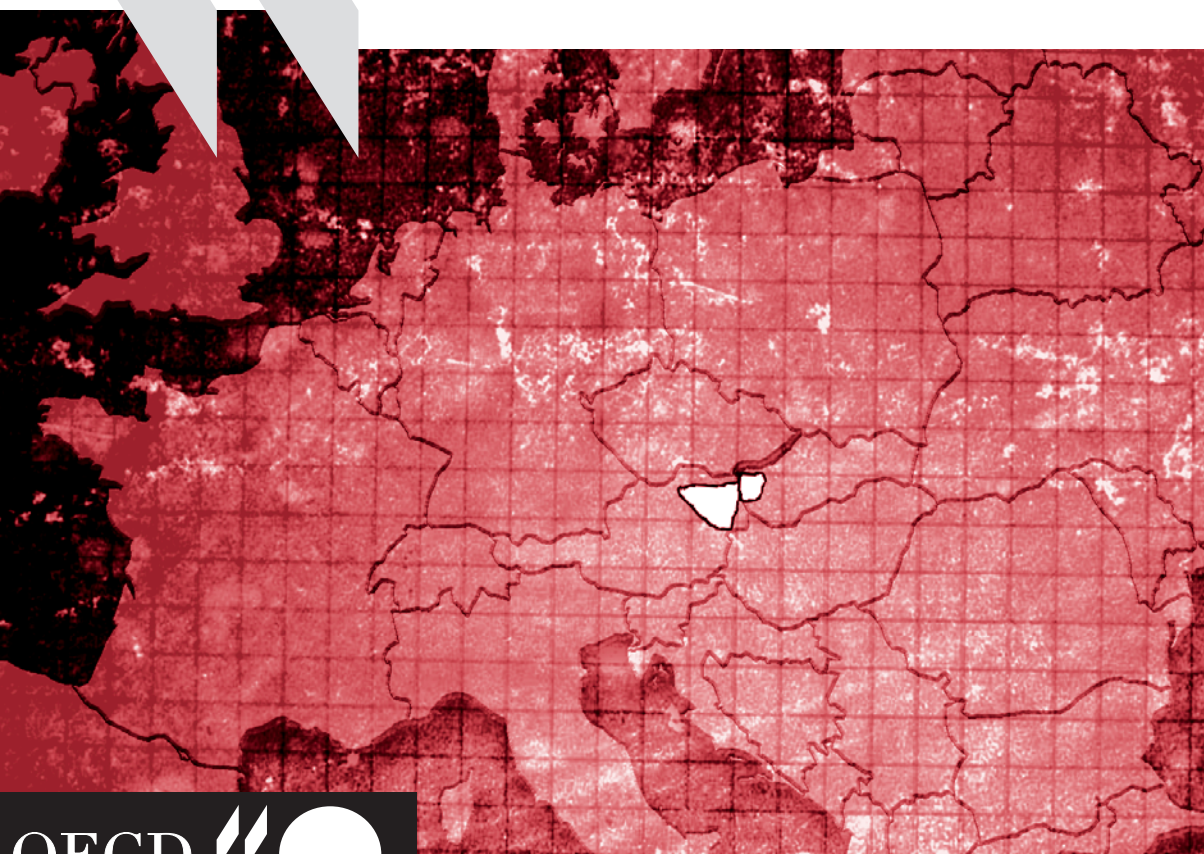


OECD
Territorial Reviews

Vienna-Bratislava
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OECD Territorial Reviews

Vienna-Bratislava

AUSTRIA/SLOVAK REPUBLIC



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FOREWORD

The globalisation of trade and economic activity is increasingly testing the ability of regional economies to adapt and exploit or maintain their competitive edge. Disparities in economic performance tend to be persistent. On the other hand, rapid technological change, extended markets and greater use of knowledge are offering new opportunities for local and regional development but demand further investment from enterprises, reorganisation of labour and production, skills upgrading and improvements in the local environment.

All these trends are leading public authorities to rethink their strategies. The role of policies aimed at improving the competitiveness of regions by promoting the valorisation and use of endogenous resources and at capturing trade and additional economic activities has been strengthened. At the same time, central governments are no longer the sole provider of development policies. The vertical distribution of power between the different tiers of government needs to be reassessed as well as the decentralisation of fiscal resources in order to better respond to the expectations of the public and improve policy efficiency.

The Territorial Development Policy Committee (TDPC) was created at the beginning of 1999 to provide governments with a forum for discussion. Within this framework, the TDPC has adopted a programme of work that mainly focuses on reviewing member countries' territorial policies and on evaluating their impact at regional level. The objectives of territorial reviews are to: *a)* identify the nature and scale of territorial challenges using a common analytical framework; *b)* assist governments in the assessment and improvement of their territorial policy, using comparative policy analysis; *c)* assess the distribution of competencies and resources among the different levels of governments; and *d)* identify and disseminate information on best practices regarding territorial policy and governance.

The Committee produces two types of reviews:

Territorial reviews at the national level. Requested by national authorities, they analyse trends in regional performances and institutional settings, focus on policies to reduce territorial disparities and to assist regions in developing competitive advantages. They also concentrate on the governance framework, on the impact of national non-territorial policies on subnational entities and on specific aspects of fiscal federalism. The final report proposes territorial policy recommendations.

Thematic territorial reviews at regional level. Requested by subnational authorities (local or regional) with the agreement of national ones, they aim to support cross-country analyses on the following themes: regional competitiveness, multi-level governance, and sustainable development at local and regional levels.

ACKNOWLEDGMENTS

This publication was realised in co-operation with and sponsored by the Austrian and Slovak governments and the cities of Vienna and Bratislava. Background information was provided through reports by the Austrian Institute for Regional Studies and Spatial Planning, Vienna, and AUREX sro, Bratislava. Responsible for co-ordination with the OECD were Mr. Hansjörg Hansely from the Vienna city administration and Mrs. Maria Marusova from the Bratislava city administration.

Further policy analysis was provided by Mr. Mark Lorenzen, Copenhagen Business School, Copenhagen, Denmark, and Mr. Jürgen Riedel, Trast Forschung und Beratung, Munich, Germany. Analysis on comparison regions was provided by Mr. Kristof Dascher, Viadrina University, Frankfurt/Oder (Germany), Mr. Henri Capron, Université libre de Bruxelles (Belgium), and Mr. Nicola Crosta, OECD Secretariat.

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ASSESSMENT AND RECOMMENDATIONS

Integration has proved beneficial for the cross-border region of Vienna-Bratislava

The international cross-border region of Vienna-Bratislava is a prime example of two interlinked trends in OECD countries and their beneficial effects on development and growth: *first*, the disappearance of national barriers and increasing integration of local economies, and *second*, the emergence of functional regions that cut across administrative borders. Tightly separated until 1989 by the Iron Curtain, the Vienna-Bratislava region embarked on a path of rapid integration after the opening of the border. This process proved largely beneficial for both sides of the region. Since 1995, both the Bratislava and, albeit less distinct, Vienna part of the region have grown faster than their respective home countries. Moreover, most indicators show regional convergence. While nominal GDP per capita in Bratislava was less than 20% of Vienna in 1995, it approached 30% in 2002 and is supposed to be at around 50% in 2015. However, the benefits of integration are not equally distributed across the region. Some areas are struggling with higher than average unemployment rates. Sub-urbanisation widens the mismatch between functional and jurisdictional organisation, triggers territorial spillovers and fiscal imbalances, and exacerbates friction among local and regional governments. Urban sprawl degrades the amenity value of rural areas while causing inner city decline, infrastructure congestion and pollution.

Further integration requires coherent policies across borders.

While barriers at the international and national levels are gradually disappearing, local and regional policy makers are increasingly challenged to remove obstacles that remain at the local and regional levels. Although the dynamics of integration and cross-border exchange are beneficial for the region as a whole, ill-managed integration steps could negatively affect some segments of

the population. Ensuing anxiety towards further integration or outright resistance could have severe repercussions on the further removal of barriers. Preventing such effects requires policies and institutional adjustments that fully exploit growth opportunities and distribute the integration benefits evenly. Policy makers at both national and regional levels will be challenged to design regional development strategies and to strive for greater efficiency, equity, accountability and coherence of policy making across jurisdictional borders. If the region succeeds in managing this complex interaction of international integration, regional convergence and sub-urbanisation, it could become a role model for other emerging cross-border areas.

Cross-border initiatives lack a coherent vision of how to develop the cross-border region.

While local initiatives have spread, a coherent policy framework for regional development is still lacking. For long, building the Vienna-Bratislava cross-border region was barely pursued or vaguely shaped as a local project. Regional integration was rather a by-product of Central and Eastern European reforms, the Austrian integration into EU markets, and the imminent EU-accession of the Slovak Republic. International agreements opened national borders throughout the 1990s, and EU enlargement in 2004 will remove further obstacles, particularly those affecting labour mobility. Since the mid-1990s, a flurry of cross-border projects and initiatives has been introduced with galvanising effects, as they have been instrumental in promoting joint activities, but they have not yet induced a clear local strategy for the development of the cross-border region, and local initiatives remain driven largely by outside funding. EU programmes, such as INTERREG, have developed incentives to co-operate, but clarifying policy priorities and building sustainable cross-border institutions are still in their early stages and require more active local engagement. In light of continued integration, the main local actors should devote particular attention to labour market, transport infrastructure, and a flexible, long-term governance structure.

After accession, bilateral restrictions to cross-border mobility should be reviewed.

The first policy challenge is integrating and enlarging a cross-border labour market. Some Austrian citizens are concerned by potentially large flows of low skilled workers from the Slovak Republic, attracted by a wage gap of around five to one and higher unemployment in Bratislava (10%) than in Vienna (7%). These flows are often supposed to further increase the number of low skilled unemployed, mainly former immigrants, in the Vienna metropolitan region. Estimations forecast limited migration flows but expect some increase in cross-border commuting. The extent of commuting is subjected to disagreements and lead to very different estimations. Transitional arrangements based on fixed quotas are expected to be applied after the Slovak Republic's EU accession and progressively lowered until 2011. Given the potentially large benefits of an unrestricted regional labour market, provisions should be set up so that, based on the regular assessment of migration and commuting, quotas can be reduced and lifted as quickly as possible.

There seems to be scope for a better organisation of labour market activities, possibly through the creation of a formal cross-border body.

Cross-border labour market policy is still in its infancy and is mainly pursued in connection with the INTERREG PHARE CBC initiative. A few programmes are aimed at active employment creation, but most initiatives target data collecting. Although limited in scale, informal networks between certain local, labour market offices from both sides have also emerged. Joint projects support and encourage personal interaction and develop cross-border information networks. These forms of co-operation should be strengthened, particularly by accelerating the set up of a cross-border information networking on labour market relevant issues. It could be appropriate to set up a cross-border labour market Commission or Council, including public and private actors and Public Employment Service (PES) representatives in the Vienna-Bratislava region. In the short term, this body could be responsible for monitoring studies. In the long term, with advanced labour market integration and a consolidated institutional framework in the Slovak Republic, the body could have a more active role in cross-border active labour market policies.

In Vienna, the regional labour market offices of the metropolitan area should co-operate more closely.

Besides cross-border co-operation, the integration of the labour markets should first start within the border of each country, all the more so considering most of the anxiety caused by the potential effect of the opening of borders largely reflects current internal problems of the respective labour markets. More co-ordination between different infra-regional bodies involved in labour policy making is required. In both countries, labour market policy is a central government competency. The decentralisation of the PES in Austria has given regional branches more flexibility in terms of policy and actions. However, incentive mechanisms should be introduced to encourage horizontal co-ordination between the several PES operating within the metropolitan Vienna region. Moreover, the scope of Territorial Employment Pacts (TEPs) should be enhanced. TEPs are local partnerships which manage co-operation between the traditionally segregated labour market and economic development actors through a process involving federal, regional and local governments. They constitute a successful initiative which could be further improved by introducing more bottom-up mechanisms and involving more local employers.

Facing unemployment problems and regional disparities, the Slovak Republic has to consolidate its current institutional network of labour market offices.

Remaining embodied in the far reaching transition and reform process, the Slovak labour market policy faces greater challenges than that of Austria. The Slovak Republic is confronted with high unemployment rates that moreover, vary considerably among regions. Therefore, there is a need to co-ordinate and consolidate the National Labour Office network at the sub-national level. The creation of an inter-ministerial commission for employment is relevant in the context where improving labour market performances requires introducing reforms in diverse areas. It will also be important that the current reform under discussion (to reduce the number of district offices and replace them with local offices) should not lead to a deterioration of services delivery and information access. In the future, it will be appropriate that regional and local actors, both public and private, be more involved in the different phases of labour market policy. In the short term, the private sector could be given a more important role in providing training programmes.

Strong industrial ties and enhanced knowledge transfer across the border can trigger agglomeration effects.

In order to better capture the agglomeration effects of an integrated cross-border region, Vienna-Bratislava could find it useful to build a learning region, *i.e.* a region with a highly educated workforce and a dense network of firms and clusters. Meeting this second policy challenge will require new initiatives to reinforce ties and knowledge exchange between firms and clusters and to help reap new scale and scope economies. By integrating industries in similar value chains into one regional market, incentives for local firms to learn and internalise new knowledge increase. Moreover cross-border integration, particularly in urban areas, offers a huge potential for specialising and upgrading the regional education and public research supply for local industries, increasing the pool of specialised manpower and enhancing the potential productivity improvements in regional firms. Stimulating organisational learning can also consolidate strategic building blocks for competitiveness. Overall, this is facilitated if cross-border social capital is significant and if firms' propensity to launch joint projects is high.

The Slovak regional innovation system should be better grafted to the Eastern Austria research and technology infrastructure.

The Vienna-Bratislava region has significant potential to build a learning region. It has a solid knowledge infrastructure, a large knowledge base and expertise provided by numerous universities and *Fachhochschulen*. Although confronted with a number of weaknesses such as a low share of private sector R&D, overemphasis on the vocational system, a low ratio of highly skilled graduates and weak technology transfer institutions, Vienna remains the most important high technology centre in Austria with significant strengths in electronics, IT, biotech, engineering and cultural industries. Although affected by a dramatic restructuring of its research and education activities, declining R&D spending and limited spillovers from foreign direct investment, a robust research and skill substrate could be revitalised in Bratislava. The challenge is to link the Bratislava innovation network to the stronger, more diversified Vienna platform. Appropriate co-operation between research institutions and firms across the border will not only increase opportunities for growth but will also be instrumental in reinforcing Vienna's global stance while reducing brain drain and upgrading the

technological infrastructure of the Slovak capital.

Better transport policy co-ordination is necessary to improve external and internal accessibility of the region.

A third issue is the current cross-border transport infrastructure, characterised as slow, unreliable, disrupted and badly connected to national and international networks. Although cross-border transport demand has doubled between 1995 and 2000 and is likely to increase annually by 10%, in the last 15 years, policy has hardly addressed infrastructure deficiencies between Vienna and Bratislava. Poor co-ordination of national and regional transport policies on both sides of the border has prevented the emergence of a truly integrated transport region. Moreover, lacking infrastructure ties are partly the result of differing views on objectives and instruments of transport policy. While Austria fears that increased road transport will have detrimental effects on the environment and is hesitant to invest in road infrastructure, the Slovak Republic is trying to adapt its road infrastructure to Western European standards and to increase its accessibility to Western European markets. Only recently, Austria has modified its position by accepting two major, cross-border road investment projects. However, the prospects of increasing international as well as cross-border traffic pose a considerable challenge to transport policy and traffic management in the region.

Transport operators on both sides of the border should establish common management bodies.

Selected infrastructure projects are essential for improving accessibility within the region and increasing reliability of cross-border links. Moreover, the symbolic value of visible infrastructure projects for integration should not be underestimated. While infrastructure is important to facilitate exchange across the border, good regulation and management of transport systems is also necessary to maximise their potential for integration. Strong and stable collaboration among policy makers, transport associations and service providers can considerably facilitate the use of all transport means to, from and within the region. Policy makers might thus find it useful to merge the two separate urban public transport systems into one public transport management body (*Verkehrsverbund*) to cover the Vienna-Bratislava metropolitan region. Moreover, a change in the regulatory status of the Bratislava airport could allow both Vienna and

Bratislava airports to better co-ordinate their commercial activities with the long term view of a common airport management.

Road pricing and related mechanisms can help to achieve politically stated goals for sustainable development.

The evolution of traffic in the Vienna-Bratislava region could jeopardise environmental sustainability. The combination of growth in international transport volumes, increased intra-regional cross-border traffic, growing sub-urbanisation and a shift in the modal split from rail to road can question stated political objectives of regional sustainability and spatial organisation. Current policy responses, particularly the co-ordination of transport and environmental policies and spatial planning appear to be inadequate. To foster the use of public over private transport, local and regional governments should link zoning more closely to the planning of new public transport routes. But policy makers could achieve sustainable development goals more easily by using economic instruments rather than the more conventional regulatory approaches. Pricing motorised traffic according to congestion and pollution could allow for better traffic management in metropolitan areas and could contribute to the reduction of environmental damage and urban sprawl. Moreover, revenues from pricing could help to finance new infrastructures or environmentally-related investments.

Current Austrian-Slovak cross-border institutionalisation is weak.

The institutional framework that governs relationships between regional actors in Austria and the Slovak Republic is relatively thin and unstable and poses a considerable burden on public and private actors who are ready to participate in cross-border activities. Unlike with other Central and Eastern European countries, national and regional governments in Austria have not yet established permanent, specialised cross-border institutions and organisations with the Slovak Republic. Cross-border agreements remain piecemeal and *ad hoc*. Political institution-building has not kept pace with the functional integration of the region. However, if not addressed, political fragmentation and the persisting dearth of cross-border institutions can encumber and eventually thwart regional growth and intra-regional convergence. National and regional policy makers might find it useful to establish governance frameworks within and across national borders

that reduce the cost of cross-border exchange and facilitate inter-regional relationships.

A stable and permanent association to govern cross-border relations should be established.

To improve cross-border relations, local and regional governments on both sides of the border should establish a Committee that has the explicit objective to facilitate and stimulate cross-border activities. The Committee should be firmly anchored in the local economy and society, and should trigger activities beyond the limits of internationally sponsored activities. Functioning as a “switchboard”, the Committee should organise and disseminate information relevant for cross-border activities or trigger projects in policy areas such as the labour market, public transport, education or tourism promotion. It could further act as an early warning device able to identify and address potentially conflicting issues, such as taxation and fiscal equity across the border. With time, this body could become the core of a permanent and stable metropolitan governance framework covering the already existing grass-root initiatives in four countries – Austria, Hungary, the Czech Republic and the Slovak Republic.

Finally, policy makers might also find it useful to improve inter-jurisdictional collaboration within their countries.

Finally, regional and national policy makers might find it useful to improve national governance frameworks and to enhance inter-jurisdictional collaboration *within* their countries. Currently, neither the Austrian nor the Slovak national institutional frameworks are favourable to collaboration across regions or municipalities. In Austria, municipalities and states face several fiscal disincentives when planning to collaborate and partake in endeavours among each other. Although the federal government exerts considerable influence in sectoral policies, it has no direct power in spatial organisation and no incentive instruments to co-ordinate local and regional authorities’ policies. In Vienna, initiatives for metropolitan-wide policy co-ordination are left to the discretion of the *Länder* and the municipalities. In the Slovak Republic, inter-jurisdictional collaboration is also limited by external factors. Despite recent decentralisation, Slovak local authorities have little fiscal power, and their administrative capacity to assume new tasks is limited. Municipalities can hardly reap the financial gains of their development endeavours or of joint activities. In both countries,

governance reforms could reduce barriers to co-operation and help local and regional governments to reach policy coherence across borders.

In sum, local and regional governments have an increasing role to play in managing the integration and convergence process.

The time has come for policy makers to address cross-border integration more actively. Secular trends such as the accession of Eastern European countries to the EU set the ground for rapid integration and economic convergence in the Vienna-Bratislava region. International agreements will further dismantle national borders, rendering barriers at the local and regional level more visible. This will shift pressure from national and international to local and regional policy makers, who will become increasingly responsible for managing the integration process. Regional policy makers now need permanent, stable and predictable cross-border institutions, and improved relations with their national governments if they are to provide coherent programmes to their constituency. If in co-operation with the national level, regional policy makers succeed in removing the remaining barriers, actively fostering cross-border interchange and enhancing economic convergence in the area, Vienna-Bratislava could become the growth engine in Central and Eastern Europe and a model for other cross-border regions.

CHAPTER 1

TRENDS AND CHALLENGES

Located on the Austrian-Slovak border, the Vienna-Bratislava Metropolitan Region mirrors two interlinked trends in Europe: *first* the removal of national barriers and increasing international integration of regional economies, and *second* the emergence of functionally integrated areas that cut across political borders. Since 1989, separated for more than 40 years, both parts of the area have started a process of fast-paced regional integration. The removal of obstacles boosted trade and foreign direct investment, increased international ties, profoundly restructured both regional economies and placed the cross-border region on a slow path of convergence. However, other obstacles – particularly on the labour market – remain, and they may slow down further convergence. Suburbanisation leads economic and fiscal imbalances within the metropolitan area to increase, and urban sprawl puts growing pressure on the environment. This chapter presents the major facts and trends with respect to cross-border integration and metropolitan development, addresses the remaining barriers and explains why additional policies at the local and regional levels are needed to boost integration.

Vienna-Bratislava – a wide scope for integration

The integration of Vienna, the Austrian capital, and Bratislava, the Slovak capital, occurs within the context of two major territorial development trends: overcoming Europe's schism post-1945 and the emergence of functional regions in Europe. The geographical position of the metropolitan region of Vienna-Bratislava makes it a role model for Europe's post-Cold War reunification process. *First*, the area stretches over the border formerly known as the "Iron Curtain". The gradual dismantlement of the Iron Curtain (since 1989) has and will influence the area's economic development. The enlargement of the European Union (EU) and the ensuing integration of the Central and Eastern European (CEE) markets into Western Europe directly affect the regional level. *Second*, in the area, as elsewhere, functionally integrated regions have emerged. Only 55 km located from each other, the two cities are the closest located capitals in the world, resulting in potentially easy commuting between them. Furthermore, the major differences in various

economic indicators add to the scope for integration, designating the Vienna-Bratislava Metropolitan Region as a social laboratory for processes of regional integration.

A hub in Central Europe

The Vienna-Bratislava Metropolitan Region offers an example of how institutional arrangements affect integration and helps identify the fields that are important to the advancement of integration. Despite their history of close relations, before 1945, Vienna and Bratislava merely co-existed without any form of institutionalized co-operation. It was only after the 1989 historical changes in Central and Eastern Europe that they began to become reacquainted. Institutional inter-linkage had to start almost from scratch in the 1990s. The challenge that such a task poses for the public administration and civil society throughout the region is considerable and might explain the occasional – as will be seen later on – sluggish advancement in this field.

Although once fully integrated and located in the same country a century ago (Box 1.1), the political split between Eastern and Western Europe has long repressed regional attempts for integration in the Vienna-Bratislava Metropolitan Region; thus, depriving both sides of the region from parts of their natural hinterlands and marginalising them in their respective political systems. The opening of the border in 1989, permitted new efforts of co-operation to make better use of the region's economic potential. Since then, progress has been steady, even though the initial enthusiasm of the early 1990s quickly gave way to a more pragmatic approach towards cross-border affairs. Furthermore, the region's peripheral position has changed to that of a gateway between the East and West. With 4.5 million inhabitants and an economy the size of Ireland's, the region has the potential to develop into a major hub in Central Europe.

Box 1.1. Vienna-Bratislava in 1900

In 1900, the Vienna-Bratislava region was located in the same territory – the Austro-Hungarian Empire – with one common market and currency. The Empire banded together the largely independent states of Austria and Hungary under one common monarch. Other than foreign affairs, defence and finance, the monarch's central government had no formalised competencies, but there were few obstacles to exchange between Austria and Hungary. With more than 2 million inhabitants, Vienna was the fourth largest city in the world. Since the 12th century, Vienna has been the capital of Austria and, at a later time, of the whole Empire. Similarly, Bratislava¹ was the Hungarian capital for a long period.

Box 1.1. Vienna-Bratislava in 1900 (cont.)

Vienna was German-speaking, while Bratislava was decidedly multicultural with a population consisting mostly of Germans, Hungarians and Slovaks. With today's Slovak Republic not existing as a political entity, Bratislava was politically dependent on the Hungarian capital of Budapest. Yet, it became the second most important industrial town in Hungary after 1900, despite its low population (around 1/30 of the population of Vienna).

In the absence of significant trade barriers and fundamental linguistic differences between Vienna and Bratislava, the two agglomerations interacted intensively. Transportation infrastructure was adequate and concentrated on railroads and waterways. In 1914, a direct streetcar connection was launched between Vienna and Bratislava with great success. It was the dynamism of Vienna that set the pace for development in the region. The western Slovak region was influenced by cultural contacts with Moravian, Austrian (especially Vienna) and Hungarian areas. Factory-made agricultural tools and machines were introduced earlier, the population's purchasing power grew, and the range of goods available from the commercial network widened. Close contacts with large cities enabled a more rapid adoption of urban cultural models in Bratislava (Mannova, 2000). This influence was exploited by the active Hungarian economic policy that supported the development of agricultural industries to supply Vienna.

Nonetheless, Hungary erected a number of barriers that ran counter to free trade and a common market. As a result of the biased Hungarian public procurement practices, it was largely impossible for Austrian-based "foreign" companies to be successful in Bratislava. The administrative border between the two parts of the Empire was further strengthened through a number of tolls on both sides. These restrictions to the common market can be regarded as a major reason for the economic success of Bratislava after 1880. Hungarian policies forced foreign companies to establish branches in Hungary in order to do business in the country. Owing to its geographical closeness to Vienna and the multi-ethnic composition of its population, these branches were established largely in Bratislava. The considerable inflow of FDI came from Austria and other Western European countries and was a major source of growth in the city. Flows from East to West were less common but included labour force and agricultural products.

Disparities and convergence

Including areas of an EU-country and an accession-country, the area is said to be divided by an edge of prosperity (*Wohlstandskante*) (Table 1.1). This term has been coined to characterise the striking differences in certain economic indicators between bordering EU- and EU-accession countries. Not only do

these borders separate two countries, they also make a distinction between two levels of prosperity: nominal Austrian GDP per capita amounts to roughly six times that of the Slovak Republic in 2002, but due to the higher Slovak growth the gap is constantly shrinking. These differences manifest themselves in the Vienna-Bratislava Metropolitan Region and are likely to influence the creation of an integrated region. However, when taking a more careful look at the region, the sharp differences between Vienna and Bratislava get blurred. Indicators of prosperity in some western parts of the Slovak Republic and especially in certain districts of the Bratislava Region are not only high above the Slovak average, but also well above that of many Austrian districts (*Bezirke*). The price level is lower in the Slovak Republic, staying at 37% of Austria's in October 2002.²

Table 1.1. **GDP per capita in selected economies, 2000**

	In EUR	In USD, PPP-corrected	Average annual GDP-growth in Euro-terms, 1995-2000 (%)
AUSTRIA	25 636	28 172	3.33
Vienna	35 066	38 534	2.78
Lower Austria	21 614	23 752	4.26
Burgenland	16 360	17 987	3.18
SLOVAK REPUBLIC	3 984	11 376	8.01
Bratislava	8 430	24 070	9.13
Trnava	3 995	11 407	6.04
OECD	24 758	24 679	

Note: data for Austria 1996-2000.

Source: OECD Territorial Database.

The Slovak Republic's economy has invested efforts targeted at the transition process and re-orientation towards EU-markets since its independence in 1993. Fundamental progress has been made since 1998 with the inauguration of a more reform-oriented government. Since 1995 the Slovak GDP has been constantly rising, showing average nominal growth rates of 8%. The contributions of industry and agriculture to the national GDP were halved during the 1990s, falling from 49 to 26% and 6.9 to 3.5% respectively. Today, growth is increasingly dependent on foreign demand as the economy becomes more profoundly integrated into the Western European market. Between 1996 and 2000, the country's total export volume increased from 53.2 to 73.5% of GDP.³ Fuelled by trade in machinery and transport equipment, foreign trade replaced domestic demand as the primary source of growth. In 2000, 59% of total Slovak exports and 49% of its imports were going to respectively coming

from the EU, leaving the country with a trade deficit with the EU of EUR 994 million (EIU, 2002a). Overall, the Slovak economy's positive performance over the last years permitted the country to catch up with other Central European transition countries' economic indicators. However, GDP growth has not been met by sufficient growth in employment, which leaves the Slovak Republic with an unemployment rate of 18%, among the highest of any OECD or EU-accession countries. Surprisingly, this does not seem to cause the unofficial economy to grow, which is estimated to produce an equivalent to 19% of GNP, the lowest ratio of all transition countries (Schneider, 2002).

The Austrian economy is highly diversified. Services constitute the most important sector in the economy, accounting for over two-thirds of value-added and employment. Unlike many other developed countries, industry (including construction and electricity) has maintained its share of total output, accounting for approximately 30% of GDP in 2000. The agricultural sector in turn accounts for less than 2% of GDP. With a small domestic market, Austrian firms have had to look to export markets for expansion. The degree to which the economy has internationalized in recent years is reflected in the rise in the ratio of exports of goods and services to GDP. Largely as a result of accession to the EU in 1995 and the opening up of former communist countries, exports rose to 48.7% of GDP in 2000, up from 39.6% in 1996. The structure of the Austrian economy is characterized by the preponderance of small and medium-sized enterprises that give it the advantage of a high degree of flexibility, both in terms of technologies used and changes in the market. More negatively, small size and the low level of private R&D have resulted in low levels of innovation and relatively small numbers of goods manufacturers and service providers in the high-technology sector. In terms of purchasing power parity, Austria's GDP per capita was some 12% higher than the OECD or the EU average in 2001, making it the fifth richest country among the EU-15. The underground economy is relatively small with 10% of GNP, compared to an average of 19% in Western European OECD member states.

Geographic and demographic context

The Vienna-Bratislava Metropolitan Region has a surface area of around 30 000 km² and is home to 4.5 million inhabitants (Table 1.2). It encompasses the three Austrian *Länder* of Vienna, Lower Austria and Burgenland – the Vienna Metropolitan Region (VMR)⁴ – and the two Slovak regions of Bratislava and Trnava – referred to as Bratislava Metropolitan Region (BMR)⁵. The Slovak part makes up for roughly one-quarter of both area and inhabitants. The Vienna-Bratislava Metropolitan Region can be analyzed on three different territorial levels (Figure 1.1), of which the third level will be analysed in this review:

- First, the cities of Vienna and Bratislava are the two economic, political and administrative centres of the region as well as of their respective countries. They are home to 1.6 million and 0.4 million inhabitants respectively.
- Second, the agglomerations of Vienna and Bratislava, due to their geographical vicinity, can be analyzed as one single, bi-polar urbanized area. This territorial unit encompasses the city of Vienna and three bordering NUTS-IV regions – the Vienna Agglomeration, which does not form an administrative unit – on the Austrian side and the Bratislava Region on the Slovak side. It is populated by 3 million inhabitants and will be referred to as *Core Region* of the Vienna-Bratislava Metropolitan Region.
- At the third and most comprehensive level stands the Vienna-Bratislava Metropolitan Region (VBMR), encompassing the metropolitan regions of Vienna and Bratislava. It is home to 42 and 21% of the total Austrian and total Slovak respective populations. In addition, it accounts for 46 and 34% of their respective national GDP. The bi-national region represents, in fact, the core of an emerging bigger functional region, the European Region Vienna or *Europaregion Wien*.⁶

Table 1.2. **Key figures for the Vienna-Bratislava Metropolitan Region, 2000**

	Total population	Area (km ²)	GDP (mEUR)	GDP/capita (EUR)
VIENNA-BRATISLAVA METROPOLITAN REGION	4 597 200	29 755	101 700	22 122
Vienna Metropolitan Region	3 429 200	23 554	94 298	27 498
Vienna	1 608 700	415	56 410	35 066
Lower Austria	1 542 500	19 173	33 340	21 614
Burgenland	278 000	3 966	4 548	16 360
Bratislava Metropolitan Region	1 168 000	6 201	7 402	6 338
Bratislava	617 000	2 053	5 201	8 430
Trnava	551 000	4 148	2 201	3 995
AUSTRIA	8 110 259	83 859	207 915	25 636
SLOVAK REPUBLIC	5 400 880	49 035	21 518	3 984

Source: OECD Territorial Database.

Figure 1.1. Vienna-Bratislava Metropolitan Region



Source: OECD Secretariat, based on Informationsdienste GmbH.

