



Economic Policy Reforms

Going for Growth

2008



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Going for Growth was launched in 2005 as a new form of structural surveillance complementing the OECD's long-standing country and sector-specific surveys. In line with the OECD's 1960 founding Convention, the aim is to help promote vigorous sustainable economic growth and improve the well-being of OECD citizens.

This surveillance is based on a systematic and in-depth analysis of structural policies and their outcomes across OECD members, relying on a set of internationally comparable and regularly updated indicators with a well-established link to performance. Using these indicators, alongside the expertise of OECD committees and staff, policy priorities and recommendations are derived for each member. From one issue to the next, Going for Growth follows up on these recommendations and priorities evolve, not least as a result of governments taking action on the identified policy priorities.

Underpinning this type of benchmarking is the observation that drawing lessons from mutual success and failure is a powerful avenue for progress. While allowance should be made for genuine differences in social preferences across OECD members, the uniqueness of national circumstances should not serve to justify inefficient policies.

In gauging performance, the focus is on GDP per capita, productivity and employment. As highlighted in the 2006 issue, this leaves out some important dimensions of well-being. For instance, while a high GDP per capita tends to make for better health and education outcomes, it is not sufficient to ensure social cohesion, even if higher employment helps. However, for economic policy purposes, GDP per capita and employment measure well-being better than any other available indicators.

Going for Growth is the fruit of a joint effort across a large number of OECD Departments.

Editorial

GDP is not equivalent to welfare. But high productivity and employment do contribute to welfare, directly as well as indirectly, by providing resources that can be deployed to other welfare-enhancing activities. It is important, therefore, that government policies do not get in the way of productivity and employment except where this can be justified with reference to other aspects of welfare.

The 2007 issue of *Going for Growth* presented five structural policy priorities for each OECD country and the European Union to remedy shortcomings in terms of productivity or employment. The current issue reviews progress in implementing these priorities. Depending on inclination, the conclusion may be that the glass is either half full or half empty. A year is not a long period in structural-policy making and in that light progress on almost two-thirds of the 2007 policy priorities may be seen as quite an achievement. However, some of this progress is not very material, and progress has been much slower in thornier policy areas such as labour market regulation. As well, buoyant economic activity might be seen as having provided a propitious background to reform by reducing the associated adjustment costs. But, as discussed in last year's issue, the good times may also have reduced the sense of urgency to reform.

The current issue contains five special chapters, dealing with specific policies and factors that influence employment and productivity.

As concerns employment, the main focus in *Going for Growth* has so far been placed on the number of persons in work with less emphasis on how many hours they work. One of the special chapters attempts to redress the balance by studying the factors that explain the wide disparity and, in some cases, diverging trends in working hours across countries.

The study presents a new, and more internationally comparable, dataset on working-hours which confirms the much-discussed stylised fact that annual working hours are considerably longer in the United States than in Europe. The gap amounts to some 15% and about half reflects more annual work-days in the United States with the remainder due to a higher number of hours per week. Differences in average weekly hours reflect to a large extent working hours by women and the analysis shows that these are importantly influenced by marginal tax rates. The study also identifies a number of other policy influences on working hours, including working-time regulation. In thinking about policies, however, it is important to keep in mind both the hours and the head-count dimensions of employment. Indeed, policies that lead to lower labour force participation by certain groups who typically work short hours will tend to raise average working hours but that does not make them desirable.

Human capital accumulation is an important motor of economic growth. Two special chapters present analysis, done in conjunction with the OECD Education Directorate, on investment in education at, respectively, the primary and secondary level and the tertiary level. The former study uses PISA scores to establish a metric for the efficiency of school systems as a whole as well as for individual schools. The results point to substantial efficiency gains to be had from schools in individual countries catching up to best national performance and from national school systems catching up to best international performance. Overall economic activity benefits through the higher productivity and employment of better educated youth cohorts and/or through cost savings and

correspondingly lower taxes. The study also identifies some of the policy settings that appear to drive efficiency and which relate to user choice, managerial autonomy and accountability, efficient school size, and the avoidance of early streaming.

The chapter on tertiary education presents estimates of the associated private returns, which appear to be one of the drivers of investment in tertiary education. In most countries, the estimated returns are high compared with those of alternative investments but there is also substantial variation across countries. The co-existence of high returns with, in some cases, relatively low graduation rates may indicate that prospective students are held back by liquidity constraints and concerns about risk. Indeed, student income and availability of liquid financial resources come across as another major determinant of investment in tertiary education. The flexibility and scope for innovation of educational institutions are a third important factor. In addition to these findings, however, policy settings in the area of tertiary education need to take into account also pressures on public financing, the increased international mobility of graduates, and the wish to reduce support that mainly benefits the better-off part of the population. This combination of factors points towards policies that provide greater autonomy and accountability for individual institutions, a greater role for students in financing their tuition and measures to ease liquidity constraints and to reduce the riskiness of investing in tertiary education.

Two chapters deal with the role of external openness in driving economic activity. The chapter on economic geography reveals that distance continues to be a main determinant of international trade patterns. Indeed, countries at a remove from centres of economic activity trade less than those located closer by. As a result, the distant countries benefit less from the advantages that stem from trade in the form of greater specialisation, exploitation of scale economies, and competitive pressures. The effects on GDP are potentially large.

The chapter also analyses the role of natural resources and shows that resource-rich OECD countries tend to have higher GDP. This finding contrasts with results which suggest that resource endowments can be a curse for developing countries, possibly reflecting that OECD countries generally have stronger governance structures. The role played by distance and resource endowments needs to be kept in mind when comparing economic performance across countries. Some have it easier than others. But being either advantaged or disadvantaged should not serve as an excuse for inappropriate policies and in fact the analysis does not find evidence that the Going for Growth policy priorities are affected by distance or resource endowments.

The other chapter on openness, based on analysis carried out in the OECD Trade and Agriculture Directorate, explores the role that regulation of domestic markets plays for trade in services. Not surprisingly, restrictive regulation turns out to hamper trade in services. Service trade flows between two countries are also reduced when their respective regulatory structures are very dissimilar. The study estimates that service trade could almost double on average if countries were to align regulations on the least restrictive stance in the OECD. As with trade in goods, greater trade in services should provide a boost to GDP.

The analysis in the special chapters of this issue contributes towards the evolving analytical basis for identifying policy priorities in future issues of Going for Growth. Ultimately, sound policy advice has to rest on as solid and comprehensive analysis as possible.



Jørgen Elmeskov
Acting Head of the Economics Department

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The codes for country names and currencies used in this volume are those attributed to them by the International Organization for Standardization (ISO). These are listed below in alphabetical order by country code.

ISO country code	Country name	ISO currency code
AUS	Australia	AUD
AUT	Austria	EUR
BEL	Belgium	EUR
CAN	Canada	CAD
CHE	Switzerland	CHF
CZE	Czech Republic	CZK
DEU	Germany	EUR
DNK	Denmark	DKK
ESP	Spain	EUR
EU	European Union	n.a.
FIN	Finland	EUR
FRA	France	EUR
GBR	United Kingdom	GBP
GRC	Greece	EUR
HUN	Hungary	HUF
IRL	Ireland	EUR
ISL	Iceland	ISK
ITA	Italy	EUR
JPN	Japan	JPY
KOR	Republic of Korea	KRW
LUX	Luxembourg	EUR
MEX	Mexico	MXN
NLD	Netherlands	EUR
NOR	Norway	NOK
NZL	New Zealand	NZD
POL	Poland	PLN
PRT	Portugal	EUR
SVK	Slovak Republic	SKK
SWE	Sweden	SEK
TUR	Turkey	TRL
USA	United States	USD

PART I

Progress in Responding to the 2007 Policy Priorities

The review period covered in Part I is the year 2007, and the cut-off date for information is end-2007, unless specified otherwise.

PART I

Chapter 1

Responding to the Going for Growth 2007 Policy Priorities: An Overview of Progress

This chapter provides an overview of the progress achieved by OECD countries over the past year in taking measures consistent with the policy priorities identified in the 2007 edition. Some action has been taken in almost two-thirds of the policy priorities previously identified. Important steps were taken to reform competition-restraining regulations in product markets, education and labour taxation in most countries where these were seen as priorities. However, less progress has been made in responding to priorities for specific labour market policies.

Introduction

The 2007 edition of *Going for Growth* identified five structural policy priorities for each OECD country and the European Union to raise GDP per capita. This indicator is a good proxy for material living standards, which exert an important – albeit far from exclusive – influence on overall well-being (see Box 1.1). The priorities aimed at reforming policies that currently hold back advances in material living standards by discouraging efficiency and labour utilisation. They were concentrated on labour and product market policies, but also included policies related to education, health and innovation.

Box 1.1. GDP per capita and well-being

GDP per capita is the most commonly used measure of material living standards because it is readily available for a large number of countries on a timely basis. However, it does not capture some aspects that may be important for assessing overall well-being, including the value of leisure or inequality of income. Nonetheless, as discussed in the 2006 issue of *Going for Growth*, there is a close relationship in most cases between GDP per capita and other measures of economic well-being, such as net national income per capita or GDP per capita adjusted for leisure and income inequality. There are nevertheless exceptions. For example, although Ireland has almost caught up with the level of GDP per capita of the United States, foreign investors now lay claim to a significant share of profits and therefore less convergence has been achieved on the basis of national income per capita. For the Czech Republic and Poland, the increase in net outward transfers of income over the past decade has also had a substantial effect in slowing the growth of national income relative to output. Moreover, countries specialised in producing ICT equipment (Korea, Finland and Sweden) have experienced strong gains in productivity, but the impact of these gains on real income has been partly offset by adverse external terms-of-trade changes brought about by the decline in the price of exported high-tech equipment relative to other types of goods and services. In contrast, resource-rich countries (*e.g.* Australia, Canada and Norway) as well as those specialised in certain types of services (*e.g.* financial services) have benefited from favourable external terms-of-trade developments.

This chapter provides an overview of the progress that countries have made over the past year on these identified policy priorities. A set of individual notes for each OECD country and the European Union as a whole give more details on progress for each of the five specific priorities (see Chapter 2). The monitoring reflected in the chapter covers legislation or other decisions to implement reforms, as well as earlier stages of reforms, such as government statements, formal consultation and draft legislation presented to parliaments. In the absence of updated quantitative policy indicators, the assessment of progress is qualitative in nature. The chapter focuses on whether reforms have been undertaken or planned that are in line with the general thrust of the country-specific priorities rather than whether they correspond to the detailed formulation of the priorities in the country notes.

The review covers a period during which a number of OECD countries enjoyed a strong economic upswing, although short-term growth prospects are currently being revised down. Buoyant growth and falling unemployment should have provided an opportunity to intensify structural reforms as adjustment costs are frequently lower or easier to absorb under these circumstances. However, as discussed in last year's report, experience shows that good economic conditions are not always exploited to implement structural reforms. Indeed, cyclical upswings may retard structural reforms as they temporarily mask underlying weaknesses.

A year is a relatively short period in the context of implementing structural reform and there clearly are limits to how much progress can be expected within such a timeframe. With the caveat this implies in terms of assessing the pace of reform, the review in this chapter suggests that reforms neither intensified nor slowed down over the past year compared with earlier years. While some progress was made on the majority of policy priorities, the reform process in most countries continued to be characterised by incremental changes, with greater emphasis on measures to improve productivity performance than to strengthen labour utilisation:

- With respect to policy priorities to raise labour productivity, countries concerned have taken measures that are broadly consistent with the recommendations. Thus, moves are underway or have already been taken to ease entry and operational controls, strengthen human capital formation and reform various other policy areas that affect labour productivity. The exception to this pattern is the absence of significant agricultural reforms, though in some countries partial reforms that were previously announced have begun to be implemented.
- With respect to policy priorities to raise labour utilisation, reforms along the lines of the identified policy priorities have in most cases neither taken place, nor been planned. For example, few moves are underway to reduce the implicit tax on continued work at older ages where this is high, tax wedges have been cut only selectively and reforms of employment protection legislation, minimum labour cost and wage bargaining systems have been virtually absent. However, a greater tendency to reform can be observed in the area of disability and sickness benefit systems for the countries where this was identified as a priority, as well as in the area of reducing disincentives for women to re-enter the labour market following absence due to time taken off to raise children.

While some action was taken in many cases, it often did not correspond fully to the identified policy priority. Therefore, in the vast majority of cases, the priorities reported in the 2007 edition of *Going for Growth* still remain valid.

Progress in reforming policies to improve labour productivity performance

The policy priorities aimed at improving productivity performance were concentrated on countries with a large gap in output per hour worked *vis-à-vis* the United States (Figure 1.1) or weak productivity growth over the past decade (Figure 1.2). Thus, while reforms in this area were identified for all OECD countries, they were particularly prevalent in non-US North American and Asian member countries, as well as in a few of the smaller European countries and at the level of the European Union as a whole. The suggested policy remedies in this domain included the easing of entry and controls over business operations in specific product markets, cuts in agricultural support, measures to improve educational outcomes and various other measures.

Figure 1.1. **The sources of real income differences, 2006**

1. Based on 2006 purchasing power parities (PPPs). In the case of Luxembourg, the population is augmented by the number of cross-border workers in order to take into account their contribution to GDP. Data for Greece take into account a 10% upward revision to the level of GDP as agreed to by Eurostat in October 2007.

2. Labour resource utilisation is measured as total number of hours worked per capita.

3. Labour productivity is measured as GDP per hour worked.

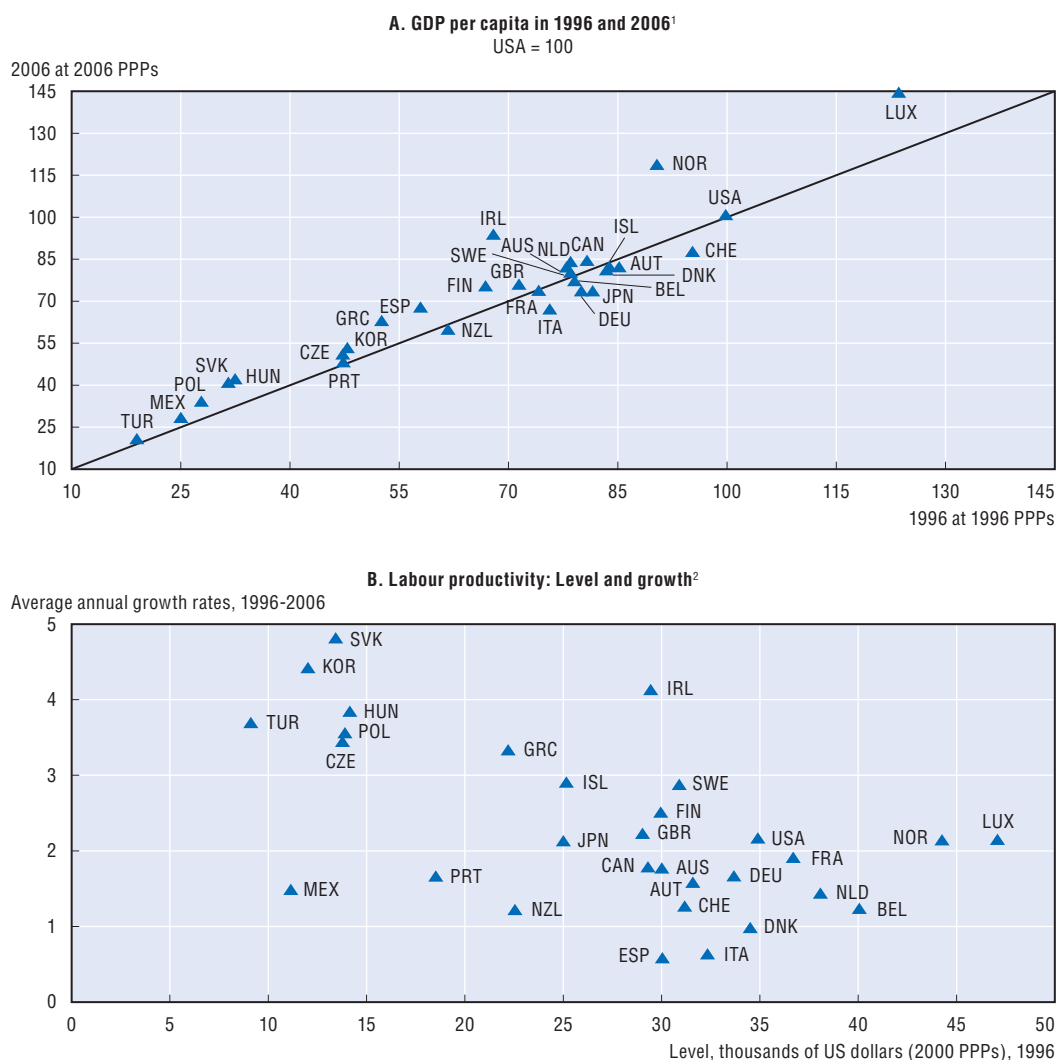
4. EU19 is an aggregate covering countries that are members of both the European Union and the OECD. These are the EU15 countries plus the Czech Republic, Hungary, Poland and the Slovak Republic.

