficient locational choice, hence the lower the productivity of the metropolitan area. For example, if workers commute longer distances, in order to reside in fiscally advantageous jurisdictions, there is an increase in transportation costs and increased congestion. Grant-in-aid policies can help to correct the problems associated with extensive local assignment, while still allowing most of the benefits of decentralisation to be realised. However, grants, depending on their design and their magnitude, may have efficiency costs which impact the economic competitiveness of metropolitan regions. Grants may lead to excessive spending – through the mechanism known as the flypaper effect – or they may cause municipalities to spend money less efficiently.

Metropolitan co-ordination and co-operation

Political fragmentation in metropolitan areas may lead to sub-optimal service delivery. Political boundaries may not coincide with functional economic areas, as measured by the size of labour markets and the extent of

commuting. Non-coordinated policies of independent local jurisdictions may create frictions that limit the growth potential of a region. For example, although individual jurisdictions are likely to compete for new development, the efficient siting of new residential housing and commercial/industrial activities may require a regional perspective. Such a regional perspective would take account of the effect of new development on transportation systems, on water and sewerage treatment requirements, and environmental effects.

Coordination can provide a means of exploiting economies of scale in service provision. It can also help to reduce spill-over costs from one jurisdiction to another that can lead to less than optimal levels of public service provision. For services that provide metropolitan-wide benefits, and exhibit substantial economies of scale, the most effective way to achieve co-ordination is to create supra-municipal bodies whose geographic scope encompasses the entire service region. Examples are authorities for metropolitan transportation, water treatment, solid waste collection and treatment facilities. In the cases of transportation and water and sewer facilities, the advantages that stem from economies of scale and region-wide planning are readily apparent to most citizens and decision makers, and have led to region-wide authorities for these services in most major regions of all OECD countries. Other services, such as libraries, have a mixed type of service area. Substantial economies of scale in the provision of specialised services can be realised by having one or two large centrally located libraries, and by the centralisation of purchasing. It may, however, be optimal to have a set of branch libraries each serving the needs of its neighbourhood. Whether the branch libraries should be independent or part of a larger regional system depends on the cost function for libraries.

While metropolitan co-operation is quite common for services that can exploit scale economies, it has proved much more difficult to achieve for public services with a distinct redistributional impact. Co-ordination that involves surrendering of resources, or relinquishing some measure of municipal autonomy, is inherently difficult to accomplish. If the perception is that resources are being transferred from richer to poorer areas or citizens of the metro area, there will naturally be substantial resistance on the part of the "donor" areas. The rational for such transfers is that substantial fiscal disparities are both inequitable and inefficient. If certain jurisdictions have revenue raising capacity which is weak relative to the costs of service delivery, all residents of the metropolitan area may bear a cost. This effect is most potent when fiscal problems are concentrated in the central city. If a small number of jurisdictions are forced to bear most of the costs associated with concentrated poverty, this may lead to fiscal stress and deterioration in those jurisdictions.

ISBN 92-64-02708-4
OECD Territorial Reviews
Competitive Cities in the Global Economy
© OECD 2006

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OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(04 2006 04 1 P) ISBN 92-64-02708-4 – No. 55269 2006

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ISBN 92-64-02708-4
04 2006 04 1 P

9 789264 027084