Demography

Population development in the Vienna-Bratislava Metropolitan Region has been marked by slow growth rates and an aging population over the last decades (Table 1.3). Between 1991 and 2001, total population increased by 2%, which was below the national average of Austria but slightly higher than the Slovak average. This figure – which corresponds to an annual growth of a mere 0.2% represents nevertheless a reversal of the pessimistic predictions dating before 1989, when the population was forecasted to shrink drastically.⁷ In 2001, the population in the Vienna-Bratislava Metropolitan Region was reported to

stand at 4.52 million. Latest forecasts suggest that this number will remain relatively stable or grow slowly over the next two decades, while the mean age should continue to rise. Currently, 64% of the Core Region's population is of working age (between 15 and 60 years), a slightly lower percentage than that found in the other Slovak regions.

Table 1.3. **Population development in the Vienna-Bratislava Metropolitan Region**

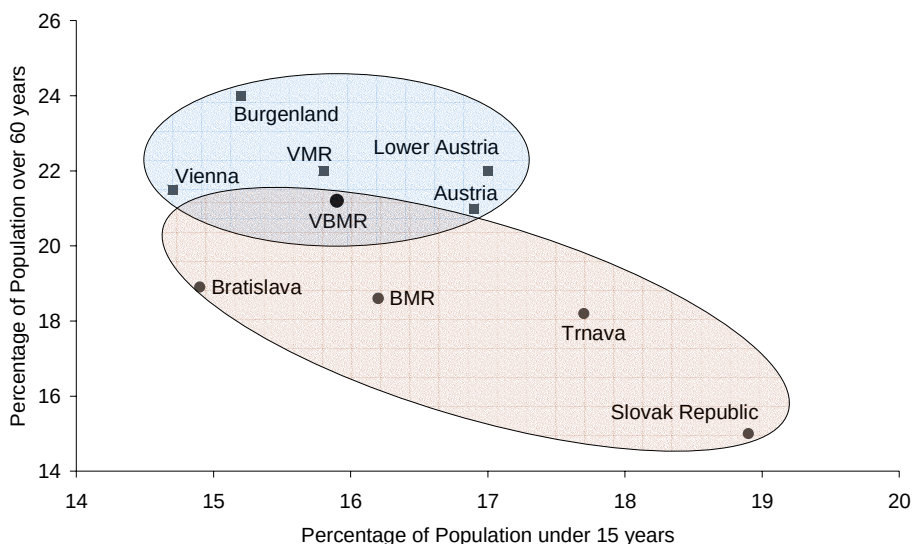
	Total population (2001) ^a	Share of foreigners (%) (2001)	Population development (%) (1991-2001)
VIENNA-BRATISLAVA METROPOLITAN REGION	4 523 514	9.8	2.04
Vienna Metropolitan Region	3 373 496	10.5	2.71
Vienna	1 550 123	16.0	0.67
Lower Austria	1 545 804	6.1	4.88
Burgenland	277 569	4.5	2.47
Bratislava Metropolitan Region	1 150 018	7.6	0.14
Bratislava	599 015	10.0	-1.22
Trnava	551 003	5.0 ^b	1.66
AUSTRIA	8 032 926	8.8	3.04
SLOVAK REPUBLIC	5 379 455	8.7	1.99

Notes: a) Differences to population-figures in other tables are due to different sources. b) Estimation.

Source: Statistik Austria, Statistical Office of the Slovak Republic.

In the absence of self-sustaining birth rates, the region's population growth is explained principally by migration from other parts of the rest of the country and from abroad. However, trends differentiate regionally and over time. The biggest magnet for foreign migrants in the region is the city of Vienna, which has a shrinking population. Between 1985 and 2001, the percentage of residents without Austrian citizenship in Vienna's population rose from 7 to 16.4%, mostly originating from the countries of former Yugoslavia (45%) and Turkey (16%). The outskirts of Vienna and Bratislava also attract foreign migrants, while in the city of Bratislava, foreigners represent only 6.6% of the population. The second source of population growth for the region stems from intra-national migration. Birth rates are higher in western Austria and the eastern Slovak Republic than in the Vienna-Bratislava Metropolitan Region, but flows of younger population to their capitals compensate for their low birth rates. On one hand, for the Vienna Metropolitan Region, these flows are expected to diminish along with decreasing birth rates in western Austria, making it more dependent on foreign immigration. On the other hand, the Bratislava Metropolitan Region will be able to rely on a sufficiently high potential of migrants from the east of the country for years to come (Figure 1.2).

Figure 1.2. **Demographic structure of the Vienna-Bratislava Metropolitan Region, 2001**



Source: OECD Territorial Database.

Suburbanisation, migration to the outskirts of metropolitan areas, is another significant trend that is fuelled by a combination of low land rents in peripheral areas and their increased accessibility. After 1980, in both Bratislava and Vienna, suburbanisation became the dominating force throughout the whole region. In the process, the distance between place of work (mostly in or in proximity to the city centres) and place of residence (in the suburbs) increased for a growing percentage of the population, raising the number of commuters as well as the average commuting distance. In 2000, every fifth Viennese employee commuted into the city on a daily basis. Urban sprawl into the hinterland of the cities has increased, while peripheral regions have to fight against the constant loss of their younger population to the cities. Consequently, the most peripheral parts⁸ of the Vienna-Bratislava Metropolitan Region show the clearest signs of an ageing population and corresponding effects such as low economic activity or difficulties to maintain the level of public services.

Spatial development

Economic development of the Vienna-Bratislava region still follows the pattern that existed before 1989, resulting in a biased spatial distribution of economic activities. Vienna is oriented along the highways to the west and south, whereas Bratislava has developed areas of economic activity in the city's north, east and south, which leaves the overall region with very sparsely populated areas between the cities. In fact, the area between Vienna and Bratislava is the least populated in the Core Region and depends largely on agriculture. Moreover, ecological circumstances do not call for a concentrated development in this space. Serving as the direct connection between the cities, the Danube River is surrounded by environmentally valuable meadow forests that are defined as nature protection areas. A project to build a hydroelectric power plant in this part of the Danube was stopped in the 1980s after massive popular protests. Today, human activities are highly restricted to certain forms of recreation and tourism in this area.

Possible axes of development bridging the space between Vienna and Bratislava might evolve along the two bends running north and south of the Danube. To the north of the river, the agricultural area of *Marchfeld* is an area for major potential development. Along the particularly environmentally sensitive south bend, spatial changes have begun and will accelerate with planned construction of new transportation infrastructure. The two urban agglomerations will provide labour markets with over 1 million jobs within a distance of less than 50 km. In combination with the current low land prices,⁹ this constitutes a powerful rationale for economic and residential developments in these areas. Common Austrian and Slovak policies will be needed in order to safeguard sustainable development. Although models for the future development of this area are scarce, two different approaches are presently under consideration. By establishing several satellite towns in the region, the first approach promotes an extensive network of settlements throughout the whole area. London's "satellite towns" is a relevant example. Applied in the Stockholm metropolitan area, the second concept foresees the development of a limited number of nodal centres along linear bends between Vienna and Bratislava. This approach tends to receive more acceptance among local planners, as it is a variation of a previously adopted concept that tries to contain urban sprawl along public transportation lines.

Administrative organisation

The administrative organisation of the region is heterogeneous and characterized by a contrast between federal Austria and the unitary Slovak Republic, with the latter in full process of territorial re-organisation. The

three *Länder* that constitute the Vienna Metropolitan Region are independent states. They autonomously decide matters that fall within their competencies (e.g., construction of lower and medium-level transport infrastructure, environment, spatial planning). No common institutions exist to co-ordinate their different policies. The two regions of the Bratislava Metropolitan Region – Bratislava and Trnava – were created in 1996. Since 2001, they have been undergoing a process of profound re-organisation through which they receive new competencies but no additional fiscal resources. This results in a frequent change of personnel and budget shortages. Institutionalized co-operation between Austrian *Länder* and Slovak regions is almost non-existent. Thus, to a large extent, co-ordination of policies depends on ad hoc meetings, unless it is a by-product of policy co-ordination at the national level. Apart from these rather procedural difficulties, the role of Vienna and Bratislava as national capitals poses another fundamental problem to functional integration since they provide several services of national relevance that are extremely difficult to pool such as ministries, national headquarters and other national institutions.

Economic integration and cross-border convergence

Integration – the process of inter-relationships between different actors – in the Vienna-Bratislava Metropolitan Region is fuelled by the gradual breakdown of the border between Austria and the Slovak Republic. Economic theory suggests that integration leads to convergence among participating actors, and that actors that do not participate directly will profit from trickle-down effects. Presently, although primarily carried out by private actors following their economic interests, integration is driven by the political will to dismantle the national border. Fuelled by large differences in productivity in close vicinity integration gained rapid momentum after 1989 and will further accelerate after the upcoming EU-accession of the Slovak Republic, scheduled for May 2004. After accession, a seven-year transition period¹⁰ will be in effect until 2011 during which restrictions to free cross-border exchange will be gradually removed. At the latest by the end of this transition period, the Vienna-Bratislava Metropolitan Region can be expected to dispose over a level of organisational homogeneity comparable to other cross-border regions within the EU.

Previous integration steps brought substantial gains to the Vienna-Bratislava Metropolitan Region, but from a spatial point of view, impacts were not distributed equally. In the Vienna Metropolitan Region, a slow but sustained decline in disparities can be identified, which is reflected in the stronger growth of Lower Austria and Burgenland. Habitually among the most disadvantaged in the whole country, some of the northern Austrian areas along the Czech border could stop their fifty-year long decline due to the border opening. In the Bratislava Metropolitan Region, internal disparities are on the rise as economic

developments concentrate in the urban centers and their direct vicinity. While the economy of Bratislava city has clearly started to converge with its Austrian counterparts, the region of Trnava has not yet embarked on a path of sustainable growth.¹¹ This resulted in a growth of disparities in the Slovak part of the Vienna-Bratislava area and the whole Slovak Republic. To sum up, structural integration can be detected in most sectors throughout the region, but resulting positive effects are not equally distributed.

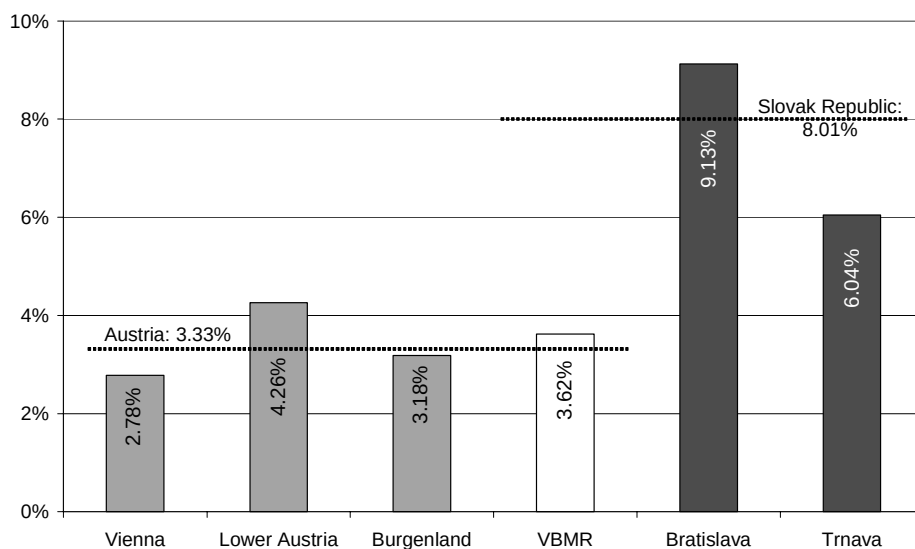
Indicators of convergence

Several economic indicators show a clear convergence of the cross-border region's two halves. Although productivity and economic development levels continue to differ widely, the stronger growth rates of Bratislava and the Slovak Republic lay the foundation to a constant reduction of differences in wealth. Taking into account PPP-corrected data, the Bratislava Region is already the second-richest administrative unit in the Vienna-Bratislava Metropolitan Region. The differences in nominal GDP between the two sides are also shrinking, but due to the low purchasing power of the Slovak currency (SKK), the Slovak regions lag considerably behind their Austrian counterparts. Although differences in average wages paid across the border are substantial, amounting to a ratio of around 1 to 5, they are slowly shrinking. However, the gap in unemployment is rising.

The productive capacities of the region are largely situated in the agglomeration of Vienna, but the regions of Bratislava and Trnava have been showing faster growth – albeit from a lower level – since the second half of the 1990s (Figure 1.3). While Vienna's nominal GDP in Euro-terms grew at an annual average of 2.8% between 1996 and 2000, the region of Bratislava featured an average of 9.1%. These growth rates made it the most dynamic economy throughout the whole Vienna-Bratislava Region. The outstanding performance of Bratislava is further highlighted by the fact that it reached 99% of the EU-15 average in 1998, according to the same indicator. Although also growing at an annual rate of 6% between 1995 and 2000, the region of Trnava could not keep up with this development. Despite the rapid growth of the Bratislava Metropolitan Region, it is the Austrian growth that determines the overall development of the region, due to Vienna's larger economy (Table 1.4).

Figure 1.3. **Average annual GDP growth in the Vienna-Bratislava Metropolitan Region**

Austria: 1996-2000; Slovak Republic: 1995-2000, in current Euro-terms



Source: OECD Territorial Database.

Table 1.4. **Share of administrative units in the Vienna-Bratislava Metropolitan Region's total GDP, 2000**

	Total GDP		GDP as percentage of regional total	
	In mEUR	In mUSD, PPP-corrected	In EUR (%)	In mUSD, PPP-corrected (%)
VIENNA-BRATISLAVA METROPOLITAN REGION	101 700	124 760	100.0	100.0
Vienna Metropolitan Region	94 298	103 624	92.7	83.1
Vienna	56 410	61 989	55.5	49.7
Lower Austria	33 340	36 637	32.8	29.4
Burgenland	4 548	4 998	4.5	4.0
Bratislava Metropolitan Region	7 402	21 136	7.3	16.9
Bratislava	5 201	14 851	5.1	11.9
Trnava	2 201	6 285	2.2	5.0
AUSTRIA	207 915	228 478		
SLOVAK REPUBLIC	21 518	61 440		

Source: OECD Territorial Database.

Nominal wage levels between the Austrian and Slovak side of the Vienna-Bratislava Metropolitan Region differ by a factor of around one to five, but generalisations are to be taken with a grain of salt. Differences in the method of levy and calculation reduce cross-border comparability. The median gross wage paid in Vienna in 2000 was EUR 1 892, 5% over the regional and 4% over the national average.¹² In the Bratislava Metropolitan Region, the distribution is less equal. The Bratislava Region reports average monthly gross wages of EUR 363, which is 30% higher than the national figure.¹³ Cross-border differences also vary between different sectors. The biggest difference can be found in manufacturing, while average nominal wages in the Slovak service sector already stand at over one-third of the Austrian level. This is a result of the unequal levels of productivity in these sectors, which in the Slovak Republic stood at 42 and in Austria at 107% of the EU-15 average in 1998.¹⁴ However, the Slovak system of national wage setting allows these higher levels of productivity – of certain sectors or territories – to be translated only partially into effective wages. The existing, substantial differences between the two sides of the border will probably persist in the long run. As real Slovak wage growth outperforms the Austrian one by one percentage point only, even the most optimistic scenarios do not assume wages will equalize before 2030.

Unemployment is the only major economic indicator that did not tend towards convergence over the last years (Table 1.5). Its development is driven by different trends: On the Slovak side, the pace is set by the transition process that opens markets to international competition. The Bratislava Region is in a comparably favourable position, since its economy started with a “modern”, service-oriented structure. Development in the internationalised Vienna Metropolitan Region is largely defined by the global markets. For the Vienna-Bratislava Region, unemployment rose from 5.6 to 6.1% between 1995 and 2000, with several Slovak districts showing rates of over 20%. The Trnava region was affected more severely by this rise: today, an economically active person in this region is five times as likely to become unemployed than someone living in Lower Austria. Of particular concern is the fact that in Trnava unemployment rose sharply despite an 11% drop in the number of economically active people over the same period. The Austrian *Bezirke* in the region featured relatively stable levels of unemployment.

Table 1.5. **Unemployment in the Vienna-Bratislava Metropolitan Region, 2000**

	Number of unemployed	Total labour force	Activity rate (%)	Level of unemploy- ment (%)	Change of unemploy- ment rate 1995-2000 (%)
VIENNA-BRATISLAVA METROPOLITAN REGION	138 700	2 257 500	49.1	6.1	0.5
Vienna Metropolitan Region	74 100	1 653 700	48.2	4.5	-0.2
Vienna	46 200	799 800	49.7	5.8	-0.2
Lower Austria	23 200	723 700	46.9	3.2	0.0
Burgenland	4 700	130 200	46.8	3.6	-0.1
Bratislava Metropolitan Region	64 600	603 800	51.7	10.7	2.6
Bratislava	22 000	336 200	54.5	6.5	0.7
Trnava	42 600	267 600	48.6	15.9	5.5
AUSTRIA	149 800	3 832 900	47.3	3.9	-0.6
SLOVAK REPUBLIC	490 600	2 574 000	47.7	19.1	6.7

Source: OECD Territorial Database.

Industrial structure

The Vienna-Bratislava Region's economic structure is dominated by the service sector that provided 70% of all jobs in 1999, up from 68% in 1997. The urban economies are even more dominated by this sector, which represents around 80% of employment. These figures reflect the comprehensive internationalisation and integration into EU-markets that the whole region underwent over the last decade. Vienna's global competitiveness benefited from the recent restructuring of its economy. Sectors that could suffer from further integration and competition from low-wage countries have in their majority left the city. Jobs in the manufacturing sector were reduced by 26% between 1995 and 2002, as opposed to a 48% increase in business services. It can be assessed nevertheless that the positive structural changes that led to growth in high opportunity sectors tend to have a negative impact on overall employment levels. Latest forecasts predict that the Viennese employment market will not expand before 2005. The European Union assesses the level of preparation of Bratislava's economy for EU-accession positive. Leading sectors include banking and manufacturing. A successful automotive cluster in the north of the city is regarded as a role model for restructuring the industry with the help of foreign investors. In fact, due to Bratislava's strong dependence on exports, the greatest danger to its economic development is a rupture in integration that would negatively affect exports and inflows of FDI.

A closer comparison of the economic structure of Vienna and Bratislava confirms their respective focus on the service sector and shows similarities in other fields, especially in their industrial structure (Table 1.6). Both

agglomerations feature elevated shares in the industries of food processing, chemicals, metals and transport equipment. This sector attracts increasing amounts of FDI to Bratislava as well as the Trnava region and is a major source for new employment, unlike development in Vienna. Know-how, industrial structures and a trained workforce create considerable scope for cross-border co-operation and might facilitate the generation of spillovers from one region to the other. The combination of advantages such as high-tech and marketing experience in Vienna and low labour costs in Bratislava could increase the combined competitiveness of the region. Together with the industry sector, financial and business services have been assessed as potentially the most remunerative fields for trans-regional co-operation. They may be well placed to develop the full potential of the region's position as the linkage between eastern and western European markets.

Table 1.6. **Employment structure of the Vienna and Bratislava economies by industries**

	Vienna (2002)			Bratislava (2001)		
	Total employment (in thousands)	Percentage of total employment (%)	Average annual change of employment (%) (1995-2002)	Total employment (in thousands)	Percentage of total employment (%)	Average annual change of employment (%) (1996-2001)
TOTAL EMPLOYMENT	781		-0.4	310		2.7
<i>of which:</i>						
Manufacturing	111	10.8	-4.2	49	17.2	4.5
Construction	57	6.3	-2.4	22	6.2	0.0
Trade and repair	121	14.1	-1.7	62	19.4	2.2
Hotels, restaurants	30	4.3	1.4	7	2.3	2.7
Telecommunications	66	7.9	-1.4	30	9.3	1.9
Banking, insurance	41	5.0	-1.1	12	4.2	4.6
Public services	246	31.5	-0.4	58	19.2	3.2
Other business services	84	16.3	5.7	67	21.1	2.3

Source: OECD Secretariat.

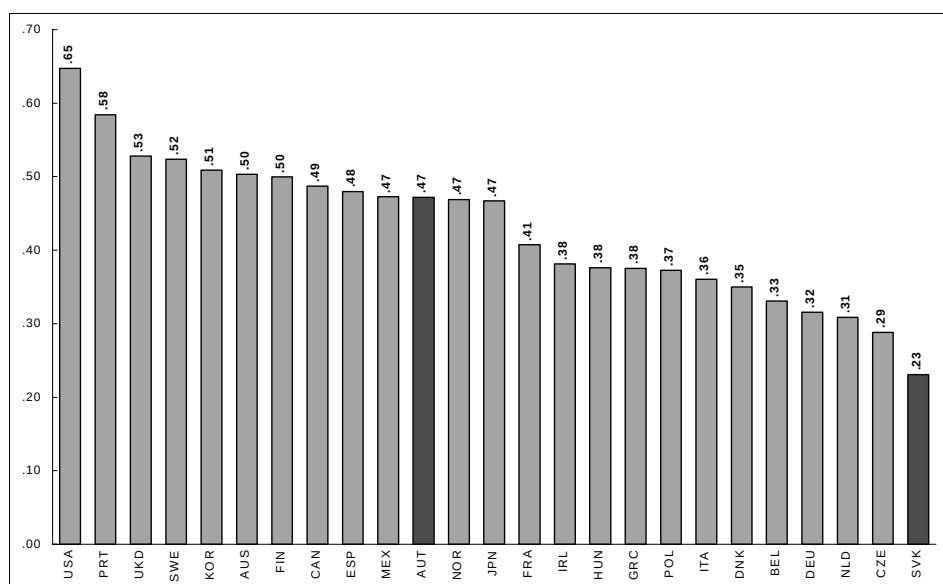
The region's position in the national context

Bratislava is outstanding in the Slovak context. With about 11% of Slovak population, it produces more than 22% of Slovak GDP. GDP per capita reaches twice the level of the national average and more than three times that of the poorest Slovak region. Bratislava's position has led the Slovak Republic to feature the highest level of geographic concentration of GDP of any OECD member state (Figure 1.4). Other rural and former industrial areas in the south

and east are traditionally lagging behind development and show worryingly high figures of unemployment. Many factors contribute to Bratislava's high productivity: the nature of its productive structure, a high density of small and medium-scale enterprises, high investment rates, greater attractiveness for foreign direct investment and its comparative concentration of university graduates (World Bank, 2002a).¹⁵ Moreover, due to a variety of equalising policies ranging from national wage setting to the social safety net, Bratislava contributes to the growth of the rest of the Slovak Republic. With the upcoming EU-accession of the Slovak Republic these equalising policies are expected to come under pressure as they might hamper the potential for development in the Bratislava area.

Figure 1.4. **Regional disparities in OECD countries, 1999**

Gini-Coefficient of geographic concentration of GDP



Notes: 1 = equal distribution; 0 = maximum concentration in one place.

Source : OECD Territorial Indicators.

Territorial disparities within Austria are less pronounced than in the Slovak Republic. The central role of Vienna is less the result of un-proportionally higher productivity or higher GDP per capita than the

national average, but more of the concentration of population in the Vienna agglomeration: the city of Vienna is over six times as populous as the second Austrian city, Graz. Furthermore, the country's federal structure sets equality between the nine *Länder* as one superior motive of national policies (for empirical data, see OECD, 2001a, p. 175). One important instrument of financial equalisation in Austria is the fiscal equalisation system, which redistributes taxes between the different layers of territorial administration. Nevertheless Vienna does occupy an outstanding position within the national context. All ministries and most other federal institutions are based in the city as are a wide range of private companies. Vienna attracts the majority of FDI coming to Austria, with a constant rate of more than 50% of the national total over the last years. The most disadvantaged Austrian districts are found within the Vienna Metropolitan Region and located in peripheral areas along the Hungarian and Czech borders. Yet, due to the integration of the CEE countries into the EU-market, the development of these regions is expected to catch up with the Austrian average.

Flows of exchange

The volume of cross-border exchange increased rapidly over the last decade. Different studies indicate that the area benefited largely from previous stages of integration and will do so in the future, particularly after EU enlargement. The cumulative effects of the opening of the Eastern borders, German reunification and the Austrian participation in EU internal market was calculated to have resulted in an additional increase of the country's GDP of 2.6% and the creation of 56 000 additional jobs in the Austrian industry. A major percentage of these gains can be attributed to the Vienna Metropolitan Region. Currently, interchanges concentrate on flows of trade and investment between the two parts of the region. Both have been growing at an average annual rate of up to 20% over the last decade. The value of annually traded goods between the Slovak Republic and Austria has multiplied by five from 1993 to 2002, as have Austrian direct investment in the Slovak Republic between 1996 and 2002. In relative terms the Slovak Republic is the biggest recipient of Austrian investments, ahead of the traditional trading partners of Germany and Italy, revealing that economic ties between Austria and the CEE countries are exceptionally close. Yet, cross-border labour mobility is very limited, primarily due to quotas imposed on workers from Eastern European countries.

Cross-border inter-linkage in the Vienna-Bratislava Metropolitan Region is further enhanced by a variety of factors unrelated to the economy. It is foremost the Slovak Republic's upcoming EU-accession that brings along a wide range of homogenisation across the region. Since the start of the implementation of

the *acquis communautaire* in the second half of the 1990s, legal frameworks are increasingly converging with EU-wide standards, thereby facilitating frictionless interchange throughout the region. On the local level, many municipalities have established partnerships across the Austro-Slovak border, and personal contacts or contacts between associations are sought and strengthened. They tend to draw from the common history of the region and are fuelled by an urge to rediscover personal or communal roots. These initiatives profit especially from the EU's INTERREG-programmes and are supported by a variety of organisations that promote regional development. The quality of this "grass-roots" integration is generally assessed as high, although co-operation across the region's other borders seems already to be more advanced, mainly across the Austro-Hungarian border.¹⁶

Trade in goods and services

Trade volumes between Austria and the Slovak Republic have been on an almost constant rise during the 1990s, showing average annual growth rates of 15 to 20% since Slovak independence in 1993. Slovak exports have been growing at a slightly higher rate, and since 1998 Austria has had to face a trade deficit with the Slovak Republic. It amounted to EUR 275 million in 2000 but has been declining afterwards due to a rise in Austrian export along with the recovery of the Slovak economy. Major traded items include gas and cars (Slovak exports) as well as petrol and machinery products (Austrian exports), thus much trade is intra-industry. The two parts of the Vienna-Bratislava Metropolitan Region account for around two-thirds of their respective national exports (Table 1.7). In Bratislava, the three top exporters Volkswagen, Slovnaft and SPP account for 30% of overall Slovak exports. In the absence of concrete data, it is estimated that approximately half of Austro-Slovak trade is, in fact, pure inner-regional trade within the Vienna-Bratislava Region. In a comparative perspective however, cross-border trade is still at a level well below its full potential. Exports of the city of Vienna to the Slovak Republic – EUR 296 million in 2001 – represent approximately 2.7% of its total exports (EUR 11 billion). This is a modest percentage in comparison to the city's total exports to CEE countries, which amounted to EUR 2.5 billion or 23% of total exports in 2001.

Table 1.7. **Trade flows between Austria and the Slovak Republic**

1996-2002, in EUR millions

	1996	1997	1998	1999	2000	2001	2002
SLOVAK EXPORTS	475	588	657	764	1 042	1 113	1 199
AUSTRIAN EXPORTS	562	701	690	672	768	946	1 062
<i>of origin</i>				%			
Vienna				26.6	29.3	31.3	
Lower Austria					27.4	26.6	27.7
Burgenland *				3.0	3.0	3.0	3.0

Note: * estimation.

Source: Austrian Ministry of Economics, Austrian Chamber of Commerce, Slovak Ministry of Economics.

Cross-border trade in services is little developed due to a strict service trade regime applied on the Austrian side. With the Slovak Republic's EU-accession, restrictions have to be removed except those for transitional purposes during the initial seven-year period. These changes are due to have considerable impact on the current system of service provision in the region, as service providers will be able for the first time to export their services by establishing branches on the other side of the border, thereby spurring cross-border integration. Service providers in the Vienna Metropolitan Region will be faced with a substantial acceleration of competitive pressure; yet in view of the significant deficit in implementing and controlling regulations in force, it can be assumed that liberalising the provision of cross-border services will simply legitimize the current illegal practice. At the same time, Austrian companies that offer specific competitive advantages are expected to benefit from opportunities offered by cross-border service provision. In general, the overall potential for cross-border trade in services in the Vienna-Bratislava Metropolitan Region is expected to be even greater than for trade in goods.

Foreign direct investment (FDI)

Austria is, after Germany, the second largest source of FDI in the Slovak Republic with an accumulated total investment of EUR 1.1 billion as of September 2002 (Box 1.2). This makes it, compared to the size of its market, the proportionally biggest recipient of Austrian FDI. Annual investments in the neighbouring country fluctuate between 1 and 4% of total Slovak Gross fixed investment. Between 1999 and 2001 these flows were in a large part directed at the banking sector that underwent large-scale privatisation. Austrian banks, in their majority based in the Vienna Region, are the biggest foreign investor in the Slovak banking sector. Another significant share went to the manufacturing sector, which attracted Austrian firms with its low labor costs. Around 70% of

Austrian FDI originates from the Vienna Metropolitan Region. This percentage is expected to rise due to further reduced costs for cross-border investments once the Slovak Republic has joined the EU. Small, risk-averse companies based in border regions will then be motivated to establish cross-border relations. Slovak companies are therefore increasingly likely to find their partners in the bordering Austrian part of the Vienna-Bratislava Metropolitan Region.

Box 1.2. Effects of FDI in the Bratislava Region

The economic performance of the Bratislava Region is heavily based on constant inflow of FDI, about 16% of its workforce are employed in companies that are co-owned by foreign investors. The region finds itself in a leading position in terms of its share of foreign and international assets. It attracted the majority of FDI projects in the corporate sphere and the financial sector when compared with other Slovak regions. The volume of foreign investment stocks allocated in the region by the end of 2000 was EUR 2.3 billion which was clearly the highest among all Slovak regions and accounted for 56% of total FDI stocks in the Slovak Republic. FDI-inflow into the Bratislava region is strongly determined by privatisation projects. Despite some evolution in the automotive sector after 1998, greenfield investments are lagging behind. These investments focus on industrial parks that are a cornerstone of Slovak regional development policies. Normally, industrial parks get state support. Direction and volume of FDI-inflow is thus heavily determined by national policies (WIIW, 2002a).

The effects of FDI on the receiving markets have been generally assessed as positive. It tends to stimulate an above average growth in labour productivity, output and product quality. Employment could mostly be maintained in companies with high shares of FDI. These achievements present an effective way for a gradual approximation of the Slovak markets to developed EU economies. The Slovak National Bank expects the inflow of FDI to increase as a result of the improved image of the country, local legislative conditions for the entry of FDI into the Slovak Republic and a relatively positive rating of the Slovak business environment by already established foreign investors. However, in addition to these overall positive effects of FDI, several critical questions have been assessed (Hošková, 2001). FDI arise mostly from the exploitation of the current biggest comparative advantage of the Slovak markets: its cheap labour. Although they brought along a qualitative rise of production techniques, investments of large foreign companies included the establishment of R&D facilities only to a small extent. This has already had stifling effects on the level of local research and promoted brain drain of educated specialists. Negative effects on local producers resulted from the entry of large foreign supermarkets in the Slovak market, which, through their pricing power, pushed local producers out of the markets.

Migration and commuting

Labour migration, the third force to enhance economic integration in the region, remains underdeveloped. This is mostly due to restrictions on the Austrian labour market for foreign workers – restrictions that will be gradually dismantled after the Slovak Republic's EU-accession. In January 2003, around 4 700 Slovaks were officially registered to work in Austria, a mere 2.3% of the total foreign work force in the country. They are mostly employed in the Vienna agglomeration and its vicinity, in parts exploiting the possibility of daily or weekly commuting from the Bratislava Region. Permanent migration of Slovak citizens to Vienna is not widespread. After an initial increase in the first half of the 1990s, the numbers remained relatively stable with around 3 300 Slovaks living in Vienna in 2001, representing 1.3% of the city's total foreign population. Yet, a considerably higher number of Slovak workers are estimated to be employed in the informal economy. Commuting from the Slovak Republic, they work mostly on a daily basis in agriculture, construction and health care services. Austrian workers in the Slovak Republic, estimated at around 500 in 2001 are mostly employed in FDI-funded companies.

Barriers

The barriers to integration that still remain in the region can be placed into three different categories. The first category includes physical barriers such as border controls, tariffs or restrictions to investment, that restrict the free circulation of goods, services, people and capital. They fall overwhelmingly in the domain of the national governments and will be gradually removed in the course of the Slovak Republic's EU-accession. Mental barriers and cultural differences fall into the second category, which includes language barriers, mutual prejudices and different value systems. These barriers to integration can be reduced in the long run through more intense interchange. The improvement of language skills is an essential element. The third category covers a wide range of barriers that will neither be tackled through EU-enlargement, nor reduced through long term, incremental learning processes. These barriers persist at the local and regional levels, they impede the smooth progress of integration and the formulation of joint strategies in the cross border area. Their dismantlement depends on the motivation and will of policy makers in the region. Three types of policies belong to this category and will be analyzed in detail in the following chapters: the regional labour market, innovation and knowledge transfer, and transport infrastructure.