Source: OECD, *National Accounts of OECD Countries, 2007*; OECD Economic Outlook, No. 82; and OECD Employment Outlook, 2007.

StatLink  <http://dx.doi.org/10.1787/254633767476>

Easing of entry and operational controls

The easing of entry controls and other competition-restraining regulations in product markets was identified as a policy priority in a large set of countries as well as for the European Union as a whole. As regards the latter, the adoption of the Services Directive in December 2006 should intensify cross-border competition between EU member countries once it has been transposed into national legislation in 2009. However, its competition-raising impact is weakened by many service industries being excluded from the directive. Also, the objectives of earlier directives on gas and electricity deregulation to create EU-wide energy markets have been undermined by the failure of member states to

Figure 1.2. **GDP per capita and per hour worked: level and change**

1. In the case of Luxembourg, the population is augmented by the number of cross-border workers in order to take into account their contribution to GDP.
2. Measured as GDP per hour worked in constant prices at 2000 PPPs. For Poland, the level refers to 2000 and the growth rate to 2000-06.

Source: OECD, *National Accounts of OECD Countries*, 2007; and OECD *Employment Outlook*, 2007.

StatLink  <http://dx.doi.org/10.1787/254645037150>

implement them properly, leading the European Commission to launch infringement proceedings against 20 EU countries, while the deregulation of the market for standard letters has been postponed to 2011. With a view to strengthening competition, the Commission has proposed to further separate transmission and generation activities but has fallen short of calling for mandatory full ownership unbundling. As planned, most of the Financial Services Action Plan has now been implemented, but the single euro payments area (SEPA) will need a further push if it is to be up and running on time; furthermore, the Takeover Directive has been implemented by member countries in such a way that, contrary to the original intention, it effectively allows for more defensive corporate behaviour than was permitted under the national legislation of several member states.

At the national level, around half of the European countries for which relaxing competition-restraining regulations was considered a priority have taken measures, or are at earlier stages in reforms, in line with the recommendations (Tables 1.1 and 1.2):

- Entry restrictions have been eased in several countries. In network industries, entry has been, or will be, facilitated by ownership or accounting separation of network elements from other activities, free choice of suppliers, mandatory third-party access and public tendering as well as enhanced power of industry regulators (most notably in Greece, Ireland, the Netherlands and Switzerland). Significant steps forward were also recorded in a broad range of services in Italy; Germany has eased entry controls in professional services; and France has taken measures to relax entry barriers in a few sectors. However, little progress has been made in reducing entry controls in general in countries where this was seen as a priority (Iceland and Norway) or in relaxing regulation in the retail distribution sector

Table 1.1. **Progress achieved in countries with recommendations to reduce entry and operational controls**

“X” denotes action

	Reviews/laws announced	Public consultation	Legislation concluded	Other measures	No significant measures
Reduce entry controls in services and/or industries in general					
France				X	
Iceland					X
Italy			X		
Korea			X		
Norway					X
Reduce entry controls in network industries					
Australia	X		X		
Austria					X
Canada					X
Greece			X		
Ireland			X		
Korea					X
Mexico		X			
Netherlands			X		
New Zealand	X				
Portugal				X	
Switzerland			X		
Reduce entry controls in professional services					
Austria	X				
Canada	X			X	
Germany				X	
Luxembourg					X
Poland					X
Reduce entry controls in retail distribution					
Belgium					X
Japan					X
Netherlands					X
Spain					X

Note: The table only covers countries with policy recommendations in the area listed.

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Table 1.2. **Progress achieved in countries with policy recommendations to reduce administrative costs, public ownership and reform corporate governance**

"X" denotes action

	Reviews/laws announced	Legislation concluded	Other measures	No significant measures
Reduce administrative burdens				
Czech Republic		X		
Denmark	X			
Turkey			X	
Reform corporate governance				
Italy		X		
Reduce the scope of public ownership				
Finland				X
Norway				X
Poland				X

Note: The table only covers countries with policy recommendations in the area listed.

StatLink  <http://dx.doi.org/10.1787/256472522314>

(Belgium, the Netherlands and Spain) though some of them had taken steps in that direction in earlier years. Also, no significant progress has been made in relaxing entry in professional services in Luxembourg and Poland nor in network industries in Austria.

- Progress has been uneven in reducing administrative burdens in the three European countries concerned. The Czech Republic has continued cutting red tape and introduced a new insolvency legislation which will strengthen the position of creditors, thereby encouraging entrepreneurship, and some measures to strengthen benchmarking in publicly-funded services have been announced in Denmark, with a view to reduce administrative burdens. However, Turkey has not taken any action in this area, though it has announced other measures to improve competition.
- Little progress has been achieved, or is planned, in reducing the extent of public ownership in the three countries where such action was considered to be among the five policy priorities (Finland, Norway and Poland).

Outside Europe, progress has been mixed in easing competition-restraining regulations in specific industries. In Australia, a reform has been approved to help create a national electricity market, and reform proposals in other network industries are being discussed. Barriers to labour mobility that impede competition in professional services have been reduced in Canada, but no action has been taken to liberalise provincial electricity markets. Similarly, while Korea has relaxed regulations on the creation of new enterprises, no major progress has been recorded to strengthen competition in the energy sector. Only limited advances have been made to reduce entry and operational controls in line with the policy priorities in Mexico, while uncertainty about the future regulatory regime for the electricity sector in New Zealand has been lessened with the announcement of new policies in this area. No further action has been taken in Japan to ease entry in retail distribution; indeed, the new zoning regulations introduced in 2007 for suburban areas (that are intended to re-vitalise urban areas) could discourage entry of larger stores.

Agriculture

Little progress has been made to reduce distortions in agricultural markets and although rising world market prices have limited the incidence of price-based producer

support, overall support to farmers is likely to have remained near the high levels of the recent past in many OECD countries (Table 1.3). Significant reforms in this area are generally considered to be integrally linked to a successful conclusion of the multilateral WTO Doha Round, and attempts to make progress in the negotiations have not yet been successful. Meanwhile, bilateral trade agreements concluded over the past year (*e.g.* free trade agreements between Australia and the United States, as well as Korea and the United States – yet to be ratified) have eased import barriers on a few agricultural products. While stimulating bilateral trade flows, the benefits from such regional agreements are less clear cut from a multilateral perspective, as they may lead to trade diversion as opposed to net trade creation. Furthermore, they risk diverting efforts at the WTO to make progress towards a more global agreement.

Table 1.3. **Agriculture: Producer support estimate,¹ 2004-06**
Percentage of gross farm receipts

	2004	2005	2006 ²
Australia	4	4	6
Canada	21	22	23
Iceland	65	67	66
Japan	56	55	53
Korea	63	63	63
Mexico	11	14	17
New Zealand	1	1	1
Norway	67	66	65
Switzerland	68	67	63
Turkey	26	27	20
United States	16	16	11
European Union	36	33	32
OECD	30	29	27

1. The monetary value of transfers from consumers and budgetary payments to producers.

2. Provisional data.

Source: OECD, Producer and Consumer Support Estimates database.

StatLink  <http://dx.doi.org/10.1787/256480043524>

With respect to domestic agricultural policies, a few new measures are planned in some of the countries where reforms in this area were identified as a policy priority. Specifically, the 2008 US budget submitted to Congress contains a reduction in farm subsidies; the European Commission has proposed to extend the coverage of products where support is decoupled from production; and legislation in Switzerland aims at increasing income support to farmers while keeping overall agricultural support unchanged in nominal terms between 2007 and 2011. Recent policy developments, prompted by climate-change concerns, will go in the direction of increasing world market prices of certain agricultural products: the European Union has adopted a target for the share of biofuel in total vehicle fuel consumption by 2020, and the US administration has proposed to change mandatory standards to significantly increase the use of renewables by 2017.* This will tend to change the composition of assistance in the future from income-related support to support via higher prices.

* Such policies are a very costly way to reduce greenhouse gas emissions, see R. Doornbusch and R. Steenblik, "Biofuels: Is the cure worse than the disease?", OECD Roundtable on Sustainable Development, www.oecd.org/dataoecd/9/3/39411732.pdf.

Human capital

Improving aspects of the educational system was seen to be a priority for more than two-thirds of all OECD countries, focusing on early and compulsory education in English-speaking and lower-income countries, and on higher education in EU countries. In most of the countries concerned, measures broadly in line with the identified priorities have been taken or are planned, especially as regards primary and secondary education (Table 1.4). The measures include:

- Additional educational support for disadvantaged children (Australia, Ireland and Mexico).
- Curricula changes at the primary or secondary level (Iceland and Luxembourg).
- A strengthened role of vocational education in raising skill levels and reducing dropout rates in secondary education (Australia, Slovak Republic and United Kingdom).
- Improved training, accountability and/or remuneration of teachers (New Zealand and Portugal).
- Greater autonomy for universities (Czech Republic, Denmark, France and Spain) and improvements in their governance (Greece).

Table 1.4. **Progress achieved in countries with policy recommendations to improve educational outcomes**

"X" denotes action

	Reviews/laws announced	Public consultation	Legislation concluded	Other measures	No significant measures
Reform primary and secondary education					
Australia				X	
Denmark				X	
Iceland	X				
Ireland				X	
Luxembourg				X	
Mexico			X		
New Zealand		X			
Portugal				X	
Slovak Republic				X	
Turkey					X
United Kingdom	X				
United States					X
Reform tertiary education					
Austria					X
Czech Republic	X				
Denmark				X	
France			X		
Germany				X	
Greece			X		
Hungary			X		
Ireland			X		
Italy					X
Poland					X
Slovak Republic				X	
Spain			X		
Sweden			X		

Note: The table only covers countries with policy recommendations in the area listed.

StatLink  <http://dx.doi.org/10.1787/256522535612>

- Introduction or extension of tuition fees for tertiary education (Germany, Hungary and Slovak Republic) and reforms of admission rules (Sweden).

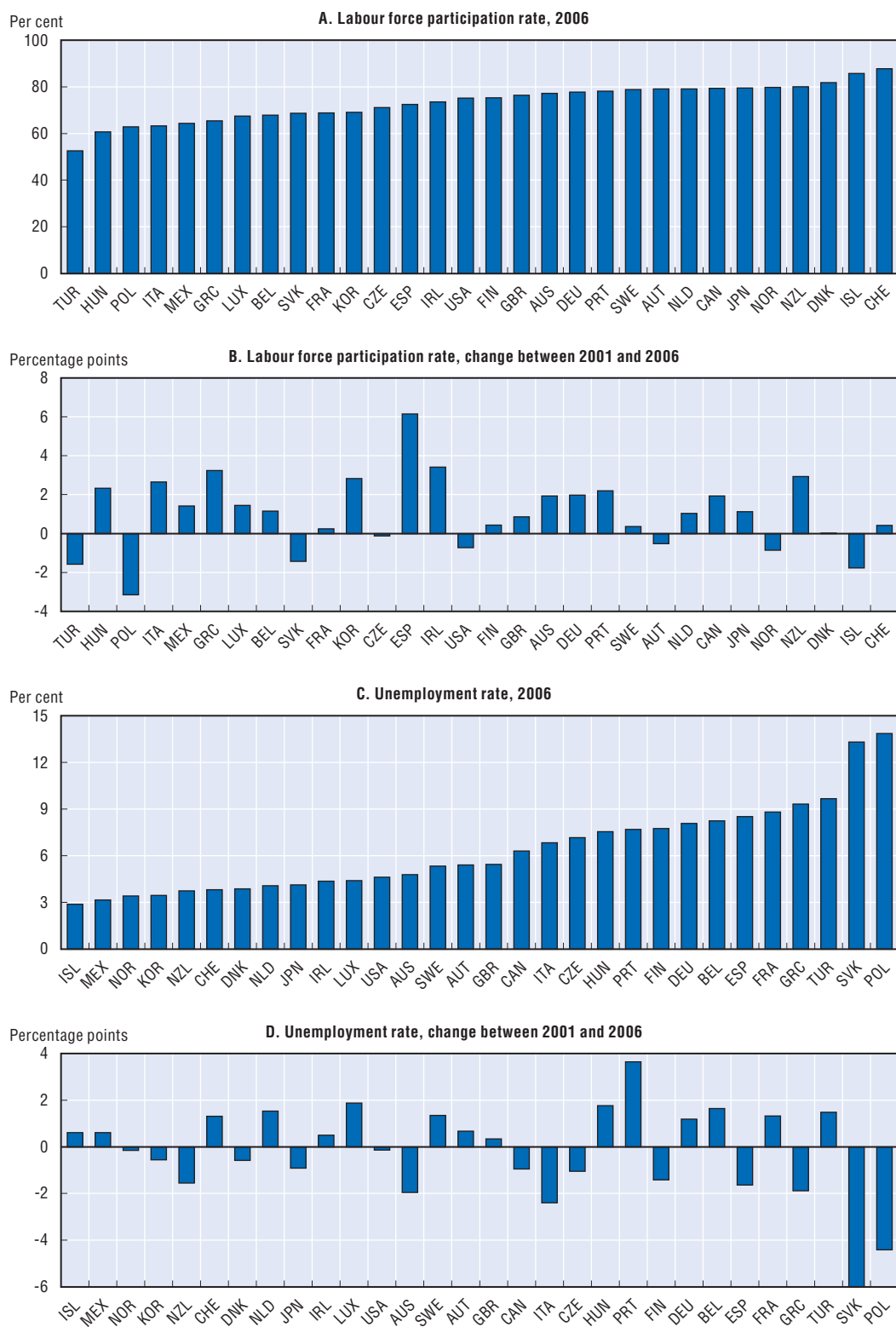
Other policy priorities to boost productivity

Progress on reform priorities has also been recorded in other policy areas that were identified as important to strengthen productivity performance:

- *Innovation-specific policies.* Countries with a policy priority identified in this area have taken measures, involving better cooperation between universities, industries and public research institutes (Japan and Korea), and an increase in government funding allocated to innovation (Ireland).
- *Public infrastructure.* Countries where improving infrastructure was a priority have all taken some corresponding measures (Ireland, New Zealand, Poland and, to a lesser extent, the United Kingdom).
- *Public sector efficiency.* Four of the six countries with a priority in this area have taken some actions to strengthen public sector efficiency (Czech Republic, Hungary, Portugal and the United Kingdom), whereas no significant measures were announced or taken in Iceland or New Zealand.
- *Rule of law.* Measures to strengthen law enforcement are being introduced in Hungary and the Slovak Republic. The only other country with a priority in this area, Mexico, has taken little action other than addressing security problems.
- *External exposure.* In line with the identified policy priority, Switzerland has proposed draft legislation to make regulation more consistent with EU standards. Among the five countries where the lowering of foreign-ownership restrictions and other measures discouraging FDI inflows were considered to be a priority, Japan has introduced legislation aimed at reducing hindrances to foreign ownership of domestic companies, Korea has created three special economic zones exempted from some restrictive regulations, and Canada has established a panel to examine FDI restrictions; no action has taken place in Iceland and Mexico.
- *Tax structure.* A number of measures have reduced taxes levied on businesses in Canada and a tax reform has been approved in Mexico that goes some way to broadening the tax base and strengthening tax revenue. Little action has been taken in the other two countries where reform of the tax system was seen to be a priority (Portugal, United States).

Progress in reforming policies to increase labour utilisation

Measures to improve labour utilisation were identified as a priority in virtually all OECD countries. However, the priorities in this area tended to be concentrated on continental European countries, because of the relatively low labour utilisation in most of them (Figure 1.3). In many of these countries, labour force participation rates, especially among older workers, and in some cases for women, are comparatively low; unemployment rates are high and annual hours worked are short, notwithstanding improvements in performance in recent years. Outside Europe, the priorities aimed at addressing specific performance weaknesses, even if overall labour utilisation was relatively high, and at arresting trends that would become a serious drag on performance if they were to continue. The policy areas in this domain included disincentives to work at older ages, impediments to female participation, disability and sickness benefit systems, the taxation of labour income, and other labour market policies.

Figure 1.3. **Labour force participation rates and unemployment rates**

Source: OECD Economic Outlook, No. 82.

StatLink  <http://dx.doi.org/10.1787/254646348873>

Financial disincentives to work at older ages

Limited progress was achieved over the review period in lowering disincentives to work at older ages embedded in public pension and other social security systems in the ten European countries for which this was regarded as a priority (Table 1.5). No measures were recorded in five of these countries (Finland, Greece, Luxembourg, Slovak Republic and Turkey) but some of them had previously introduced reforms that moved partly towards eliminating the financial penalty to work for those above the age of 55 and/or 60. In Belgium, measures in line with the 2005 Solidarity Pact Between Generations were legislated, and, in Norway, a white paper on pension reforms was published. In Austria, negotiations to harmonise public sector pension schemes with the regular pension arrangements are underway, but at the same time the government has reversed some measures of the 2003-04 pension reforms which had reduced incentives to retire early. In Spain, the reform that entered into force restricts partial retirement and provides

Table 1.5. **Progress achieved in countries with recommendations to reduce the disincentives to work for specific groups and to reform the disability and sickness systems**

"X" denotes action

	Reviews/laws announced	Public consultation	Legislation concluded	Other measures	No significant measures
Reduce implicit tax on continuing to work and work at older age					
Austria		X			
Belgium			X		
Finland					X
France	X		X		
Greece					X
Luxembourg					X
Norway		X			
Slovak Republic					X
Spain			X		
Turkey					X
Reform disability and sickness benefits					
Australia					X
Denmark					X
Hungary			X		
Netherlands					X
Norway	X			X	
Sweden	X				
United Kingdom			X		
United States					X
Reduce implicit tax on returning to work following childbirth					
Germany				X	
Ireland			X		
Korea			X		
Netherlands			X		
New Zealand				X	
Switzerland			X		
United Kingdom			X		

Note: The table only covers countries with policy recommendations in the area listed.

StatLink  <http://dx.doi.org/10.1787/256528172655>

incentives to extend work beyond the current statutory entitlement age for a pension. The implementation of changes to especially generous retirement arrangements for some public-sector workers is currently being negotiated in France, where the penalty for dismissing workers over the age of 50 is also being phased out.

Disability and sickness benefit systems

The reform of disability and sickness systems was identified as a priority for eight countries, four of which have introduced new corrective measures. The United Kingdom and Sweden have reinforced the financial incentives for disabled persons with sufficient work capacity to return to work. In Hungary, the receipt of benefits by new claimants who have remaining working capacity has been made conditional on participation in rehabilitation programmes. In Norway, several reports were published offering guidelines to increase rehabilitation of the disabled and reduce sick leave absence. No significant new measures in this area have taken place, or are foreseeable, in Australia, Denmark and the United States. In the Netherlands, the age limit for exemption from work capacity reassessment stipulated in the 2006 reform has been lowered from 50 to 45, thus weakening the scope for monitoring disability status and identifying remedial action.

Reducing impediments to full-time female labour force participation

All seven countries with a priority to reduce impediments to full-time labour force participation of women have taken some corrective measures. New transfers and/or tax incentives in Ireland, Korea, the Netherlands and Switzerland are meant to encourage women outside the labour force to return to work. However, with the exception of the Netherlands, childcare support is not explicitly conditional on employment, though the United Kingdom is exploring such conditionality via a public consultation. In addition, in Switzerland, reform of the personal income tax will reduce the large difference in marginal tax rates between second and main earners of married couples from 2008 onwards, and the starting age for compulsory free schooling has been lowered to four years of age. Germany has decided to expand childcare facilities and New Zealand is expanding childcare access.

Reforms of labour taxation

Reforms of labour taxation in line with the 2007 policy priorities have taken place, or are planned, in nine of the 12 countries concerned (Table 1.6). The multi-year tax reform reducing the tax wedge on low-income workers has been fully implemented in Belgium. Budget measures in Australia and Italy will reduce effective marginal tax rates for lower and middle-income families and workers, respectively. In Germany, a significant proportion of revenues from the 2007 VAT increase has been used to lower social contributions, but overall tax wedges on labour income (i.e. including indirect taxes) remain broadly unchanged. In Denmark, income tax cuts will be introduced, financed by higher energy taxes, although marginal tax rates will remain unchanged for those in the top tax bracket; in-work benefits have been raised in Sweden; and a wide-ranging package of fiscal reforms in the Czech Republic includes the introduction of a “flat tax” on personal income. Two countries (Austria and Finland) have deferred plans to lower taxes until around 2010 with the expectation that economic conditions will by then be more favourable to such measures being taken. No measures have been taken to reform labour taxation in Hungary, Poland, and the Slovak Republic.

Table 1.6. **Progress achieved in countries with recommendations to reduce labour taxation and reform labour market institutions**

"X" denotes action

	Reviews/laws announced	Public consultation	Legislation concluded	Other measures	No significant measures
Lower labour taxes					
Australia			X		
Austria	X				
Belgium			X		
Czech Republic				X	
Denmark				X	
Finland	X				
Germany			X		
Hungary					X
Italy			X		
Poland					X
Slovak Republic					X
Sweden				X	
Review wage formation or minimum cost of labour					
Australia					X
Belgium					X
Finland					X
France					X
Greece					X
Italy					X
Spain					X
Turkey				X	
Reform employment protection legislation					
Czech Republic					X
France		X			
Greece					X
Japan				X	
Luxembourg					X
Portugal					X
Spain					X
Sweden				X	
Turkey	X				
Reform unemployment benefits					
Belgium				X	
Canada			X		
Finland	X				
Germany					X
Luxembourg					X

Note: The table only covers countries with policy recommendations in the area listed.

StatLink  <http://dx.doi.org/10.1787/256555132504>

Labour market policies

Priorities to reform labour market policies were identified for more than two-thirds of the OECD countries. Overall, only modest progress has been achieved in the three areas covered by this broad domain:

- **Wage formation.** Reforms related to wage formation, either to reduce labour costs at the minimum level or to make wage formation more flexible through a less centralised bargaining process, were called for in eight countries (Australia, Belgium, Finland, France, Greece, Italy, Spain and Turkey). No significant progress has been made in any of them and earlier reforms have been partially reversed (Australia), indicating the difficulty of implementing reforms in this area.

- **Employment protection.** Limited action was recorded in four of the nine countries with an identified priority policy in this area. Japan has taken some steps to reduce dualism in its labour market; Sweden has extended the maximum duration of temporary contracts; France has launched a consultation to reform employment protection, with an agreement, in January 2008, intended to reduce the effect of court rulings (and the associated uncertainty that comes with them) in the firing process, while at the same time introducing a new type of temporary employment contract and increasing severance payments; Turkey announced a plan to increase flexibility in the labour market by facilitating the use of temporary employment contracts. Subsequent to the 2006 reforms in Spain, no further measures have been taken there. Also, no significant action has been recorded in the Czech Republic, Greece, Luxembourg and Portugal.
- **Unemployment benefits.** Finland has launched a comprehensive review of social security and proposals will be presented to Parliament in 2008. Canada introduced a working income tax benefit in 2007 to improve work incentives for low-income earners; and the closer integration of regional placement agencies in Belgium should strengthen job search requirements for the unemployed. No reforms have taken place, or are planned, in Germany and Luxembourg where priorities were also identified in this area.

Other priorities and reforms

The remaining priorities identified in the 2007 edition of *Going for Growth* refer to health care and housing. The two countries concerned by priorities to reduce health care costs, Switzerland and the United States, have submitted proposals in this direction to their legislatures. Reforming housing policies was considered to be a priority for Denmark, Iceland, the Netherlands, the Slovak Republic and Sweden, but only Sweden has made some, albeit limited, progress in the area of rental housing.

Summary

Overall, some action has been taken in almost two-thirds of the policy priorities identified (Table 1.7). In around one-third of these cases the reform process is at an early stage, i.e. that of public consultations or announcement of intentions to review legislation in particular areas. In the other cases, the process is either completed, with legislation ratified, or at an advanced stage, for instance with legislation being debated in parliaments. Measures going against recommendations, or viewed as a step in the wrong direction in an area of priority, have been taken in four countries. Actions taken to address the challenges have generally been more frequent in the area of product market regulation, education and labour taxation than in labour market policies (narrowly defined). Countries that have been most active at reforms in the past year or so are quite dispersed in terms of geography and income levels. On the other hand, countries with overall little action comprise either lower-income countries, where reform is most needed, or higher-income countries, where reform may be seen as less pressing.

Table 1.7. **Summary of progress on recommendations**

Areas	Ratio of action taken (%)
Product market regulation	59
Education	80
Overall labour	55
Labour taxation	72
Labour policies	39
Total	61

StatLink  <http://dx.doi.org/10.1787/256571784026>

PART I

Chapter 2

**Progress in Responding
to the 2007 Policy Priorities:
Country Notes**

This chapter contains information about progress in implementing reforms in line with the 2007 priorities for individual OECD member countries and the European Union.

AUSTRALIA

Despite strong and steady growth, the GDP-per-capita gap persists vis-à-vis the leading countries owing to a significant productivity shortfall. Employment rates are relatively low for the low-skilled and older workers, even though they have increased recently.

Policy priorities

Reform disability benefit schemes

Challenge and recommendations: To raise the low participation rate for persons aged 55 and over and those receiving the Disability Support Pension (DSP), it was recommended that the application of the tighter eligibility requirements for new entrants to the DSP programme be extended to all recipients, after assessing their employability on the basis of medical criteria.

Actions taken: No action taken since the 2006 reform which increased work obligations and tightened eligibility for new claimants of DSP. The effects of the reform are being evaluated.

Improve upper-secondary educational attainment

Challenge and recommendations: To reduce the share of early school-leavers who face dim job prospects, it was recommended that enrolment in the vocational and training system be promoted and additional support for children who have difficulties – especially those from disadvantaged groups with low educational attainment – be provided.

Actions taken: The 2007-08 budget increased financial support for remedial classes, permitting more children with problems to benefit. Three technical colleges will also be created, bringing the total to 28. Incentive payments and the extension of the income-contingent loan scheme will raise opportunities for individuals to take up vocational training.

Strengthen competition in network industries

Challenge and recommendations: To stimulate competition and efficiency in infrastructure sectors, it was recommended that a uniform national regulation for the interstate rail network be established and the competitive neutrality between rail and road transportation be reinforced; the retail electricity price regulation for households be removed and the producers still owned by the states be privatised; and the reform of the water sector be accelerated.

Actions taken: The Council of Australian Governments (COAG) agreed to implement uniform national rail safety regulation. With a view to enhancing the national energy market, the COAG agreed to establish a national operator for both electricity and gas with new national transmission planning functions. It also encouraged the states still controlling enterprises in the electricity sector to privatise them. A reform to enhance the management of the main Australian hydraulic basin (the Murray Darling Basin) was adopted.

Further reduce marginal effective tax rates for low-income earners

Challenge and recommendations: To reduce the impact of low-wage traps for low-income earners and encourage them to move from part-time to full-time work, it was recommended that the lower rates of income tax be reduced and personal allowances be raised or withdrawal rates for means-tested family benefits be reduced.

Actions taken: The 2007-08 budget provided for a further personal income tax cut for lower and middle-income families, thus improving incentives for the second earner to work longer hours. Financial support aimed at improving the affordability of childcare facilities has also been raised.

Increase the flexibility of wage bargaining and determination

Challenge and recommendations: To promote employment of the low-skilled and to enhance the resilience of the economy, it was recommended that the complex system of “award wages” – which creates a relatively high wage floor – be phased out, or be simplified.

Actions taken: Simplification of awards is underway, but the 2006 reform of the wage bargaining system has been partially reversed to strengthen the safety net for employees. Individual and collective wage agreements signed for workers earning less than a certain threshold will have to fulfil a set of minimum award conditions.

AUSTRIA

GDP per capita is high, but the gap vis-à-vis the best performing countries is widening because of a deteriorating relative productivity performance. Labour market performance outside of core groups is weak.

Policy priorities

Reduce barriers to entry in network industries

Challenge and recommendations: To promote competition in network industries and to lower network access prices, it was recommended that ownership restrictions on the production and distribution of electricity be relaxed, and the telecommunications and electricity sectors be gradually privatised.

Actions taken: No action taken.

Reduce implicit taxes on continued work at older ages

Challenge and recommendations: In order to reduce the financial disincentives to pursue work at older ages, it was recommended that: i) old age pensions be made more actuarially neutral around the statutory retirement age of 65; ii) the “heavy workers” entry scheme into early retirement be revised; iii) pension schemes throughout the public sector be harmonised with the existing private sector pension scheme; iv) higher unemployment benefits for older jobless workers be eliminated; and v) subsidies for part-time employment at older ages be phased out.

Actions taken: Negotiations are to be undertaken with the states and municipalities to harmonise the pension system across the public sector with the private sector pension scheme; the option of early retirement for “heavy workers” is to be re-evaluated; and a study group is to draw up and submit proposals for reform of the disability pension law in the first half of 2008. At the same time, the government reversed some measures of the 2003-04 pension reforms, thus making early retirement more generous. Subsidies for part-time employment at older ages are currently being evaluated.

Improve graduation rates from tertiary education

Challenge and recommendations: The share of the labour force with tertiary education is low, and the quality of some vocational and tertiary education programmes remains sub-standard. To remedy this, it was recommended that performance-based funding in tertiary education be extended and strengthened and university student fees be raised, combined with the introduction of a loan scheme with income-contingent repayments.