A fragmented labour market

The institutional structure of the Vienna-Bratislava Metropolitan Region's labor market will have to undergo profound changes in order to adapt to the pending developments in this sector. Currently, cross-border commuting is still limited thus an integrated labour market including the two agglomerations of Vienna and Bratislava has not emerged yet. Nevertheless, integration can be expected to occur over the next few years. Given the imminent dismantlement of the national border in combination with the major differences in wages between two sides, a powerful rationale exists for increased cross-border commuting. A potentially united labor market of the two agglomerations would encompass a combined labour force of 1.5 million people. Policies have to be set up on the national and regional levels in order to direct upcoming developments, especially since they concern topics of high political sensitivity. Due to the fragmentation of the labor market in the region – divided by the national and, on the Austrian side, by *Länder* borders, these policies have to be elaborated in a highly complicated framework. Chapter 3 will assess the ongoing trends on the Vienna-Bratislava Region's labour market, discuss legal provisions to labor mobility and then, develop certain aspects of institutional co-ordination.

Distributing innovation

Vienna and Bratislava are the centers of higher education and R&D activities for Austria and the Slovak Republic. This offers a large scope for co-operation in the region. A series of multinational, regional headquarters are situated in one or both capitals and public policy for the private sector concentrates on the establishment of industrial clusters. Both Vienna and Bratislava have established their respective automotive clusters, which have not started to co-operate yet. Other cluster initiatives focus on bio-technology and cultural industries (Vienna) as well as chemicals (Bratislava). The Slovak part of the region suffers from brain drain and the number of jobs in R&D facilities has dropped by two-thirds since 1989. Furthermore, Austrian R&D activities are below the OECD average, as is the case for the share of academics in the city of Vienna's population. The exchange of innovation between the two sides of the region is hampered by the existing language barrier. Although the Vienna-Bratislava Region shares a common history, it does not form a culturally homogeneous unit. Personal experiences with the "other" half of the region are still limited, and language remains a profound obstacle to exchange.

Transport: “Last Exit Simmering”

The transportation network in the Vienna-Bratislava Metropolitan Region is affected by the national border and the former political divide. A direct highway between Vienna and Bratislava will not be operational before 2007, when the missing link is projected to be finalised. A direct, fast rail link was opened in 1999, but it is poorly linked to both city centers. Integration is further hampered by the organisation of public transport that follows a strictly national strategy. The weak co-ordination of transport policies slows down cross-border exchange and also puts a burden on the spatial structure of the region, potentially resulting in uncontrolled urban sprawl or damage to amenities in rural areas. In terms of water and air transport, co-operation is slightly more advanced. The two cities' airports have been trying to find a possible way to combine their activities for several years with little success. The problems posed by the diverging forms of ownership of the airports have continuously postponed agreements. The Vienna airport is organized as a corporation, whereas the Bratislava airport is a division of the Slovak Ministry for Transport. The co-operation of the cities' different Danube harbours, which are under control of one single company, is more successful.

Conclusion

To sum up, differences and inequalities in the Vienna-Bratislava Metropolitan Region are large. The Austrian part of the region can rely on a developed and stable institutional system that offers high living standards whereas 10 years after the independence of the Slovak Republic, the Slovak part of the region is still in full institutional, economic and social transition. Main indicators such as GDP per capita, productivity or unemployment vary considerably. Nevertheless, many signs of convergence can be observed. The regional “prosperity edge” is not as sharp as national data suggest. Bratislava has a strong development potential and shows higher growth rates than Vienna. Many barriers to integration and convergence remain. Regional and national policy makers are thus increasingly challenged to foster integration and convergence and to promote policies that could boost development in this potential Central European hub.

NOTES

1. During this period, Bratislava was only known by its German name, Pressburg, or its Hungarian name, Pozsony. In fact, the name Bratislava was introduced only in 1919 when the city became the Slovak capital..
2. Difference in price levels refer to OECD's *Comparative price levels*, which are defined as the ratio of purchasing power parities (PPP) for private final consumption expenditure to exchange rate. Variations of price levels within the country are not reflected (OECD, 2003a).
3. This made the Slovak Republic one of the OECD countries with the highest export-GDP ratio, fourth after Luxemburg (155.9%), Ireland (94.9%) and Belgium (86.3%). All data for 2000, OECD Online.
4. The Austrian *Länder* are defined as NUTS III; the Vienna Metropolitan Region, also called *Ostregion*, is a NUTS II Region.
5. The Slovak term for region is *Kraj*. As administrative units the eight Slovak *Kraje* are also referred to as "self-government units" or VUC (*Vel'ke územné celky*). They are defined as NUTS III. The Bratislava Metropolitan Region in turn does not form a single region according to the NUTS. While the Bratislava Region is defined as both NUTS II and III, the Trnava Region forms part of the NUTS II region *Západoslovensky*.
6. The *Europaregion Wien* is supposed to develop into a policy-platform that encompasses the Vienna-Bratislava Metropolitan Region as well as parts of northwestern Hungary and the south-eastern part of the Czech Republic around Brno. It will, however, not be treated in this review.
7. As late as 1982 a study (PGO, 1982) predicted that for the Austrian part of the region, population figures would drop 14% by 2001. In this scenario, the city of Vienna would have had to fight for its shrinking human resources, a view that reflected the dominating pessimistic outlook in the region before the changes of 1989. Following the opening of the border, a more optimistic view of the region's future prevailed, increasing its attractiveness for new migrants and encouraging residents to stay. Consequently, today's population exceeds previous predictions by more than half a million.
8. The most affected areas are parts of northern Lower Austria, southern Burgenland and the Region Trnava.
9. The average monthly rent for apartments in the considered areas were approximately 25% lower than in other parts of the Vienna agglomeration. However, the nominal price level in bordering semi-urban districts of the

Bratislava Region was even 50% below these levels in 2002, although strongly varying between different districts.

10. In fact, the seven-year period is divided into three periods of two, three and two years with the possibility of re-evaluation of applied policies at the end of each period.
11. However, the business climate is apparently improving in the Trnava Region, as some multinational companies (notably from the automotive sector) recently chose the region for big-scale investments.
12. Median of gross wages and salaries (workplace-based, including all supplementary grants) in 2000: Vienna EUR 1 892, Lower Austria EUR 1 747, Burgenland EUR 1 563, Austria EUR 1 812.
13. Average wages in 2000: Bratislava EUR 363, Slovak Republic EUR 279 (WIIW, 2002a, Table A1.6); calculated with an exchange rate of EUR-SKK: 42.59. The average wage in the Trnava Region is estimated at 96% of the national figure or EUR 267 (Worldbank, 2002a).
14. Productivity of the total Slovak economy: 53% of EU-15 (EIU, 2002a, p. 36).
15. The statistics are somewhat biased, however, because they account for productivity that is not really attributable to Bratislava. Its high GDP per capita is also the result of the high number of commuters from the Trnava Region and the fact that many companies are registered in the city while also producing in other parts of the country.
16. See Dejanovic and Liebhart (2003). The existing co-operations along the Austro-Hungarian border are seen as exemplary, what might be related to easier linguistic interchange in this area where an important share of the population on both sides of the border is bilingual.

CHAPTER 2

POLICY ANALYSIS

Introduction

This chapter, which sets the scene for discussion in later chapters of specific policy areas and governance systems, starts with a discussion of cross-border relations in general, focussing on what the ultimate objective(s) of integration is/are and who defines those objectives. The policies and strategies that are being or should be employed are, in large part, a function of the interests and expectations of the different actors involved. In the case of the Vienna-Bratislava region, closer integration is not only a local political-economic issue but one that concerns the national and supra-national levels as well. The interplay of dynamics at these three levels shapes the objectives, strategies and delivery mechanisms of public policy for the cross-border region. The second section looks at the principal engine of integration: market forces. While political, social and cultural aspirations are important, the key objectives espoused at local, national and international level remain economic, and the principal instrument for achieving those objectives will be the dynamic of the free market. The section discusses the assumption that increased trade and factor flows in the border region will be beneficial for the economies on both sides of the border and then identifies some (theoretical) reasons why market mechanisms, while providing the principal dynamic could lead to sub-optimal, or even perhaps negative, outcomes. The final section of the chapter starts from the premise that in order to guard against disappointing results (with political repercussions for policy makers at all levels of the public administration on both sides of the border), the process, in particular the transition phase, must be carefully managed. The section then looks at current initiatives aimed at furthering the integration process, concluding that, largely because of the financial and administrative regulations governing them, the different programmes and projects do not appear to favour the creation of formal or informal institutions or procedures by which different interests can be mediated and channelled into a coherent cross-sectoral and cross-jurisdictional strategy.

Integration: definitions, objectives and actors

The concept of cross-border integration

The focus of this review is on “building a cross-border region”. This objective assumes some undefined level of cross-border “integration” and cross-border “co-operation”. The removal of many restrictions on exchanges between the two sides of the region since 1989 and the conclusion of a bilateral agreement in 1991 have already promoted more regular interactions across the border, and the removal of most obstacles in 2004 and all by 2011 is expected to greatly intensify cross-border exchanges. With the barriers that have fragmented the economic area of Vienna-Bratislava for decades removed, there is strong interest in at least exploring the positive scale and efficiency effects of following a co-ordinated development strategy and introducing a mechanism for managing the open border and the opportunities and challenges that it represents.

Cross border regions typically suffer from handicaps that make the challenge of economic development greater than in a single country urban region. These handicaps generally stem from *fragmentation* – of markets, of the labour force, of investment, of infrastructure, of fiscal resources and of institutions. The border, even if completely or relatively open, usually constitutes a significant rupture of the natural or optimal delimitation of the city’s economic space. This, in theory at least, decreases the competitiveness of the region as a whole and that of its constituent parts. Key factors in determining productivity/output, such as diffusion of technology, co-operation among enterprises, social capital development, and allocation of labour and infrastructure, are likely to be sub-optimal because the economic space is divided. Integration of the cross-border region should remove the fragmentations that constrict the economic space and create distortions and imperfections in the functioning of the regional economy. It is these potential gains that provide the main impetus for the cities of Vienna and Bratislava to work towards building a cross-border region. Cross-border co-operation and integration are *conditions* for regional development.

Developing a successful cross-border region implies moving progressively to a higher degree of integration.¹ A “higher degree of integration” can have an enormous range of manifestations, economic, social, cultural and institutional.

In the economic sphere integration would normally be accompanied by, for example, increased trade between the two regions, an increasing number of enterprises with contacts/cooperation agreements/joint ventures with enterprises on the other side, increasing harmonisation of the labour markets as evidenced

by higher commuting flows and/or establishment of common employment services, with demonstrable increases in the number of cross-border job placements and training placements, and increases in the number and quality of cross-border research and development initiatives. Closer social and cultural relations could be reflected by increasing numbers of inhabitants on one side of the border speaking the language of the other. Greater integration of institutions could be evidenced by the establishment of joint planning committees and unified development plans. Finally, integration of physical infrastructure would result in, for example, reduction of travelling times between centres on different sides of the border and completion of “missing links” in the infrastructure system. These and many other outcomes would reflect an increasing level of integration between two regions separated by a border [European Commission (DG REGIO), 2000].

Yet, while the concept is clear, and many elements that would constitute a strategy are obvious, the practicalities of formulating and implementing a coherent strategy are not. Cross-border integration is a kind of political-economic spectrum that runs from simple institutional co-operation all the way to functional economic interdependence implying joint decision making and resource sharing. Within the same country, the latter is difficult legally and administratively; across national borders it is extremely complex. As a result, the process is inevitably gradual and somewhat piecemeal, and policy making tends to be an amalgam of the different economic, social and political aspirations of different actors that are linked more or less closely with the development of exchanges across a border. Because the interest in building a cross-border integrated region is not only a local issue, non-local actors are strongly involved and their interests are reflected in the formulation of policies to encourage cross border exchanges. The interest “matrix” is vertical as well as horizontal, national (even supra-national) as well as local, both public sector and private.

Integration: a local, national and international issue

The prospects for closer integration of the Vienna-Bratislava region rest on a complex interplay of international, national and local factors/actors. The three principal perspectives that are influencing the process of integration and that will determine its future course are:

First, the region is in the vanguard of eastern enlargement of the European Union. The success of enlargement will be measured in terms of clear signs that new members are embarked on a relatively rapid process of convergence and that this growth spurt is not coming at an unreasonable cost (in terms of trade and economic performance, social dislocation, budgetary weight)

to current members; the European Union is committed by treaty to the pursuit of balanced and equitable development, but the ambitious programme of enlargement confirmed at Lisbon will pose a significant challenge to this objective, and ensuring that the candidate countries are fully integrated into the single market will require much more than simply fulfilling the conditions of the *acquis*. Harmonisation of legal frameworks and procedures is an important step, but it will need to be fully supported with more tangible upgrading/restructuring of the economic infrastructures of the new members. There are precedents, of course. The accession in 1981 of Greece and of Portugal and Spain in 1986 are seen as evidence that wide disparities in GDP are not, by themselves, an obstacle to eventual convergence. Greece joined the EU with a GDP only 62% of the EU average; that of Spain was 68% and of Portugal 52%. Among the accession countries, Slovenia and the Czech Republic are both at similar levels already, while Hungary is not far behind the level of Portugal on accession. The Slovak Republic, currently at 47%, has some catching up to do, but the differences are not so striking as to call into question the possibility of rapid economic growth. The credibility of further eastward expansion of the EU depends to a large extent on the ability of the EU to smoothly bring in the more advanced economies of the former Soviet bloc, of which the Slovak Republic, though not the most advanced, nonetheless is part (Rosenberg, 2002).

The key question at the level of the EU is whether the general economic processes, plus the package of supports, plus the benefits from membership application of the *acquis*, etc., will be enough to kick-start a convergence process in the more distant and more disadvantaged as well as the more prosperous regions of the enlarged Union. In the EU experience, this process has been pushed by large-scale transfers of funds through the Structural/Cohesion Funds. Although the specifics are still being debated by EU members, it is clear that a similar programme of transfers will also be introduced to jump-start the process of integration in the candidate countries. The Slovak Republic is likely to benefit from spatial-economic investment funding, yet nowhere near the amounts given past entrants (and in any case the outcomes of the EU's cohesion policy have been rather mixed).²

Second, the region is the focus for a new, closer relationship between Austria and the Slovak Republic. Austria, because of its geographical situation, has been from the outset one of the most active EU members in building political relations and fostering economic ties with the candidate countries (see, for example, Altzinger and Maier, 1996). Bordering three different accession countries, Austria would benefit from developing a generalisable *modus operandi* for managing its border regions post-accession. In other words, can general approaches be adopted for all neighbours, in spite of their different

levels of development, the nature of the bordering regions, the various administrative systems present, etc.? What objectives should be preferred for these regions; what level of integration is appropriate, what institutional structure is preferable, etc.? Vienna-Bratislava is both the most important test of Austria's transborder policy and potentially the best example of what a successful functional region-building policy can achieve. For the Slovak Republic, the border with Austria is crucial and the future development of Bratislava is a key to development of the entire country. Policy makers face the same dilemma as in many other countries undergoing a rapid transition, namely the risk of over-concentration in a single economic centre versus the expectation that "over-development" of Bratislava will spill over to generate growth in increasingly distant parts of the country. As such, growth in the Bratislava region is closely linked to the overall territorial development strategy of the country as a whole, making the cross-border region Vienna-Bratislava a national policy issue as much as a local one.

Third, the Vienna-Bratislava region is composed of two separate local metropolitan systems, with their own aspirations and strategies, with complex political and administrative systems. The future of the Vienna-Bratislava region is first and foremost a local issue. It is at the level of the household on the Austrian and Slovak sides of the border that the impact of integration will be most strongly felt. And the choices facing local political elites are driven largely by such local political (electoral) considerations. There are a range of practical issues for which co-ordination across the border is already important and will become essential. These include, for example, management of urban transport systems, border crossing points, cross-border environmental issues, as well as management of the policy areas covered by the seven-year transition period. As the administrations on the two sides of the border address these issues, they confront, and must overcome, some of the practical impediments to integration such as the language barrier, the disparity in resourcing of regional governments, difficulties in finding direct counterparts having similar jurisdiction, interests, powers, etc., with whom to negotiate. Yet, in most cases, the issues involve co-ordination across the border: processes of consultation, dialogue and information sharing. These issues are about managing a situation. Yet building a cross-border region implies a more pro-active and long-term planning process. There are two broad concerns shared by the principal actors at local level – the city government of Vienna and its counterpart in Bratislava:

- how to manage integration so that competitiveness gains are maximised and translated rapidly into tangible benefits;
- how to ensure that economic convergence is rapid while social/economic destabilisation is minimised.

The motivations for local governments to address these two questions stem from the assumption that there are gains to be made, but that there are also tangible threats that are significant from the perspective of local constituencies. Even before the border is removed, the debate over the impact of inequalities is likely to increase – the proximity of the unequal “neighbours” will ensure that attention on both sides of the border as well as elsewhere in European capitals will focus on the region. The outcomes of prolonged proximate inequality will be the socially divisive concerns about “cheap labour” or unfair competition. Joint action to ensure that this does not happen is crucial for both sides.

Economic integration: market forces

The theoretical basis for integration

The theory of integration is based largely on a neo-classical analysis according to which elimination of controls – on trade, on the free movement of capital and on labour mobility – produces a convergence effect. As distortions caused by trade restrictions and unnecessary transportation costs reduce, then factor endowments become the principal determining factors in economic decisions. Regional specialisation in areas of comparative advantage in the production of tradable goods and services will generate complementarities rather than competition and cross-border trade will increase (see Heckscher and Ohlin, 1991; for application in an Austrian-Slovak case, see Mayerhofer and Palme, 2002). In addition, capital and labour will migrate across the open border from areas of relatively over-supply to where they are more scarce, leading to an equalisation of factor prices. Thus, in the initial stages, integration of the Austrian and Slovak economies would be assumed to result in relative benefits for Austria in activities that are skill, technology and capital intensive, and for the Slovak Republic in activities that are labour intensive. As time goes by, the demarcation would become more based on sectoral specialisation than one based on factor prices, as wages on both sides of the border slowly converge, skill and technology levels on the Slovak side increase and returns on capital investment equalise. This model represents the fundamental explanation of the mechanisms involved, and, from a policy perspective, posits the crucial concept that increased trade and liberalised capital movements will reduce the pressure for labour to migrate.

In practice, however, the model rests on a number of very restrictive assumptions that are rarely encountered, and, as a result, the usefulness of the model for policy purposes has been questioned. What is particularly relevant for the case of transition economies is the assumption that the two regions concerned have similar production technologies (which includes such things as professional qualifications and competencies, efficiency of institutions, public

administration and private entrepreneurial management). In the case of former Communist countries, the legacy of chronic under-investment, poor management and out-dated production methods, added to technological inadequacy, represents a serious disparity in terms of production technology. Thus, the argument goes, Austria will retain an important advantage with respect to investment in activities that depend on quality rather than price competition, that benefit from cluster or networked co-operation systems (*i.e.*, proximity of other similar firms), high backward and forward linkages in the production system, and so on. This issue is at the heart of an active debate involving eminent economists and economic geographers over the localised sources of competitive advantage that guide location decisions of firms and that determine, to a large extent, productivity. According to Layard, among others, externalities such as differences in production technology will tend to prevent factor costs from converging and can even push labour and capital to move in the same direction, *e.g.* into regions where productivity is already higher (*i.e.*, Vienna). Thus, in some situations, market forces can operate in such a way that disparities are not reduced but are even accentuated.³

Progress and prospects for the region

The process of integration in the Vienna-Bratislava region began in earnest in 1991, and, since then, trade relations have intensified as trade restrictions have been reduced in many sectors. The current trade regime is free of most duties and tariffs, essentially a free trade zone. Enlargement will transform this into a single market, except in the area of labour market regulation. As such, the major tariff-related barriers to trade have already been removed and enlargement will not provide much extra impetus. The main differences with respect to the export/import of manufactured goods are likely to be in terms of levelling the playing field with regard to health, product safety and environmental standards which often act as indirect trade restrictions. As a result, there is some concern that many of the economic opportunities for increased trade and direct investment have already been explored. The accession of the Slovak Republic to the EU will undoubtedly provide a boost for its economy, as it will for that of Austria. But there is some doubt that accession alone will provide such a massive boost to investment, particularly as nine other countries, some with significantly better productivity levels than the Slovak Republic, will also join the Union. After all, most FDI in the accession countries so far was intended to provide market access, a motivation that will reduce significantly after enlargement. Thus, the Czech Republic and Hungary, to name only the neighbouring countries, will compete for finite investment. As critics of the classical convergence theory imply, in the end the bulk of the quality investment might opt to move to or remain in Vienna, and without

quality investment the disparity in production technology is unlikely to reduce without significant public sector intervention.

At the same time, enlargement might offer proportionately more significant gains to the border region than are likely for the two countries overall. If trade in goods (and in tradable services) will arguably see only modest increases in volume, more locally provided and consumed services are likely to be affected more dramatically. Such activities, where a local shop or office or local legal registration is required, will be transformed by removal of restrictions on ownership of land and enterprises by non-nationals. The capital-city status of Vienna and Bratislava and the generally higher density of service provision that comes with it implies that enlargement should have a significant impact. For local enterprises in activities such as retailing and construction that are relatively labour intensive and low qualification, Slovakian providers are likely to find that enlargement offers opportunities to expand into regional Austrian markets; in many others Austrian service providers will have significant advantages (Mayerhofer and Palme, 2002).

The foregoing discussion assumed that the ultimate ambition of cross-border integration in the economic sphere is functional interdependence, a concept in which each constituent part of a region focuses on its area of productive advantage and an economic system of complementary functions develops that maximises the competitive potential of the region and minimises internal competition and duplication. The argument that when efficiency differences are large enough the process of convergence is only partial, leads to the conclusion that in order to achieve the goal of a fully integrated economic area, significant additional work will be required in the area of non-economic factors, institutional reforms, administrative reform, better management in both the public and private sectors. Investment and trade provide some impetus through the transfer of working methods and personnel to the country in which the investment is located. And the accession process and closing the different chapters of the *acquis* has had and will continue to have an important impact on reform of the public sector (as has the PHARE programme). Nonetheless, the foregoing discussion suggests that firm and co-ordinated policy action will be required if persistent fears about labour market conflicts and lingering socio-economic disparities are to be addressed. It also implies, given the uncertainties that surround economic prospects in the region, that this period of transition should be managed in a flexible and co-ordinated manner so that unforeseen outcomes can be dealt with.

Current integration strategies and policies

The need for a cross-border strategy

If economic forces alone produce limited or sluggish processes of convergence, then policy intervention will be required to guide development to overcome the dysfunctions noted above and to address the social and cultural aspects of integration upon which economic activities have only an indirect impact. A general assumption is that integration policy should look at, among other things, the following key areas:

- attending to aspects of the economy and labour market where friction is likely to develop, for example in those sectors where there is likely to be direct competition (retailing, construction, and so on);
- upgrading of the technological and knowledge infrastructure on the Slovak side of the border, through technology transfer mechanisms, exchanges, promotion of joint ventures and business networking, etc.;
- upgrading of transport infrastructures so that non-factor costs are reduced/equalised;
- upgrading of administrative competencies and governance methods in the private and public sectors to ensure a transparent trans-border legal and regulatory system;
- and that the policy management mechanism should be able to adapt to unexpected eventualities during the transition period.

In most cases, policy to promote cross-border integration is an aggregate of individual actions in which different actors participate according to their level of interest, resources and powers. The policies that develop to foster integration derive from the nature of the integration desired by the different stakeholders involved. In some cases, the interests of different stakeholders will concur; in others differences will exist in the nature and extent of integration that each actor finds optimal. The development of a cross-border region can be perceived as both a threat and an opportunity for many of the actors concerned (Perkmann, 1999). In order to understand the strategies that are adopted (as opposed to those that *should* be adopted), it is crucial to understand the motivations of different actors and the stakes involved. This will be dealt with in more detail later, but it is worth drawing attention to two aspects of the governance issue that have an important influence on strategy:

- First, cross-border co-operation, as a broad and dynamic new field of policy action in Europe, is a unique opportunity. Supra-national, national and local agencies can all further their respective policy objectives by being actively involved in cross-border regions for which the institutional mechanisms remain to be defined.
- Second, and conversely, cross-border regions pose a significant challenge to current political-economic systems, particularly those at local level. Patterns of influence have an understandable institutional inertia.

The practical challenge of formulating a cross-border strategy

The crucial point is that the interplay of these push and drag factors will be decisive in shaping the policy formulation process. The Vienna-Bratislava region is a typically complex case in which a wide range of actors are supposed to come together to work out a development strategy for a region over which they each have only partial jurisdiction and from whose integration they will draw certain benefits but may also foresee particular challenges. The basic question is how can a political event with strong economic consequences, one which is viewed positively on both sides of the border (though not without with some misgivings), be managed in such a way that the competitiveness of the cross-border region is enhanced with clear benefits for all, without unreasonable levels of social or economic disruption or hardship for any segments of the population.

For each of the two urban areas, relations with partners across the border are only one aspect of the management of the economic space. Certainly, further integration will remove some of the market fragmentation and imperfections that hinder development in all cross-border areas; yet, stable and consensual perceptions are also likely to be disturbed and challenged, leading to resistance. Vienna, for example, might meet its development objectives by concentrating on its hinterland, processes of suburbanisation and so on. While Bratislava might find that its interests are better served by cultivating its own identity and role rather than risking a marginalised role as a Vienna satellite. As such, the costs and effort involved in individual actions to promote integration must compete with alternative options. Participation by different actors cannot be assumed simply because the action falls under the broad, and vague heading of cross-border integration. As in other cross-border regions, moving from consultation and co-operation to joint activities and implicitly resource sharing is extremely difficult.

From the outset, there are numerous difficulties in conceiving and implementing a cross-border strategy. For example:

- There are multiple but not always complementary objectives. The goal is to develop the whole region, but this must also involve equitable development of the two sides of the border, and cross-border co-operation must play an important role.
- The “co-operation” objectives are intangible, long term and/or indirect, while the economic development issues are more tangible and often urgent.
- The transnational nature of the intervention area poses numerous legal and political challenges.
- Several different policy and non-policy, local/national/international influences act on the same geographical area; cross-border areas do not exist in a vacuum.
- The wide range of economic, social cultural and institutional targets/aspects makes it difficult to set clear priorities.

Current initiatives, their strengths and limitations

In the period since the border opened, a number of more or less formal systems of consultation have developed, mainly involving local politicians and mainly focussing on specific issues. Broadening of the scope of interaction was restricted by a number of factors such as political uncertainty and lack of resources for development projects. When Austria joined the European Union, however, the cross-border issue was nationalised and internationalised. From that moment on, EU funded programmes, notably INTERREG, became the chief vehicle for cross-border institution building and policy development processes. With the accession of Austria, the Slovak Republic became eligible for assistance under the PHARE CBC programme, which provides countries bordering EU members with funds for co-financing of projects funded, on the EU side, by INTERREG.⁴ The first INTERREG programming period (1995-1999) was characterised by the introduction of pilot programmes and bodies to begin the process of joint project design. In some cases, new institutions designed to facilitate closer working relationships were developed (such as the EUREGIO Wienviertel-Southern Moravia-Zahoria), in others those bodies that already existed were strengthened (with a strong preference for the latter approach). At present, a very large variety of different common Austrian-Slovakian initiatives have come into existence, ranging from small informal

private get-togethers and folkloric events to official common commissions and working-groups at community, regional and national level, with INTERREG and other EU funding programmes providing the impetus for most of them.

The current programme builds on these pilot projects and the contacts that were developed, but with the Slovak Republic's accession providing extra impetus and also a clearer focus for the activities. The key objective of the programme overall is stated as the development of an integrated cross-border region focussing on economic and socio-cultural aspects of development. The needs assessment of the region focuses on the need to concentrate on a common vision of an integrated regional economy, social cohesion and stable neighbourly relations, with priorities on sustainable economic development, transport infrastructure and functional integration of infrastructure, environmental actions, and institution-building. In line with the increasing political importance of cross-border integration, funding for the programme has also increased drastically in the new programming period.⁵ Thus, from relatively modest beginnings, the INTERREG programme has developed into a very ambitious framework for cross-border project implementation and institution-building.

From the outset, however, a number of problems emerged that limited the effectiveness of INTERREG as a means of developing coherent strategies and delivering outcomes. First, the specific character of INTERREG funds – project-based earmarked contributions – has created a certain rent-seeking culture where regions, instead of using resources for development purposes, deploy them in order to get additional EU funds. Second, the fact that INTERREG contributions are matching grants, *i.e.*, the regional level has to pay a percentage of the European expenditure, sets back poor over rich regions. This can be particularly detrimental in the Vienna-Bratislava region where a weak economic capacity may prevent Slovak regions of providing sufficient funding. Third, INTERREG has created a high degree of administrative complexity. Officials complain that administrative cost for implementing INTERREG programmes is often higher than what the country gets from the European Union. While there is certainly a need for supra-national support of cross-border co-operation, the current programmes do not automatically turn into productive activities on the ground.⁶

So, despite the significant amounts of money that are now directed through INTERREG and PHARE CBC, the programmes retain a sense that they are designed to pump prime, to sow seeds, but that the hard work of building lasting cross-border institutions that can direct and manage an integrated region is a task, in the long term, for the two countries concerned. It is clear that the impact of INTERREG has been enormous as a means of establishing working relations

and institutions through which to manage projects, some of which have had a considerable impact. At the same time, distortions arising from the use of EU programme funds to provide incentives for co-operation should not be allowed to become the unifying force, the glue for co-operation projects.

Perhaps the main failing of the current policy framework is that there is no single, elaborated strategic vision for development of the Vienna-Bratislava region. A number of bilateral and international strategic development plans have been elaborated in order to co-ordinate policy action between Austria and the Slovak Republic (the Joint Programming Document) and between Austria, Hungary and the Slovak Republic (the Strategic Development Framework). And some ambitious spatial economic initiatives have been started through PHARE CBC and INTERREG.⁷ These joint activities undoubtedly pave the way to an integrated development strategy for the Vienna-Bratislava region. At the same time, there are drawbacks: many initiatives have intervention areas that overlies one another; most are in one way or another funded through the same pot(s); the objectives, priorities and activities are, in most cases, similar; and although the funding for the initiatives has increased dramatically in recent years but is still thin when dispersed to too many bodies. At a moment when a clear strategy would undoubtedly be helpful, the multiplication of development plans and the range of *ad hoc* and quasi-permanent institutions and committees that have been established to manage them seem to confuse the scene.

The principal tasks of this particular region are to prepare the economy of the region for enlargement, including particular attention on the labour market issue as it will affect local enterprises and local workers, the infrastructure needs of the region (not only those links for which funding is available) and, most importantly, promotion of a flexible, long-term governance structure that will enable Vienna and Bratislava to manage the development of their region through different stages of an uncertain transition period. Given that the current project-based initiatives do not fulfil this role, a new concerted approach might be required to bring a strategic focus and more clarity to the current situation.

NOTES

1. For example, the INTERREG programme categorises “low”, “intermediate” and “high” levels of integration, defined as: Low, if the border regions operate as separate socio-economic units (necessitating in the case of previous INTERREG programmes separate sub-programmes for each side of the border); Intermediate, if various forms of co-operation between public administrations, private business, and other interests from either side of the border exist (with partly integrated or closely co-ordinated management of INTERREG programmes); High, if the two sides of the border effectively function as a single socio-economic unit (in EU terms, this would mean cross-border institutions and fully integrated management structure for programming). See European Commission (DG REGIO) (2000)..
2. The Vienna-Bratislava region is also interesting for another important EU debate – the new economic geography of the EU after accession and the policy of “polycentrism”. With the EU’s borders moving eastward, there is pressure from some members for a deliberate policy to shift the locus of economic weight from its current (over)concentration around the Benelux and surrounding regions of France, Germany and the United Kingdom. Polycentrism, if adopted, would focus on new centres with strong growth potential that are located in formerly peripheral, now more central, areas. Vienna-Bratislava would be a prime example, assuming that it can present itself as a functioning transnational “entity”.
3. The main argument is that productivity can derive from three types of external economies: labour market pooling, the presence of specialised suppliers and the generation of technological spillovers. The basic model has built upon in different ways. For example, Michael Porter’s analysis of the main parameters governing the performance of firms emphasises the innovative process (the quality of factor inputs education, the positive rivalry between firms that drives innovation, and the structures that support innovation). Others such as Paul Krugman focus on regional specialisation, a function of history and cumulative causation, and the comparative advantages in terms of increasing returns to scale that this can bring. Economic geographers, particularly those favouring the flexible specialisation model, have emphasised the importance of non-tradable inputs to production, notably the intangible transaction cost savings that come from networking and co-operative linkages that are embedded locally. See Layard *et al* (1992); Krugman and Venables (1990); Martin, R. and P. Sunley (1996).
4. Between 1995 and 1999, a total of EUR 13 million was allocated for projects between Austria and the Slovak Republic (10% of the total for the programming period). An additional EUR 4.25 million was also available for

trilateral co-operation programmes involving Austria and two PHARE countries.