Actions taken: No action taken; indeed, the government intends to grant exemptions from existing tuition fees to those students undertaking voluntary social work, such as tutoring younger students.

Lower marginal income tax rates and further broaden the tax base

Challenge and recommendations: To strengthen work and entrepreneurship incentives, it was recommended that marginal income tax rates be lowered and the numerous existing tax allowances be reduced so as to broaden the tax base.

Actions taken: The government intends to undertake a major tax reform in 2010, although it is to be conditional on achieving fiscal consolidation by that year.

Reduce regulatory restrictions to competition in the services sectors

Challenge and recommendations: To enhance competition and foster productivity growth, it was recommended that restrictive regulations of trades and professions be reduced, compulsory chamber membership for the liberal professions be abolished, and shop opening hours be further liberalised.

Actions taken: The new government's programme states that it intends to remove barriers to competition in the liberal professions and to review the corresponding regulatory framework. From January 2008 legal shop opening hours were extended, with maximum opening hours raised to 72 hours per week.

BELGIUM

The GDP-per-capita gap vis-à-vis best performing countries remains substantial. This reflects low employment rates of older workers and immigrants as well as geographical labour market mismatches.

Policy priorities

Further reduce the implicit tax on continued work at older ages

Challenge and recommendations: In order to raise the effective retirement age, which is low by international standards, it was recommended that the measures outlined in the 2005 Solidarity Pact Between Generations be supplemented by the phasing out of alternative routes to early retirement via realigning access conditions to such schemes with those for standard old-age pensions; the removal of the possibility for accumulating pension rights for persons in special early retirement schemes; and making early receipt of old-age pensions more actuarially neutral.

Actions taken: Two key measures of the 2005 Solidarity Pact were legislated in 2007: a pension supplement for those continuing to work beyond the age of 62, and a gradual increase in the minimum age of entry into early retirement via the old-age pension system from 58 to 60. No measures aside from the Solidarity Pact have been introduced.

Further reduce the tax wedge on low-income workers

Challenge and recommendations: To improve labour market participation rates among low-income workers and immigrants, it was recommended that further targeted cuts in social security charges and personal income tax rates for low-income workers be implemented together with offsetting spending cuts.

Actions taken: The multi-year tax reform has been fully implemented. Additional measures taken to make work pay include a reduction in individual social security contributions targeted at low-income workers (the “employment bonus”).

Ease regulation in the retail sector

Challenge and recommendations: To stimulate job creation and competition in the retail sector, it was recommended that regulations of zoning and shop opening hours, which remain stringent even after the 2006 reforms, be relaxed.

Actions taken: No action taken since the reforms in 2006.

Make wages more responsive to local labour market conditions

Challenge and recommendations: To reduce the large and persistent geographical mismatches in the labour market, it was recommended that the scope for individual companies to opt out from sectoral agreements be increased.

Actions taken: No action taken.

Strengthen efficiency of active labour market policies

Challenge and recommendations: To facilitate return to work, it was recommended that job-search requirements for the unemployed be strengthened, funds for active labour market policies be redirected from subsidised employment to training and co-ordination between placement agencies in different regions be improved.

Actions taken: In July 2007, the regional placement agencies created an interregional association with the purpose to exchange job offers and to enhance cooperation in the field of training.

CANADA

The GDP-per-capita gap with the United States has not narrowed in recent years and remains significant, reflecting weak labour productivity performance.

Policy priorities

Further reduce barriers to competition in professional services

Challenge and recommendations: To strengthen competition in professional services, it was recommended that the remaining obstacles to inter-provincial trade be dismantled and the number of “regulated occupations” be reduced.

Actions taken: At a meeting of the Council of the Federation in August 2007, provincial premiers reiterated their commitment to remove all remaining barriers to labour mobility in regulated occupations by April 2009. Premiers further agreed to consider legislative action to ensure full compliance, should some occupational groups fail to meet the deadline.

Further reduce barriers to foreign ownership

Challenge and recommendations: To ease restrictions on foreign direct investment (FDI), which remain higher than in the majority of OECD countries, it was recommended that ownership restrictions in telecommunications and transport be eliminated and a majority of board members be allowed to be non-residents in sectors where this is currently prohibited.

Actions taken: The federal government has established an independent panel to review key elements of competition and investment policies, including sectoral restrictions on FDI and the screening mechanism under the Investment Canada Act. The parliament also passed a bill, in April 2007, which relaxed the residency requirements for directors of Canadian financial institutions from two-thirds to a majority.

Liberalise provincial electricity markets

Challenge and recommendations: Electricity markets are exposed to only limited competition in most provinces, suppliers are often vertically integrated and public ownership is prevalent. To increase competition, it was recommended that full retail markets be developed, price regulation in the retail market be removed and inter-connection among both provincial and North American markets be increased.

Actions taken: No action taken.

Reduce inefficiency in the employment insurance system

Challenge and recommendations: The current parameters of the employment insurance system have led to persistent cross-subsidies between businesses, with firms engaged in temporary or seasonal work benefiting from the system. To end cross-subsidies and encourage further labour mobility, it was recommended that a firm-level employer experience rating be introduced or benefit entitlements for temporary or seasonal workers be scaled back.

Actions taken: The introduction of the Working Income Tax Benefit in Budget 2007 increased work incentives for low-income earners and reduced the need to provide special support for low-skilled unemployed in Eastern provinces.

Improve the efficiency of the tax system

Challenge and recommendations: To further reduce effective taxes on capital, it was recommended that provincial taxes on firms’ ownership of capital be abolished, provincial retail sales taxes be switched to value-added taxes and the corporate tax base be broadened while treating all business sizes equally.

Actions taken: The federal government eliminated its capital tax, will eliminate the corporate surtax in 2008 and will reduce the general corporate income tax. It has also been increasing capital cost allowance rates to better reflect the useful life of assets, and recently improved tax fairness by evening the playing field between income trusts and corporations. It has also encouraged provinces to eliminate their capital taxes and has re-iterated its commitment to work with provinces that would like to eliminate their retail sales taxes and move to a harmonised value added tax system.

CZECH REPUBLIC

Trend growth remains high, allowing for a narrowing of the sizeable gaps in GDP per capita and labour productivity vis-à-vis the OECD average.

Policy priorities

Reduce the tax wedge for low-income workers

Challenge and recommendations: To encourage employment creation and reduce incentives for subcontracting with “self-employed” workers, it was recommended that the high tax wedge on low earnings be cut. It was also recommended that the pension system be reformed, *inter alia* to prevent future increases in contribution rates.

Actions taken: A wide-ranging package of fiscal reforms includes the introduction of a “flat tax” on personal incomes. The new system is expected to benefit mainly higher-income earners. Political agreement on a specific pension reform has yet to be reached.

Reduce the cost of EPL for regular workers

Challenge and recommendations: Some aspects of employment protection legislation are reducing labour turnover, thus contributing to high long-term unemployment. In particular, it was recommended that notice period and severance pay requirements at short job tenures be reduced and dismissal procedures lightened.

Actions taken: No significant measures have been taken, but the new less constraining labour code came into force in January 2007, as decided earlier.

Reduce the administration burden for businesses

Challenge and recommendations: To encourage the development of domestic businesses and reduce corruption, it was recommended that legal procedures and administrative processes, such as business registration, be simplified.

Actions taken: There has been some follow-up to the significant cuts in red tape made in 2005 through amendments of the civil and commercial codes. Notably, one-stop shops for setting up a business have since become operational. Also, new insolvency legislation will strengthen the position of creditors (effective from January 2008).

Improve public sector efficiency

Challenge and recommendations: To raise public sector efficiency, it was recommended that the health care system be reformed and incentives for cost effectiveness of sub-national government be strengthened.

Actions taken: The government's reform package includes changes to the sickness benefit system. In addition, health care reforms aiming at improving efficiency, *e.g.* via introduction of user payments for doctors' visits, medical prescriptions and hospital stays have been approved. Also, legislation extending the standard retirement age has been drafted.

Improve the system of tertiary education

Challenge and recommendations: In order for the education system to better cope with the increasing demand for tertiary-level education, it was recommended that elite streaming in secondary schooling be removed and a fee system for tertiary courses be introduced, backed by income-contingent student loans.

Actions taken: No significant measures have been taken. However, reforms are being prepared with a view to widening access and attracting more private funding in tertiary education.

DENMARK

GDP per capita remains stable relative to the best performing OECD countries. Productivity growth is modest and, while employment rates are generally high, average working hours are short, and labour utilisation is weak for some groups.

Policy priorities

Reduce marginal taxes on labour income

Challenge and recommendations: Social security contributions and income taxes combine to a marginal rate of above 60%, even for incomes modestly above average full-time earnings. To reduce high marginal rates, it was recommended that the income threshold from where the top tax rate is applied be lifted when the cyclical position permits and real estate taxes be increased to allow for further income tax cuts.

Actions taken: In 2008, $\frac{1}{4}$ per cent of GDP will be spent on an enhanced in-work tax credit, but the effects on labour supply will be muted by a simultaneous increase in benefits paid to those not working. In 2009, the threshold from where the middle tax bracket applies will be raised, financed by letting energy taxes grow in line with inflation. However, for the 40% of the full-time employed paying the top tax rate, marginal rates will be unchanged. The government has also decided to establish a tax commission to review reform options.

Improve the efficiency of the education system

Challenge and recommendations: To improve learning outcomes in compulsory schooling, it was recommended that the educational content of the introductory year for six-year-olds be increased and the voluntary 10th form (for 16-year-olds) be abolished. As taxes and grants encourage university students to start and end studies late, it was also recommended that tuition charging and loans for tertiary education be developed to encourage completion, while reducing high marginal income tax rates.

Actions taken: The 10th form is now targeted at youth with special needs, and a bill has been presented to parliament that would enhance the educational content of the introductory year. As of 2008, university funding and study programmes will be adjusted to encourage early completion; as of 2009, students applying for university places within two years after ending their secondary degree will be given priority.

Reform disability benefit schemes

Challenge and recommendations: To avoid overuse of schemes giving wage subsidies and other support to keep disabled people with significant remaining work capacity in employment, it was recommended that Flexjob subsidies be further reduced, and that disability pension and Flexjob cases be reviewed on a regular basis with a view to bringing more beneficiaries back to unsubsidised employment. It was also recommended that prevention and rehabilitation be developed further to facilitate declines in the number of disability recipients.

Actions taken: No further action since the maximum wage subsidy under the Flexjob scheme was reduced from July 2006, even though the subsidy is still well above the disability pension. Flexjob eligibility assessment has also been tightened, but a recent government report still indicates substantial problems with the scheme.

Enhance competition, notably in publicly funded services

Challenge and recommendations: While regulation in the business sector is relatively liberal, it was recommended that publicly funded services be opened to competition, privatisation be continued, and access to permits via one-stop shops be broadened. It was also recommended that competition agencies be streamlined and interest-group representatives be removed from their boards.

Actions taken: A broad reform of publicly funded services was announced in August 2007, with enhanced benchmarking and a few measures to ensure a more level playing field for public and private providers, but most publicly funded services will nonetheless remain sheltered from competition.

Reduce housing subsidies and abolish rent regulation

Challenge and recommendations: Starting from a highly subsidised and regulated housing market, it was recommended that resources be freed up by reducing housing subsidies for individuals and rental housing, as well as by raising the real estate tax rate to be neutral vis-à-vis interest deductibility and other capital taxation. It was also recommended that rent regulation be abolished.

Actions taken: No action taken.

EUROPEAN UNION

The gap in GDP per capita vis-à-vis the United States remains substantial, reflecting lower levels of both productivity and labour utilisation.

Policy priorities

Ease the regulatory burden on business operations

Challenge and recommendations: To remove substantial barriers to internal trade in service sectors, it was recommended that EU-wide standards be adopted where mutual recognition is difficult.

Actions taken: The Services Directive is being implemented and is to be transposed into national law by the end of 2009. The Commission has proposed improvements to the mutual recognition principle for traded goods.

Raise competition in network industries

Challenge and recommendations: To raise competition in network sectors, it was recommended to create an EU-wide energy market, liberalise ports and postal services, enhance directives in the telecommunications and energy sectors, and ensure that support for national champions does not compromise competition.

Actions taken: The Commission has proposed legislation to separate energy transmission and generation activities and to integrate European electricity markets by tackling cross-border issues. Infringement proceedings were launched against 20 countries in 2006 for failure to implement directives on the deregulation of energy markets. Deregulation of the market for standard letters has been postponed to 2011.

Reduce producer support to agriculture

Challenge and recommendations: To reduce the distorting effect of the Common Agriculture Policy (CAP), which keeps resources in low-productivity activities, it was recommended that market access for non-EU countries be improved and the reduction in production-linked support be continued.

Actions taken: No major action since the 2003 CAP reforms. The Commission proposed in 2007 to bring vegetables and fresh fruit into the single payment scheme. To help reduce greenhouse gas emissions, the EU Council has adopted a target of 10% by 2020 for the share of biofuel in total fuel consumption for transportation, which will increase prices of agricultural products.

Raise labour mobility within the European Union

Challenge and recommendations: To increase employment and better allocate labour resources, it was recommended that the mobility of workers be raised by improving the portability of occupational pension and social welfare benefit rights.

Actions taken: The Commission is to review regularly the progress made in improving the portability of pensions and has proposed new minimum requirements for the acquisition and preservation of pension rights. The Job Mobility Action Plan, announced in December 2007, sets out a series of additional actions to improve labour mobility, including measures to strengthen the European Employment Services (EURES) network.

Improve financial market integration

Challenge and recommendations: To increase competition and make the financial sector more efficient, it was recommended that the Financial Services Action Plan be fully implemented and efforts to integrate retail financial markets, especially mortgage lending, be accelerated.

Actions taken: Most of the Financial Services Action Plan has now been implemented. New initiatives were proposed by the Commission in December 2007 to stimulate competition and consumer choice in retail financial services. The Payment Services Directive has been adopted by the European Parliament.

FINLAND

Convergence in GDP per capita to the best performing countries has continued. However, structural unemployment remains high, and employment of older and low-skilled workers is relatively low.

Policy priorities

Reduce the tax wedge on labour income

Challenge and recommendations: To lower the average and marginal tax wedges on labour income, which are among the highest in the OECD, it was recommended that the lowering of taxes on labour income be continued, while ensuring fiscal sustainability by shifting the tax burden towards less distortionary taxes, such as property taxes.

Actions taken: The government has announced that it will lower labour taxation in the period 2008 to 2011, but, because of the buoyant cyclical situation, it has postponed the tax cuts towards the end of the period.

Phase out early retirement pathways

Challenge and recommendations: To lengthen working lives, which are well below the Nordic country average, it was recommended that: workers over the age of 59 be made subject to the same activation requirements as younger workers in order to qualify for unemployment benefits; the disability pension be granted only on medical grounds, rather than on “social criteria” as permitted under the current system; and the activation of older workers and persons on disability schemes with some work capacity be increased.

Actions taken: No action taken since the wide-ranging pension reform in 2005, which appears to have lengthened working lives so far by 0.4 years and is estimated by the government to increase the average retirement age by 1.2 years by 2012.

Reform the unemployment benefit system

Challenge and recommendations: To increase incentives to take up work after long unemployment spells, it was recommended that the financial support available to the long-term unemployed be reduced.

Actions taken: A comprehensive reform of social security has been launched. Various issues are being analysed by a broad-based working group, and the first legislative proposals are scheduled to be presented to parliament in the autumn of 2008.

Promote wage negotiations at the firm level

Challenge and recommendations: To promote employment and labour market flexibility, it was recommended that a larger share of annual wage increases be negotiated at the firm level and opt-out clauses from central collective agreements be allowed, thus making wages more responsive to local conditions.

Actions taken: The 2007 wage round took place at the sectoral level; some incremental progress has been made in increasing the prevalence of workplace-level negotiations.

Continue with product market deregulation as well as privatisation

Challenge and recommendations: To increase competition, it was recommended that product markets be further deregulated, in particular by easing regulations on shop opening hours and relaxing zoning laws to facilitate entry in retail distribution, and that the on-going privatisation process be continued.

Actions taken: The government is planning to review the rules for shop opening hours, though no concrete steps have been taken to date. Management of state-owned enterprises has been moved from ministries into a unit in the Prime Minister's Office.

FRANCE

Low labour utilisation more than offsets high output per hour worked, leaving a wide gap vis-à-vis the GDP per capita of the best performing countries. Productivity growth itself has been weak.

Policy priorities

Reduce the minimum cost of labour

Challenge and recommendations: Compared with other OECD countries, the cost of employing low-skilled labour relative to that of employing average workers is high. To stimulate employment opportunities of youth and low-skilled workers, it was recommended that the minimum wage be reduced relative to the median wage and that in-work benefits be further developed to improve living standards in low-income households.

Actions taken: No specific action taken on the minimum wage, but given that the automatic or statutory increase was smaller than for the median wage, the minimum wage fell in relative terms for the first time in many years. Also, the government has announced the creation of an independent commission that will make recommendations every year on the minimum wage.

Reform employment protection legislation

Challenge and recommendations: Procedures for dismissals of permanent workers are complex, costly, slow and uncertain. This is bad for groups such as youths and the long-term unemployed, creating a segmented labour market. It was recommended that job protection be eased, and legal procedures be simplified and made more predictable. One possibility is a single contract with protection increasing with the length of service.

Actions taken: In January 2008, the social partners agreed on a number of modifications to employment protection legislation which will ease firing procedures, in particular by reducing the frequency of cases requiring a court ruling and by introducing a new fixed-term contract designed for specific projects and selected categories of professionals. In return, severance payments will be raised and dismissed workers will be able to maintain and/or transfer some of their fringe benefits.

Reduce regulatory barriers

Challenge and recommendations: In a number of sectors, mainly retail distribution and some network industries, competition is restricted by regulations that reduce productivity growth and employment. It was recommended that the notion of consumer welfare be reinforced as the guiding principle for regulatory policy, that specific restrictions on selling below cost be abolished, and entry and access barriers in network industries be removed.

Actions taken: Further modifications to price regulation in retail distribution were introduced in early 2008: although individual distributors cannot freely negotiate prices with suppliers, their legal margin for selling below cost has been widened. Implementation of EU directives for network industries has continued, reducing entry and access barriers, and increasing competition.

Increase labour force participation of older people

Challenge and recommendations: Despite pension reforms, only 56% of those aged 55-59 and 17% of those aged 60-64 are working. It was recommended that the Delalande contribution – a penalty for dismissing workers over 50 but which acts as a disincentive to their recruitment – be abolished, that the job-search exemption for older workers receiving unemployment benefits be removed and incentives for continuing work be increased.

Actions taken: The Delalande contribution is to be phased out between 2008 and 2010, and the pension bonus for working beyond the “normal” length of career has been raised. A special type of work contract for older workers has been introduced. In the course of 2008, the government is legally committed to assess the impact of the 2003 reform and to decide on whether or not to modify the timing and extent of future increases in the minimum contribution period to be eligible for a full pension.

Improve the efficiency of tertiary education

Challenge and recommendations: Per-student funding for tertiary education, especially in the non-selective institutions which take the majority of students, is relatively low. To increase funding it was recommended that tuition fees in public higher education institutions be raised simultaneously with the introduction of an improved system of means-tested grants and student loans with income-contingent repayment.

Actions taken: No action has been taken on tuition fees, but public funding of higher education will be raised by around 8% in 2008. Also, legislation has been passed to increase university autonomy in managing budgets and recruitment.

GERMANY

The gap in GDP per capita vis-à-vis best performing countries remains wide. Long-term unemployment is still high and hours worked per employed worker are low.

Policy priorities

Reduce average tax wedges on labour income

Challenge and recommendations: To reduce the high tax wedge on both two-earner households and single earners, it was recommended that social charges be lowered and the reductions be financed by cutting tax expenditures and subsidies as well as by increasing the efficiency of government expenditure.

Actions taken: The government used a significant proportion of revenues from the 2007 VAT increase to lower social charges. Subsidies and tax expenditures have been reduced further. A health care reform has been agreed which introduces more competition into the system and is expected to produce efficiency gains and thus increase the scope to reduce tax wedges.

Improve the efficiency of the education system

Challenge and recommendations: Educational results for a large share of 15-year-olds are weak, and the tertiary graduation rate is low. It was recommended that performance of all schools be evaluated against nation-wide standards, schools be given more autonomy and the large degree of segmentation of the school system be reduced, and participation in early childhood education be increased. It was also recommended that universities be given more autonomy, including in setting tuition fees, and their funding be made more outcome-oriented.

Actions taken: Almost all of the states that did not have standardised secondary school exit exams have introduced them. National education standards and evaluation instruments to ensure compliance also have been agreed.

Reduce regulatory barriers to competition

Challenge and recommendations: Product market competition is weak in professional services, retailing, most network industries, as well as in crafts. It was recommended that the liberal professions be deregulated, by abolishing compulsory membership in associations, and non-discriminatory entry in the network industries be improved. It was also recommended that restrictions on large-scale outlets in retailing be relaxed, qualification-related entry requirements in the crafts be abolished and overall administrative burdens on enterprises be reduced.

Actions taken: No action has been taken at the federal level, but further progress has been made in some states in auditing existing and new regulations to reduce the burden on business.

Improve job placement of the long-term unemployed

Challenge and recommendations: As long-term unemployment remains high, it was recommended that administrative responsibilities related to job placement be assigned more effectively, that conditionality of benefit receipt on willingness to take up work be strengthened and that benefit levels be revisited.

Actions taken: No action taken since the 2005 reform, which tightened sanctions significantly.

Reduce impediments to full-time female labour force participation

Challenge and recommendations: Female labour force participation is high but often with very short working time. It was recommended that access to childcare facilities and full-day schooling be improved and the tax burden on second earners be lowered (by introducing a health insurance charge for the coverage of non-working spouses).

Actions taken: The government is providing subsidies for a sharp increase in the number of childcare places, with the share of children in childcare facilities expected to treble to 35% by 2013. The government is also promoting full-day schools, and the proportion of children in such schools is rising quickly, albeit from a low base.

GREECE

Over the past decade, the income gap with the best performing OECD economies has been narrowing rapidly, but the scope to improve labour utilisation and productivity performance remains large.

Policy priorities

Reduce the implicit tax on continued work at older ages

Challenge and recommendations: To remove disincentives to work at older ages, it was recommended that pension benefits be better linked to lifetime contributions so as to increase the degree of actuarial fairness, stricter eligibility criteria for disability pensions be introduced and the categories benefiting from the arduous-work clause be defined more narrowly.

Actions taken: The government has initiated a consultation process on the long-term sustainability of the system. The arduous work clause is being examined.

Reform employment protection legislation

Challenge and recommendations: To reduce the large gender/age imbalances in unemployment, it was recommended that employment protection for different occupations be rebalanced, and, in particular, the high severance costs for white-collar workers be reduced and brought into line with those for blue-collar workers.

Actions taken: No action taken.

Reduce barriers to entry in network industries

Challenge and recommendations: To foster competition in key network industries, it was recommended that privatisation limits be abolished for all public enterprises and competition in the newly liberalised markets be assured, particularly through strong and independent regulators and a reduction in vertical integration, where appropriate.

Actions taken: The role of the energy sector's regulator was enhanced by giving it increased responsibility for setting network tariffs. Steps were also taken to reduce the dominance of the majority state-owned incumbent in electricity generation by allowing more competition through the development of a wholesale market. The minimum limit of the state's ownership in the Hellenic Telecommunications Organisation was abolished. Earlier legislation (end-2005) has paved the way for the full liberalisation of the electricity market (from July 2007) and for the gradual opening of the natural gas market (by November 2009).

Improve the efficiency of the higher education system

Challenge and recommendations: To make the higher education system more efficient and raise its standards to international levels, it was recommended that performance-based funding be introduced and the establishment of private universities be allowed. It was also recommended to limit study duration and to introduce tuition fees accompanied by a loan scheme with income-contingent repayment.

Actions taken: The government has enacted a higher education reform which includes a series of measures that will improve the governance of universities, ensure independent evaluation, limit the duration of academic study and raise the provision of student loans.

Ease entry to the labour market

Challenge and recommendations: To facilitate labour market entry, it was recommended that the minimum cost of labour be reduced, through the setting of sub-minimum wages that take into account high unemployment rates of youth, and greater scope to opt out of the national minimum wage in regions with high unemployment. It was also recommended that social security contributions for the low-paid be reduced, financed by savings elsewhere in the budget.

Actions taken: No action to reduce the minimum cost of labour since the 2004 legislation reducing employers' social security contributions for vulnerable groups, including unemployed young people and women with children.

HUNGARY

The gap in GDP per capita vis-à-vis the OECD average has continued to narrow, but it remains substantial, reflecting both low levels of productivity and labour utilisation.

Policy priorities

Reduce the tax wedge on labour income

Challenge and recommendations: To cut labour costs and stimulate job creation, it was recommended that the relatively high tax wedges be reduced over the medium term, financing the loss in revenues by cutting public spending.

Actions taken: Urgent need for budget consolidation has resulted in increases in some elements of the tax wedge although the schedule of the marginal tax rate has been smoothed.

Reform disability benefit schemes

Challenge and recommendations: The disability system provides welfare to a much wider group than originally intended, contributing thereby to the low employment rate especially among older cohorts. It was recommended that more account be taken of remaining abilities when assessing the extent of disability and the emphasis on rehabilitation be increased to reduce the numbers of the registered disabled.

Actions taken: Reforms of the disability benefit system, effective in 2008, requires new claimants who have remaining working capacity to participate in a rehabilitation programme while receiving benefits.

Strengthen the efficiency of the education system

Challenge and recommendations: To meet the rapidly rising demand for tertiary education, it was recommended that curricula reform be continued, and that plans to increase the share of students making a contribution to tuition costs be implemented. In secondary education, it was recommended that incentive problems in teacher pay scales be addressed and job protection be scaled back.

Actions taken: From September 2008, more students will pay a contribution to tuition costs, and market forces will play a more significant role in the allocation of teaching funds to providers. Other regulatory changes have focused on primary and secondary education, where the number of teaching hours per teacher has been increased from 20 to 22 hours per week.

Increase public sector efficiency

Challenge and recommendations: To improve public sector efficiency, it was recommended that the 2006 reform proposal to make the public administration more accountable and to ensure the cost efficient delivery of public services be implemented. It was also noted that there remained room for strengthening co-operation at the municipal level by reinforcing the joint provision of services.

Actions taken: The government introduced cuts in the number of ministries as well as consolidation of the regional network of public offices. There have also been reforms in healthcare, including the wider application of user fees, the re-organisation of health services according to a tiered insurance structure and the restructuring of the hospital network. More emphasis is being put on improving mechanisms to encourage the joint provision of municipal services.

Reduce shadow-economy activity

Challenge and recommendations: To reduce activity in the shadow economy, it was recommended that access to healthcare services be tied to the payment of contributions, social benefits be rebalanced towards more employment-friendly forms and sanctions against abuse be raised to deterrence levels. Also, it was recommended that the recently introduced system of minimum wages according to educational achievements be closely monitored because the new minima may risk pricing jobs out of the market and driving some jobs underground.

Actions taken: The campaign against shadow activities has intensified, including more checks on individuals whose lifestyle appears inconsistent with their personal income declarations. Healthcare reform, notably the new tiered coverage based on social security contributions, should also help to bring more workers into registered activities.

ICELAND

Convergence with the best performing countries has resumed over the past decade, but – contrary to per capita GDP – labour productivity is still relatively low.

Policy priorities

Reduce producer support to agriculture

Challenge and recommendations: To shift resources to higher-productivity activities and ease the burden on consumers and taxpayers, it was recommended that the very high levels of agricultural support be reduced and that market access be facilitated.

Actions taken: In order to reduce prices, excise taxes on imported food (other than sugar and sweets) were abolished, and the general import tariff on imported meat products was lowered significantly as from March 2007.

Improve upper-secondary education attainment

Challenge and recommendations: To avoid a weakening in core competencies while taking measures aimed at reducing dropout rates, it was recommended that a reduction in the length of upper-secondary education be matched by increasing effective teaching time and adjusting curricula.

Actions taken: A reduction in the duration of upper-secondary education, which is long by international comparison, is still being prepared.

Lower barriers to entry for domestic and foreign firms

Challenge and recommendations: In order to boost competition and productivity, it was recommended that foreign ownership restrictions in fisheries and the energy sector be reduced and that consideration be given to privatising the generation activities of the National Power Company.

Actions taken: While the sale of government assets continues, the authorities have ruled out a privatisation of the National Power Company.

Reduce government support to housing

Challenge and recommendations: To reduce distortions in the mortgage market, it was recommended that the Housing Financing Fund be charged a fee reflecting the benefits of a government guarantee.

Actions taken: No action taken.

Accelerate public sector reform

Challenge and recommendations: With a view to enhancing efficiency and curbing spending creep, it was recommended that outcome-based budgeting be introduced, and that performance measurement and management reforms in the public sector be accelerated.

Actions taken: No action taken.

IRELAND

Growth in GDP per capita over the past decade, albeit not fully matched by real income gains, has been the fastest in the OECD. However, there is scope to raise labour force participation, and further efficiency gains can be achieved in some areas.

Policy priorities

Strengthen work incentives for second earners and lone parents with young children

Challenge and recommendations: To raise the female participation rate, it was recommended that the financial incentives for low-income women to work be improved, childcare support be tied to employment and job-search assistance for lone parents be provided.

Actions taken: The Equal Opportunities Childcare Programme has substantially expanded childcare provision, and the Early Childcare Supplement was increased in the 2007 Budget, although neither measure ties support to employment. The Employee Tax Credit has risen more rapidly than earnings. This, and other budget measures, has reduced the number of lower-income households paying tax.

Strengthen competition in network industries

Challenge and recommendations: To lower prices and reduce bottlenecks that hold back growth, it was recommended that electricity generation and transmission be separated, competition in the telecommunications sector be encouraged and bus routes be liberalised.

Actions taken: Operation of the electricity transmission grid has been transferred to a new state-owned company, EirGrid, and an Energy White Paper proposes to transfer full ownership of the grid to the new company. A very limited introduction of competitive tendering for buses has also been proposed, only covering new routes in Dublin.

Improve access to education

Challenge and recommendations: To improve skills, it was recommended that pre-primary education be generalised from the age of three, that efforts to help children with learning difficulties be stepped-up and tertiary education funding be increased by levying tuition fees backed by student loans with income-contingent repayment.

Actions taken: The National Development Plan for the years 2007 to 2013 includes additional spending on training for specific groups with low skills and education support for those of working age. Funds will also be allocated to modernise primary and secondary level schools, as well as tertiary education.