5. The total cost of INTERREG and PHARE CBC for the programming period 2000-2006 is EUR 52 million, of which 50% is provided by the EU. The approximate allocations are EUR 13.5 million for economic co-operation (mainly business centres and support to cross-border SME activities), EUR 12.7 million for accessibility (improving transport infrastructure), EUR 5 million for cross border organisational structures and networks; EUR 6.7 million for human resource development (labour market policies and training provision), EUR 12 million for sustainable spatial and environmental development, and EUR 2.6 million for technical assistance. See European Commission (2000).
6. As a result of these teething troubles, improvements were introduced for the current programming period, including, in particular, the introduction of joint programming and the strengthening of cross-border co-operation structures (Joint Technical Secretariat, Joint Co-operation and Steering Committee). Nonetheless, the Joint Programming Document 2000-2006 sets out a number of important areas where further improvements are necessary in order to ensure that the programmes achieve their objectives. In particular, the complex legal environment still discourages the launch of joint INTERREG PHARE activities and there is a tendency for PHARE CBC to suit larger projects while INTERREG is designed more for medium-scale projects.
7. Such as development of the Industrial Area of Jarovce-Kittsee, the Cross-Border Communication Project, the Development Study of the Bratislava Region, and the Common Regional Development Strategy of the Region Vienna-Bratislava-Győr.

CHAPTER 3

THE CHALLENGES OF LABOUR MARKET INTEGRATION

The creation of a single labour market is an important element in building a cross-border region, particularly considering the compelling advantages of a larger functional labour market with regards to increased global competition. In a world of uncertainty where individual firms face risks independent of their industry, the presence of a large number of employers at a given location has the tendency to reduce the magnitude of temporal variation in aggregate labour demand (David and Rosenbloom, 1990). To assess the integration of the labour markets of two cities in different countries, both national and regional factors need to be considered. At the national level, the integration of the labour markets results from two main drivers. The first is a shift in production factors in countries due to higher trade flows or capital flows, which contribute to a long-run convergence of wage rate. The second is the movement of workforce between different national labour markets (Raines, 2001). At the regional level, individuals should be able to consider the new cross-border region as a single region within which they can freely choose where to live, study or work, while companies should have the choice and opportunities to invest and expand in any part of the region.

Labour mobility has been seen as one of the clearest indications of the operational effectiveness of a functional labour market. In theory, where labour markets are increasingly integrated, labour flows should be stronger from regions of high unemployment and low GDP per capita to regions of low unemployment and high per capita income. Therefore, the integration to the European Union of new countries with different levels of development, and thus with structural differences in their labour markets (wages, employment level, productivity, specialisation), should favour labour mobility. Geographical proximity of border regions is another factor that would reinforce this trend, especially when it comes to two metropolitan centres where the bulk of their national population and production are concentrated.

This chapter begins with a discussion on current and future trends in labour mobility and on the main challenges faced by both areas. Expectations of potentially more intense labour workforce movements from the Slovak

Republic generate fear on the Austrian side, *i.e.* workers from the Slovak Republic accepting lower wages while maintaining the same level of productivity, would threaten the employment of mainly unqualified workers. As a result, Austria decided to implement transitional arrangements after the enlargement. Therefore, the second section will discuss legal provisions to labour mobility, stressing the need to find bilateral arrangements and prepare for a smooth adjustment process. Then it will assess current labour market policies on both sides, showing that some improvements could be introduced to meet the previously identified challenges. In particular, labour market integration should first start within the border of each functional region which will require more co-ordination between different infra-regional bodies involved in labour policy making. In parallel, cross-border co-ordination needs also to be reinforced. These aspects of institutional co-ordination will be developed in the third section.

Cross-border labour movements

Trends and prospects

Despite being low compared to other CEEC border regions, more labour market integration within Vienna-Bratislava might be expected after the accession. A large literature has developed as to the impact of EU enlargement on labour movements. Previous experiences with the introduction of free movement of workers after the accession of Spain and Portugal in 1986 as well as recent estimates suggest that long-term migration from candidate countries towards the EU may only be in the order of 1% of the present EU population (European Commission, 2001a and b). It is however important to differentiate between different modes of workers movements. While labour migration in its most common definition implies resettlement into the country of work, in border regions however, it is possible for persons to work in a foreign country whilst maintaining residency in their home country. There is also the category of seasonal workers – between commuters and migrants. Regarding long-term cross-border commuting, estimates vary between 1 and 8% of respective labour force.

It is difficult to provide accurate estimations of potential migrants and frontier workers who commute within the Vienna-Bratislava Region. Past and current trends show that the inclination of Slovaks to emigrate or commute outside the country is not very high: in 1999, only 7 900 Slovaks resided in Austria. During the same year, there were only 4 000 Slovak official workers as residents in Austria or commuters (out of 306 000 foreign workers) (WIIW, 2002a). Another source estimates that about 8 500 persons are cross-border commuters from Bratislava mainly to Austria on a weekly schedule, in

addition to 2 000 daily commuters (WIIW, 2002b). The current pattern of migration shows a strong spatial concentration in the Vienna metropolitan region: in 1999, 38% of all foreign Slovaks in Austria were concentrated in Vienna and 37% in Lower Austria. Most of the Slovak commuters to Austria come from the Bratislava region (over 60% of the labour migrants). An estimate on future commuting flows forecasts an increase to about 85 000 daily commuters without transition permit and to 75 000 with transitional restrictions by 2012 (Mayerhofer, Palme *et al.*, 2001). However, whether concerning migrations or commuting flows, it is difficult to give precise estimates due to the many variables that influence this decision. These variables can influence labour movements acting as a “pull” or “push”, either on the demand or the supply side. They are difficult to quantify and interact in complex ways. By assessing their potential influence, it is only possible to sketch a scenario or at least make a presumption.

In a neo-classical model, migration is caused solely by differences in labour income between countries which in turn are caused by differences in relative factor endowments. In this model, migration will persist until the equalisation of labour marginal product across countries is achieved. However, income marginal products can be also equated by trade or capital flows (OECD, 2001b). This last argument can partly explain the decline in migration within European Union countries. Significant wage and income differential remains among the most quoted key incentives for workers to migrate. This differential can also have an effect on the demand side since lower wages mean less expensive production costs and better locational advantages. Besides entering new markets, the establishment of foreign enterprises in the Slovak Republic has targeted low labour costs as comparative advantages (the Slovak average monthly income is less than one quarter of the Austrian income). However, as the average monthly wages in Bratislava are above 30% of national level, the differential between Bratislava and Vienna is not as high (WIIW, 2002a and European Commission, 2001b).

The relaxation in the neo-classical model of the assumption of full employment in both sending and receiving countries introduces unemployment rate differentials as another motive for migration. A high level of unemployment in the country of origin can push labour movements, and similarly, a high level of unemployment in the country of destination can limit these movements. Both metropolitan areas have favourable labour markets compared to their respective national averages. Unemployment remains, however, an issue in some districts of the Bratislava metropolitan region (including those of the Travna region as well as the Malacky and Senica districts). On the Austrian side, most of the labour market districts of the Vienna metropolitan region feature below national average unemployment rates while

Vienna has a higher unemployment rate although relatively low in absolute terms.

Even in the presence of high unemployment, shortage or surpluses in segments of the labour markets can attract migrants with specific skills. In this respect, sectoral differences may also be noteworthy. Sectors where the supply of certain specialised staff (such as the IT sector) on the national market cannot meet the demand may have a pull effect on the labour force from the other country. The high labour-intensity and low technology content Viennese industries could potentially be more exposed to competition from those of Bratislava. The employment structure of the two metropolitan regions is quite similar, which suggests more a complementarity than a substitution process. This can also lead to competition if specialisation is low, especially in labour or energy-intensive industries that play an important role in the Bratislava metropolitan region, Lower Austria and Burgenland.

More generally, good economic expectations in the potential migrant's own country reduce the propensity to migrate. As the regions of candidate countries bordering the EU have already benefited from their location since transition began, the accession to the EU may have positive influence on the Slovak side. On the demand side, economic prospects for the region will also influence positively or negatively the demand of individual enterprises. The demand for labour will also increase according to the relocation decisions of foreign/national companies. Besides expanding into new markets, total wage costs differences between the two countries are determinants of location for labour intensive industries. Low nominal wages are the Slovak Republic's most important competitive advantage but the average productivity is also much lower than in Austria which could partly eliminate this low wages cost advantage. Still, a well-qualified labour force in some industries located in the Bratislava metropolitan region, including FDI industries in transport equipment, represents an important competitive edge.

The set of explanatory variables is further enlarged considering the transaction costs of migration. From an individual perspective, the migration decision could be seen as an investment decision under uncertainty. For instance, the age of the potential migrant can be an important explanatory factor. Older people have a shorter time period to earn the "return on investment" from migration and are more rooted in their social network. In the Slovak Republic, characterised by the arrival of the strong presence of the 1970s' generation in the economically active population (more akin to a young immigration group), the demographic structure will exert pressure on the labour market. Among the unemployed in the eastern regions the share of the age group up to 25 years is extremely high. Large income and employment

disparities within the Slovak Republic should normally favour emigration to Bratislava and further abroad but labour mobility has been traditionally low mainly due to a shortage of affordable housing and nation-wide uniform social support regimes.¹

Migration is also related to a wide range of social, psychological and political costs. The existence of location specific knowledge, which cannot be transferred across countries, may lead to higher costs of search (for housing and a workplace) and information. Languages skills are also an important obstacle; more generally, domestic and foreign labour is far from a perfect substitute. For cross-border regions, some of these transaction costs (housing, travel, socio-psychological, cultural factors, etc.) will have very limited impacts on the decision to commute. The main obstacles to commuting will be, first, the accessibility in terms of political restrictions, then the availability and cost of transport (commuting time is more important than distance).

Main challenges for the labour markets

Potential gains can be expected from an enlarged cross-border labour market, including the development of know-how by using the migrants' qualifications and networks (language, knowledge about structures in their home countries, professional qualifications), development of co-operation networks, and more generally higher available synergies. From the Austrian side, some sectors will continue to benefit from the extended market. Technology and human resource intensive sectors such as high-tech production and business orientated services will benefit from the enlargement (labour intensive high qualification, technology and marketing intensive, high quality competition types of industries and services) (Mayerhofer, 2002a). On the other hand, sensitive industries and services such as labour intensive low qualification and low quality competition types of industries and services will come under increasing pressure, accelerating the need for restructuring. In the Vienna metropolitan region, some districts are already experiencing such pressure (*e.g.* the monostructural economies of Burgenland).

In the short run, blue collar workers are more likely to experience wage effects. Besides, additional possible supply of workers from the Slovak side could lead to a crowding out of workers on the Austrian labour market particularly in jobs requiring low qualifications or in sectors that are mainly the domain of foreign workers already resident in Austria that have been more or less integrated to the labour market. Vienna city which experiences strong economic growth has to cope with employment problems related to foreigners and old people. In 2000, the employment share of foreigners was about 14% in the Vienna metropolitan region, of which 92% were of non-EU origin. Those

foreigners and their descendants generally have low professional qualifications and the majority of them work for those branch industries that are cyclically sensitive or structurally declining.² Unemployment ratio among this population stood at 6.8% in 2000 against a national average of 5.3%.

From the Slovak side, Bratislava has achieved relatively good economic performance, notably in terms of real per capita GDP and attracted considerable foreign capital. Besides, the Bratislava workforce is characterised by a high level of education³ and five universities are concentrated in the region which train more than 40% of the Slovak Republic's future academic labour supply. The unemployment rate of the Bratislava metropolitan region stood at 10% in 2001 (5.8% in Bratislava region and 13% in Travná region). Although this is largely below the national average (19%), it poses a challenge when compared to the OECD average (6.5%). Low labour costs in the Bratislava metropolitan region, along with agglomeration factors, will continue to attract foreign direct investment as well as inflows of technology and know how. However, in the medium term, retaining FDI requires an increase of labour productivity which requires raising the level of education. Labour productivity growth in the Slovak Republic will be a condition for lowering the wage differential between Austria and the Slovak Republic. This differential can influence some high skilled workers from the Slovak Republic to work on the Austrian side. A 1996 survey of the migration potential in CEECs shows that the majority of the potential cross-border migrants from the Slovak Republic to Austria are young and relatively highly skilled persons willing to commute for wage differential purpose (Fassmann, Hintermann, Kohlbacher and Reeger in WIIW, 2002a).

In the long term, both metropolitan areas are expected to become more attractive destinations for internal migration. Good economic trends and the ageing population within the Vienna – Bratislava core area may lead to increased migration and commuting from more peripheral parts. The Bratislava region already attracts workers from its surrounding areas. Daily commuting flows to Bratislava range from 150 000 to 180 000 persons, of which students account for 25% and working people 50%. In the future, the Bratislava region is expected to attract more workers from other Slovak regions as well as migrants from other eastern countries, a majority of whom could see the capital city as a place of transit.⁴ Similarly, Vienna is also the country's largest in-commuter centre. A share of 22% of all persons employed in Vienna commute to work and the number of commuters who travel to work in the capital from the surroundings is steadily growing. Therefore, faced with the challenge to remain competitive in a global economy, both metropolitan areas will have to cope in the future with a growing population and a suburbanisation process and their associated negative potential effects, including urban sprawl, congestion, declining urban districts, increasing demand for different types of housing and

transport infrastructure. Finally, it remains unknown how many people will move to Austria for work and to what extent cross-border trade will put existing structures under pressure.

Policy responses

Legal regulation for worker mobility

Possible large labour movements from the Slovak Republic have led Austria to implement transitional regulations regarding the free movement of labour (fixed quotas) as part of the enlargement process. Provisions have been set up so that these regulations remain valid to 2011; thus, Austria will keep its past national ratio regulations to seven years after the accession of the Slovak Republic. For the moment, there is no evidence that such large movements will effectively occur. Nevertheless, there could be some rationale to take certain measures in order to avoid major shocks, as long as they do not delay the adjustment process. Legal restrictions to the movement of workers are often accompanied with the development of illegal activities especially in border regions due to geographical proximity. Some workers will enter the country as tourists or self-employed individuals engaged in local trade, exploiting market opportunities that arise from the underdevelopment of established channels and from evading tax and customs barriers. Many enterprises take advantage of low labour costs resulting from the employment of illegal workers especially in the sectors of construction, agriculture and personal services. This phenomenon, which is difficult to quantify, has negative consequences on wages, social insurance and taxes and, more generally, on public opinion about enlargement. Therefore, it is important to facilitate the post-accession transition process and remove barriers to labour mobility as soon as possible. An appropriate solution can be to regularly review the provisions to labour movements. A monitoring system could be implemented in order to provide relevant information for the gradual increase in the number of job permits.

Member states are encouraged to maintain or to introduce bilaterally more favourable conditions. The provisions of bilateral agreements cover mainly seasonal and project-based posted workers as well as the employment of trainees coming across the border for the purposes of improving professional and language skills. These bilateral agreements have brought advantages to both employers and workers in the EU as well as to the countries of origin, where significant remittances from temporary work are spent or invested. They have also had a positive effect in channelling irregular migration into legal seasonal work (OECD, 2001b). Such bilateral agreements exist between Austria and some candidate countries and between the Slovak Republic and some EU countries but are still in a draft form between Austria and the Slovak Republic.

At present, only daily border-crossings in certain clearly defined closed border zones are permitted and regulated by an agreement including a trainee programme for a maximum period of 18 months. In addition, draft agreements on the Exchange of Workers with the Aim to Extend Professional and Language Skills and Employment in Border Areas were signed in 1994 by the two countries but were not followed up. A new round of negotiations started in March 2001 but faces a degree of Austrian political resistance. Furthermore, there are important shortcomings in that the agreement for border areas does not include Vienna which has been said as not being an “immediate border area with the Slovak Republic”. It is important to review regularly current provisions for regulations of worker movements and find an arrangement to conclude bilateral agreements. These proceedings could be managed jointly between Austria and the Slovak Republic as a form of partnership.

The issue of cross-border commuters’ status should be considered carefully by both parties. This status will be defined after the accession by EU rule. Some general rules will rise automatically from the *acquis communautaire* whereby border workers are subject to the laws of the country of employment. They are entitled to the same benefits as nationals of the country of employment as regards access to jobs, working conditions and certain social benefits (since they would normally pay taxes in the same country). However, as highlighted in the case of the Öresund region (cross-border region that includes Copenhagen in Denmark and Malmö in Sweden), there are several cases where arrangements are not clearly defined such as part-time work, tax deduction regulations on savings for pension purposes, taxation of commuters with short-term positions on the other side, tax treatment for commuting costs (OECD, 2003b). Similar to Öresund, national and regional governments could work jointly to prepare and regularly review these specific cases. Discussions and negotiations could start at an early stage, *i.e.* before completely removing all barriers to labour mobility.

Labour market policies

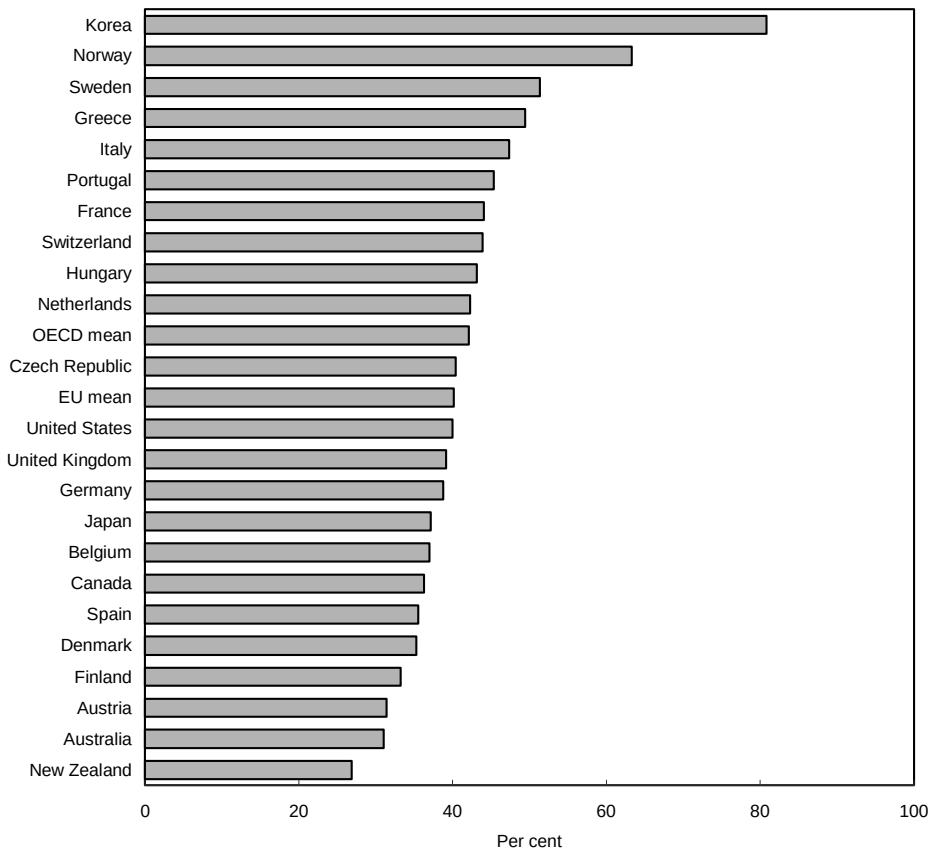
As aforementioned, EU enlargement generates some challenges on both sides, particularly fears caused by the potential effect of a single labour market. Yet, these fears largely reflect current internal problems of the respective labour markets. Therefore, this section will assess employment policies with a view to check whether they respond to respective challenges faced by both metropolitan areas. For both Vienna and Bratislava, employment policy analyses should be considered within the national framework, since labour market policy competencies remain largely in the hands of the central governments. Specific attention will be given to decentralised bodies of the central administrations at the regional and local levels as well as to initiatives that involving other local actors, including local partnerships.

On the Austrian side

Compared with the national average (6.9% in 2002), unemployment is a challenge for the Vienna metropolitan region (8.2%) especially in the Vienna *Länder* (9%). In Austria, employment policy is strictly under the federal government's competencies. Key goals are laid down in a National Employment Action Plan (NAP) which covers various policy initiatives not only in the labour market, but also in the education system and product markets. Active labour market policies (ALMP) play an increasing role in the government's employment strategy, although compared with OECD countries, Austria still ranks among the countries that spend less in ALMPs as a share of total spending (Figure 3.1). Measures have focussed on the re-integration of persons with particularly unfavourable labour market characteristics and the prevention of long-term unemployment, but more recently, the government has decided to put more emphasis on professional training measures. The 2001 *OECD Economic Survey on Austria* stresses several improvements with respect to labour market reform, in particular the introduction of measures to increase incentives in the labour market and the effectiveness of job placement (OECD, 2001c). It however warns that standardised work provision and training schemes extended on a large scale and provided outside of companies often do not have positive impact on transition probabilities into employment. Hence, it also stresses the need to evaluate the effectiveness of public work programmes and their potential dead weight and crowding out effects on the private sector entrepreneurial activity.

As employment policies should fit regional needs, more emphasis has been put on the regional and local levels. This is apparent in the structure of the federal Public Employment Service (*Arbeitsmarktservice*, AMS) an independent agency created in 1994 which has been decentralised at the *Länder* and district levels. While the Ministry of Labour and Social Affairs sets the objectives of labour market policies, the AMS is responsible for their effectiveness, through the design and implementation of policies. More competencies have been devolved to the AMS regional branches, which now manage various activities including those of counselling, job placement, provision of active labour measures and provision of unemployment benefits.

Figure 3.1. **Share of ALMP in total spending for labour market policies in OECD countries**



Source: OECD (2001d).

The decentralisation of AMS offices gave to the regional branches more responsibility and flexibility in terms of policy and action, providing them with greater capacity to respond to the specific needs of individual regions. However, the regionalisation of labour market policies should not lead to a segregation of programmes and services held by the different AMS. The competencies of the AMS remain limited to one specific administrative territorial unit (*Land* or district) whose boundaries do not always coincide with the metropolitan functional region (catchment area). This is particularly visible in the Vienna metropolitan region where several AMS operate at the *Länder* level with little co-ordination of actions and programmes.

While the AMS structure renders policies more flexible in the regions, it excludes the participation of other important local actors. Therefore, besides federal employment programmes, and considering that more targeted initiatives to upgrade skills and entrepreneurship of specific population groups (low-skilled, immigrants, the long term unemployed) should be handled, the Vienna municipality created the Vienna Employment Promotion Fund (WAFF) in 1995 to improve the coexistence of diverse population groups and support NGOs engaged in employment promotion (regular endowments of EUR 23.6 million). Another important initiative of the city of Vienna is the Vienna Integration Fund (WIF) which provides assistance to the unemployed working closely with administrative agencies and political decision makers as well as with groups, associations and initiatives working in the field of integration (funding amounted EUR 6.2 million in 2002). Both WAFF and WIF include measures that target immigrants. The unemployment rate for immigrants is about 13% in Austria, more than half of whom are registered in the Vienna region. Therefore, in the absence of a comprehensive national integration policy, it is often left to the individual *Länder* and local authorities to take far-reaching integrative action in their own spheres of competency and authority.

Moreover, the AMS are federal, deconcentrated organs at the regional level which have no institutional link with local public administrations. Therefore, local partnerships have been developed to promote vertical co-operation. These partnerships exist or are being initiated in all of the nine *Länder*, supported either by the European Structural Funds or the Ministry of Labour, Health and Social Affairs. They have developed to link more effectively labour market policy which is a federal responsibility with economic development policy which is a shared competency of which the *Länder* have the prime responsibility (OECD, 2001e).⁵ In Vienna, Lower Austria and Burgenland, local partnerships exist under the form of Territorial Employment Pacts (TEP)⁶. Partners of the TEP for Vienna includes the city of Vienna, the AMS of Vienna, the WAFF and the Federal Office for Social Affairs and the social partners.

The success of the TEPs has led Austria to include these EU sponsored partnerships in the framework of the NAP. Several assessments have been carried out on the Austrian TEPs. An argument that appears frequently is that TEPs still remain a top-down approach. The main challenge is to create an environment where local ideas can rise from the bottom and includes the participation of more local actors such as NGOs, private enterprises, schools and educational institutions. This could be done through a devolution process at a lower level than that of the *Länder*, such as the “*Bezirksverbünde*”, i.e. association of districts without self-governing competencies (Förschner, 2001). The integration of local employers into TEPs appears to proceed sluggish

(OECD, 2001c). In this respect, the INTERDISK-projects can allow for more direct contacts with companies and local actors thus promoting the regionalisation of the TEPs and local networking. The INTERDISK is a network of the TEPs that operates at the level of urban districts. It is administrated by the WAFF within the EQUAL Community Initiative framework (EUR 9.7 million) and also receives funds from the EU Employment Social Funds and the Ministry of Labour. Its member includes the WAFF, regional AMS, regional Chambers, labour unions, WIF, departments of the City Council and the respective districts, NGOs and private businesses. It provides business relevant information, establishes contacts among regional and local actors, and organizes workshops and initiatives projects.

The TEP should not be considered as an isolated regional initiative. There exist already an exchange of information between TEPs in Austria and the European Union as well as know-how within the Network of Metropolitan TEPs, an alliance of TEPs in Bremen, Berlin, Dublin, Hamburg, London, Malmö, Copenhagen and Stockholm for which the partner, WAFF is the main promoter. However, exchanges between different TEPs should also be promoted, especially in the Vienna region which includes three different *Länder*. More generally, one should not forget that most competencies regarding labour market policies remain in the hands of the federal AMS so that co-ordination should be first ensured at this level. In this respect, the so called “Article 6 – Project” currently under discussion should constitute a first step in co-ordinating the actors involved in the labour-market throughout the Vienna metropolitan region. Thereby it forms part of the efforts to define a “Europe-Region” Vienna. This project should start in November 2003, continue for a maximum of 24 months and occur in three steps: 1) assemble the actors relevant for the Viennese labour-market; 2) include actors from Lower Austria and Burgenland (*i.e.*, the Austrian part of Europaregion Vienna); 3) possibly stretch to neighbouring regions in Hungary, the Slovak Republic and the Czech Republic.

On the Slovak side

With one of the highest unemployment rate in the OECD area (18.7% in 2001 compared to the OECD average of 6.5%), the national employment strategy in the Slovak Republic has been elaborated within a challenging context. Although featuring a lower unemployment rate, the Bratislava metropolitan region has also to cope with unemployment problems. The Slovak Republic government’s employment strategy is pursued in accordance with a National Employment Plan (NEP) which represents the continuation of the gradual implementation of the European Employment Strategy in the Slovak Republic and that includes measures in several areas, including

employment and business development. During the period 1998-2000 only 1.2% of national GDP went strictly to labour market policies, about two-thirds of the average of OECD countries. The share dedicated for ALMPs represented only 16% (against the OECD average of 37%) while 84% went to passive measures, notably unemployment insurance and early retirement. This share was however increased to 38% in 2001. In 2001, a lion's share of spending for ALMP went to public works while only 15% were used for job creation and not more than 1% for training programmes (OECD, 2002a).

From an institutional perspective, the Ministry of Labour, Social Affairs and Family is responsible for defining the NEP guidelines as well as for national employment legislation. As improving labour market performances requires the introduction of reforms in diverse areas, an inter-ministerial commission for employment was set up, including representatives of individual ministries, other national administration bodies, associations of employment unions, the confederation of labour unions and representatives from scientific institutions. At the regional level, the implementation of the national policy is performed by the Regional Labour Offices (RLO) and District Labour Offices (DLO) of the National Labour Office (NLO). The NLO's principal role is of strategic co-ordination and supervision for the implementation of the employment strategy by the regional offices. However, the Administrative Committees of the RLO and DLO contribute their input in the identification and the approval of policies to be implemented within their territorial boundaries.

Implementation of policies at the local level is performed by the Public Employment Services (District Labour Offices). One of the main activities of the District Labour Offices is the retraining of unemployed either through direct contract with training institutions or through subsidies allocated to enterprises. They also monitor job searches of the registered unemployed, using targeted interviews, evaluating and implementing individual action plan of employment for clients, assessing participation in selection procedures conducted by employers and at job fairs. As in Austria, the current institutional structure dealing with labour market policies remains exclusively under the competencies of the central government. The present reform of the public administration will have no impact on the institutional structure involved in labour market policies. The labour offices at the regional level will be maintained as deconcentrated bodies of the central administration and local self-administration should not have any competencies in the area of labour market policies.

Horizontal co-ordination between the different regional and district labour offices is normally ensured by the NLO. It would be however appropriate to develop and reinforce more contacts and co-ordination between those labour offices belonging to the Bratislava metropolitan region (Trnavna and Bratislava

regions), particularly by improving the nation-wide network to publicise job vacancies. In 2001, the NLO launched a pilot project for the Bratislava region for the development and operation of the internet application of “Notification of Job Vacancies”. If it proves to be successful, this project will be extended to other regions. For the moment, its implementation is somewhat challenged by the lack of technical equipment.

More generally, financial constraints stand as an important obstacle for the well-functioning of the public employment services (RLO and DLO) which are an important instrument of employment policy in a period of economic transition and economic restructuring. Their capacity is largely inadequate to assist the large number of unemployed due to the lack of assistance personnel as well as technological equipment.⁷ The NLO network is burdened by the tasks of administrating passive measures, thus leaving few resources for active measures. Lowering expenses on passive measures requires introducing reforms to the welfare system, particularly by streamlining conditions for social assistance benefits (see OECD, 2002a for an extensive discussion on this issue). In addition, more efficiency could be introduced with greater reliance on private job placement agencies as well as regular assessment of labour offices. Presently, there is some discussion of the possible structural reform of the NLO, which would reduce the number of district offices for the purpose of spending rationalisation while creating a new layer of labour offices at the local level to deliver specific services to the unemployed. In this case, it will be important to ensure that access to information on job opportunities will not be reduced.

The wage policy will be a determinant for future employment. On one hand, introducing greater wage flexibility would lower unemployment and on the other hand, help to retain high-skilled workers in the Slovak Republic. The wage-setting process remains highly centralised in the Slovak Republic, thus limiting the responsiveness of wages to fluctuating conditions and labour productivity. Therefore, as recommended in the 2002 *OECD Economic Survey on the Slovak Republic*, the country should eliminate the extension of collective agreements reached at regional or sectoral levels to firms not involved in the negotiations, decentralise wage bargaining to allow agreements to better reflect changing conditions at the firm level, and eliminate the wage tariff system. While employment protection does not significantly hinder labour adjustment, there are still a number of regulations that could be relaxed, including detailed and lengthy procedures for dismissing workers, burdensome working hours and excessive power of trade unions in management issues and their role in inspecting the compliance of firms with the labour code (OECD, 2002a). Furthermore, rising worker productivity would also allow higher wages thus helping to reduce the wage differential with Austria. This requires strengthening the education and training systems. While improving the education system will

take certainly take time, in the medium term, more efforts could be invested in training. The number of unemployed undergoing training grew from 1 to 4.7% of registered unemployed in 2001. In particular, it is important that training programmes fit the regional fabric demand. This could be achieved by giving a more important role for private sector firms in creating training programmes, an initiative already undertaken by foreign firms.

Cross-border co-operation

As in other fields, institutional co-operation between different labour market actors whose competencies cover only one part of a broader functional area is crucial. The assessment of each metropolitan region's situation shows that there is room for improvement in this field. Cross-border institutional co-ordination would also help to promote and prepare the smooth regional integration of the labour markets. This requires a common political will and commitment on both sides. For the moment, most formal cross-border co-operation in the Vienna-Bratislava Metropolitan Region are mainly pursued in connection with the EU Community Initiative INTERREG and co-ordinated with PHARE CBC in the Slovak Republic.

Although the labour market is not a priority area, programmes and projects financed by PHARE CBC such as restructuring industrial enterprises, promotion of small and medium community programmes (Leonardo, Socrates, Youth for Europe) at least indirectly affect the cross-border labour market development. Similarly, the objective of INTERREG is not directly labour market oriented but aims "to strengthen economic and social cohesion by promoting cross-border transnational and inter-regional co-operation and fostering a well-balanced development of the regions". The Joint Austria-Slovakia INTERREG III PHARE CBC Programme 2000-2006 has established five main priorities: 1) Cross-Border Economic Co-operation; 2) Accessibility; 3) Cross-Border Organisational Structures and Networks; 4) Human Resources; and 5) Sustainable Spatial and Environmental Development. Each programme component affects in one way or another the labour market and is expected to increase directly and indirectly employment on both sides of the border. In fact, the fourth priority is specifically aimed at the labour market.

With respect to the promotion of regional labour markets the following sub-priorities are mentioned:

- intensification of co-operation among the labour market institutions, other regional actors and social partners, which entails joint labour market analyses;
- alleviation of obstacles resulting from different legal frameworks regulating the labour market and information exchange thereupon;
- initiating regional border-crossing employment alliances (Beschäftigungspakte);
- development of job opportunities to mobilise regional core competencies as well as for persons with lower education and qualification degrees or mobility deficiencies;
- establishment of a joint labour market monitoring system including information on job opportunities.

For the moment, initiatives have mainly been taken under the fifth sub-priority. INTERREG Vienna through its RegioLab and LAMO projects has set up a cross border monitoring system of the labour market, while INTERREG Lower Austria has focussed on collecting data at the enterprise level. A noteworthy step in cross-border collaboration is the BAER project (Building a European Region) for which Austria has applied for INTERREG funds.⁸ This “European region Vienna-Brno-Bratislava-Győr-Sopron” project targets several actions including the standardisation of institutional structures and processes as well as public awareness and co-operative marketing for the region. In terms of the labour market, it aims at developing actions to improve the human resources and employment situation in the region as a whole mainly through the development of an experts network and pilot projects.

The Slovak Republic participated in the preparation process for its future inclusion in the European Employment Services network (EURES)⁹ through a twinning project with Sweden. Originally, this project was due to be carried out with Austria. A pilot testing of the EURES project is due to be set up for the cross-border Bratislava-Vienna-Győr cross-border region and will accordingly involve Austria-Slovak Republic-Hungary, but its implementation will depend on political will. After the inclusion of the Slovak Republic, it will be appropriate to promote a EURES cross-border partnership. For the moment, most of the relationships between respective labour offices take place in an

informal way through meetings and workshops. In particular, three important conferences have been organised by the Austrian AMS involving the PES in Austria with those of the Czech Republic, Hungary, Slovenia and the Slovak Republic. In the future, the establishment of a more formal co-ordinating body should be considered.

It is also important to encourage Austrian and Slovak business federations, chambers and unions to engage in cross-border labour market development. For many years, EU-Trade unions, in particular the European Federation of Trade Unions have been engaged in labour, employment and wage issues resulting from the EU-enlargement (Langewiesche, 2000). Although this involvement is limited as far as the Bratislava-Vienna metropolitan region is concerned, key issues become accentuated (*i.e.*, large labour cost and wage differentials, migration and commuting in search for employment and higher payment). The 1999 Vienna Declaration serves as a relevant example of cross-border labour market development. In this context, metal workers' unions from the Czech Republic, Hungary, the Slovak Republic, Slovenia, Austria and Bavaria agreed: 1) to apply the Doorn Wage increase formula of productivity gain plus inflation rate; and 2) to support CEE trade unions to participate in European Works Councils (Langewiesche and Lubyova, 2000).

Conclusions

Within the enlargement context, marked differences in wealth, wages and price levels and geographical proximity will offer new possibilities for the labour markets including increased division of labour. In terms of sectoral shares, the employment structure (primary, secondary and tertiary sectors) of the Vienna metropolitan region is quite similar to that of the Bratislava metropolitan region. This generates preconditions for the improvement of economic co-operation between the two regions based on intra-sector service specialisation. This, however, should not mask the fact that there are also some economic sectors and branches that will feel an increase in competition on both sides of the border. This applies particularly to labour intensive versus technology and capital intensive production lines within certain branches and sub-groups. This conflict of interest between the two metropolitan regions could best be solved by working in the direction of increased specialisation in both areas. Meanwhile, negative short-term effects such as unemployment may increase for the labour markets of both areas. Therefore, labour market issues are a sensitive topic in the region and the political level has tackled them in a very defensive manner. In this context, it is important on the one hand, to correctly assess the threats and opportunities to citizens with regard to enlargement and on the other hand, to take appropriate policy responses, including assistance to border regions.

EU-enlargement is expected to be conducive to the convergence of labour markets and cross-border employment. Migration flows between the two countries are still difficult to predict but most analysis conclude that they should still remain fairly limited. Nevertheless, intra-regional and cross-border commuting within Vienna-Bratislava will certainly increase. Large differences in income and prices suggest that the full potential of current cross-border flows has not materialised yet. This could be partly explained by the fact that labour movements are controlled and subject to Austrian immigration restrictions. After the accession of the Slovak Republic to the EU, the situation of the labour market in the cross-border metropolitan region should not radically change due to the transitional regulations regarding the free movement of labour (applicable until 2011). The rationale of maintaining such transitory arrangements is not evident. In fact, there is a need to find a compromise between trust in the market mechanism (free movement of workers) that may lead to social problems and over-regulation that may impede necessary adjustment processes. In the short term, the on-going consultation process regarding the establishment of bilateral agreements that would include Vienna and the Bratislava region as a whole should be finalised. After enlargement, provisions should also be set up so that based on regular monitoring and assessment of the labour markets, fixed quotas could be subjected to regular revision. It will be preferable that such decisions arise from bilateral consultations and a negotiation process.

Pro-active measures in the field of training, employment and production structures are necessary to prepare the regional labour force. In both countries, labour market policy is a federal/central government competency. However, the Austrian labour market policy making occurs in an environment different than in the Slovak Republic. In the Slovak Republic, the labour market policy has been and remains embodied in the system's far-reaching changes and reform process while Austrian labour market policies can rely on well-established and experienced institutional settings and are subject to limited restructuring. One of the most important problems in Austria is the insufficient horizontal co-ordination between the different Public Employment Services operating within the Vienna metropolitan region. This problem should not be transferred to the Territorial Employment Pact. These local partnerships have successfully managed to institutionalise co-operation between the traditionally segregated labour market and economic actors through a process involving federal, regional and local governments. However, they do not have the competencies or the administrative financial means to tackle the lack of horizontal co-ordination at the metropolitan level. Incentive mechanisms could be introduced to encourage co-operation between the different PES. Moreover, labour market policies do not appear to be an issue dealt with in connection with EU-enlargement. The discussion on the possible effects of foreign workers inflow seems to be somehow dislocated from the official agenda. From the

Slovak side, the main challenge is to consolidate the National Labour Office network at a sub-national level. It is important that the current reform under discussion to reduce the number of district offices and replace them with local offices should not lead to a deterioration of services and information access. In the future, it will be appropriate that public and private regional and local actors be more involved in the different phases of labour market policy. In the short term, the private sector could be given a more important role in providing training programmes.

For the moment, labour market policies appear to be still a matter of “unilateral” concern. Cross-border policies are active and cover a wide span of activities and projects, mainly financed by EU programmes such as INTERREG and PHARE CBC, but only a few are aimed at active employment creation and most labour market initiatives target data collecting. However, these projects support and encourage human contacts and relationship across the border and develop information networks which facilitate economic and social development. Within cross-border committees and working groups, labour market issues are discussed and representatives of national, regional and local labour offices have created networks to exchange experiences and discuss issues of common interest. This co-operation should be strengthened and the planned set-up of the cross-border information networking on labour-market relevant issues should be accelerated. It will be appropriate to set up a cross-border labour market council or commission, including among others, public and private actors, representatives of PES in the region. In the short term, this body could be responsible for joint research and monitoring studies (these studies must be conducted by independent research institutions). In the future, when labour market integration within the region will be more advanced and the Slovak Republic will have consolidated its labour market institutional framework, it could have a more active role, including the responsibility of a cross-border territorial employment pact as is the case for the *Öresund Labour Market Council* for instance (Box 3.1).

Box 3.1. The Öresund Labour Market Council

The Öresund Labour Market Council consists of the Public Employment Service (PES), the Social Partners, the counties and municipalities as well as the two National Public Employment Services. Its main tasks are to follow the integration process, identify barriers to a well-functioning labour market, agree on long-term objectives for the labour market policy, make recommendations to the authorities in charge of regulations and decide on strategies to achieve these goals. The Secretariat of the Council, and its executive body of 12 members, is co-managed by the PES council of Skåne and the PES council

Box 3.1. The Öresund Labour Market Council (cont.)

of Greater Copenhagen. The Greater Copenhagen PES is responsible for co-ordination. The Öresund Labour Market Council has an executive body, the Öresund AF, which co-ordinates the seven County Public Employment Offices in the region. Services are provided by an Öresund department in the Public Employment Service in the cities of Copenhagen, Helsingør and Helsingborg. In Malmö, the department is a part of Öresund Direct, the one-stop office for a broad range of public services. The departments have counsellors from both Skåne and Zealand. This is judged to be an efficient way of informing the customers about work and living conditions on both sides of the border. About 800 people a month visit the offices: about one-third in Copenhagen, a larger part in Malmö and the rest is divided between Helsingør and Helsingborg.

In the long run, the best way to mobilise cross-border labour market developments would be the exploitation and mobilisation of the strengths of the Bratislava-Vienna urban agglomeration in particular the high level of professional qualification, the large number of research and technology institutions, the rich spectrum of modern industries and services and the accessibility along the central axes. Experiences in other countries like Germany after reunification have proved that this challenge cannot be managed by a short-sighted approach. On the contrary, it will take place over a long period of time and requires multifaceted and well co-ordinated policies whereby a large number of actors are committed.

NOTES

1. In Bratislava county, total employment rose from 1993 to 2001 by 18% (1993 = 100) and is expected to remain stable until 2010 (WIIW, 2002a). On the one hand, keeping in mind the national employment decline and the rising unemployment ratio, and on the other, the rather positive performance of these indicators in the Bratislava region, a growing regional development gap becomes evident. This gap reflects an expanding orientation of the Bratislava regional economy towards the west as well as the results from the EU-integration policy pursued by the Slovakian government.
2. Building and civil engineering construction, hotels and restaurants, trade and repair services, metal-working and transports.
3. According to available data (last Census 2001), out of the 13.1% of the population which have a university degree, 31% live in the Bratislava region (31.1% includes university and bachelor graduates).
4. At present 20 000 to 40 000 persons are estimated to stay in Bratislava, partly illegally working as “job nomads” or using the city as a temporary transit place (WIIW, 2002a).
5. The *Länder* governments prepare economic strategies and sub-regional spatial policy development plans in co-operation with regional development organisations. The chancellery co-ordinates policies at federal and *Land* levels, with help from ÖROK (*Österreichischen Raumordnungskonferenz*, or Austrian Conference on Regional Planning), a platform for co-operation, grouping together representatives from government authorities at all levels and social partners.
6. Territorial Employment Pacts are an EU initiative aimed at stabilising local and regional labour markets in selected European regions by promoting consensus and co-operation between all relevant local actors. In Vienna, the TEPs intend to do the following: enter into direct co-operation with a minimum of 1 700 Viennese businesses in the systematic upgrading of skills of the Viennese labour force; to reach a 55% rate of integration into planned participation-intensive measures; raise the share of women at the funding level to a rate in excess of their share in total unemployment in Vienna and achieve direct inclusion of a minimum of 4 050 persons in specific measures targeting young people, women and the long-term unemployed; and improve the balance between supply and demand while continuing to promote structural change.

7. This aspect was mentioned in the last *Joint Assessment of Employment Priorities in the Slovak Republic*, November 26, 2001:
(http://www.employment.gov.sk/eng/international_relations/joint_assessment.html)
8. The funds should be divided among three sub-projects: Austria/Hungary, Austria/Slovak Republic, and Austria/Czech Republic. For the Austria/Slovak Republic project, the three *Länder* should participate in the co-national funding. Before accession, the composition of the BAER Steering Committee should include institutional core partners of the BAER Project only in Austria. After the EU accession, institutional core partners of new EU Member States should join the Committee.
9. EURES helps the Public Employment Service of member countries to engage in closer co-operation.

CHAPTER 4

INNOVATION, KNOWLEDGE TRANSFER AND LEARNING REGION POLICY

Introduction

Cross border regions suffer from fragmentation of markets and institutions. Borders constitute a separation that hinders trade and competitiveness. Technology diffusion, co-operation between firms, and social capital development, among other things, remain suboptimal. Yet, as the experiences of advanced cross-border regions have shown (for example Öresund, Euroregion Rhine/Mosel and Trirhena),¹ knowledge exchange, enhanced diffusion of innovation and increased co-operation across the border between higher education institutions and firms can make a vital contribution to overcoming the effect of the border on economic performance. Policy initiatives to build learning regions, to strengthen clusters and reinforce ties between the knowledge-based economic activities represent a crucial element in an overall strategy to boost prosperity across a functional transborder region. In the case of Vienna and Bratislava, there is strong potential for integration: a solid knowledge infrastructure (although it is fragmented and under reconstruction in the case of Bratislava), good availability of expertise provided through numerous universities and Fachhochschulen, as well as “knowledge cultures” (though these are not sufficiently based on co-operative relationships at the moment). In order to capitalise on this foundation, policy action will be required to speed up the process of integration that is already under way and, in particular, to better link the relatively fragile Bratislava innovation system to the more articulated Vienna technological platforms. Not only will this increase opportunities for growth, it will be instrumental in reinforcing the global competitiveness of greater Vienna while consolidating employment creation and reducing brain drain in Bratislava.

Learning regions and cross-border integration

The learning region concept

Innovation is often a social exercise in which a range of different actors participate in a collective learning process. Public policy can help by exploring the sources of endogenous potential and strengthening the capacity of actors for self development by creating a climate conducive to learning and removing obstacles to co-operation and interaction. The knowledge base of a region is not only composed of the workers' skills. Individual learning is necessary but it is not a sufficient condition for generating growth and employment. The organisational learning that has accumulated in the region, the degree to which it is a learning region, is the crucial determinant.

Transforming a cross-border region into a learning region

A cross-border region is often well placed to trigger learning dynamics. With integration of similar industries into one regional market, regional competition, and consequently (at least, ideally), the incentives and opportunities for local firms to learn from each other, intensifies (Porter, 1990).² In a larger market, with more customers, a firm can specialise, reap internal scale economies and increase efficiency through skill deepening (what Adam Smith referred to as the greater "dexterity of labour" arising when firms invest in on-job training) and organisational learning (both as trial-and-error and research activities like R&D).

Cross-border integration, particularly of urban areas, offers huge potential for upgrading the regional education and public research systems to the benefit of local industry. First, economies of scale may be obtained by horizontal collaboration between regional universities (and to a lesser degree, technical schools). Integrating (some) activities of one or more university departments or centres on one side of the border with similar education and research areas on the other side will generate efficiency gains, enable joint investment in expensive equipment, and attract top-range researchers and teachers. Second, scope economies may also emerge if institutions in the cross-border region specialise and collaborate rather than compete. By analogy to the upgrading processes taking place in firms with larger regional markets, specialisation of institutions into narrower education or research areas, made possible by a larger regional "demand" for specialised education and research, will allow them to concentrate resources in key knowledge areas.

If integration enhances learning, the reverse is also true. Moving towards a learning region strengthens cross-border relations, since it establishes and reinforces networks that stimulate innovative activities and better use of skills and knowledge. It promotes co-operation between firms as well as between firms and institutions across the border, thus opening up new opportunities for growth. Policies that aim at mobilising and upgrading the existing knowledge base in the region and policies to strengthen territorial cohesion between both sides of the border and boosting overall growth are mutually reinforcing.

Institutional preconditions and governance requirements

Reaping the learning-related benefits of cross-border integration necessitates governance structures that facilitate bilateral co-operation and minimise transaction costs. Strategic alliances or subcontracting relationships between firms should be set up to limit, for example, negotiation and communication costs relating to the border (Lorenzen, 2002). Such co-ordination may be promoted by a specific institutional arrangement – e.g., the contract design – of each inter-firm relationship. However, even if a firm seeks to reduce co-ordination costs by designing its relations to other firms in a particular way, the broader collective institutional *environment* of a region – legal structures, civic and personal networks, trust regimes, social norms and conventions, cognitive institutions, etc. – greatly influence the general level of co-ordination costs. Certain industry and financial services are often necessary to facilitate co-ordination among firms, and common regional agencies that offer such services may be necessary.

The above potential also requires, however, significant co-ordination among the educational and research organisations. Horizontal alliances between different public organisations – and, particularly organisations from different countries – may be difficult to design. And strategic questions of who should specialize in what, and how collaboration among specialized universities and departments should be designed (for example, should some compensation be offered to those who specialize in less profitable activities) are not easily solved, particularly if universities or other organisations (perceive that they) compete with each other. As a consequence, universities, technical schools and research organisations in a cross-border region may need a common regional coordinating body with clear visions and strategies to lower competition and facilitate specialisation and collaboration.

Cross-border regions and social capital

Through networking, agents not only innovate in a technological sense, they also undertake *institutional learning*. They learn from each other and build mutual trust and shared conventions. This applies to firms and organisations that collaborate, and to students and workers who move around in the region. A high level of education also has a positive impact on social capital, by providing managers with networking competencies as well as personal relations; by boosting spin-offs; and by positively influencing specialisation of firms, rendering their networking activities of greater importance.

By definition, a cross-border region – and particularly a cross-border region that is not yet fully integrated – possesses a lower stock of social capital, and exhibits a lower degree of institutional learning. A first problem is that such a region has a low level of inter-firm collaboration, cross-border civic and personal networks, and common associations. A second problem, which is much more difficult to remedy through policy, is that such a region has no shared social norms and conventions, particularly if it is composed of areas that have been isolated from each other in a cultural, infrastructural or political sense for a long period. This problem may be particularly severe if the areas have recently had differing political interests (or even open conflicts in an economic or military sense). In the latter case, norms, conventions, and political traditions within the areas may even prescribe non-cooperation with “the other side”. National governments may again play a central role for remedying such problems.

Vienna-Bratislava: the learning region perspective and the challenges ahead

While undergoing deindustrialisation and a growth of industrial production in its surrounding suburbs, Vienna (defined as the *Länder* Vienna, Burgenland, and Lower Austria) accounts for the bulk of national industrial and economic growth in Austria (and also 30% of its GDP and 26% of its employees in 1998). Although confronting a number of weaknesses (low share of private sector R&D, over-concentration on the vocational education system and lower than average highly skilled students for a large city, weak technology transfer institutions, modest effort in providing in-job courses and re-schooling options), the regional economy remains underpinned by a significant number of universities and research centres and is characterised by moderate but real public spending effort (close to the EU average). In contrast, the Bratislava economic base is fragile, plagued with lack of resources and affected by the decline of research and education activities. R&D spending and organisational learning in indigenous industries have declined dramatically over the past

decade. Inter-organisational learning in clusters is modest; and there are only limited learning spillovers from current FDI. Nevertheless, a robust research and skill development asset base remains on which to build. The challenge is therefore to graft the Bratislava system of innovation on to the stronger and broader Vienna platform. The Slovak Republic's accession to the EU and the prospect of greater integration is a unique opportunity to achieve this transformation, thereby helping the Slovakian capital to upgrade its entire regional industry and technological infrastructure.

Vienna: a fragmented technological and research platform

Industrial restructuring and the research base

Vienna proper is increasingly re-centred on services (now 70% of employment). In 2000, 47% of all Austrian firm start-ups were located in the Vienna area, mostly in the service and business services sectors. However, while some ICT-related services were growing, the bulk of the growth in service industries was in activity areas with little organisational learning, mainly, low-skill services. Furthermore, observers suggest that even with a range of MNCs now establishing European headquarters in Vienna, the city is not sufficiently endowed with global linkages. Notably, in 1999, exports from the Vienna area to the EU accounted for only 62.1% of total exports, compared to the Austrian average of 71.6%.

Reflecting a division of labour with the central city, Lower Austria, and to a less significant extent Burgenland, are in the process of developing their own economic base. In 1999, Lower Austria accounted for 19.1% of new firms in Austria (Burgenland only 3.4%). The same year, 18% of the total number of workers in Austrian high-tech firms was employed in Lower Austria (as compared with 25% in Vienna). Moreover, the range of activities is broader than that of Vienna city, encompassing electronics, machinery, chemicals, telecommunications and medical.

The Vienna area and particularly the city remain, nonetheless, the most important R&D centre in Austria: of the public R&D spent in 1998 (the national government accounts for 34.5% of all Austrian R&D spending, while the *Länder* funds 6.4%), the Vienna area (the data excludes Burgenland, but given the industrial specialisation of this land, the figure is likely to be low) accounts for 46% of R&D expenditure. The share of GDP spent on R&D overall is a high 3.2% (the highest in Austria), and 14 387 R&D workers, or 53% of the national total, are employed in Vienna (again excluding Burgenland).³ At the same time, total R&D spending in Lower Austria was only 0.6% of GDP, largely because the local economy is based mainly on SMEs. Thus, the public research

institutions and the MNC branches in Vienna city and the immediate suburbs (the “*Umland*”) account for almost all of this spending. However, neither the public research institutions nor the higher education research centres are rated as world class.

Knowledge infrastructures and learning

Vienna has an educational attainment level above the national average, but a relatively low number of university graduates (WIFO, 2000).⁴ This is a general Austrian trait, due to the vocational system's dominance over higher education, but in comparison with other OECD areas with a major metropolis and a range of universities, the level stands out. Following the national reform in 1993, 18 technical university programmes, with more than 2 500 student places, have emerged in Vienna (as elsewhere in Austria). Another ten (with 500 places) were added in 2002. They are run by four educational institutions (two of them were appointed Fachhochschule or University of Applied Sciences).⁵ It is hoped that these high-level educational institutions will provide educational supply that is more in line with industry's needs than that of universities, while offering the possibility of upgrading the skill levels of the labour force through vocational training.

Progress has been made towards achieving this objective. The biggest institutions managing Fachhochschule courses (*Fachhochschule Technikum Wien*) was founded by the Viennese electrical industry and is still run by them. The new course in biotechnology provided by another institution is developed by a large group of scientists and specialists of the Viennese universities and companies. More generally, all new courses have to be approved by a federal authority and their links to the needs of the labour market established. While Universities of Applied Sciences as all universities fall under the responsibility of the federal Ministry of Education, Science and Culture, the city of Vienna is investing in a five-year general promotion programme (EUR 11 million) and in a special programme for Fachhochschulen (EUR 5 million).

In spite of the presence of several universities and *Fachhochschulen*, the technology transfer structure lacks strength. This is partly due to weak institutions for technology transfer, partly due to the dominance of SMEs, which are difficult to target, and do not have sufficient funding to enter into collaboration with public research partners. However, a number of initiatives which may strengthen technology transfer from public research to Viennese industry have recently been introduced. Apart from a range of funding programmes, a centre for Innovation and Technology (ZIT), providing entrepreneurial support as well as promoting university-industry collaboration, was set up in 2001. Furthermore, Austrian patent laws are being changed in a

direction that is likely to influence commercialisation of public research, as property rights to inventions are transferred from the state to the universities. It is nevertheless too early to assess the impact of these initiatives upon organisational learning.

Some industrial and technology policy initiatives

Although Austria has no strong tradition for industrial and technology policy, a number of initiatives have been introduced. For example, a strategic development plan was drafted by Vienna's city administration for 1998-2000 explicitly addressing cross-sectorial issues such as innovation and FDI attraction, but not focussing directly on learning region issues. During the period 1993-2001, the city of Vienna also sponsored a strategic discussion forum for public and private researchers ("Vienna's Knowledge Base") that aimed to identify knowledge areas in need of strategic development, though this was discontinued in 2001. In Lower Austria, a recent EU-funded project evaluated key areas of industrial advantage, including those related to knowledge and innovation. In general, industrial policy in Austria tends to focus on single projects or, more recently, on clusters. For example, from 2001, a new innovation policy tool was set up, the Vienna Science, Research and Technology Fund (WWTF), which funds research with high potential commercial value. This complements the Viennese Business Promotion Fund, the WWFF, which with a budget of EUR 48.4 million in 2002, remains the main supporter of entrepreneurship and firm-level projects. Such support is given without particular strategic orientation towards facilitating knowledge transfer from public research, or coordinating different firms or public agents.

A more radical change in industrial policy is represented by the increased focus on cluster projects. A development strategy was drafted in 2001 for Viennese technology and cluster policies (undertaken, among others, by the Viennese Business Promotion Fund). Considerable national support is also granted to clusters in the region, including. Biotech (80% of Austrian biotech firms are located in Vienna). A range of funds are now being targeted at particular activity areas (notably ICT, creative industries, bio-tech automobile production), emphasising projects with co-ordinating and networking elements. The cluster projects are top-down with limited participation by private industrialists, and none by venture capitalists, and they are governed as publicly owned companies. Moreover there is no participation by the Viennese universities and *Fachhochschule* in the current cluster projects.

Regional governance structures.

As a national capital, many of the public investments of importance for economic development are undertaken by the federal government – notably, central urban functions such as universities and cultural institutions. Furthermore, as mentioned, the bulk of Austria's R&D is funded by the federal government – including a range of regional public research institutes, and there is little co-ordination between federal investments and the initiatives that are made at the *Land* level.

There is however considerable scope for the local and *Land* level to carry out learning region policies. After a governance reform in 1995, the urban area of Vienna and *Umland* became a planning unit, and began, among other things, to co-ordinate activities to attract inward investment. Such co-ordinated regional policies are now being expanded to cover also Lower Austria and Burgenland (*i.e.*, the entire Vienna area as defined in this report). Given this effort, the city of Vienna could become a symbolic focal point as well as become involved in the practical political task of bringing together policy makers from all three *Länder* in order to discuss concrete policy tasks arising in the cross-border integration project, as well as developing political visions for the role of the *Länder* in this project. This evolution is not, however, without tension. In particular, Burgenland, some parts of which are undergoing de-industrialisation of labour-intensive production, has demonstrated some reluctance to the integration of the Vienna area with Bratislava, fearing that this would add further to its economic problems.

Bratislava: a difficult transition towards an innovative market-based economy

Industry structure: the main aspects

Like the Vienna economy, Bratislava has experienced a downturn of industrial production in the recent period. There are nevertheless a number of differences. First, the transition process with a significant upsurge of commercial functions and a strong decline of research occupations has exacerbated the decline. The productivity level in the Slovak Republic is only 50% of that of EU industry, and well below that of Austria. This is also the case with respect to research spending. Today, R&D functions in Slovakian industry employ 22 000, only a third of the level before 1989, and private R&D outlays have dropped from 0.54% to 0.4% of GDP and 0.87% to 0.62% in Bratislava and Trnava counties, respectively.

Second, industrial clusters are weak and predominantly found within traditional industries with low learning rates (Auer, 2001). Generally, co-ordination among local Bratislava firms is low (32% claim that they have no interest in collaboration with others), as are the levels of entrepreneurship and new firm start-ups. In most industries, clusters are rare, because firm managers – particularly those of SMEs – are generally very risk- and cost-averse and not ready to pay for institution-building. As a result, industry associations are not very active, focussing, in general, on traditional functions such as wage negotiation rather than on co-ordinating and mediating among firms. Although some industry associations are upgrading (for example, the electricity producers' association has designed a Web portal, and actively help firms arranging trade fairs), most of them need to develop professional activities such as training and information exchange.

Third, as a result of the decline of indigenous large firms and the weak SME sector, FDI entry is critical for the development of the Bratislava region. Over the last five years, the region has been successful in attracting a number of foreign investments (*e.g.*, VW, Siemens, HP, Alcatel, and Compac). The new MNCs offer job opportunities, in both production and sales functions (*e.g.*, Siemens employs as salesmen many Bratislava engineers who earlier worked in local electronics firms) and have had a positive impact on the economy (thanks to the influence of VW, automobile exports account for 23.9% of national exports. However, there are only limited spillover effects from the FDI because: 1) the MNCs use state-of-the-art global technologies and carry out relatively little R&D in their Bratislava branch plants; 2) the MNCs transfer little knowledge to local industry (most often, they enter through greenfield investments, rather than forming joint ventures with local firms); and 3) the use of local subcontractors is relatively modest, often entirely top-down controlled by the MNC, and with limited technology transfer.

The weaknesses of the regional innovation system in Bratislava

Among possible consequences of the weaknesses of the innovation system in Bratislava is the risk of brain drain. Even if students are not yet going abroad on a large scale, universities in Prague, Brno, or West European countries are beginning to attract an increasing number of graduate students from Bratislava. Significantly, Bratislava now has a decreasing number of tertiary level students. In spite of marketing efforts to attract students from other regions and abroad; *e.g.*, by developing teaching in English and German, it is increasingly difficult to study in the Slovak Republic because of budget cuts and lack of student loans (Box 4.1). In addition, graduates have difficulty finding relevant jobs in Bratislava (this mainly applies to students with technical skills; business students are in higher demand), and, consequently, there is some emigration of

the highly educated labour that will not accept “downgrading” after graduation (even if many emigrants end up in “downgraded” jobs abroad anyway). A problem of replenishment of teaching and research competencies in Bratislava's universities and technical schools is also imminent. As a result of severe budget cuts in universities, which are eroding the economic incentives for candidates to stay within the university system, there are problems of recruitment at PhD level. Furthermore, there is no system to maintain contact with those candidates employed in industry in order to use them as teachers.

Box 4.1. Education in the Bratislava region

Bratislava is national centre of individual learning, with 45% of all Slovakian University students located there, and with 22% of the local population attending higher education (PHARE report). Whereas national averages in attainment of secondary and tertiary education in 2002 is 38.1% and 13%, respectively, the figures for Bratislava are 39.1% and 25.6%. In Bratislava, the major universities are Comenius with 25 596 students; Technical University with 19 031 students; and Economics University with 15 892 students, and the city also boasts a range of business and human sciences institutions. However, there is a general poor co-ordination between individual and organisational learning in Bratislava. In general, the Bratislavian education system has created a lot of valuable knowledge (mainly technical competences, as managerial competencies are relatively weak). But the knowledge of individuals is only little utilized in industry, and furthermore, the creation of knowledge through individual learning is now in danger of being lost, due to severe cuts in educational budgets and problems of brain drain.

Second, educational activities are being downgraded. Slovakian universities and technical schools are lacking strategic or economic freedom, as priorities concerning educational activities (and, as we shall discuss below, research activities) are set by the national ministry of education. Today, the Slovak Republic spends considerably less than the EU average on education, and dramatic budget cuts continue. As universities and technical schools are not seen in a particularly strategic perspective by the national government, in spite of their central role for Bratislava's valuable base of technical knowledge, regional universities are not highly prioritized – and are not at all viewed as a regional development tool. Within this context co-operation with the business sector is not one of their main goals.

Another problem is the possible downgrading of public research. Prior to the fall of the Iron Curtain, public research in Bratislava's universities and technical schools was a high priority. Bratislava still boasts high-class research

in the fields of materials (basic as well as applied); cellulose and wood; chemistry; pharmaceuticals; polymer technology; metallurgy (originating from the earlier arms industry); and electronics (originating from the pre-1989 consumer goods industry). Today, the public research institutes also possess advanced knowledge in the areas of cybernetics, robotics, and informatics and hold the potential to move into the medical industry (bio-informatics, rather than pharmaceuticals). This solid base and good potential may, however, be jeopardized by the present funding shortages. Total investment in research and development is only 0.69% of GDP for the nation as a whole and 1.2% for Bratislava, both of which compare unfavourably with the EU average of 2%. The Slovak Academy of Sciences, which formerly enjoyed status and funding and had international networks, is now struggling with budget cuts of up to 40%. The reductions in public funding for science and research within Bratislava and neighbouring Trnava counties from 1996-2000, were 20% and 30%, respectively. These funding constraints have made it impossible for research institutes to undertake new research projects, modernise equipment and more generally to specialize further (despite some funding for institutes provided by the EU).

Public research is also poorly co-ordinated with local industry, and scientific knowledge is little used for organisational learning. Indigenous firms lack funds to undertake it, and the relatively strong MNCs employ engineers in sales functions rather than R&D functions. Furthermore, the educational system is not geared to take current industry's demands into account. For example, even though practical managerial skills are inadequate in the relatively young market economy, management courses are still relatively under-developed. Most teachers are employed full-time by the technical and managerial schools, and there are no systematic assessments of those (relatively few) part-time teachers who are also businessmen (and no funding for attracting more such teachers). In a recent development, most undergraduate courses now try to include some entrepreneurship training – but the courses are not created in collaboration with local enterprises. In particular, SMEs are reluctant to dedicate time or funds to educational activities.