Improve infrastructure

Challenge and recommendations: To remove bottlenecks to economic growth, it was recommended that infrastructure gaps be closed in a cost-efficient way. This would be supported by speeding up the planning process, fully charging users of water and sewage services, and introducing a congestion charge in Dublin.

Actions taken: The National Development Plan for the years 2007 to 2013 sets out plans for additional investment of just under EUR 90 billion (at current prices) on economic and social infrastructure.

Enhance R&D spending and innovation

Challenge and recommendations: To enhance the effectiveness of R&D activities and boost innovation, it was recommended that the governance of research institutions be improved and programmes be streamlined to concentrate on a few centres of excellence.

Actions taken: Additional spending on innovation activities has been proposed in the new National Development Plan.

ITALY

Labour productivity growth has been weak, contributing to a widening GDP-per-capita gap vis-à-vis best performing countries. The employment rate has risen, but remains one of the lowest in the OECD.

Policy priorities

Reduce regulatory barriers to competition

Challenge and recommendations: To increase productivity, it was recommended that: divestiture programmes be accelerated in public utilities, transportation and media; golden shares be replaced with arm's length regulation; and regulators be strengthened further. It was also recommended that the planned liberalisation of market and local government services be fully implemented, and statutory and official authorisations giving anti-competitive powers to professional associations be removed.

Actions taken: Two major liberalisation packages have been passed in the areas of professional services, pharmaceuticals, taxis, local public services, retail trade and banking. These should help to reduce entry barriers, cut bureaucratic red tape, expand consumer choice, strengthen consumer protection, and diminish rents in sheltered sectors. A financial market supervision reform has streamlined the regulatory authorities and passed to the Competition Authority the power to deter anti-competitive practices in the banking sector. The powers of the Competition Authority and sectoral regulators have been strengthened.

Improve access to, and graduation from, tertiary education

Challenge and recommendations: To boost tertiary graduation rates and improve university teaching and research quality, it was recommended that teachers' careers be linked to performance, student co-payments and loans with income-contingent repayments be introduced, financing and management of universities be decentralised, and international teacher and student exchanges be increased.

Actions taken: No significant action taken, though a government Green Paper recognises the need to improve spending efficiency in higher education.

Reduce the tax wedge on labour income

Challenge and recommendations: To encourage formal employment of the low-skilled, it was recommended that high tax rates and pension contributions, notably on low and middle-earners, be reduced, and that such reductions be financed by lowering tax expenditures, strengthening tax enforcement and accelerating pension reforms.

Actions taken: The 2008 Budget reinforced measures in the 2007 Budget that included a cut in the labour tax wedge targeted on low-skilled workers and poorer regions. Measures to counter tax evasion have been stepped up, with the ultimate savings used for tax cuts and to maintain spending growth.

Improve the framework for risk taking

Challenge and recommendations: To encourage innovation and restructuring, it was recommended that the corporate governance framework be further improved, and the 2005 bankruptcy reform be fully implemented and extended to small companies.

Actions taken: Since the introduction of the 2005 bankruptcy reform for medium and large companies, new codes have been enacted to improve minority shareholders' rights and financial-market transparency.

Make wage setting more flexible

Challenge and recommendations: To reduce marked regional disparities in labour utilisation, it was recommended that economy-wide decentralisation in wage bargaining be promoted, notably by taking regional differences in productivity and cost of living into account in public sector wage-setting.

Actions taken: No action taken.

JAPAN

Despite continuous growth over the past five years, a large GDP-per-capita gap remains vis-à-vis the best performing countries, reflecting a major productivity shortfall.

Policy priorities

Further liberalise retail and professional services

Challenge and recommendations: To boost competition in the retail sector and professional services, it was recommended to ease entry restrictions and zoning regulations and to facilitate the entry of foreign workers.

Actions taken: The new zoning regulations that took effect in autumn 2007 are intended to re-vitalise urban areas, but may limit the entry of large stores in suburban areas. The Economic Partnership Agreements with the Philippines and Indonesia (which have not yet entered into force) allow nurses and care-givers from these countries to provide services in Japan on a temporary basis if they pass qualification examinations in Japanese.

Reform employment protection legislation for regular employment

Challenge and recommendations: To reduce labour market dualism, it was recommended that more transparent statutory guidelines on the dismissal of workers be introduced and that employment protection for regular workers be relaxed, thereby lowering incentives to circumvent strict conditions for dismissal by hiring non-regular workers.

Actions taken: No action has been taken to ease employment protection for regular workers. The revised legislation on part-time workers, which will come into force in 2008, aims at achieving more balanced treatment between part-time and regular workers. While this may improve the treatment of non-regular workers, it may also discourage firms from hiring part-time workers, thus depressing overall employment.

Reduce producer support to agriculture

Challenge and recommendations: To reduce distortions to trade and production and lower prices for consumers, it was recommended that the level of support to agriculture be decreased, while shifting its composition away from market price support and towards direct support for farmers.

Actions taken: The proportion of agricultural support linked to market prices may be reduced by the introduction of three new direct payments in 2007 as part of the effort to concentrate support on more efficient farms. The system of administered prices for wheat and barley was relaxed in 2007, although the impact will be limited by the continued high level of border protection for these products.

Encourage innovation

Challenge and recommendations: To increase the return on investment in innovation, it was recommended that framework conditions be improved by removing obstacles to developing venture capital markets, upgrading the education system through further reducing regulations and abolishing barriers to the entry of foreign researchers.

Actions taken: The government's "Innovation 25" plan, announced in June 2007, aims to encourage innovation up to 2025 by enhancing the mobility of researchers among universities, public research institutes and private firms, expanding the use of competitive research grants and extending the length of visas for foreign researchers.

Raise productivity through higher foreign direct investment

Challenge and recommendations: To encourage greater foreign direct investment (FDI), it was recommended that obstacles to inflows be removed by fully opening the mergers and acquisitions (M&A) market to foreign firms and by easing product market regulations, especially in the service sector and network industries.

Actions taken: The revision of the Corporation Law will facilitate cross-border M&As by allowing "triangular mergers" in which foreign companies establish subsidiaries in Japan, which can then use their parent company's stock to acquire a Japanese company. The decision to permit, under certain circumstances, deferral of related capital gains taxes should further encourage such mergers.

KOREA

Convergence in GDP per capita has continued, but the gap with the best performing countries remains large, reflecting a still low level of productivity.

Policy priorities

Lower barriers to entry for domestic and foreign firms

Challenge and recommendations: To promote competition and thereby higher productivity, it was recommended that entry barriers be reduced through regulatory reform and the remaining obstacles that might discourage potential foreign investors be removed.

Actions taken: Regulations on the creation of new enterprises were relaxed by the “Comprehensive Strategy to Improve the Business Environment” announced in September 2006 and this was followed by a second programme in June 2007. The government revised 962 of the 1 422 regulations (out of a total of 8 043) that were targeted during 2006. In December 2007, the government created three free economic zones (in addition to the three existing zones), which are aimed at attracting foreign investors through financial incentives and exemptions from certain restrictive regulations.

Reduce producer support to agriculture

Challenge and recommendations: To reduce distortions to trade and lower prices for consumers, it was recommended that the composition of assistance to farmers be shifted from market price support to direct payments, while lowering the overall level of support.

Actions taken: No major action. Under the Korea-US free trade agreement, completed in April 2007 but yet to be approved, tariffs are to be lifted immediately on 38% of agricultural tariff lines, covering 55% of food imports from the United States, including wheat. Tariffs on other important products, notably beef, will be gradually phased out, thus helping to reduce market price support.

Strengthen competition in the energy sector

Challenge and recommendations: To strengthen competition in the electricity and gas sectors, it was recommended that distribution companies that are independent of the transmission system be created, independent sectoral regulators be established and the pricing system be adjusted to reduce cross-subsidisation between sectors.

Actions taken: No major action. However, under the December 2006 plan to develop service industries, the cost of electricity for the service sector will be lowered by 30%, thereby matching the level in manufacturing. In addition, prices of electricity set by the government for industrial users and households were adjusted to better reflect costs.

Improve the innovation system

Challenge and recommendations: To increase the return on investment in innovation, it was recommended that linkages among research institutes in the business, university and government sectors be strengthened, intellectual property right protection be enhanced and the tertiary education sector be upgraded.

Actions taken: The government announced a plan in May 2007 to expedite the investigation of potential violations of intellectual property rights. A law aimed at increasing the transparency of university performance through objective assessments was enacted in May 2007.

Increase female labour force participation

Challenge and recommendations: To encourage greater labour force participation by women, it was recommended that the role of private childcare facilities be expanded by allowing more flexibility in their management and eliminating the ceiling on fees.

Actions taken: In 2006, the government expanded a subsidy to private childcare facilities for children under the age of three. The coverage of the income-tested support provided to families for childcare and education of children under the age of five will be expanded from half of the children in that age group in 2006 to 80% by 2009.

LUXEMBOURG

GDP per capita, adjusted for cross-border workers, has accelerated again from a level that is already one of the highest in OECD countries. However, labour force participation of some groups remains low and productivity growth is weak.

Policy priorities

Reduce disincentives to take up work in the income support system for the unemployed

Challenge and recommendations: To strengthen job-search incentives and close exit routes from the labour market, it was recommended that access conditions to unemployment benefits be tightened and unemployment benefit replacement rates be gradually reduced.

Actions taken: No action taken on reforming the unemployment benefit system. Indexation of certain social benefits (birth allowance, parental leave allowance, education allowance) has been suspended until 2009.

Improve achievement in primary and secondary education

Challenge and recommendations: To improve education outcomes and increase overall attainment, it was recommended that all educational tracks be offered by schools to facilitate track switching (besides supplementary German-language classes) and that the proportion of courses in the vocational track of secondary education taught in French be increased.

Actions taken: A language action plan has been prepared that aims at reinforcing language capacity in Luxembourgian for younger children, starting at pre-school age (three years). Pre-school has been made mandatory from age four onwards.

Reduce the implicit tax on continued work at older ages

Challenge and recommendations: To reduce the high replacement rates for old-age pensions, in particular for lower and average income earners, it was recommended that the degree of actuarial fairness of the pension system be raised by linking pensions to lifetime contributions.

Actions taken: No action on linking pensions to lifetime contributions. However, indexation of old-age pensions to inflation is now applied with a lag, implying a one-off reduction in replacement rates.

Reduce barriers in professional services

Challenge and recommendations: To boost competition in professional services, it was recommended that conduct regulation be eased, and licensing and education requirements be lowered.

Actions taken: No action taken.

Reform employment protection legislation

Challenge and recommendations: To improve labour market flexibility, it was recommended that strict employment protection be eased by simplifying rules for individual dismissals and enlarging the scope for using temporary contracts, for instance by allowing more renewals.

Actions taken: No action taken.

MEXICO

Growth in GDP per capita has been barely sufficient to prevent the large gap vis-à-vis the wealthier countries from widening further. The low level of labour productivity is the main source of the income gap.

Policy priorities

Raise achievement in primary and secondary education

Challenge and recommendations: Given poor educational outcomes, it was recommended that a better allocation of education spending be sought, with more focus on non-wage spending and secondary schooling, and that better use be made of existing incentives for teachers to perform.

Actions taken: The conditional transfer programme, *Oportunidades*, has been extended and is fostering participation in upper-secondary education of students from low-income families. Steps have been taken to reform curricula and teaching practices up to and including lower-secondary education.

Reduce barriers to entry in network industries

Challenge and recommendations: To improve the business environment and strengthen cost competitiveness, it was recommended that competition be further strengthened and regulations improved, with a focus on key network industries (e.g. telecommunications, electricity and railways) and the media sector.

Actions taken: The government issued licences to cable TV companies to operate telephony services. It is preparing the ground for issuing new broadcasting licences to promote competition following the Supreme Court's ruling in 2006 against some of the amendments to the media law that had given benefits to the incumbents at the expense of new entrants. No action taken in the other areas, but the government is launching a broad review of existing laws and regulations to eliminate unnecessary restraints on competition, using the OECD *Competition Assessment Toolkit* as a framework.

Reduce barriers to foreign ownership

Challenge and recommendations: To promote competition and innovation, it was recommended that restrictions on foreign direct investment (FDI) still in place in many sectors be eased, with a focus on telecommunications, transport and the electricity sectors.

Actions taken: No action taken.

Reform the tax system

Challenge and recommendations: To strengthen tax revenue and secure resources for growth-enhancing programmes while reducing distortions, it was recommended that a comprehensive reform be launched, including a broadening of the tax base and simplification of the system by limiting exemptions and preferential regimes.

Actions taken: A tax reform was approved in September 2007. It goes some way to broadening the tax base and reinforcing more stable sources of revenue. Steps are also being taken to improve spending efficiency.

Strengthen the “rule of law”

Challenge and recommendations: To facilitate business activity and enhance FDI inflows, it was recommended that measures be taken to improve the “rule of law”, with greater transparency, more secure property rights and more predictable law enforcement, in particular. A tightening of procedural rules for litigation (*amparos*) would make policy enforcement more effective – in areas such as competition law, collecting fines, and the application of the legal framework for bank guarantees.

Actions taken: The government and state governors are taking action to address security problems; no action taken in the other areas.

NETHERLANDS

The GDP-per-capita gap vis-à-vis the best performing countries can mostly be explained by relatively low labour utilisation, arising from short hours worked and low participation of specific groups.

Policy priorities

Reform disability benefit schemes

Challenge and recommendations: To lower the extensive use of disability and sickness leave schemes, it was recommended that work capacity reassessment, introduced for those below the age of 50 in the 2006 reform, be extended to beneficiaries above the age of 50 and the reintegration of the partially disabled into the workforce be assisted. It was also recommended that the administrative extension of wage agreements that include clauses for topping up disability benefits be terminated.

Actions taken: Rather than extending reassessment to people above the age of 50, the government has decided to exempt people aged between 46 and 50 from being reassessed under the new rules.

Strengthen work incentives for second earners

Challenge and recommendations: High effective marginal tax rates weaken incentives to increase hours worked and deter low-income earners and particularly second earners from full-time participation. It was recommended that effective marginal tax rates be lowered, for example through further reducing the taper rate for withdrawing childcare subsidies for second earners.

Actions taken: In 2007, the employer contribution to child care was made compulsory and the government has reserved extra funds to further lower the costs of child care. Furthermore, the government has decided to phase out the transferability of the tax credit for non-working partners over a 15-year period.

Strengthen competition in network sectors

Challenge and recommendations: Local government ownership in public transport, electricity and gas constitutes effective barriers to entry. It was recommended that effective vertical separation be secured in these network industries, cost-based access pricing be introduced and such activities be privatised.

Actions taken: Full ownership separation of the energy distribution networks from the supply companies will be implemented from July 2008. Companies are given two and half years to accomplish such separation. Competitive tenders have opened up public transport activities to private operators. In several bigger cities, however, public transport companies are still owned by local governments.

Promote competition in retail distribution services

Challenge and recommendations: In order to strengthen competition and employment in retail distribution, it was recommended that restrictions on large-format retail stores be eased, and remaining obstacles to shop opening hours be removed, in particular on Sundays.

Actions taken: No action taken.

Reform residential zoning regulation

Challenge and recommendations: To stimulate supply of housing, it was recommended that restrictions for residential zoning be eased.

Actions taken: No action taken since early 2006 when the new National Spatial Strategy (Nota Ruimte) was adopted, allowing for somewhat less restrictive zoning and decentralised decision making.

NEW ZEALAND

Trend growth of GDP per capita has slowed, and its level remains significantly below the OECD average, reflecting essentially low hourly labour productivity.

Policy priorities

Improve the performance of electricity markets

Challenge and recommendations: To remove ongoing uncertainties about the future regulatory regime and climate change policies, it was recommended that a transparent and durable framework providing incentives for efficient market-based outcomes be established as rapidly as possible.

Actions taken: In October 2007, the government released its Energy Strategy and Energy Efficiency and Conservation Strategy, and draft legislation for a comprehensive emissions trading scheme was presented to parliament in December 2007.

Facilitate access to childcare for working parents

Challenge and recommendations: Given high out-of-pocket costs and the impact of rising regulatory standards on supply, it was recommended that greater efforts be made to ensure access, especially for disadvantaged children and for all three and four-year-olds. It was also recommended that funding be switched away from income-tested transfers to reduce out-of-pocket costs for childcare.

Actions taken: As decided earlier, since July 2007, subsidies provide up to 20 hours per week early childhood education for three and four-year-olds in early childhood education services run by qualified teachers that opt into the scheme. No other action has been taken to reduce out-of-pocket costs.

Reduce the extent of educational under-achievement observed among specific groups

Challenge and recommendations: To help lift the educational attainment of Maori and Pacific Island school-leavers, it was recommended that teachers' pay be linked to ongoing professional development and to success in improving educational outcomes for groups at risk of under-achievement.

Actions taken: A report on teachers' professional learning and development was published in 2007, and the government is working with unions to address "career path" issues for teachers.

Improve public sector efficiency

Challenge and recommendations: To raise public sector efficiency, it was recommended that public sector managers be given stronger incentives to identify and implement efficiency improvements through well-designed performance targets supported by robust information systems, especially in health and education.

Actions taken: In the health sector, new national targets have been established and this has been accompanied by a review of the accountability framework for managers in the sector. Information systems are being developed in education.

Improve road infrastructure

Challenge and recommendations: To help reduce road-transport bottlenecks and localised urban pollution, it was recommended that road-pricing arrangements, such as tolls and congestion pricing, be adopted.

Actions taken: The government has ruled out congestion charges in Auckland for the present but will make it possible for regions to raise funds through a regional fuel tax for specific transport capital projects. The first toll road is expected to open in 2008.

NORWAY

Mainland GDP per capita is among the highest in the OECD, thanks to high productivity. However, labour utilisation is mediocre, reflecting low annual average hours worked.

Policy priorities

Reduce the scope of public ownership

Challenge and recommendations: To promote competition and help ensure sustained productivity growth, it was recommended that the process of privatisation be restarted with a priority on telecommunications, banking and industry.

Actions taken: No action taken. In contrast, the government expressed in a White Paper its intention to maintain broad, or even full, public and national ownership in some oil, telecommunications, banking and electricity companies. Furthermore, the government recently acquired significant shareholding in a private company operating in the petroleum-based supply industry.

Reform disability and sickness benefit schemes

Challenge and recommendations: To raise hours worked in the economy, it was recommended that stricter regulation on the entitlement to sickness benefits be enforced and that the involvement of independent medical specialists in disability assessment be made mandatory. It was also recommended that the medical/vocational rehabilitation and temporary disability programmes be made more effective in getting people back to work. This could be achieved by further tightening eligibility criteria for entry into each partial and full disability category, providing clear information on the duration of subsidies, improving co-ordination between medical and vocational programmes, and requiring compulsory job search where feasible.

Actions taken: The government issued several reports proposing measures aimed at better integrating the disabled in the labour market and reducing sick leave absence. Reform of disability pensions is also under consideration, the timing of its implementation being conditional on reforms of early retirement schemes.

Reduce producer support to agriculture

Challenge and recommendations: To reduce resources tied up in low-productivity activities, it was recommended that high external tariffs on agricultural products be cut and public subsidies to domestic production be reduced. To reduce trade distortions and make policy objectives more transparent, it was also recommended that support be decoupled from production levels and moved to a system of income transfers targeted to less well-off farmers, or those in remote regions.

Actions taken: No significant action taken.

Complete the pension reform

Challenge and recommendations: To raise the effective retirement age, it was recommended that a comprehensive pension reform be implemented in line with the 2004 proposals of the Pension Commission and the parliament's agreements of 2005-06, promoting an actuarially more neutral pension system overall, including old-age, disability and early-retirement pensions.

Actions taken: A new White Paper on pension reform was presented in late 2006, promoting the actuarial principle for old-age pensions, with a flexible retirement age from 62 onwards.

Strengthen competition policy

Challenge and recommendations: To promote competition and innovation, it was recommended that the independence of the competition authority be upheld and state aid be reduced.

Actions taken: No action taken.

POLAND

Despite strong trend growth and rapidly falling unemployment, GDP per capita remains well below the OECD average, reflecting gaps in both productivity and labour utilisation.

Policy priorities

Reduce public ownership

Challenge and recommendations: To promote greater competition, it was recommended that privatisation be stepped up and that residual state controls in many privatised companies, such as special shares, be eliminated in most cases.

Actions taken: Privatisation continues, but at a slow pace. Major sell-offs in the power supply industry have been delayed, and the two major entities in banking and insurance remain state-owned.

Reform the tax and benefit system to make work pay

Challenge and recommendations: Tax wedges remain high, and internal labour mobility still seems to be hampered by poor incentives. To strengthen work incentives, it was recommended that work-availability and job-search requirements be tightened in the unemployment benefit system, and tax rates be lowered through a broadening of the tax base.

Actions taken: No action taken.

Improve efficiency of tertiary education

Challenge and recommendations: To improve both equity and efficiency, it was recommended that tuition fees in public higher education institutions be increased in parallel with an improved system of means-tested grants and student loans with income-contingent repayment.

Actions taken: No significant action taken.

Promote competition in professional services and telecommunications

Challenge and recommendations: To strengthen competition, it was recommended that regulation in professional services be simplified and third-party access to the telecommunications network be facilitated.

Actions taken: The telecommunications regulator has made progress in increasing competition, and some prices fell significantly in 2006 and 2007.

Upgrade transport, communication and housing infrastructure

Challenge and recommendations: To improve geographical mobility, it was recommended that transport infrastructure and urban planning be improved, while taking account of environmental factors.

Actions taken: Spending on transport infrastructures (in particular roads) has risen and will increase significantly over the next few years, financed in part by EU funds. No major action has been taken to improve urban planning nor, in particular, housing infrastructure.

PORTUGAL

Living standards have fallen vis-à-vis the OECD average in recent years, with the widening GDP-per-capita gap essentially reflecting low productivity.

Policy priorities

Improve upper-secondary and tertiary education attainment

Challenge and recommendations: To improve human capital formation, it was recommended that a greater proportion of primary and secondary education spending be allocated to non-wage spending and a systematic evaluation of higher education institutions be implemented.

Actions taken: As decided earlier, very small and inefficient primary schools are being closed. A new career scheme for primary and secondary teachers, including new performance assessment procedures, has been approved by the Council of Ministers. The authorities have commissioned reviews of the higher education sector, including the current accreditation and quality-assurance processes.

Reduce barriers to competition

Challenge and recommendations: To increase competition in network industries and the services sector, it was recommended that the ownership of the largest fixed-telephony and cable networks be separated, the restructuring of the energy sector be continued, and entry controls and licensing requirements in non-manufacturing sectors be eased.

Actions taken: Some steps have been taken to ease regulatory restraints in some network industries (gas and telecommunications), although no action has been taken to separate the ownership and control of the fixed-telephony and cable networks, nor to ease entry controls and licensing requirements in services sectors.

Reform employment protection legislation

Challenge and recommendations: To facilitate higher productivity growth and encourage hiring of workers under regular contracts, it was recommended that employment protection legislation be eased, particularly for individual dismissals.

Actions taken: No action taken.

Continue public administration reform

Challenge and recommendations: To increase the efficiency of the public sector and reallocate labour to the private sector, it was recommended that the number of public sector employees be reduced, public sector employment conditions be aligned with those in the private sector and a performance-based system be introduced in the public sector.

Actions taken: A recruitment rule of one new worker for every two departures was implemented in 2006 and the number of public employees fell. The reform of the civil servants' social security system has been approved, bringing it closer to the general social security scheme. The reorganisation of the public administration continues. An employee mobility scheme is in operation. Implementation of a new system for careers, contracts and pay is starting, introducing elements of performance pay in salaries.

Simplify the tax system and broaden the corporate tax base

Challenge and recommendations: To reduce compliance costs and informal activities, it was recommended that the tax code be simplified and modified less frequently, and that tax expenditures be reduced.

Actions taken: To reduce compliance costs, the authorities have streamlined tax administration procedures and have encouraged greater use of the Internet for taxpayer-tax administration interaction.

SLOVAK REPUBLIC

Significant convergence in GDP per capita vis-à-vis the OECD average has been achieved in recent years, but substantial gaps remain in labour utilisation and productivity.

Policy priorities

Reduce the tax wedge for low-income workers

Challenge and recommendations: To promote employment of the low-skilled, it was recommended that an in-work benefit for low-income households with children be introduced and that the minimum wage be kept sufficiently low so as not to hamper employment prospects.

Actions taken: No measures have been taken to reduce the tax wedge on low-income households. The 2007 increase in the minimum wage leaves it sufficiently low (42% of the median wage) to avoid unduly harming employment prospects.

Improve funding and effectiveness of the education system

Challenge and recommendations: To improve education achievement, especially among children from less favourable socio-economic backgrounds, it was recommended that pre-school education be expanded, additional funding for schools with a high proportion of groups at risk of under-achievement be provided, and that the age at which children are selected into different tracks be postponed. It was also recommended that the value of vocational education be increased by making it more relevant to labour-market requirements and that tuition fees for all tertiary studies be introduced, accompanied by student loans with income-contingent repayment.

Actions taken: The government has decided to make kindergarten free of charge for five-year-olds from 2008 onwards. Some reduction in segregation is being achieved by encouraging the integration of technical and vocational secondary schools.

Reduce the implicit tax on continued work at older ages

Challenge and recommendations: In order to discourage premature withdrawal from the labour market, it was recommended that the 2003 pension reform which gradually increases the retirement age for women to 62 (the same as for men), be complemented by indexing the retirement age to life expectancy and by making pension-benefit adjustments for earlier and later retirement actuarially fairer.

Actions taken: No action taken. The government does not plan to make any change until the current reform is complete in 2014.

Reform housing markets

Challenge and recommendations: To facilitate labour mobility and improve the functioning of housing markets, especially the establishment of an effective private rental market, it was recommended that regulation be reviewed, resolution of tenancy disputes be speeded up, competition in construction be strengthened, and housing subsidies be better targeted.

Actions taken: No action taken.

Strengthen law enforcement

Challenge and recommendations: To reduce the costs of doing business and increase the efficiency of government spending, it was recommended that law enforcement be strengthened by improving accountability of the justice system, and that greater use be made of transparent and open procedures for public procurement.

Actions taken: A new law makes the requirement to publish a public procurement contract notice more widely applicable.

SPAIN

Convergence in GDP per capita vis-à-vis best performing OECD countries has continued in recent years, albeit at a slower pace. Substantial labour utilisation and productivity gaps remain.

Policy priorities

Limit the extent of administrative extension of collective agreements

Challenge and recommendations: To avoid creating nominal rigidities and excessive wage increases in some sectors, it was recommended that firms be given a legal right to opt out of the application of regional and sectoral wage agreements and that the use of inflation catch-up clauses be eliminated.

Actions taken: No action taken.

Reform employment protection legislation for permanent workers

Challenge and recommendations: To reduce the segmentation of the labour market and its negative effect on productivity growth and innovation, it was recommended that severance payments be reduced for workers with permanent contracts and a single contract be promoted by bringing in gradual increases in required severance payments linked to length of service.

Actions taken: No action since the reform that was enacted in July 2006. It raised fiscal incentives for new permanent contracts offered to target groups and restricted the successive use of temporary contracts.

Strengthen competition in the retail distribution sector

Challenge and recommendations: To foster competition in retail distribution, it was recommended that the various barriers to the establishment of new hypermarkets and shopping centres put in place by regional governments be eliminated.

Actions taken: No action taken.

Reform the higher education system

Challenge and recommendations: To improve human capital formation, it was recommended that the higher-education system be reformed by giving universities more freedom and holding them more accountable for their results. Indicators of university performance should be made easily available to teachers, students and employers.

Actions taken: A new framework law on universities was approved in March 2007 that gives universities greater autonomy, seeks to remove obstacles to the movement of teachers into the private sector and improves the governance of the system.

Reform the pension system

Challenge and recommendations: To avoid sharp increases in taxes and hence labour costs required in the future to cover the fiscal costs of population ageing, it was recommended that the pension system be made actuarially fairer.

Actions taken: The reform that entered into force in early 2007, agreed by the social partners and the government, contains additional restrictions on partial retirement, a modest increase in the effective contribution period to acquire pension rights and stronger incentives to extend work beyond the current age at which full pension rights can be acquired. Survivors' pension entitlements have been extended to unmarried couples.

SWEDEN

Convergence of GDP per capita has resumed in recent years, but the gap with the best performing countries remains somewhat larger than before the 1990s crisis, because of lower labour utilisation and productivity.

Policy priorities

Reduce marginal taxes on labour income

Challenge and recommendations: Social security contributions and income taxes combine to a marginal rate above 60%, even for incomes modestly above average full-time earnings. To reduce distortions to hours worked, effort and human capital formation, it was recommended that the threshold from where the state income tax is paid be raised or its rate reduced, and that this be financed by spending cuts, elimination of some tax exemptions and higher real-estate taxes.

Actions taken: The in-work tax credit, introduced in January 2007, will be increased by a fifth in 2008 (to 1.5% of GDP), reducing marginal tax rates slightly for lower and middle income groups. No specific initiatives have so far been announced on the state income tax.

Reform sickness and disability benefit schemes

Challenge and recommendations: To bring down the extent of sickness absence from work and the number of disability pensioners, it was recommended to continue efforts to enforce implementation of tighter rules by local insurance offices. It was also recommended that a time limit on receipt of disability benefits be introduced, with subsequent renewal subject to re-assessment of rehabilitation options.

Actions taken: A comprehensive reform programme for sickness and disability benefits was announced in September 2007. It includes a one-year time limit on sickness benefits, stricter rules for qualifying for sickness and disability benefits, measures to ensure swifter administration and measures to increase the incentives to work for people receiving disability benefits. Measures to combat over-use and fraud are also being prioritised.

Reform employment protection legislation

Challenge and recommendations: To stimulate labour mobility and entrepreneurship, it was recommended to reconsider those elements of employment protection legislation that are most likely to hinder business formation and flexibility. Moreover, the strict criteria for fair dismissal under regular contracts makes it risky to hire immigrants and others whose capabilities can be difficult to gauge.

Actions taken: From 2007, temporary contracts can be made for up to 24 months compared with 12 months previously. No action has been taken on regular contracts.

Encourage students to start and complete tertiary education earlier

Challenge and recommendations: To increase the supply of skilled labour and the efficiency of the education system, it was recommended to reduce the average age at which students begin tertiary education and speed up completion. This should be achieved by reforming admission rules, phasing out fiscal subsidies for overly-long course durations and developing tuition charges and loans for tertiary education.

Actions taken: The admission rules will change in 2008 and 2010, focusing on increasing the direct transition of students from upper-secondary school to higher education, stimulating student performance in upper-secondary school and reducing incentives to repeat courses in, for example, adult education.