Some issues relating to patenting and licensing laws also restrain the use of scientific knowledge in industry, as they provide no incentives for setting up new firms or collaboration projects with industrialists on the basis of scientific research results. For example, current laws make it difficult for researchers to reap the financial benefits of their discoveries. Consequently, researchers are not active in setting up projects or collaborations, and few industrialists or private funds are interested in collaborating with universities. This also has a brain drain effect, as researchers who go abroad have few incentives to come back to Bratislava where the possibilities of finding partners in industry, starting

up own companies, or asserting property rights over their knowledge, are more limited. However, from 2003, new property right laws are scheduled to be implemented, giving universities and researchers more freedom to safeguard the economic benefits of their scientific discoveries.

Policy efforts to stimulate innovation and technological development

First, it should be mentioned that the Slovakian banking and finance system is very poor at accommodating industry, and for entrepreneurs as well as incumbent firms, industry finance is a major problem (even if the state has lowered both corporate taxes and interest rates in the period 1990-2002, from 40-25 to 25-10, respectively). While finance for start-ups, R&D, training activities, and collaboration projects is difficult to obtain, consultants and other private business and technical services are relatively expensive, and insurance and health care costs are on a steep rise. Recent restructuring of the Slovakian banking industry has solved only certain of these financing problems. In addition, Slovakian funds for sector policies – for example, the Innovation Funds and SME Funds administered by the Ministry of Economy – are extremely limited, and financial services for SMEs are currently at a very low level.

In the Slovak Republic, the National Agency for the Development of SMEs (NADSME) co-ordinates support programmes for companies – some loans to entrepreneurs, cheap rents and facilities – administered through a network of 13 Regional Advisory and Information Centres (RAIC) and five Business Innovation Centres (BICs). The last few years have witnessed a strong increase in policies focussing on incubators or industrial parks. These policies have gained momentum in Bratislava and resulted in several projects (e.g., under PHARE). In 1992, the BIC set up the Slovak Republic's first industrial incubator in Bratislava, and today, it is a key agent in setting up industry parks in the region aiming at supporting clustering within the automotive and wood processing industries. While this a way to attract MNCs, the NADSME and the local BIC are approaching local MNCs in order to make them upgrade their local numbers of subcontractors, but this is a slow process. More high-tech industrial parks are planned, with the participation of the local technical university. In the ICT park, it is planned to utilize local engineers, not for production, but for pre/post production R&D, e.g. chip design, testing, etc.). However, experiences elsewhere – notably in North Denmark – have shown that some production experience is often needed in order to develop clusters of development and testing tasks within the electronics industry.

Concerning university-industry linkages, industrial restructuring has eradicated most existing collaborations, and efforts of establishing new ties to industry are few. In 1996, the BICs (with funding from the British Council and the 5th EU framework programme) set out to modernise and upgrade the institutes of the Slovakian Academy of Sciences and to connect them more closely to industry (including establishing a range of industrial parks with university institutes participating). The project was too ambitious and met with opposition from academia and suffered from practical as well as funding problems. Instead, all universities were requested to set up Industry Liaison Offices from 2000 onwards. However, funding has been modest, it has proved difficult to find qualified personnel for these offices, and they have enjoyed only limited support from the deans of universities as formally at least, collaboration with the private sector is not a part of universities' mission. The Industrial Liaison Officers also report that connecting to industry is a huge task, given the dominance of SMEs with little interest in collaboration. With 65 ILOs originally proposed, there are only 11 today in the Slovak Republic, and only a handful function well.

The university ILO in Bratislava is reportedly the best functioning ILO in the Slovak Republic. In particular, the university still collaborates with some of the older large local firms (as mentioned, SMEs are more reluctant). It has also established joint research projects with local MNCs, where the latter sponsor new technical equipment and allow the university's researchers access to a global community of researchers (although the discoveries of these projects are appropriated by the MNCs alone). Even so, relative to other universities in OECD countries, the university's collaboration activities are still modest.

Cross-border integration potential

Labour market integration. Generally, there seems to be a great scope and scale potential in integrating Vienna/Bratislava labour markets (for example, while ICT grows significantly in Vienna, Bratislava is, contrary to Vienna, over-endowed with labour qualified in ICT fields). However, utilising such potentials may require targeted political effort (for example, highly qualified Bratislava labour seems to be much more prone to seek employment in Vienna city, even if many relevant jobs are found in, for example, the Lower Austria part of the Vienna area). Furthermore, there are also uncertainties linked to further integration, notably the potential for exclusion of weak groups (such as the low/medium skilled) in Vienna as a result of competition from Bratislava, as well as a risk of brain drain of well-educated labour from Bratislava to Vienna. Hence, a range of integration and co-ordination issues need to be addressed in the cross-border region, but this has not yet happened at the cross-border level.

Research and development integration. Traditionally, there has been relatively little freedom for Bratislava universities to collaborate with universities in Vienna, as contacts between universities rather than being established bilaterally have been negotiated through the Slovakian Ministry of Education, or the national Pectoral Conference. Both of these institutions have emphasized national rather than cross-border collaboration. Furthermore, Bratislava's universities do not view themselves as stakeholders in knowledge-based regional development. As there are still large barriers to making the universities participate to the basic workings of a local innovation system (such as ILOs), it should not be expected that they will dedicate themselves to cross-border regional development. In this respect, the universities in Vienna have had much more freedom – and initiative.⁶ In most cases research collaboration is the result of initiatives by individual researchers. The research collaboration between Vienna and Bratislava encompasses joint projects (also with other European partners) and exchanges of researchers within the fields of tourism, architecture, and natural sciences (especially geology, chemistry), whereas collaboration in the applied sciences and by technical universities is lower. This is partly due to the fact that while Bratislava may be an interesting research partner within certain areas of basic science, they have less to offer with respect to applied research and have very few local partners in industry. It is also emphasized by observers that because the legal and finance infrastructure is so poor on the Bratislava side, joint research results stemming from cross-border collaboration relevant for industry are commercialized mainly in Vienna and abroad.

Cross-border collaboration between industrial parks and firms. One of the cross-border activities that has been particularly stepped up over the last half decade is collaboration of industrial parks in Vienna and Bratislava. For example, supported by the EU PHARE programme, industrial parks in Bratislava collaborate with the Austrian TIC in Eisenstadt. In most cases, the role of the Viennese partners is to act as consultants, and there is no co-funding or exchange of activities as such. As there is a surplus of funded new projects and business plans on the Vienna side (for example, in Eisenstadt and Neustadt), there would be economic reasons to channel them to Bratislava industry parks or industry incubators. However, negotiations about this are not very advanced. It should also be mentioned that a proper joint industry park with direct involvement by both Viennese and Bratislavian authorities and sponsors, is planned. With regard to cross-border collaboration among firms, task division or activity focus areas have not yet been defined. Finally, inward investment agencies in Vienna and Bratislava currently experiment with joint attraction of MNCs to the entire area, and there are joint actions planned between the Bio-Center and automobile cluster projects in Vienna and Slovakian partners.

Student exchange. Despite the language barrier, there is some integration between universities in Vienna and Bratislava in terms of student exchanges and visits. However, these activities are few and are often driven by personal networks between single teachers. No formal bilateral agreements between universities exist, nor any broader strategic visions for all the universities in the cross-border region. This – in combination with the lack of planning freedom for Slovakian universities – makes the universities unable to specialise their curricula on a region-wide basis. It also makes them less capable of obtaining further funding for cross-border student exchanges (currently, SOCRATES and ERASMUS programmes are important funding sources). Other problems that need to be resolved are the certification systems of both teachers and students. Degrees and formal qualifications need to be valid in both Vienna and Bratislava, and the upcoming EU membership has stimulated a process of harmonisation in this regard. A Memorandum of Understanding between the Austrian and Slovakian ministries of Education, signed in 2002, is a first step towards removing barriers for cross-border student exchange.

Policy recommendations

Neither Vienna nor Bratislava can be called a learning region in themselves, and, due to lack of integration, they can hardly be dubbed a cross-border region either. Both regions have nevertheless the potential to reap substantial advantages from integration with respect to knowledge transfer, innovation, and learning, as demonstrated above. To realise this potential, however, there are policy insights and measures that can upgrade and accelerate the ongoing integration process. This effort should be organised around the following roadmap and initiatives.

Mobilise a sustained effort

At the outset, it should be noted that many elements of an LR take decades to build, and co-ordination among them is an ongoing challenge. In the case of Vienna/Bratislava, building LR elements across a regional territory that encompasses different national areas, and given huge problems with funding and political will, while ambitions may be high, those agents and policy makers should realize that a sustained, long-term effort will be necessary. Hence, it may make more sense at this stage to focus on a limited number of smaller policy tasks, rather than addressing a broad range of issues simultaneously, particularly if there is a risk that funds will run dry and political will falter.

While much industrial development takes place within the city of Bratislava, Vienna is a major urban agglomeration, a service centre and global hub. This, in combination with the political controversy a focus upon city areas

alone would cause, suggests that the integration project could encompass the broader region instead. As mentioned, there may be scope advantages in a division of labour between areas with high-class urban functions and global “pipelines” (*i.e.*, Vienna proper), other urban areas (*i.e.*, parts of Vienna and Bratislava proper), other areas with advanced industrial growth (*i.e.*, parts of Bratislava proper and Lower Austria), and areas with labour-intensive industry (*i.e.*, Bratislava's surroundings and parts of both Burgenland and Lower Austria). However, this again assumes uneven development, and, furthermore, there is a possibility that some labour-intensive production would move from, for example, Lower Austria to the Bratislava side of the border. If uneven social development should be avoided while a division of labour and activities is maintained, the cross-border region would need redistribution through taxes – which in turn would require a governance framework that is not as yet in place. Launching a forecasting exercise at the level of the broader region could help to highlight these issues further and suggest policy responses.

Create joint regional data

The value of regional data. There is no political will on either side of the border to engage in lengthy debates on the course cross-border integration might take (since 1989, the Slovak Republic even seems to have moved from a planned economy to a system that objects to any kind of planning). Nonetheless, the emergence of a cross-border LR will benefit greatly from information and data that helps local decision makers to come up with new initiatives.

A regional data agency. In the case of Öresund, the region has established a joint data agency, co-ordinating national and regional data from both sides. Such an agency could go even further, initiating data collection through surveys, etc. (in the Danish/Swedish case, national data sources are of high quality and are largely viewed as sufficient for establishing information on the cross-border region). Better information on regional disparities in the Vienna and Bratislava areas, potential scale and scope economies of integration, as well as the barriers to integration and co-ordination, may remove prejudices and push the integration process forward without being politically controversial. In itself, the establishment of a joint data agency also has huge symbolic value. It should be noted that the planning and data provision pull, as well as funding for statistics, from Austrian and particularly Slovakian national authorities is significantly less than in Denmark or Sweden. Hence, data creating activities need finance, from private or EU sources.

Focus on concrete projects

Due to policy and funding constraints, policy makers should concentrate their initial efforts on concrete projects that are viable politically and financially, capable of succeeding relatively quickly, while having large symbolic value. Such projects could include:

- **Education investments**, which are usually politically feasible while having many spin-offs if co-ordinated to local industry. Partnerships with private firms, while also being politically popular, have the potential to provide valuable information and funds to universities.
- **Cross-border technological park initiatives.** The innovation system in Vienna is much more efficient for commercialising inventions in industry than that in Bratislava. Hence, in order to avoid uneven development as a result of investments in public research (*e.g.*, Bratislava investing in research, and the resulting inventions being adopted in Vienna), industry incubators and technology parks should accommodate firms from both sides of the border. It should be set up in a joint effort by universities, industrialists, and governments on both sides of the border.

Box 4.2. Higher education and industrial clusters as driving forces for integration: the case of the Öresund transborder region

The Öresund is a cross-border region comprising, on the one hand the Danish island of Zealand including Copenhagen the capital city and on the other hand the Skåne region, with Malmö, Sweden's second biggest city. Since 2000, the two cities have been linked by a rail and road bridge. This new transport infrastructure has given birth to one single functional region lying in two different countries.

The Öresund region has developed significant strength in knowledge-intensive activities including the medical and pharmaceutical industries and certain segment of information and communication technology industries. It is also strong in food processing and the food cluster now represents 3% of employment in the greater Copenhagen compared to 5.3% in Skåne. One may add as well an environmental cluster with companies that either produce environmental technologies or make production, product and services more environment friendly.

Box 4.2. Higher education and industrial clusters as driving forces for integration: the case of the Öresund transborder region (cont.)

Despite improved accessibility and these clusters links, the Danish and Swedish parts of the Öresund region are relatively insulated from each other and face similar difficulties as before the construction of the bridge. It will take some time before the full potential of cross-border synergies materialise spontaneously. Without active channels for transaction and communication, even a critical mass of close firms may under-exploit a large potential. Consequently, action is required to accelerate the promotion of cross-border networking and ensure that the time required to learn and innovate eclipses the lower value added strategy of copying products and processes from other regions.

In the Öresund significant steps have been taken in this direction. The Education sector has notably been in the forefront of promoting co-operation for knowledge development. The long-term informal co-operation was formalised in 1997 with the creation of the Öresund University. This institution which regroups most Universities of Zealand and Skåne is not only a leading actor around formal scientific research and education (Öresund Science Region) but also around the promotion of informal networking activities and information sharing. Working in collaboration with researchers, business leaders and policy makers, Öresund University has helped in facilitating the development of networking association in each of the above clusters. Medicon Valley Academy is the oldest and most established of these associations. They animate the clusters, organising forum and workshops on subjects defined by members and catalysing interactions.

It is important to underline that these associations are not trying to dictate technology developments, but rather to build soft infrastructures for the exchange of knowledge and organisational learning. The approach is flexible and rooted in organically developing projects that are likely to build effective communities of practice over time.

Create simple governance structures

As evident from the analysis, constructing governance structures at the regional level is essential for cross-border integration and co-ordination. The Euroregion framework seems particularly appropriate. Within such a framework, institutional structures could be established. Examples could include:

- **A regional university board.** Collaboration in terms of joint research initiatives, specialisation, and student exchanges needs formal agreements and governance among partner universities. A structure such as the Öresund University Council (see Box 4.2) above would help to capture the benefits of university investments at the level of the transborder region.
- **Joint industrial support agencies.** The Business Innovation Centres in the Slovak Republic have initiated collaboration with similar centres (TICs) in other countries, including Austria. This collaboration could be stepped up relatively easily to constitute a governance structure accommodating not only the creation of joint industrial parks, but also other industry support services. Establishing joint public one-stop information shops would be particularly useful to improve programme delivery and facilitate SME access.

Develop local private-public partnerships

Funds and legitimacy. LR policies for Vienna/Bratislava should as far as possible draw on private-public partnerships. Apart from access to private funds, the advantages of such partnerships include legitimacy in the public as well as private spheres. Legitimacy may of course be compromised if partnerships are not initiated with a broad range of private partners, if competition is distorted, or if any signs of corruption emerge. Partnerships also allow for linkages with industry through giving public agents access to valuable information about business. For example, co-ordination between regional educational institutions and industrialists is necessary for a more targeted local educational offer. Industrialists could participate in upgrading curricula through feedback and dialogue, teach at local schools, allow teachers to visit plants; and invest in on-the-job training. While under-investment in training seems to be a ubiquitous problem for industrial firms in most countries, regional specialisation of single firms and participation to networking with other firms often spur such investments (see the Danish competence centre's experience). In other words, a cluster structure does not only rest upon specialized skills, it also pushes firms to deepen them.

Obtain external funds

Integration of the Vienna and Bratislava areas is a large cross-border project, in terms of geographical scale, population, and funding needs. Even for targeted integration and co-ordination projects, local agents may need external funds – sometimes also strategic “pushes” from external agents.

EU funds. One source of funds is, of course, the European Union. With INTERREG funds, PHARE and programmes aimed at SMEs, the EU will greatly influence the nature of integration efforts over the coming years – probably at the level of concrete projects rather than in terms of building of governance structures. Local policy makers in Bratislava should devote more attention to these funds rather than overly focussing upon R&D funds, which are less relevant to them at present. Furthermore, the 6th EU framework programme has great potential to benefit collaboration between the technical and natural sciences in Bratislava and Viennese universities (human sciences and business sciences will have to rely upon other funding sources). However, organisations and authorities on both sides of the border – but particularly on the Bratislava side – can be much more proactive in attracting EU funds. Slovakian authorities are generally slow at noticing EU offers (funds, as well as tenders), and, due to limited finances, also often decline to apply for funds that demand significant co-funding (often, 30% or 50%). There is nevertheless a danger of overly focussing upon EU funds: Some earlier INTERREG-funded cross-border projects had little positive impacts, because they were initiated without assessing their need for cross-border co-ordination. TICs and BICs (and, in some cases, university researchers) tend also to target projects that have the potential to attract EU funding, hence overly narrowing the range of cross-border activities.

FDI. Direct foreign investments may also be a source of finance, and there is a large scope for setting up a joint inward investment attraction agency for the Vienna/Bratislava region. The agency should not only attract investments, but also, as far as possible, co-ordinate them to existing industrial activities. As mentioned earlier, the entry of MNCs in the Bratislava area has provided little funding for other local activities, particularly as tax revenues go to the state rather than to the city. Entry is most often greenfield rather than joint ventures with local firms, and spin-offs are limited. Now, Bratislavan authorities need to take initiatives to create local sub-supplier relations to the MNCs (including the aforementioned industrial parks). The next step could be to make demands to the MNCs before they enter, to further encourage them to invest in local development.

Nurture a public debate

The Vienna/Bratislava cross-border project attracts very limited public and political attention, particularly at national level, and particularly on the Austrian side of the border. It is not in the political culture of either Austria or the Slovak Republic to “plan” or for very visionary development policies. Whereas a few small-scale political initiatives are set in motion (transport projects, a few industry projects), policies are generally reactive and hands-off. It is moreover

noteworthy that few local political agents try and change the political discourse, as has been seen in other OECD regions. The political lack of will is clearly lowest in Vienna. Whereas the reason for being hesitant in Bratislava may be that the local government is very young and budgets are not even in place yet, for the ancient Austrian capital Vienna, perspectives of economic development across national border, may be new indeed. Notably, while there is external pressure (from the EU) for the Slovak Republic and Bratislava to change, Vienna is faced with no such clearly defined pressure. There are of course no easy solutions to such complex political problems. However, one way of setting in motion political developments is to facilitate a larger, informed, public participation to the debate. There is a major challenge for agents who want to promote a cross-border Vienna/Bratislava LR to upgrade and inform the public debate about integration, to remove the current political vacuum concerning the issue.

NOTES

1. Öresund is a cross-border region that includes areas of Denmark and Sweden; the Euroregion Rhine/Mosel crosses German, Dutch and Belgian boundaries; and Trirhena includes regions in France, Germany and Switzerland.
2. Already Adam Smith (1776) noted that the scope for specialisation and organisational learning increases with the size of the market.
3. Given that R&D spending is being charged at company level, the figure for Vienna is pushed up since the city is home for numerous company headquarters.
4. There are five universities in Vienna with 106 563 students (Autumn 2001) including the University of Vienna (65 397 students), the Technical University of Vienna (15 801 students), the University of Agriculture (4 395 students), the University of Veterinary Medicine (2 037 students) and the Vienna University Economics and Business Administration (VUEBA) (18 905 students). At the VUEBA, 2 759 of these students are foreign and about 15% of them are Slovaks.
5. *Fachhochschule* courses were attended by 4 096 students in 2002, but this number is expected to grow significantly in the near future.
6. Collaboration frameworks between the universities in Vienna and Bratislava are few. One example is the cross-border network of universities from bordering regions of Austria, the Slovak Republic, Hungary and the Czech Republic initiated by the BIC group. REGILON, as it is called, is a platform of co-operation between universities and R&D institutions. The REGILON platform is focussed on facilitating collaboration with business in other region and incubating collaboration projects and common events.

CHAPTER 5

CROSS-BORDER TRANSPORT POLICY

As a legacy of the East-West divide, cross-border transport infrastructure in the Vienna-Bratislava region is relatively disrupted and badly connected to national and international networks. Crossing the border requires a considerable amount of time and cost to regional trade. Although projections forecast a sharp increase in international and cross-border transport demands, policies for all types of transport – road, rail and air – are weakly co-ordinated between Austria and the Slovak Republic. Both countries have started hesitantly to close the most apparent infrastructure gaps, fearing that an increase of international and cross-border traffic could put pressure on the local and regional environment and jeopardise stated sustainable development goals. The following chapter gives an overview on the current state of transport infrastructure and management in the region, assesses current cross-border transport policy and finally hints at a number of policy measures to better reconcile transport demands and sustainable development objectives in the area.

Trends in national and regional transport

The Vienna-Bratislava Region lies at the crossroads of two major European transport arteries that form the backbone of the international and regional transport infrastructure. The region has traditionally been shaped by the Danube Valley, where both Vienna and Bratislava are situated. The Danube, connecting Eastern and Western Europe, is defined as *Corridor VII* of the Trans European Networks (TEN). The second important transport artery crossing the region is the TEN *Corridor IV* that runs from the North Sea and the Berlin Agglomeration to Istanbul. These east-west and north-south connections intersect in Vienna-Bratislava, giving it the role of an international transport hub. Most high-level transport infrastructure is concentrated along these axes, forming the backbone of the system. They include high quality highways, rail-lines to be upgraded to 140-160 km/h on certain lines (Vienna-St. Pölten, Bratislava-Brno and Bratislava-Trnava) as well as high-performance facilities for water transport. Finally, both Vienna and Bratislava dispose of airports serving the wider neighbourhood.

The integration of the Vienna and Bratislava Metropolitan Regions' transport networks occurs sluggishly due to the preponderance of strong national thinking in transport planning, resulting in an infrastructure that is still sharply divided in two by the national border. Planned future investments in the Vienna-Bratislava Region, most of which aim to improve cross-border connectivity, are still guided by national priorities without sufficiently accounting for the idea of a common region stretching over the national border. High-level road and rail infrastructure across the border are not yet effectively linked across the border. The results of which are: *first*, a regional transport infrastructure that lags behind cross-border transport demands; *second*, pressure on the existing infrastructure; and *third*, a slowing down of economic integration originating from physical exchange.

Transport flows in the Vienna-Bratislava Region are largely dominated by local traffic, which is approximately ten times as significant as cross-border traffic. The city centres are magnets for workers from expanding catchment areas, and work-day commuting into these centres constitutes the biggest source of traffic. About 150 000 persons, of which two-thirds use their own automobile, commute to Vienna. Bratislava also attracts a high number of daily commuters. Consequently, the highest traffic volume is registered on highways in and around the capitals, establishing them as the most congested roads in the region. Furthermore, the traffic volume is growing fastest on these roads.¹ Current urban policies therefore put a focus on promoting means of public transport like the extension of existing networks or restriction of cars (*i.e.* parking) in the inner cities in order to ease these constraints. The exchange over the national border remains relatively weak in comparison to the volumes seen within the urban agglomerations. In 2000, a total of approximately 10 000 passenger cars frequented the three border-crossings between Austria and the Slovak Republic on an average working day. Two-thirds of these trips had either their origin or destination within the Vienna-Bratislava Region. Traffic across the border is growing at a rate double that of internal traffic, which reflects the increasing integration of the area.

Although numerous studies forecasted a harmful explosion of transit flows passing through the region, real development did not keep up to these figures. After an initial major increase in 1990, the expected rapid escalation gave way to gradual, stable growth (since 1991). Eighty per cent of freight transit is on rail, leaving greater road capacity for local transport.² In 2000, transit amounted to an estimated average of 7% of total road transport in the whole region, with higher concentration on selected routes that form part of the Trans European Networks (Austrian highways A4/A21; corridor VII Budapest – Munich; Slovak highway D2; corridor IV Budapest – Prague). Bottlenecks developed where these routes have to pass through city-highways of Vienna and

Bratislava. The predicted collapse of the road system has not yet occurred, which can be attributed to several factors: 1) the disrupted development of eastern markets in connection to wars and a general overestimation of the potential for inter-change; 2) railroads that have managed to maintain their high share in cross-border transportation notwithstanding difficult circumstances;³ and 3) trading-routes between Eastern and Western Europe that are by-passing the region as a result of the restrictive Austrian policy towards truck transit.⁴

Forecasts predict a steady rise in transport flows over the next decade, until a level of saturation is expected around 2020 (Table 5.1). Until then an average growth in transport between Austria and the Slovak Republic of annually 3 to 4.1% is expected, with eastward flows growing at a pace of up to 6.0% annually (Puwein, 2000; Amt der Niederösterreichischen Landesregierung, 2001). The extent to which these developments, among the most dynamic in Central Europe, will finally result in corresponding increases in road-usage depends on the degree to which railroads will be able to maintain their high share of cross-border transport. However, forecasts for 2015 predict that transit through the region will remain at a lower level than that found on some highways in Western Europe. The future highway connecting Vienna and Bratislava is one of the focal points for future development, for which the traffic density is projected to rise monotonically until 2015. By this time, traffic density should reach the levels equivalent to its western prolongation, the highway Vienna – Munich. Traffic is expected to consist mostly of passenger cars by then, which will have either their origin or destination in the Vienna-Bratislava Region.

Table 5.1. **Development and forecast of transported goods in the Vienna-Bratislava Region**

Volumes of transported goods between Austria and the Slovak Republic, prognosis for 2015, scenario "Integration"

		Bulk articles	Other	Total
Austrian exports	Average annual growth (%), 1999-2015	2.9	10.8	6.0
	Volume in 1 000 tonnes by 2015	810	968	1 778
Slovak exports	Average annual growth (%), 1999-2015	2.5	7.6	4.1
	Volume in 1 000 tonnes by 2015	3 329	2 213	5 543

Source: Puwein (2000), p. 30.

National and regional policies

The differing distribution of competencies in the field of transportation between Austria and the Slovak Republic renders agreement on common policies difficult. However, through a step-by-step institutional reform process, the two systems have adopted certain common structures over the last years. They assigned more power to the regional level whose activities include a growing field of action. As for federal Austria, competencies are distributed between the *Länder* and the federal level. In 2002, the federal level handed over responsibility for building and maintaining federal roads to the states. In addition, the states are responsible for the organisation of most public transport, where formerly significant federal involvement was restricted to some transport operators (e.g. the rail-carrier ÖBB or providers of bus service) and a shrinking financial participation in regional *Verkehrsverbünden* (regional transport bodies). Yet through semi-public agencies,⁵ the federal level remains responsible for the construction and maintenance of the principal highways and railways. In the Slovak Republic, transport sector policies are still predominantly formulated by the national ministry of transport, posts and telecommunications. Regions' and municipalities' competencies were extended following changes in the country's administrative reorganisation in 2002, in line with the decentralisation process in Austria. They are now formally responsible for a series of planning questions such as public transport or construction of infrastructure, but the ministry continues to be the final decision maker and source of funding.

Both the Austrian and Slovak part of the region are lacking strong and reliable policy instruments that would allow for a comprehensive integration of infrastructures across the border. The strategic document *Principles of the State Transport Policy* is the foundation for transport system development in the Slovak Republic. It contains the major orientations for investments in Slovak transport infrastructure but no concrete projects. These projects are thus defined by several subordinated plans that build on its principles, but face frequent changes that are mostly related to financial constraints. In turn, the Austrian *Generalverkehrsplan Österreich* (GVP-Ö) is a federal level document that outlines the principles of the federal transport policy. Due to divisions within the administration, it entailed complex negotiations and was finally finished in 2002. In addition to providing a general orientation on basic policies, it includes a collection of individual projects, ranks them by priority and assigns their funding. The projects are to a large extent derived from already existing concepts on the *Länder* level, which also gives the GVP-Ö the role of mediator for *Länder* policies.

Although transport policy can have a considerable impact on regional economic development (Box 5.1), the co-ordination of transport policies across the border encounters further difficulties. Although the enhanced integration of the national transport systems into the European Union is a top priority for both Austrian and Slovak transport policies, serious differences remain between the two countries over how integration should be reached. This divergence is revealed in their respective willingness to fund public transport at the cost of road investment. The Slovak Republic's current rise in level of automobile ownership together with an exceptionally high share of public transport influences the investment of scarce resources into the improvement of the road system. After more than a decade of inadequate funding, the battered public transport system is further affected by its low level of efficiency and the accumulated need for reform.⁶ In the Austrian part of the Vienna-Bratislava Region, fear from increased road usage looms large. Official policies and public opinion are in mainly critically opposed towards a sharp increase of cross-border road transport and tend to be reluctant in investing in this sector.

Box 5.1. Transport policy and economic development

By providing the primary structure, the construction of transportation infrastructure may have fundamental influence on a region's economic development, but economic growth is not automatically stimulated. Growth effects are likely to appear when positive externalities exist in the region and the future use of the infrastructure is accompanied by suitable policies. Recent literature distinguishes basically two types of growth. The first is growth related to the *original investment*. It stems from the public work nature of the investment, by generating employment and income in the local area which is restricted to the project's implementation period. The second type is growth based on *transportation improvement*, manifested in such measurements as improved accessibility (mainly, travel time reductions), reduced monetary travel costs and increased traffic volume. They can potentially incite positive externalities that may exist in various markets – typically unexhausted economies of scale, size, scope, agglomeration, density or network – and consequently improve (labour) productivity, enhance output, reduce production costs and promote more efficient use of resources. Thus, for transportation investment to produce economic growth, it is necessary that such externalities will, in fact, be present in specific markets. If this is not the case, improvements in accessibility will lead to a sole divergence of existing transport flows and spatial patterns without having long-term effects on growth.

Although transport infrastructure does not directly enhance economic development (except for the effects originating from the original investment), it is one tool among others that can create favourable conditions to support development. For individual investments in transport infrastructure to have

Box 5.1. Transport policy and economic development (cont.)

sustainable effects on economic growth, the sole existence of externalities is insufficient. They also have to be exploited. This requires matching overall economic conditions with individual actors, permitting them to take advantage of the newly created possibilities and, especially, the implementation of integrated policies designed to support their activities. Economic growth will only be obtained through the success of these activities. A number of studies therefore point out that the second, non-economic point is most crucial to the success of any infrastructure investment project. Infrastructure policies should address the organisational structure and range of responsibility of oversight agencies, the nature of the legal system, the government level at which decisions are made and, most importantly, the capability of political leaders to resolve conflicts among stakeholders (ECMT, 2002).

Improving cross-border transport links

Infrastructure projects

Austria and the Slovak Republic have hesitantly started to close the most apparent cross-border infrastructure gaps and to link separated transport networks. While investments in the 1990s concerned mainly railways, investment programmes have shifted towards the road network in the beginning of 2000. The most important road infrastructure project is the “Southern bend” linking Vienna’s motorways to Bratislava’s suburban roads. Construction of this project, which will provide a fast direct link between the two cities, will start in 2004 and be completed in 2006. In 2002 the national governments also agreed to build a “Northern bend” between the two cities. Both cities, with significant financial help from national governments, plan to close and to improve motorway rings around the centres (called “Zero-Ring” in Bratislava) and to link them to cross-border motorways. Investment in railway infrastructure is considered less important; but passenger trains frequency on the existing Northern and Southern bend lines is supposed increase. Investment projects are open to private participation, but with an unclear legal framework and still lacking the possibility to introduce user fees, no such partnership has emerged neither is it in sight. A railway to link the Vienna airport to the Slovak Republic or to Hungary exists “on the map”, but the project remains vague. Likewise, projects to integrate the railway stations into the urban transport networks are not quite advanced. Finally, the Austrian Transportation Scheme foresees the enlargement of a multimodal (ship-road-rail) freight terminal close to Vienna, which will increase Vienna’s significance as a nodal point in European transport networks.

Major transport investment can have a strong symbolic value for a region and create a sense of unity that goes beyond the initial economic effect. The Vienna-Bratislava region currently lacks a symbolic project such as that of the Öresund Bridge (see Box 5.2). Hardly any of the projects is charismatic enough to become the catalyst for further integration endeavours. Construction of the new Vienna central station and the direct North-South rail link in Bratislava, likely to trigger a major integration effect, will not begin before 2010. Moreover, while infrastructure gaps lie rather to the east of Vienna where traffic density and growth is strongest, the Austrian and Lower Austrian Transportation schemes concentrate major investments towards the North. While investment in core projects can enhance integration, minor and less costly measures could also facilitate cross-border traffic. Increased frequency of trains between the two cities could reduce the average commuting time at relatively low cost. Separating long-distance transit from short-distance private transport could considerably reduce the waiting time for commuters and other regional cross-border traffic.⁷ Governments could introduce preferential treatment for people living within designated border regions, since the border poses a relatively greater obstacle when compared to those living in non-border areas. This would reduce their transaction costs in cross-border interactions and could go hand in hand with a simplification of border controls.

Introducing a public transport association across the border

Public transport associations (*Verkehrsverbund*) are bodies for integrated public transport services that offer a “one stop shop” to public transport users. The current transport association for the Vienna metropolitan area (VOR, *Verkehrsverbund Ost-Region*) was founded in 1984. The VOR covers all public transport facilities (rail, bus, tram, metro) in three *Länder* and several dozen municipalities. The VOR governs the transport network, sets fares, and in some cases tenders transport offers, while actual service is in the hands of public or private transport companies. Operation deficits are covered half-half by the federal and local governments. The Bratislava metropolitan area has also experimented with an integrated public transport network. In 2000, an embryonic association (BITS, Bratislava Integrated Transport System) started to integrate the national railways, the urban transport company, and suburban bus companies. Deficits are mostly covered by contributions from the central government. Some figures indicate that the BITS appeals particularly to residents commuting to the city centre from Bratislava’s suburban areas. The participating transport companies have agreed to expand the BITS to most lines that cover the metropolitan area. There are discussions to merge the two associations into one to cover the whole Vienna-Bratislava region. An efficient and user-friendly public transport network can indeed absorb commuter traffic – which is likely to increase significantly after the

Slovak Republic's accession to the EU – and avoid a collapse of road infrastructure. Policy makers on both sides should therefore establish a concrete timetable for the creation of such an integrated transport service.

The funding of such a transport association is the main barrier to implementation. Higher demand for an integrated transport system does not often compensate for higher cost, and governments have to intervene to cover increasing deficits. Moreover, there is little experience with cross-border public transport associations in OECD countries. In the Vienna-Bratislava context, the difference in purchasing power makes coherent financial planning and fair distribution of the burden even more difficult. In order to establish the “single ticket” principle while simultaneously reducing financial pressure on governments, pragmatic solutions should be sought. Fares should reflect inter-regional transport quality differences. To reflect differing purchasing power, certain fares – particularly those addressed for visitors and not at commuters – could differ according to the place of purchase. The use of a “supplement coupon” that gives access to all transport modes in an area – a principle currently applied in the BATS – could also serve as a model for gradual integration. Whatever regular consultation between the two sides might bring about, the fare structure should largely reflect the effective costs of such schemes.

Tendering operation of services can be a means to increase efficiency and quality of public transport services. According to a recent OECD publication (OECD, 2001f), while infrastructure – railways and roads – are best provided by a single provider, operation of the service itself – trains and buses – can be opened to competition. The principal procedure to open public services to competition is tendering, where private (or public) operators compete for providing a service that is predefined by public authorities. EU regulation is increasingly demanding open access for public transport operators. Tendering of bus services is already applied in Lower Austria and the Slovak Republic, while rail services are still mostly provided by national and regional public rail companies. In Vienna and Bratislava, a public transport company has a statutory monopoly. Opening public transport to competition – not necessarily to privatisation – can break the still prevailing national structure of public transport systems and increase the intensity of cross-border public transport links.

Governing two airports

Since the opening of the border the Vienna-Bratislava region disposes of two international airports within a distance of around 40 kilometres. Yet, this peculiar geography has provided little incentives for both countries to

co-ordinate their airport policies, however. As early as 1993, Austria and the Slovak Republic signed an agreement on air traffic, and in 1995, jointly with airport managements, signed a Memorandum of Understanding, both of which had relatively little impact on actual operation of airports and air traffic. The distinctly different traffic evolution makes collaboration awkward. While the Bratislava airport noted an important decrease in air traffic after 1990 and currently works beneath its capacity, the Vienna airport has become a major transport hub whose infrastructure has been regularly enlarged and today serves as a transport hub not only for Austria but also for Central Eastern Europe. The co-ordinated activities of both airports could create economies of scope and network synergies, thereby creating economic advantages for the region and its population. Negative impacts of air transport on the environment can also become a reason for enhanced co-operation between the two airports. While a common management of both airports might be a solution for the middle and long term, a better co-ordination of some basic services – such as a better ground connection between the two airports – could be started immediately.

There are a number of technical and institutional obstacles that currently prevent a co-ordinated regional airport policy. First, current overland connections between the two airports are not sufficient. The available public bus service is inadequate and should cross the city centre of Bratislava. There is neither a railway connection between the two airports nor between the Vienna airport and the city of Bratislava. Second, the current customs regulation require passengers to pass customs twice (once at the airport, once at the national border), which is a considerable burden for passengers whose final destination is not the country of embarkment. A special airport regulation enabling passengers to pass customs once at the national border would save time. Third, the airport regulatory structure in both countries delays co-ordinated decision making. Whereas the Vienna Airport was privatised in 1992 and began to act as an autonomous agency, the Bratislava airport continues to be directly administered by the Slovak Ministry of Transport, Posts and Telecommunications. A separation of the airports' management from the national administration and a harmonisation of regulatory frameworks would give the airports a better opportunity to practice entrepreneurial freedom while cooperating more closely and establishing a common governance strategy.

Implementing regional sustainable transport policy

The growth of transport volumes and the region's policy objective to become a significant transport hub can jeopardise environmental sustainability.⁸ The combined forces of growth in international transport volumes, more regional cross-border traffic, further suburbanisation and a shift in the modal split from road to rail can harm local environmental quality. In recent years,

pollution has increased considerably in the Vienna region, to which emissions from private transport contributes significantly (Table 5.2). The projected road infrastructure around both cities will create additional traffic and more pollution unless higher traffic quantity is compensated by lower emissions per kilometre. Traffic evolution could put into question ambitious objectives set down in the Vienna Climate Protection Agreement of 1999, joined by many other municipalities in the region, to reduce carbon dioxide emissions of automobiles. Congestion, pollution and urban sprawl can also directly affect the area's current high environmental attractiveness.

Table 5.2. **Selected emissions from traffic**

Selected environmental indicators

	Total traffic-related emissions, 1999	Evolution 1990-1999 (%)	Ratio of traffic related to total emissions (%), 1999
CO ₂	17.2 million tonnes	+ 13.5	26.2
NO _x	86.4000 tonnes	- 0.5	50.2
Noise	¹		79.0
Fuel consumption	5.9 million tonnes	+ 19.4 ²	

Notes: 1) Around 15% of the Austrian population considers itself "affected" or "strongly affected". In urban regions like Vienna, this percentage could rise to 30% or more. 2) Years 1995-2000.

Source: OECD Secretariat, based on Austrian Ministry of Transport, Innovation and Technology.

Current policies for sustainable transport

Austrian transport policy tries to find a balance between economic and environmental objectives. With the country at a cross-roads for North-South and, to a lesser extent, East-West traffic, which considerably affects environmental quality along transit routes, both the national and regional governments strongly emphasise the sustainability of transport. Environmental regulation, such as catalytic converters, plays a central role in diminishing pollution. Introduced in 1996, the energy tax is an incentive to use transport modes with low carbon dioxide emissions. Governments particularly emphasise public transport by providing new infrastructure and subsidising transport fares. The *Länder* governments, in particular Vienna, try to influence the choice of transport modes; they give strong financial and regulatory support to integrated public transport systems and restrict the access of private cars to city centres.⁹ The Slovak Republic's strategic objective in transport policy is the upgrading of existing rail and road infrastructure and to increase productivity in the transport sector. With a slow and overcrowded public transport system in Bratislava, the

local government has introduced integrated public transport systems in 2001 and is bound to invest heavily in public transport infrastructure.

However, current policies are not entirely adequate to reach transport sustainability, particularly in urban areas. Many difficulties to achieve sustainable development objectives arise from a transport price structure that does not reflect congestion and pollution in cities. Typically, these costs are higher in urban rather than in rural areas. Fuel taxes, which fund most road infrastructure, charge a uniform amount per kilometre, irrespective of differences in actual environmental or investment costs.¹⁰ The current funding structure thus tends to overestimate the price of transport in inter-urban and rural areas and to underestimate it in urban areas (Nash *et al.*, 2001). New tax-financed urban infrastructure can temporarily reduce congestion but may worsen pollution, and it puts a burden on the treasury. Given the variance in the actual cost for road transport across space, it would be more efficient to lower fuel prices while implementing some supplementary charges and fees in urban areas. Although international (or inter-urban) transport plays an important role in the Vienna-Bratislava region, intra-urban (or “homemade”) traffic still accounts for most kilometres covered within the region, be it for passengers or for freight.¹¹ Pricing instruments targeted at urban areas can significantly contribute to alleviating regional transport-related environmental problems.

Road pricing and related pricing mechanisms

Scientists and policy makers widely agree that “pricing” is the most effective way to reach sustainable transport policy objectives and to reconcile traffic management, spatial planning, regional economic development and environmental protection. Together with other OECD countries, Austria¹² has proposed a number of instruments whose main objective is, first, to reduce the demand for motorised transport and, second, to shift remaining motorised transport activity towards more sustainable modes (OECD, 2002b). This proposal includes, among others, various fiscal and economic incentives for sustainable urban development such as road pricing or higher parking fees (Table 5.3). Austria also put forward the idea of partially earmarking fuel tax revenue to fund public transport infrastructures.¹³ Faced with these policy proposals, the national and local governments should act in two ways. First, they should prepare a regulatory framework that allows cities and regions to implement some of the proposed pricing instruments. Second, they would have to ensure co-ordinated implementation across jurisdictions, to avoid undesired economic, environmental or spatial side effects.

Table 5.3. **“Pricing” instruments for sustainable transport**

A selection provided by Austria

Road pricing on motorways and on the whole road network
for Heavy Duty Vehicles
for passenger cars
Tradeable permit system for CO2 emissions
from passenger cars
from Heavy Duty Vehicles
Parking management and parking fees
Restructuring and ensuring adequate financing of public transport
Financial Incentives for buying ultra low emission and zero emission vehicles
Modification of the fuel-consumption-based car purchase tax
Ecological tax reform, raising energy costs and lowering labour costs, eco-bonus
Promotion of measures to reduce the average fuel consumption of vehicles

Source: Adapted after OECD (2002d).

Financial constraints, geographical positioning and current transport policy objectives are favourable to the implementation of pricing instruments in the Vienna-Bratislava region. National and local/regional governments are planning road network extensions but lack the necessary funds. Funding mechanisms that make users pay directly could be a viable option. Austria has already introduced tolls on selected routes and is familiar with this type of instrument.¹⁴ Pricing of new cross-border infrastructure should be carefully integrated into urban toll schemes, to avoid tensions between the two countries and discrimination between internal and cross-border traffic (Box 5.2). The current tight parking regime in Vienna and, to a lesser extent, in Bratislava, could be gradually replaced with a pricing scheme having the same effect but with the advantage of providing additional revenue. Given the complexity of the proposed instruments, their introduction should be accompanied with the establishment of a special inter-regional transport association, comprising local/regional and national governments and relevant private actors from both countries. The association should cover the catchment area where the new instruments are to be introduced and be responsible for key determinants of road transport policy such as toll levels and structure, investments in new infrastructure and the distribution of revenues across participating partners. With a clear mandate to offer a high-quality network and to contain the negative impacts of motorised transport, the association should contribute to the sustainability of regional economic development.

Box 5.2. Pricing new cross-border infrastructures: the case of the Öresund Bridge

The debate on the toll (for crossing the sound via the “Öresund” bridge between Sweden and Denmark) in the Öresund cross-border region reveals the complexity and difficulty entailed in pricing measures and in harmonising new pricing instruments with existing road funding structures. In 2001, Denmark and Sweden opened a new road and rail bridge crossing the strait between the two countries. The bridge is operated by a public company owned by the two national governments. The price of crossing the bridge is supposed to cover all costs (construction and operating) and is considered relatively high, which has deterred cross-border traffic. “Optimal” prices are difficult to determine, and the toll level depends on a multitude of political variables such as the willingness to subsidise public transport or coherence with pricing schemes in other parts of the region. While Denmark considers a high toll as a deterrent against an environmentally damaging augmentation in traffic, Sweden is in favour of low tolls. Its population is also close to the border and increasingly commuting to Copenhagen. Cross-border governance has brought the two countries closer to a common view of the price structure through intensive information exchange and the Öresund Committee, a body that unites local and regional governments of both sides of the strait.

OECD (2003b).

Fostering spatial planning objectives

Transport policy and the choice of transport modes can strongly affect the spatial structure of a country and spatial planning objectives. Transport and the use of space are strongly inter-related: the choice of transport modes affects land use patterns, which again determine the use of transport modes. The relative cost of transport modes and land use in built versus non-built areas play a crucial role in determining settlement patterns. While private transport causes more external cost (pollution, etc.) and fosters urban sprawl, public transport tends to mitigate such trends and to contribute to stated spatial development objectives. Moreover, since conversion of old industrial land is risky and can cause unpredictable cost, firms often prefer “greenfield” development.¹⁵ Strategies to reconcile economic development, environmental protection and amenity preservation have to co-ordinate spatial planning and transport infrastructure with a long-term view on the relative costs of both different transport modes and different land use types. These strategies consist of prioritising public transport infrastructures and of promoting land use that gives incentives to reconvert and re-use already built areas.

Austrian spatial planning objectives are – implicitly or explicitly – oriented towards reducing external costs of land use. Given the small size of the country, the relatively high population density and the high amenity value of most of the territory, regional spatial planning policy puts emphasis on settlement structures that preserve open landscapes and avoid urban sprawl. This is reflected in the idea of separation of built and non-built areas and the term “deconcentrated concentration”, *i.e.* a spatial structure where settlements are clearly distinct from open land and development is supposed to take place within existing settlement boundaries. The states in the Vienna region follow these policy objectives, and in some cases, their implementation has entailed the strict protection of amenities. However, although the states emphasise transport structures that favour spatially concentrated development, spatial planning and transport policy do not appear well co-ordinated. In addition, the co-ordination between private and public transport schemes could be further optimised. Some new land developments are poorly connected to public transport infrastructures, which cause private transport and subsequent pollution to increase. New business parks along the common border – *e.g.* the new cross-border industrial park Marchegg-Malacky – will be built in a greenfield area with almost no links to public transport. The desire to develop the “empty” zones between the two cities should be supported by sound transport and spatial planning principles.

Political fragmentation of the regions’ territory is a major challenge to co-ordinated spatial planning and can jeopardise regional sustainability. The functional region of Vienna-Bratislava covers, on the Austrian side, three states and, on the Slovakian side, two districts. The fact that political borders cut through homogenous functional regions makes policy co-ordination difficult, awkward and time-consuming, while diverging interests may even prevent final consensus. Since a state usually elaborates spatial development plans based on its own needs – *e.g.* to attract businesses in order to raise tax revenue – it does not necessarily take territorial spillovers into account. For instance, states or municipalities may decide to build “greenfield” shopping malls or industrial parks whose negative externalities – such as pollution resulting from increased motorised traffic – affect another jurisdiction. A lack of cross-border integrated planning can result in a biased spatial distribution of economic activities across a functional region and distort firms’ spatial activity pattern. Federal spatial planning policy has little power to organise economic activities across *Länder* borders, and it gives little incentives to *Länder* to do so voluntarily. The same holds true for the municipal level where building zones are often poorly co-ordinated across jurisdictions.

Co-ordinated regional strategies across local and regional jurisdictions as well as across countries and policy areas are a necessary prerequisite to achieve sustainable development objectives. First, governments have to determine where different modes of transport – public or private – are best suited to achieve stated economic, spatial and environmental objectives, and they have to apply adequate instruments to effectively change modal splits where necessary. Second, the various administrative departments, through regular consultation and joint decision-making processes, must ensure that different spatial and transport plans are well co-ordinated, in order not to allow one plan to undermine the objectives of the other. Third, given the strong co-ordination need for transport and spatial planning between Vienna and Bratislava, it would be useful to establish a regular cross-border consultation body with representatives from local, regional and national governments from both countries. Fourth, the introduction of incentive-based mechanisms in transport policy such as road pricing and parking fees, and efforts to achieve full cost recovery in public transport can reduce the tension between transport and spatial planning objectives. Such strategies can contribute to achieve both sustainable development objectives in urban areas and the “deconcentrated concentration” pattern of the whole country.

Agenda for strategies

Removing physical obstacles is essential for integration and economic development. Better transport links across the border increase access and favour exchange of people and goods. Since transport infrastructure forms a network, individual transborder investments have to be well co-ordinated if they are to realise their potential for the regional population. Contradictory objectives will have to be reconciled such as job creation, reduction of environmental impacts and balanced public budgets, and the interests of many stakeholders have to be taken into account. Moreover, it is not only the physical investment itself but also the operation and governance that determine the success of transport networks for integration. Good governance of infrastructure can also increase the potential for cross-border exchange. This is the case of the introduction of a public transport association that allows for easy border crossings by public transport or a close co-operation between the two airports. The establishment of such governance frameworks requires good co-ordination across different levels of government, specialised agencies as well as different public and private actors. While both countries have adjusted their governance mechanism to deal more efficiently with traffic flows, there is still some room for improving infrastructure and the operation of transport networks (Box 5.3).

Box 5.3. Agenda for improving cross-border traffic

Improve public and private transport infrastructure as a strategic means and a symbol for integration. Improve access to city centres.

Introduce short-term measures to facilitate border crossings, such as preferential treatment for commuting and other local cross-border traffic.

Create a cross-border public transport association that permits easy access to public transport across the border.

Create a permanent regional cross-border transport and spatial planning Commission composed of local, regional and national governments and transport providers.

Introduce road pricing and/or increase parking fees in urban areas. Fees should reflect infrastructure, congestion and environmental cost of private transport.

NOTES

1. On average, traffic in Vienna grew by around 60% between 1980 and 2000, with growth rates of up to 250% on selected routes (A2: plus 103%; A22: plus 252%).
2. Although there has been a massive increase in transport by road (between 1990 and 1999 the quantity of freight carried rose from about 3 million tonnes to 8 million tonnes) the transport of goods by rail doubled starting from a much higher level in the same period (1990: about 12 million tonnes; 1999: about 24 million tonnes).
3. Freight volumes between Austria and selected Eastern and Central European countries (Czech Republic, Slovak Republic, Poland, Hungary, Romania, Bulgaria, CIS) rose between 1990 and 1999 from 3 million to 8 million tonnes (road) and 12 million to 24 million tonnes (rail), respectively.
4. Only one-fifth of the Slovak Republic's exports to the European Union pass through Austria, although the Danube-valley is one of the shortest connections to its markets. This highlights that transit-routes between the Slovak Republic and European Union have been heavily re-directed in order to avoid Austrian transport lines. The current situation will, however, change with the EU-accession of the Slovak Republic when existing restrictions will be lifted.
5. The principal semi-public agencies are the *Autobahnen- und Schnellstraßen-Finanzierungs- Aktiengesellschaft* (ASFINAG), which is responsible for road construction, and the *Schieneninfrastrukturfinanzierungs-Gesellschaft mbH* (SCHIG), which finances railways.
6. The Slovak Railway's cumulative debt since independence had reached 6% of total Slovak GDP in 2001. Approximately one-third of its workforce (which accounts for 2% of total Slovak workforce) are set to be cut between 2003 and 2007.
7. Since waiting time at the border is the same for all participants, local cross-border traffic, be it freight or people, is more punished in relative terms than a long distance transport. This puts a stronger burden on cross-border trade than on long distance trade.
8. Sustainability is defined as a system that does not endanger public health or ecosystems (OECD, 2001g).

9. In Austria, public transport has a comparatively high market share of 20% of all passenger traffic. In Vienna, in the urban context, the share of public transport is around 37%, with another 37% for individual transport and the remaining 26% on other modes of transport. In Bratislava, with around 70% the modal split is even higher, but declining. However, these favourable numbers have to be set against a cost recovery for urban public transport systems of less than 45%.
10. Moreover, energy prices, particularly the price for fuel, are below the EU average in both countries, which fosters the use of emission intensive, road-based transport modes.
11. Depending on the geographical area that is chosen for comparison, intra-urban (traffic that has its origin and destination within the Vienna-Bratislava region) amounts to more than 90%.
12. The Slovak Republic did not participate in this exercise.
13. Currently, the metropolitan area of Montreal, Canada subsidises regional public transport with a regional earmarked supplement on fuel tax. Switzerland also uses earmarked fuel taxes to fund its trans-alpine railway infrastructure, currently under construction. While earmarking ensures long-term predictability for public transport, it reduces the national government's budget flexibility and can lead to the implementation of low-priority projects (OECD, 2002c).
14. Toll revenue (tolls plus Vignette) cover around 6% of total infrastructure cost, however (EUR 270 million out of EUR 4 800 million in the year 2000).
15. Conversion of centrally located former industrial areas (brownfields) can cause considerable cost to developers, often faced with restrictive regulations or the risk of inherited waste. The problem of brownfield reconversion in Central and Eastern European cities is treated by Jackson and Garb (2003). In addition, see the OECD policy recommendations with regards to brownfield development (OECD, 2002e).

CHAPTER 6

TERRITORIAL GOVERNANCE AND CROSS-BORDER INSTITUTION BUILDING

For over 40 years, cross-border governance in the Vienna-Bratislava was almost non-existent. In the shadow of the geopolitical situation, the two cities lived back to back, with neither the need nor demand for regional collaboration. This sometimes cosy situation has dramatically changed with the border opening and the subsequent dynamics of integration. Political actors are suddenly faced with a region which is rapidly integrating and where economic development converged, but where the spatial pattern of economic activities tremendously overlaps with the politico-territorial organisation. The dearth of metropolitan-wide co-ordination mechanisms – within as well as across national borders – causes various spillovers and high transaction costs for cross-border activities and prevents inter-jurisdictional policy co-ordination. The region is jurisdictionally fragmented and lacks any common political authority, and institutional inconsistencies in both countries slow down the emergence of cross-border governance schemes. Efficient governance within as well as across international borders is essential for regional development. The following sections address the institutional background in both countries, assess their effect on cross-border collaboration, suggest a number of institutional reforms to foster inter-jurisdictional collaboration and finally sketch the profile of a permanent cross-border organisation.

Institutional background

Austria and the Slovak Republic are historically, institutionally and geographically both close and apart: although they are geographical neighbours, within the past 80 years each country has conducted its own specific experience. Austria has a well-settled federal structure akin to the German model, whereas the Slovak Republic was founded as an independent – and highly centralised – country in 1993 only following the partition of the former federation of Czechoslovakia. Vienna and Bratislava both hold a special status as national capitals, municipalities and states/regions at the same time, but their responsibilities and resources are very divergent. However, the institutional and political gap between the two countries may be progressively reduced,

especially along with European integration – since Austria is a new member of EU and the Slovak Republic is one of the countries aspiring EU membership – and Slovak regionalisation that both are likely to fuel cross-border integration.

Austrian federalism

Government structure, responsibility and resource allocation

Austria is a federation where political representation and policy making take place at three levels *Bund* (federation), *Land* (state) and *Gemeinde* (municipality). As the national capital, Vienna occupies a special position in this institutional framework since it is both a *Land* and a *Gemeinde*. The federal government is led by the federal chancellor, who is appointed by the federal president and heads the council of ministers. Unlike other countries, the Austrian chancellor is not superior but equal to its ministers, which fosters an attitude of inter-ministerial negotiation and compromise. At the state level, each state has its own parliament, except in Vienna where the municipal council also fulfils the functions of a state parliament. States are in turn divided into districts and municipalities. The primary function of districts is to administer federal programmes, with no power of taxation, and they are headed by a district commissioner appointed by the state governor. By contrast, municipalities are self-governing and have a popularly elected council. This municipal council acts as a deliberating body and has decision-making power as well as supervisory functions. It also elects an executive committee and the mayor, while direct election is already adopted in some municipalities and discussed in others.

States have general competence for all fields that the federal Constitution does not expressly reserve for the Federation. They have primary jurisdiction in state police, primary education, housing, health and protection of the environment. If a state thinks that some federal action is infringing on its jurisdiction, it may appeal to the Constitutional Court. Municipalities have delegated functions – from the Federation or a state – or autonomous functions in matters of local concern, such as local safety, traffic, police, settlement of disputes that are not dealt with by the courts, public utilities, cultural institutions, public housing, etc. However, both categories of functions are usually subject to state or federal supervision or control. Nonetheless, municipalities do have recourse to the Administrative Court or the Constitutional Court if they believe that their rights are being infringed.

Local and regional government resources stem mainly from an elaborated tax sharing system and federal transfers. The most important local tax is the *Kommunalabgabe*, a local business tax whose base is the wages paid in the

municipality. Unlike most other federal countries, Austrian municipalities depend up to 8% on sales taxes. Inter-governmental grants play an important role in subnational financing; they account for around 47% of total revenue for the *Länder* and 19% for the local governments. Since most of these grants are earmarked and subject to projects submitted by the lower government level, the grantor exerts considerable discretion on the subnational level. Moreover, user fees from local public utilities are an important revenue source for *Länder* and particularly municipal governments. In 2001, the federation obtained 73%, the states including Vienna 16% and the municipalities 11% of total tax revenue.¹

Intergovernmental co-operation

Intergovernmental and interministerial co-operation constitutes a key factor in Austria. With an institutional framework that is beneficial to consensus-finding, co-operative arrangements have been flourishing. With the Constitution amended in 1974, agreements between the federation and the *Länder* (or among the *Länder*) were allowed, and both multilateral and bilateral agreements have become an important tool of formal co-ordination, particularly in the field of economic development. One concrete result was the 1992 agreement between the Federation and the *Länder* – later adopted into the 1994 amendment of the Federal Constitution – on the rights of participation in matters of European integration. Another relevant instrument of vertical co-operation lies in the Austrian Conference of Regional Planning (*Österreichische Raumordnungskonferenz*, ÖROK), which was created in 1971 as a joint organisation of the Federation and the *Länder* in order to co-ordinate spatial planning projects. Besides its chairman Federal Chancellor, it includes all federal ministers, *Länder* governors and presidents of the Austrian Unions of Towns and Municipalities, as well as representatives of various interest groups (with only advisory powers), and sets out resolutions and recommendations.

Concerning horizontal co-operation, both mechanisms for policy co-ordination and policy delivery were established soon after the creation of Austrian federalism. In 1951 a Liaison Office was set up to ensure a permanent link among *Länder* and between the *Länder* and the federal government, to co-ordinate the views of the *Länder* in matters relating to their responsibilities and to disseminate the federal government's comments among the *Länder*. Furthermore, the Conference of State Governors – an informal meeting of heads of state – is one of the most important centres of political power and “co-operative federalism” in Austria (Box 6.1). Besides, as in other federal countries (Table 6.1), smaller municipalities can co-operate to provide basic infrastructure services such as sewerage and water purification, and this form of intermunicipal co-operation is usually subsidised by the federal and *Länder*

governments. However, the overall fiscal system in Austria tends to favour competition between municipalities rather than co-operation because of a number of in-built disincentives to joint strategies (see below).

Box 6.1. Co-operative federalism in Germany and Austria

Among alternative models of federalism, the distinction between co-operative federalism and competitive federalism is often evoked. Co-operative federalism is characterised by a high level of harmonisation within the federation: both the federal government and the states agree that multilateral bargaining and consensus seeking are the driving principles to solve intergovernmental issues, which generally translates into a high level of harmonisation of tax bases and rates, a large degree of harmonisation in public services and soft budget constraints for lower-level jurisdictions. Co-operative federalism is based on formal and legal instruments on the one hand, informal instruments, such as political and administrative agreements and understandings, on the other hand. Germany and Austria are the main representatives of this model. On the other hand, competitive federalism is characterised by an institutional culture of separation and confrontation in which the states tend to protect their constitutional autonomy by constitutional litigation and strive to deal with the central government on a bilateral rather than a multilateral level. The United States, Canada, Belgium and, to a lesser extent, Switzerland, are traditionally quoted as representatives of this model. Understanding Austria according to the co-operative federalism approach can help assess its institutional culture and intergovernmental relations.

Table 6.1. Intermunicipal co-operation in selected OECD federal countries

Country	Form of intermunicipal co-operation
Austria	Municipalities may create mono-functional consortia and may join more than one consortium. Each <i>Land</i> can regulate the organisation of consortia in its municipalities.
Germany	Municipalities may create a public corporation (to which they transfer their powers) or set up local working groups (where they co-ordinate their activities but do not give up their areas of responsibility). A variety of other forms of co-operation can be set up according to the local situation and <i>Länder</i> legislation.
Switzerland	Municipalities are essentially free to create any form of mono- or multifunctional public or private consortia, corporations and associations to provide public services and to contract with third parties.
Belgium	Municipalities may form joint authorities of different types (limited companies, non-profit organisations, co-operative and private entities...) that have significant powers since they are allowed to contract loans and expropriate in the public interest.

Source: Council of Europe.

Slovak decentralisation

The Slovak Republic has a relatively short history of statehood since it was established as an autonomous unitary republic in 1993 only. Due to its very recent foundation, its institutional framework is currently still under construction. In particular, considering that the implementation of the newly enacted territorial reform started only in January 2002, it remains fairly difficult to make a detailed assessment of the status of decentralisation in the Slovak Republic. It appears that decentralisation of responsibilities and of financial power to local and regional governments lags behind other Central European countries, but has gained some momentum since 2001.

Structure of the central government level

The National Council of the Slovak Republic is a unicameral parliament composed of 150 deputies elected on the basis of proportional representation for a four-year term. It has control over constitutional matters (to monitor the observation of the Constitution and constitutional laws), the budget (to approve the state budget and verify its execution), foreign affairs, defence and overall economic policy. Members of the National Council of the Slovak Republic constitute committees that present proposals of acts and monitor their observation and execution. The head of state is the President directly elected for a five-year term, but his functions remain largely ceremonial and executive power is mainly vested in the cabinet. Following parliamentary elections, the leader of the majority party or coalition is usually appointed prime minister by the President, who then appoints the members of the cabinet on the recommendation of the prime minister. Several advisory bodies (among them the Legislation Council of the Slovak Republic and the Economic Council of the Government of the Slovak Republic) assist the government.

From deconcentration towards decentralisation

At the subnational level, the Slovak Republic is going through a “catching-up” phase consolidating its institutional framework. The dynamics of the Slovak territorial organisation is currently shifting from deconcentration – with the central government seconding its own representative bodies at the local level – towards decentralisation – with the creation and/or empowerment of self-governing units that are autonomous from the central government and exert their own competencies. The central government had remained densely present on a territorial level through its deconcentrated bodies. In July 1996, the Act on Regional Division and Organisation of the State Administration had divided the country into eight regions and 79 districts in which administrative bodies – respectively regional offices and district offices – were established. Regional

offices are placed under the authority of the Ministry of Interior and perform delegated spending items under separate budgetary chapters. District offices are supervised by regional offices and provide national services placed closest to the citizens.

The shift from the deconcentrated framework towards decentralisation encompasses two steps. A first step of decentralisation started mainly in 2001, when the basic self-governing units (municipalities) started to gain greater competencies and an upper tier of self-government (regions or VUCs) was added to municipalities. Municipalities' responsibilities were largely expanded in 2001 from waste disposal, safe drinking water, public lighting and maintenance of public roads to include social assistance, record registry offices, some roads and communications systems, territorial planning and building permits, environmental protection, primary schools, sports and parts of health care. In addition, an upper tier of self-government – corresponding to a regional level – was created in July 2001 under the name “higher territorial self-governing units” (called VUCs or *Kraje*). Regional governments were first elected in December 2001 and started to function in January 2002 when they received a first package of competencies from the central government's deconcentrated regional offices. A second step of decentralisation has started in January 2003 with further transfer of responsibilities to VUCs and municipalities, covering diverse policy areas such as transport, health care, education, social welfare, territorial planning, environmental protection and culture. After the transfer of powers, regional offices should keep only tasks of specialised state administration (*e.g.*, state inspection in education, health care, environment, fire fighting, etc.) and district offices should cease to exist from 2004.

Cross-border governance within Austria and the Slovak Republic

“Governance” in general terms encompasses the rules and institutions that shape the exercise of authority (OECD, 2001h). More specifically, the term “cross-border governance” can be defined as the establishment and adherence to a set of incentives, norms and organisations that are set up to co-ordinate policy making across political borders. One of the most challenging issues for national and subnational governments is to establish and co-ordinate policy measures in a region where the functional area of economic activities does not coincide with the geographical pattern of political jurisdictions. The mismatch between catchment areas and political jurisdictions leads to spillovers and financial imbalances and can complicate coherent planning for region-wide infrastructures and network industries. Since local policy decisions can affect other jurisdictions, and since policy incoherence may clash at political borders, territorial fragmentation can distort regional development dynamics. The issue

at stake is to find governance mechanisms, *i.e.* tools and incentives, that enable policy coherence in spatially and economically homogenous but politically fragmented areas.

Austria and governing a metropolitan area

Regional policy and spatial planning

Given the specific power distribution in Austria, governing regional development and spatial planning across subnational borders is difficult in Austria and particularly difficult in the Vienna region. While the federal constitution assigns various competences to the national level, leaving little real power to the states, the federation has no explicit power in spatial planning and regional development. It is the states and municipalities that are the prime responsible for the spatial distribution of economic activities. Since the constitution has no specific provision for co-operation among state governments or between states and the federation – except that it allows for treaty-like agreements under public law, introduced in 1974 – many initiatives to reach horizontal or vertical policy coherence have to circumvent formal institutions and must rely on voluntary initiatives, informal agreements and personal relationships. This has resulted in a certain corporatist culture, where informal arrangements, defying established and pre-agreed rules, can be arbitrary and instable. The federation has much power in sectoral policies such as transport infrastructure that impact spatial structures, and it has established a close vertical co-ordination with the *Länder* and established informal co-ordination bodies such as the *Österreichische Raumordnungskonferenz* (Austrian Conference on Spatial Planning). However, the federation has little power to co-ordinate spatial planning and regional development measures among the states and does not give incentives for voluntary collaboration between them.

The specificities of Austrian decision-making influence upon governance in the Vienna region. This area is cut into three states of Vienna, Burgenland and Lower Austria, that have to co-ordinate their policies for the functional metropolitan area. In 1978 the *Planungsgemeinschaft Ost* PGO (Planning Association East) was founded covering the three *Länder* in the Vienna area. Its objective is to co-ordinate spatial planning, transport infrastructure (together with the transport association) and regional development activities across the three states. The PGO is not a special body with independent power but only a place of exchange and advice among the three states. Although the Association works well as a place of debate, information exchange and political bargaining between the three *Länder*, its impact on effective planning procedure and its power on setting metropolitan-wide development strategies are limited. Spatial development policies remain entirely in the hands of the participating *Länder*,

and the *Länder* are free to accept and follow policy recommendations of the association. Moreover, the association has no own financial resources and depends entirely on transfers from the participating states. In case of conflicting views, particularly in cases where policy measures would make one region win and the other loose, the PGO has no legal, regulatory or financial power to implement policy measures.

Fiscal incentives for local development and inter-jurisdictional collaboration

The local public finance architecture provides little incentives for municipalities or *Länder* to join for common development strategies. In general, municipalities establish a local development strategy in order to maximise local employment or tax revenue, without much caring for effects on their neighbourhood or without taking into account the potential for scale and scope economies. Spillover effects can create considerable conflicts between residents and businesses of neighbouring areas, *e.g.* if motorized traffic towards a business zone in one municipality disturbs a residential zone in another. The states give little incentives for intermunicipal co-operation, and the municipalities are not encouraged to conclude voluntary agreements. There are legal obstacles to common business development zones and intermunicipal tax sharing agreements across state borders, and financial and fiscal disincentives deter such arrangements within a single state. So far, no single tax sharing agreement has been concluded between municipalities, although ECO plus, the Lower Austria business agency, strives for bringing municipalities together to establish common business parks. Attempts for co-operation at the *Länder* level and on *Länder* level tax sharing have failed yet.

Financial equalisation also provides little incentives for local development and intermunicipal collaboration. Although fiscal advantages are not the only rationale for municipalities to strive for local development – investments and employment being other factors – fiscal equalisation can have some detrimental effects on local development and intermunicipal co-operation (Box 6.2). Of particular interest is the local business tax (*Kommunalabgabe*), which enters into the formula for financial equalisation. This tax could give considerable incentives to local governments since it directly relates economic development to the growth of tax revenue. However, since the financial equalisation system sets a high implicit tax rate (*i.e.*, the municipality loses considerable revenue from the general equalisation pot if it increases its own tax revenue), the municipalities' incentives to strive for development are largely compromised. Systematic analysis of the incentive effects of the *Kommunalabgabe* has shown even dynamic perverse effects for economically weak regions, *i.e.*, that a municipality that creates employment opportunities can actually lose total revenue. For the same reason, financial equalisation does not provide clear

incentives for local collaboration. Municipalities joining together and developing common development activities to attract businesses will see their additional revenue taxed away through fiscal equalisation.²

Box 6.2. Fiscal equalisation in Austria

Austrian fiscal equalisation consists essentially of a sharing of tax revenue between the federation, the states and the municipalities and a redistribution between poor and rich governments of the same level. Around 70% of Austrian total tax revenue – among them the personal income tax, corporate tax and value added taxes – go into a common fund from which they are distributed among the three government levels. The vertical shares between federation, *Länder* and municipalities are defined collectively among the three government levels, then set down in the Law on Fiscal Equalisation and renegotiated every four years. After vertical tax sharing, around 66% of the total tax revenue stay at the federal level, 19% at the state level and 15% at the municipal level; in the past, the federal share has slightly increased. Parallel to the vertical redistribution horizontal equalisation reduces fiscal disparities between *Länder* and between municipalities. Horizontal redistribution at state level works mainly through a per capita redistribution, and to a smaller extent through the inverse of state and municipal tax revenue, while the key for redistribution across municipalities is a weighted population index that gives a higher weight to larger municipalities, assuming that cities have higher needs and provide “central” services to their conurbation. The system has a strong equalising effect, with the richest *Land* (Vorarlberg) reaching 106 and the poorest (Steiermark) 95% of average national tax raising capacity, and widely disconnects economic strength from local and regional public finance. Apart from this tax sharing mechanism, *Länder* and municipalities receive project-based earmarked revenues, such as for large investments in transport infrastructure.

Property taxation can have rather detrimental effects on local development and land use in urban areas. Property taxation is regulated by federal law, while actual tax revenue goes to the municipality. Taxation is based on the actual, not potential value of property, and non-developed land is taxed at a much lower rate than developed land. Zoned land allows but does not oblige the owner to develop. From the perspective of municipal planning, land use in conformity with the zoning plan is by no means guaranteed. Even if building land is ready for building, the owner cannot be forced to build on the land, and thus ensure it is used as planned. The fact that zoned land tends to increase regularly in value, in association with the lack of any obligation to build leads to large parts of zoned land remaining undeveloped and being saved as assets. Overall, in most

municipalities, only a few properties are actually available, which increases pressure for renewed re-zoning in other areas and tends to foster urban sprawl.

Involvement of the federal level

Austrian federalism is not very favourable to inter-jurisdictional co-operation. The three government levels have created formal institutions and informal agreements to overcome and tackle territorial fragmentation and to “govern” and co-ordinate policy measures. In some cases mutual trust and a common understanding of problems have succeeded in achieving at agreements across the border, such as the set up of a well-functioning public transport network. However, incentives for stronger collaboration and more policy coherence are lacking. Contractual agreements between municipalities or states only happen if their benefits are equally spread among the regions. Even if Vienna, Lower Austria and Burgenland – or their municipalities – are willing to co-operate, they will find it hard to join if this makes one of them loose in financial terms. While the process of intergovernmental consultation and joint decision making is quite well established in the Austrian environment, the mechanisms for actually bringing the states to conclude horizontal agreements are rather weak. In some cases reforms to the institutional framework are probably needed in order to foster collaboration across jurisdictions. The federal (and in some case the state) government could develop two strategies: first, eliminating negative incentives that currently prevent stronger inter-jurisdictional co-operation, and, second, establishing some positive financial incentives to give a boost to co-operative bodies such as the *Planungsgemeinschaft Ost*.

The Slovak Republic and the challenge of decentralisation

The second step of Slovak decentralisation will provide local authorities with considerably more power than is currently the case. However, the high municipal fragmentation could cause problems with regard to institution building. With 2 886 municipalities for a population of 5.4 million inhabitants, *i.e.*, an average of less than 2 000 people per municipality, the Slovak Republic is more fragmented than any other country in Eastern and Central Europe. No country has smaller municipalities and a higher percentage of people living in municipalities below 200 inhabitants. The new responsibilities could cause considerable burden to the particularly small municipalities and go beyond their capacities. Fragmentation, which also features in the Trnava-Bratislava region, may rise concerns with respect to the effective use of economies of scale and an effective integration of territorial spillovers. The problem of small municipalities is somewhat mitigated by the existence of an intermediate layer – the region – which could take over some of tasks that require larger

institutional capacities. Nevertheless, the municipal level is challenged to establish more intermunicipal associations for joint services, and the national – and possibly regional – government should consider incentives that foster collaborative agreements among municipalities (Box 6.3).

Box 6.3. Support for municipal co-operation in France and Hungary

Several OECD countries tackle municipal fragmentation and foster municipal collaboration as an alternative to jurisdictional mergers.

In France, being enormously fragmented with 36 000 municipalities, intermunicipal collaboration as an alternative to mergers is quite common. The current judicial framework comprises the 1992 Law on Territorial Administration and the 1999 Law on Intermunicipal Co-operation. The 1992 law was aimed at promoting municipal associations in urban and rural areas basically through tax sharing. These intermunicipal associations received their own tax revenues derived from a single business tax. They were entrusted with five compulsory missions (economic development, transport, territorial development, housing, urban policies) and three of five optional ones (roads, wastewater treatment, garbage, sports and cultural infrastructure). The 1999 law concentrates mainly on urban areas. It created a new tier of government (the association of urban areas), a system of tax sharing across the municipalities, and an additional fiscal incentive (block grant) by the central government.

Similar to the French municipal pattern, the Hungarian local government framework looks extremely fragmented, with an average size of each municipality of around 3 000. Moreover, unlike other Central and Eastern European countries, Hungary has not yet introduced a regional level to relieve the municipalities. The Hungarian legal framework has thus provided some incentives for the creation of voluntary associations. The 1990 Act on Local Government already encouraged the establishment of inter-communal partnerships (associations of municipalities). The Act on Municipal Associations passed in 1997 has laid down in detail the various types of associations that the local municipalities may form. According to the Government Decree on Addressed and Earmarked Supports, municipalities are entitled in the case of joint investments to a 10% mark-up on intergovernmental grants. Furthermore, regional policy encourages municipal associations: the County Development Councils receive decentralised funds to finance development programmes in micro-regional areas.

Source: OECD (2001i).

Decentralisation of fiscal resources has not yet followed decentralisation of responsibilities. With only around 5% of total tax revenue going to the local level – mainly income taxes shared with the central government – the Slovak Republic remains the least decentralised of Central and Eastern European countries (OECD, 2002f). Slovak local and regional governments have little recourse to own financial means, and although there is currently no large gap between own revenue and expenditures, the second decentralisation step could widen it. Moreover, the discretion over the own tax base is rather limited and does not reach the prerogatives of local governments in the neighbouring countries. Local infrastructure is overwhelmingly funded through central government earmarked grants. The fiscal structure gives local governments few incentives to attract and retain business and residents, since active development strategies do not pay off in fiscal terms. Economic growth can be affected by wrong incentives at the local level, which could require the national government to intervene in purely local matters. As part of a regional development strategy, the national government should strengthen the link between local development and local tax revenue. A fiscal reform planned for 2005 is supposed to hand over more taxing power to municipalities and regions.

Cross-border institution building in the Vienna-Bratislava region

Governance without government

Cross-border governance or “transnational regionalisation” designs regional co-operation across national borders. It is the result of two counteracting trends: *first*, supra-national integration reducing trade barriers between countries, and *second*, decentralisation and regionalisation putting more power into the hands of subnational governments. Both trends lower the costs and increase the benefits of collaboration across the border and stimulate the demand for adequate governance frameworks. The objective of international cross-border governance is much the same as for intra-national governance, namely to gap the mismatch between functional and political regions and to reach an appropriate degree of policy coherence across the border. Cross-border regions become important actors on the international scene, and cross-border governance is gradually completing, if not competing with, traditional international treaties as a means for international co-operation. The crucial difference between international and intra-national governance is that there is a superior government level for the latter that can intervene if need be, while for the former there is none – thus “governance without government”.

Cross-border institutions can be explained in terms of economics as well as political science. Transaction cost economics analyses governance structures in firms, markets, non-governmental organisations and public agencies (Williamson, 1995). Cross-border governance is the result of two countervailing forces, namely the cost of policy non-coherence and the resulting barriers to integration, and the cost of maintaining cross-border institutions and rules to which both sides have to adhere. The policy question is which governance rules are best to achieve policy coherence, and which adapt the most smoothly to changes in national frameworks. Political science analyses governance in terms of how “thick” and how well “embedded” into local institutions cross-border frameworks are (Church and Reid, 1999). The various policy-oriented literature says that cross-border frameworks and their ability to reach political objectives can be evaluated along four lines (in brackets the “translation” into economic terms): 1) the nature and integrity of co-operation (social capital in the region); 2) the positioning strategies of the partners (costs and benefits of co-operation versus non-cooperation); 3) the contribution to organisational diversity (risk diminution and stability); and 4) the interaction between cross-border co-operation and other national, local and regional networks (transaction costs between institutions).

Both theories would argue that with the set up of stable and permanent institutions that govern relations between both sides of a border have become crucial for integration. Cross-border institutions can trigger a move towards lowering and removing barriers to integration, and this again may require reforms of the governance framework. Increased integration with its economic and social benefits, and systematic improvement of cross-border governance can therefore be mutually reinforcing. The crucial policy issue is to pull the trigger for such dynamism, *i.e.* to set up and cultivate cross-border institutions that deal with the various policy issues across the border and that are pragmatic and capable of change if the underlying factors change.

Obstacles to regional institution building

To establish regional cross-border institutions in the Vienna-Bratislava region appears relatively more difficult than in other cross-border regions. First, although both regions have a common history, the rigorous separation of the last 40 years has left the region with only a weak cross-border network. There has been no gradual evolution of cross-border institutions, like in the Swiss-French-German “Trirrhena” region or the German-Belgian-Dutch “Euroregion”. Second, unlike, *e.g.* in the Nordic countries, institutional differences between Austria and the Slovak Republic are quite significant, and, moreover, there are no supra-regional integration frameworks like the Council of the Nordic Ministers in place. Third, the Vienna-Bratislava region somewhat lacks a large

infrastructure item to symbolise integration such as the bridge that links Southern Sweden to Eastern Denmark and acts as a symbol for “Öresund” integration. In Vienna-Bratislava, cross-border collaboration is starting from a low level and has to proceed in a very pragmatic way.

Institutional inconsistencies

Persisting institutional differences and inconsistencies can slow down cross-border collaboration. Austria is federally organised and has three government levels while the Slovak Republic has only two institutional levels which are the central government and municipalities.³ In Austria, cross-border and transnational policies fall within the jurisdiction of both states and municipalities (decentralised co-operation) whereas in the Slovak Republic the central government is the principal level in charge. Therefore, an Austrian state or municipality often has to negotiate directly with the Slovakian central government on cross-border issues, with evident difficulties and slowness. Only an effective power devolution to local and regional governments in the Slovak Republic will facilitate cross-border collaboration. In 2000, the Slovak Republic has ratified the Convention of Madrid (1980), a framework convention which defined cross-border co-operation as a spontaneous form of networking between local authorities of neighbouring countries. This ratification will enable a bilateral agreement between Austria and the Slovak Republic on cross-border co-operation.

Lack of stable institutions

Cross-border collaboration in the Vienna-Bratislava region shows a remarkable lack of permanent institutions. While the number of bilateral and often multilateral projects has soared in the past few years, co-operation has not ended up in the creation of a stable cross-border framework. Networks established within a cross-border project often get lost, and social capital and practical experience vanishes once projects are terminated. INTERREG and related supra-national projects (such as PHARE CBC) have done much to intensify networking across the border, but it has – not yet – contributed to the set up of stable and formalised cross-border governance frameworks. Vienna-Bratislava region currently lacks a permanent local cross-border organisation to act as an “institutionalised memory” of cross-border collaboration. Though one might argue that creating an “empty hull” is useless if there is no need for stronger policy co-ordination, the counter-argument is – as explained above – that permanent organisations are in a much better position at pinpointing at relevant cross-border issues and thereby accelerating the integration process.

Elements of cross-border institution building

Cross-border governance in the Vienna-Bratislava region has to work under several constraints. On the other hand, the region is already quite advanced with respect to economic integration, and gains in the competitive edge for the region as a whole thanks to more policy coherence can be considerable. This speaks in favour of stronger, but very pragmatic cross-border governance that tackles concrete demands. Without going into details of organisational features, cross-border governance should materialise in the form of a permanent cross-border association composed of regional actors from both sides of the border. These actors should be public and private and encompass relevant policy interests. It could be useful not only to include local and regional governments but also national government, in order to allow not only for horizontal but also for vertical coherence. While subgroups or working parties of the association could encompass public as well as private actors, decision making on policy issues should be entirely left to public delegates, possibly from local and regional governments. The models that seem most appropriate for the Vienna-Bratislava appear to be the “Trirhena Council” on the Swiss-German-French border or the “Öresund Committee” on the Danish-Swedish border (Box 6.4).

The framework that will govern cross-border collaboration will face a number of challenges, and a number of governance questions will arise in the future: What are the main challenges to establishing cross-border collaboration in the region? Which policy demands might arise in the future? Where are the conflict lines that may come up in the future, and what governance frameworks are best suited to tackle them? Both sides of the border might want to improve integration, but for different reasons and in different ways. In the following sections, we present five issues that could challenge the Vienna-Bratislava governance framework, and we suggest possible governance strategies to cope with these issues. The five discussion points are presented under the assumption that the institutional framework is exogenous, *i.e.* that the border will persist, that there will be no policy harmonisation done by a supra-national body and no autonomous political body with the insignia of a “Vienna-Bratislava power”.

Box 6.4. Cross-border governance: The examples of Trirrhena and Öresund

During the last decade, cross-border initiatives have proliferated in OECD member countries. Trirrhena on the Swiss-German-French border and Öresund on the Danish-Swedish border are among the most active cross-border regions in Europe.

The Öresund Region, covering the cross-border area along the Öresund belt between Denmark and Sweden, established in 1994 the so-called “Oresund Committee”, a broad platform for horizontal partnerships and formalised advice and information exchange. The Committee is composed of local and regional political bodies from both sides of the Sound and – which is quite exceptional for transnational regionalism – by the two national ministries as observers. There are no private actors in the Committee. Although elected local politicians represent the Committee, it does not act as a local or regional government but as a meeting place for the elaboration of public strategies on both sides of the border.

Regio TriRhena is located right in the heart of Europe, representing parts of north-western Switzerland, southern Alsace (France) and southern Baden (Germany). Regional policy actors in 1995 created the Council of the Regio TriRhena, a 60-member council bringing together representatives of cities, municipalities, economic organisations, and universities that meet at least twice a year. Cross-border institutions, tri-national congresses and other initiatives enhance cross-border projects and initiatives by making information easily available. The TriRhena Council operates as an organ of co-operation parallel and complementary to the Upper Rhine Conference that represents a much bigger area.

Source: OECD (2003b).

Information dissemination

Probably the most important task for a cross-border institution is the collection and dissemination of information that facilitate cross-border activities for firms and individuals. Cross-border governance is probably not primarily a topic of activity and project management, but primarily a topic of information retrieval and dissemination. In the case of Vienna-Bratislava where the country frameworks differ strongly and where there is no strong network of cross-border activities, information gathering is relatively more costly than within the respective country, and establishing information system can have high marginal returns. The provision of information on all cross-border aspects – including activities that involve some kind of border crossing can reduce transaction costs, can trigger private collaboration projects and foster the process of integration and convergence even further. With time, activities need not be confined to pure information dissemination but also to benchmarking and comparison: locational

factors and competitiveness of both sides of the border can be set against each other, allowing firms and individuals more easily to select a certain place according to their specific preferences. This way, governance can contribute to the “co-opetitive environment” (the simultaneous co-existence of co-operation and competition between jurisdictions) that is already common in many places in OECD countries.

Cross-border integration and information dissemination can be mutually reinforcing. Increased integration generates a host of demands in daily interaction, ranging from double taxation of wage income and corporate profits, transferability of social security claims, eligibility for active labour market policies, international bank transfers, insurance policies’ geographical reach, eligibility for medical treatment, involvement in law suits or road accidents, etc. Firms may be interested in legal framework of doing business in the respective other country, on labour legislation, on the fiscal framework and on taxation. Once firms have started to use such information and get involved into activities across the border, new information needs may arise. The public might be interested in a regional data set that shows how and where firms interact within the region. While private agencies might step in and provide specialised information on a private basis, many information on that type – information on legal frameworks, *e.g.* – have public goods characteristics and need to be provided by public entities. A significant part of cross-border activity will probably consist of providing reliable, substantial, and costless advice on cross-border-related demands.⁴

Pragmatism and priority setting

Cross-border collaboration and cross-border institutions should be set around on a few selected projects that have a clear factual (and sometimes symbolic) value for the population and firms on both sides of the border. The governance structure should be adapted in respect and constructed around those projects. Given the restricted financial means available for fostering cross-border projects, priorities and posteriorities should be set and communicated to the general public and politicians in both countries. It appears that a regional cross-border institution will have to concentrate on three topics: first, the integration of the regional labour market and coherence of active labour market policies; second a closer co-operation between educational institutions and firms on both sides of the border; and third the establishment of an integrated public and private transport offer that combines economic efficiency with environmental sustainability. Projects with a high symbolic value can help to trigger the integration effect. It could thus be useful to link large infrastructure projects – such as the new Central Railway Station in Vienna or the Zero-Ring around Bratislava – explicitly to a larger cross-border vision.

Within these three lines, projects should focus on endeavours whose benefit is evenly distributed across both sides of the border. No part of the region should be faced with tax increases or lower service levels following the establishment of cross-border projects. Such projects could thwart an agreement or could necessitate additional flows across the border to balance redistributive effects. Moreover, as mentioned above, the cross-border institutional framework should remain small, flexible and unbureaucratic. There is no optimal one size fits all for any public or private service. There is a certain charm in having one single body with a strategic vision and a programmatic approach for the region, but the resulting barriers to integrating differing views on regional development could be too high a price for keeping the governance framework alive. Whatever the future governance framework in the Vienna-Bratislava Region, it should reflect the “*geometric variable*” of different actors and policy areas, *i.e.* it should reflect the fact that composition of partners involved will always vary subject to the specific projects selected.

Metropolitan issues

In a spatial context, Vienna-Bratislava is a metropolitan area divided between two countries. On a stylised map, the centre of the region and a part of the conurbation lies in Austria while another part of the conurbation and a smaller city lies in the Slovak Republic. With increased integration, Vienna-Bratislava Region will rapidly come closer to obtaining the characteristic structure of a metropolitan area – but with a national border in between. Growth and institutional structure of metropolitan areas and the policy problems they cause – particularly in the field of fiscal, environmental, social and transport policy – are at the heart of a number of governance issues that have been tackled in various OECD publications. The presence of an international border in the Vienna-Bratislava Region makes its metropolitan area even more complicated: metropolitan governance must be established within not one single national framework but within two systems. This not only requires additional co-ordination mechanisms but particularly well established tools for solving conflicts that arise between “the centre” and “the suburbs” due to their conflicting views on various territorially relevant policy issues.

Vienna-Bratislava region has already entered the era of metropolitan governance problems, and well-established policy co-ordination is necessary to tackle them. Transport and environment are typical metropolitan problems. While the suburban population is more concerned with ensuring rapid and inexpensive transport connections leading to the centre, the population in the more central areas opposes excessive use of private transportation for environmental reasons. This metro-suburb conflict will increasingly be superposed by asymmetric commuter streams between Vienna and Bratislava

after the opening up of the Austrian labour market. The presence of two planning systems in Austria and the Slovak Republic might also give rise to conflicts. Spatial planning and establishment of business and residential zones requires well-tuned political co-ordination, in order to avoid urban sprawl and the decay of green zones along the Danube. Regional strategies to tackle cross-border metropolitan problems should probably twofold: *first*, to equip existing planning bodies (on the Austrian side the *Planungsgemeinschaft Ost*, for example) with adequate management tools to tackle development issues with area-wide impacts. *Second*, to set up an Advisory Committee, composed of all three government levels of both countries, to discuss typical metropolitan governance problems and to co-ordinate policy responses horizontally and vertically.

Fiscal implications of cross-border integration

With the increase of people of one nationality living and working in the other country, cross-border taxation will become conflictual. Most bilateral taxation agreements are based on an OECD Tax Convention, which states that it is the country of residence that has the right to tax. The most notable exception to this rule is income taxation, where for administrative simplicity and lower compliance cost the right to tax is conferred to the country of the work place. As long as the number of people crossing the border is low or as long as cross-border commuters from both countries cancel each other out, the fiscal issue is of limited significance. The issue however begins to urge if commuter streams are asymmetric. With increasing integration and the fall of barriers to the Austrian labour market, more Slovaks are expected to commute towards Austria than vice versa. This has a significant impact on the distribution of tax revenue between the two countries: in the Vienna-Bratislava case, applying the tax treaty will lead to a net flow of fiscal resources from the Slovak Republic to Austria. Given that Austria has a much higher per capita fiscal yield than the Slovak Republic, integration could actually, other things equal, increase inter-regional fiscal disparities in the Vienna-Bratislava region.

Fiscal issues across the border are a typical example where the requirements of international treaties and of regional integration increasingly interfere with each other. The political strategy to address this problem has to reconcile the demands of fiscal federalism – which means opting for a resident-based taxation – with the demands of international taxation models, which require taxation at the place of work. This strategy necessitates a reform of local public finance in both countries, where national taxes are clearly separated from local taxes, the latter being paid at the place of residence. Even in the long term, such a reform is hardly conceivable, given that both countries would have to reform their fiscal systems for a comparatively small group of people and

jurisdictions. A feasible alternative that combines efficiency and equity concerns is “compensation”, whereby the region of residence and the region of workplace share the tax yield. Once commuting has become frequent and proves to be asymmetric, Austria and the Slovak Republic could either follow the approach adopted between Germany, Belgium and the Netherlands – that apply the Tax Convention but send a part of the tax revenue to the country of residence – or the German-Swiss model – where the workplace country taxes wages at a reduced rate, which can then be deducted from the tax bill in the country of residence. Tax sharing models of this type can be easily re-negotiated and require no adaptation to the fiscal rules in both countries. After the Slovak Republic’s EU accession, they could be introduced in Vienna-Bratislava without delay.

Democratic accountability and legitimacy

The increasing number of cross-border institutions raises the question of democratic accountability and legitimacy of public action. Although there are currently not many cross-border organisations in the Vienna-Bratislava region, increasing integration will certainly call for more cross-border governance. If this is the case, more and more decisions are being taken not directly by the respective local or national governments but by bodies and organisations that were created through agreements across the border. While this may speed up integration, it may create some concerns with respect to the democratic control of such bodies. This happens even within countries across subnational borders. Horizontal collaboration usually means a shift of authority from the local government to a new intergovernmental body or special agency. Citizens no longer have direct control over the provision of public services. Instead, their preferences are filtered by the management that finally executes the task. Given that the population often does not elect the delegates of intergovernmental bodies, politicians and the bureaucracy tend to take precedence over citizen demand and become less accountable. With time, a non-transparent entanglement of special bodies with different legal backgrounds and differing territorial coverage leaves the citizen with little influence on local and regional public services and local development programmes.

In the yet unstable institutional framework within the Vienna-Bratislava region, legitimacy is a key issue for managing cross-border activities. The rise of a new cross-border organisation could meet with scepticism or reluctance on both sides of the border. Local and regional governments – particularly in Austria – are not only trying to defend their position against the national level, they are also attempting to safeguard rights and prerogatives of their population *vis-à-vis* these new co-ordination bodies. Here managerial efficiency (*i.e.* lowering transaction costs) impinges on the principle of democratic

accountability (*i.e.* popular control over state activities). The natural tension between those two poles will always have to be taken into account in horizontal collaboration. The need for special bodies or agencies that govern cross-border relations has to be carefully weighed against the need to respect the preferences of the population. Therefore, governments must seek cross-border governance frameworks that improve efficiency and effectiveness of cross-border activities while complying with accountability and legitimacy.

Summary and outlook

With the reforms in Central and Eastern Europe and the Slovak Republic's nearing accession to the European Union, integration at the national and international level is rapidly progressing. A host of national and international treaties and organisations provides the governance framework for reducing barriers to international exchange. This framework's continuous enlargement and consolidation will set the pace for economic convergence within the Vienna-Bratislava region. But with national and international obstacles vanishing, those pertaining to the local and regional sphere will become more visible. Pressure to manage integration will thereby gradually shift from the national and international towards the local and regional level. Regional policy makers will be asked to create regional institutions that encourage exchange and enhance convergence. With time, they could trigger a self-enforcing process: improved cross-border governance will facilitate integration, while integration itself will create additional demand for better and more stable institutions.

The key idea for local and regional cross-border governance we have in mind is "light institutionalisation". We imagine an association, comprised of local and regional governments from both sides of the border, whose explicit objective is to facilitate and stimulate cross-border activities. Not active in project management, its main character could be compared to a "switchboard" or "catalytic converter". Its main purpose would be to organise and disseminate the host of information that are of interest to the regional population or relevant for cross-border activities. Moreover, it could take over a co-ordinating function for the many, yet often unrelated cross-border activities in the region. With time, the body could identify and tackle potentially conflicting issues, such as regional labour market integration or taxation and fiscal equity across the border. Again, stronger institutionalisation or an enlargement of the association's mandate should follow the pace of regional integration. With time, the body could become the core of permanent and stable metropolitan institutions that cover the four countries – Austria, the Slovak Republic, Hungary and the Czech Republic – of the Vienna-Bratislava area.

NOTES

1. It has to be noted though that taxing power does not only depend on such percentages but also on local discretion on tax bases and tax rates. In international comparison, Austrian local and state governments taxing power is moderate: they rely mostly on taxes shared with the federal government, but the rates cannot be changed without their consent (OECD, 1999).
2. It is true that municipalities collaborate much on the provision of local public services, such as schools, public transport, sewerage, waste disposal, social welfare etc., *i.e.* activities that concern the expenditure side of the budget. Collaboration on the expenditure side is more common since fiscal equalisation is not linked to local expenditures but only to local tax revenues. Any cost savings and efficiency gains through collaboration can be reaped by the participating municipalities and need not be sent to the equalisation pot.
3. With the introduction of regions as part of the second decentralisation step in 2003, the Slovak Republic will also have three levels of self-government.
4. For example, Euroregion Pro Europa Viadrina, the only informal international local “government” encompassing (more or less) the Border Region has still not set up an updated German language version of its web site yet. What we have in mind here more closely resembles the detailed advice provided by the Polish-German development agency, or Towarzystwo wspierania gospodarki (TWG), at <http://www.twg.pl>. – only on a much larger scale.

ANNEX: COMPARISON REGIONS

The OECD has commissioned three reports on cross-border regions that have a number of characteristics similar to Vienna-Bratislava. These reports have the same structure and outline as the main report and deal with the same policy topics, *i.e.* the labour market, learning, and transport, as well as territorial governance issues. Below is a one-paragraph summary of each report. Full reports are available on the OECD website at http://www.oecd.org/document/22/0,2340,en_2649_34415_1935830_1_1_1_37_429,00.html.

Frankfurt/Slubice (German-Polish border)

The border region of Frankfurt-Slubice covers an area of around 10 000 km² and has around one million people. Separated by the Polish-East German border for more than 40 years, cross-border collaboration and social interaction started hesitantly in the 1990s. Economic performance on both sides of the border is weak and unemployment high. The EU and national obstacles pose a considerable burden on transactions across the border. Disparities between the German and the Polish part of the region are not decreasing. Poland's EU accession will remove a number of current obstacles to cross-border integration and leave more scope for active integration to local and regional policy makers. One promising aspect of regional cross-border collaboration is the Viadrina University which was set up explicitly as a common German-Polish endeavour.

Euregio Meuse-Rhine (Belgian-Dutch-German border)

The Euregio Meuse-Rhine covers an area of around 11 000 km², counts almost 3.8 million inhabitants and shares five different cultures (German, Dutch, Flemish, Walloon and the culture of the German-speaking Community of Belgium). As a laboratory of the European experiment, it can be qualified as a "Europe in miniature". In 1991, the Euregio acquired the juridical status of a foundation under Dutch law. It is the main institutional interlocutor between provincial, regional and national actors in the selection, implementation and management of cross-border initiatives. The main areas for cross-border collaboration are within the areas of economic co-operation, public

transportation, environment protection, tourism, training policy and technology partnership. Increased integration has reduced the disadvantages of peripheral location, but learning and innovation across the border still appear to be weak.

San Diego-Tijuana (US-Mexican) border

The San Diego/Tijuana region comprises San Diego County (California) and the *municipios* of Tijuana, Tecate and Playas de Rosarito (Baja California), with a total of around 4 million people. San Diego County grew by more than 30% in the 1980s alone and Tijuana's population has increased by nearly two-thirds in the same time period. Tijuana's growth can partially be attributed to its proximity with the United States, the restrictions for Mexican migrants and commuters to the US labour market, and the consequent growth of trade and development of the *maquiladora* industry along the border. Until recently manufacturing growth has been particularly robust on the Mexican side. There is evidence that the economy of Tijuana is now maturing and the rate of growth in trade and commercial employment is rising while the rate of growth in manufacturing employment is declining.

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PRINTED IN FRANCE

(04 2003 08 1 P) ISBN 92-64-10468-2 – No. 53183 2003