Reform housing policies to reduce distortions and facilitate labour mobility

Challenge and recommendations: Starting from a highly regulated housing market, it was recommended to allow rents to be determined by market conditions, in particular for private rental housing, increase competition in the construction sector and improve the land planning process.

Actions taken: Subsidies for rental housing were cut in 2007. No national measures have been taken to ease regulations of rent setting, construction sector competition or land planning.

SWITZERLAND

GDP per capita has fallen steadily in relative terms to below the best performing countries, with the widening gap reflecting weak productivity performance.

Policy priorities

Further reduce barriers to competition in network industries

Challenge and recommendations: It was recommended that the liberalisation process be accelerated, in particular in the energy, postal and telecommunications sectors, by removing barriers to entry.

Actions taken: A sector-specific regulatory framework for the electricity industry was approved by parliament, setting up an independent regulator, introducing limited vertical separation requirements as well as free choice of supplier by 2013. In telecommunications markets, entrants were granted access to the unbundled local loop subject to restrictions. The scope of the legally protected monopoly in letter delivery was reduced somewhat. The government intends to present draft legislation to parliament to reduce entry barriers for foreign providers of rail-transport services and to increase the use of tendering of contracts for providing regional passenger-transport services.

Reduce producer support to agriculture

Challenge and recommendations: In order to reduce high domestic food prices and excessive resources in agriculture, it was recommended that the reduction of producer support to agriculture be accelerated and subsidies be de-linked from production.

Actions taken: Parliament has voted to maintain the level of subsidies to farmers broadly constant in nominal terms between 2007 and 2011 but to partly shift production subsidies to income support. Trade barriers for a few agricultural products were eliminated vis-à-vis EU countries in 2007.

Facilitate full-time labour force participation for women

Challenge and recommendations: To help reconcile work with raising children, it was recommended that affordable full-time care for both very young and school-age children be developed.

Actions taken: The cantons have signed an agreement lowering the starting age for compulsory, free schooling to four years of age. The reform of personal income taxes, in force since January 2008, reduces the large difference in marginal tax rates between second and main earners of married couples.

Remove non-tariff trade barriers

Challenge and recommendations: To stimulate foreign competition, it was recommended that technical regulations deviating from those of EU members in areas such as production, packaging and labelling, be reduced by accepting products conforming to EU standards (the “Cassis de Dijon principle”).

Actions taken: The government has proposed draft legislation to adopt the “Cassis de Dijon principle”, subject to a few restrictions, largely resulting from stricter health, safety and environmental standards.

Reduce health-system costs through better regulation

Challenge and recommendations: To contain health care costs through greater scope for differentiating fees and better control of medical interventions, it was recommended that the requirement for insurers to contract with all health care providers collectively be abolished and barriers between cantons created by the canton-based organisation of both health-care supply and the insurance system be removed.

Actions taken: Parliament has postponed discussions on allowing selective contracting in ambulatory services. Draft legislation to widen patient hospital choice across cantonal borders is being discussed.

TURKEY

Despite a pick-up in trend growth in recent years, GDP per capita remains well below the OECD average. Productivity is very low and labour utilisation is weak.

Policy priorities

Reduce the minimum cost of labour

Challenge and recommendations: To reduce minimum employment costs and increase employment in the formal sector, particularly in regions where labour productivity is low, it was recommended that payroll taxes be substantially reduced and the rate of increase of the minimum wage be slowed and differentiated across regions.

Actions taken: No significant action taken on the minimum cost of labour. However, according to the government's Action Plan announced in late 2007, costly requirements on employers to hire workers from disadvantaged groups will be reduced. Also, the government's 2008 Programme contains plans to gradually reduce social security contribution rates.

Reform employment protection legislation

Challenge and recommendations: To increase employment in the formal sector, it was recommended that the level of severance payments for dismissed permanent workers be reduced and restrictions for temporary workers be eased.

Actions taken: The 2008 Programme of the government aims to increase flexibility in the labour market. In this context, special attention will be given on measures to facilitate temporary employment contracts.

Improve access to, and quality of, primary and secondary education

Challenge and recommendations: To ensure that the entire youth population receive a good education, it was recommended that spending on education be increased, financed through cuts in lower-priority areas. It was also recommended that schools be funded on a per pupil basis, taking into account varying needs of the student population, and be provided with greater managerial responsibility and accountability.

Actions taken: Following curriculum reforms in primary and secondary education in 2005, university entrance was reformed in order to give more weight to students' secondary school performance.

Simplify product market regulations

Challenge and recommendations: To improve productivity performance, it was recommended that product market regulations be simplified, in particular the sectoral licensing rules which hinder market entry, and greater competition be encouraged in network industries.

Actions taken: No action taken on administrative simplification. However, in its 2008 Programme, the government announced the start of privatisation of public electricity production and distribution plants in order to create a competitive electricity market.

Reduce early retirement incentives for workers in the formal sector

Challenge and recommendations: To strengthen labour utilisation, it was recommended that early-retirement incentives for workers in the formal sector be reduced by lowering net pension benefits and replacing retiring workers' entitlement to severance payments with a saving scheme.

Actions taken: The Social Security and General Health Insurance Law, which is expected to come into force in 2008, will raise the statutory retirement age to 65 for both men and women by 2048.

UNITED KINGDOM

Trend growth in GDP per capita has slowed and the sizeable income gap vis-à-vis the best performing countries is wide, reflecting low productivity levels.

Policy priorities

Further reform disability benefit schemes

Challenge and recommendations: To reduce the number of disability-related benefit recipients, it was recommended that the interview-based Pathways to Work programme – which facilitates access to back-to-work programmes and benefits – be extended to the stock of existing claimants on a mandatory basis; the monitoring of the health status of people reaching the end of sickness pay and benefits be improved; and the medical assessment of claims be brought forward.

Actions taken: The Pathways to Work programme will be made mandatory for all new claimants and offered to existing claimants on a voluntary basis by April 2008. New welfare legislation will replace the current system of incapacity benefits with a simplified disability employment allowance at the end of 2008.

Improve the education achievement of young people

Challenge and recommendations: To raise the skill level of young people, it was recommended that the emphasis on the acquisition of core literacy and numeracy skills for young people be continued, so as to improve prospects for further education achievement beyond lower-secondary school; and that work be undertaken with universities to ascertain how the skills and competencies acquired via the new vocational diplomas would compare with those obtained from following a more traditional academic path.

Actions taken: The recently introduced Education Maintenance Allowance, which pays a small allowance to 16 and 17-year-olds from poor families who continue in education, has helped to raise education participation. New vocational diplomas are being developed. The government is raising the age for leaving education or training from 16 to 18.

Improve public infrastructure, especially for transport

Challenge and recommendations: To raise productivity growth, it was recommended that road congestion be reduced and rail system reliability be improved by maintaining investment in transport infrastructure at least at levels envisaged in spending plans and by continuing with preparations for a national road pricing scheme.

Actions taken: Spending on transport infrastructure has picked up, but remains lower than envisaged by the government's Ten Year Plan for Transport. An independent review of long-term business infrastructure and transport needs (the Eddington Transport Study) has argued in favour of extending road pricing and for better targeting spending on key strategic growth areas.

Improve work incentives for low-paid lone parents and second income earners

Challenge and recommendations: To improve incentives for lone parents to work longer hours or to up-skill, it was recommended that the tax and benefit system be modified to lower marginal effective tax rates. Also, to encourage labour force participation of low-skilled second earners, it was recommended that the barrier posed by high child-care costs be reduced.

Actions taken: The 2007 Budget announced an increase in the threshold for the Working Tax Credit which should reduce the marginal effective tax rate for those moving into work. The government has also initiated public consultations on a proposal to introduce more stringent work testing for lone parents receiving out-of-work benefits.

Improve public sector spending efficiency

Challenge and recommendations: To ensure that higher expenditure results in higher standards of service delivery in health and other publicly funded services, it was recommended that performance targets be more carefully designed and incentives to achieve them strengthened.

Actions taken: After years of strong public sector spending increases, the 2007 Comprehensive Spending Review projected a small decrease in total public spending as a per cent of GDP and further efficiency gains are being sought over the coming three years through improved performance management.

UNITED STATES

Material living standards are high on average, and trend growth remains strong despite indications of a slowdown. Nevertheless, further efficiency gains can be achieved in several areas.

Policy priorities

Improve primary and secondary education

Challenge and recommendations: To lift school performance, it was recommended that schools be made accountable for results, students at under-performing schools be free to choose other schools and pressures to lower students' performance standards be resisted.

Actions taken: No action taken since the 2002 "No Child Left Behind Act", which aims to raise standards, increase accountability and facilitate choice, and which is being implemented by the states.

Restrain health care costs

Challenge and recommendations: To reduce the overuse of health services, it was recommended that the current open-ended tax deductibility of health insurance premiums be limited. To ensure the long-term solvency of Medicare, it was recommended that reform should focus on reducing cost per enrollee.

Actions taken: The administration's 2008 Budget proposed a standard deduction for health insurance, which would cap the tax exemption of employer health insurance premiums and a downward adjustment in Medicare provider payments, encouraging providers to take advantage of new technologies.

Reduce agricultural subsidies

Challenge and recommendations: To strengthen market forces and reduce trade distortions, it was recommended that subsidies for agricultural producers be reduced and not tied to specific inputs or outputs.

Actions taken: The 2008 Budget proposed a reduction in farm subsidies, in particular by tightening both payment limits and eligibility requirements for higher income producers. To reduce greenhouse gas emissions, the administration has proposed to change mandatory fuel standards to increase the share of renewables in overall fuel use, with the aim of displacing 15% of projected gasoline use by 2017. This will put upward pressure on prices of agricultural products.

Reform the tax system

Challenge and recommendations: To reduce distortions and discourage pollution, it was recommended that the tax base be broadened and that personal income tax be reduced and replaced with taxes on consumption, especially of carbon-based energy.

Actions taken: No action taken.

Reform disability benefits

Challenge and recommendations: Given that rising replacement rates and relaxed eligibility conditions are encouraging many workers to leave the labour force, it was recommended that disability insurance be made less generous and more selective.

Actions taken: No action taken.

PART II

Thematic Studies

PART II

Chapter 3

Explaining Differences in Hours Worked across OECD Countries

Working hours vary widely across OECD countries, and these differences account for a sizeable fraction of the gap in GDP-per-capita levels between Europe and the United States. Views differ widely about the respective roles of taxes, working-time and other regulations, and preferences in influencing working hours. This chapter examines the impact of various policy levers in explaining differences in hours worked, finding in particular that the weekly hours worked by women are sensitive to marginal tax wedges. In contrast, men's working hours are influenced more by working-time and other regulations. Differences in leave entitlements account to an important extent for a shorter working year in Europe than elsewhere in the OECD area.

Introduction and main findings

Employed persons in the United States work on average 41 hours a week and take only two weeks of vacation each year; in Europe they work around 38 hours a week and take more than four weeks off in annual and other paid leave. This difference in work intensity has given rise to a lively debate as to its causes. The competing explanations include comparatively high marginal taxes in Europe (Prescott, 2004); relatively stronger preference for leisure by Europeans (Blanchard, 2004); and more stringent regulations on working time as well as stronger union power in Europe acting to, depending on viewpoints, restrain labour supply or mitigate market failure (Alesina *et al.*, 2005).

The gap in average working hours accounts for a larger part of the higher GDP per capita in the United States compared with Europe than do differences in employment rates between the two areas. The reasons for lower employment rates in Europe than in the United States and other non-European OECD countries have been studied extensively (OECD, 2006; Bassanini and Duval, 2006). To allow for a better assessment of the impact of policies on total labour utilisation, this chapter complements these studies by examining the determinants of average hours worked per employed person, and, in particular, how factors that influence employment rates might also affect the number of hours worked.

The empirical work behind this chapter¹ gives rise to a number of conclusions as to the reasons for the average hours gap between the United States (and other non-European countries) and Europe which can be summarised as follows:

- About half of the annual hours gap between the United States and Europe reflects the shorter European working week (especially for women) and the other half the shorter European working year.
- Marginal taxes, which are much higher in Europe on average than in the United States and other non-European countries, negatively influence average hours worked. Such tax effects seem to affect mainly second earners – typically women. Empirical results suggest that the difference in tax rates is sufficient to explain the gap in weekly hours between the United States and Europe.
- Working time regulations are less constraining in the United States and other non-European OECD countries than in Europe. An effect of statutory caps on weekly working hours for actual weekly hours worked can be identified for men only, and seems to account for some of the modest gap in weekly working hours of men between the United States and Europe. More importantly in terms of annual hours worked, the striking differences in entitlements to annual leave, and sickness and maternity leave, mechanically account to a large extent for the large difference in the number of weeks worked per year between the two areas.
- Employment protection legislation and product market regulations, both of which are more stringent on average in European countries than in the United States and other OECD countries, are associated with somewhat lower weekly hours worked by men but do not seem to influence hours worked by women. High union power is also associated with lower weekly hours worked by men, but with higher weekly hours worked by women.

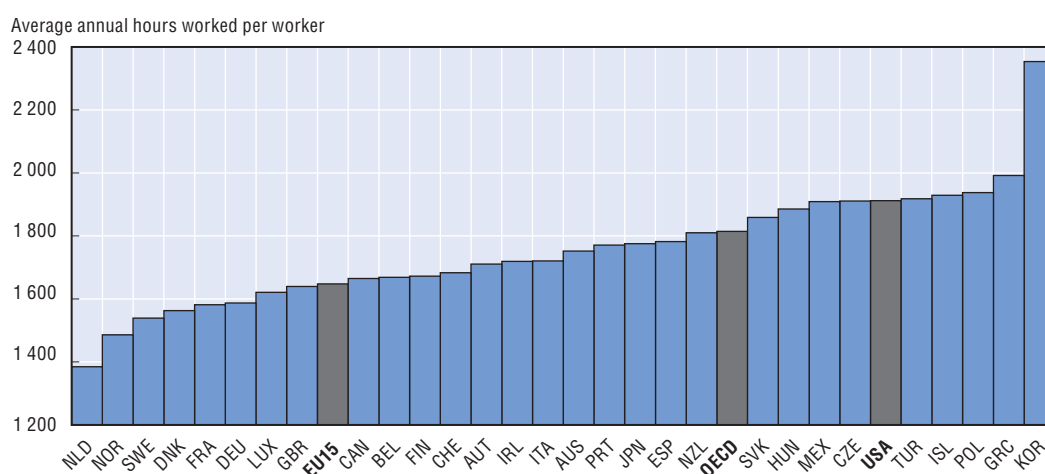
Differences in annual hours worked across countries and over time

In 2005, annual hours worked in the United States were 15% higher than the average for the European Union (EU15) and the number of hours worked was also higher in several other non-European countries, such as Korea, Mexico, New Zealand, Japan and Australia (Figure 3.1 and Box 3.1). Within the European Union differences in annual hours worked are pronounced, with Greece and most eastern European countries having some of the highest annual hours worked in the OECD area, while some Nordic countries, France, Germany and the Netherlands were among the OECD countries with the shortest annual hours worked.

In stark contrast to their broad stability in the United States, average hours worked in Europe and other OECD countries have fallen sharply over the past 30 years (Figure 3.2).² Indeed, in the mid-1970s Europeans worked significantly longer annual hours than US workers and it was only in the mid-1980s that hours worked in the United States started to exceed those in Europe. Even if average hours worked have continued to decline in Europe on average over the past decade, developments in work intensity have differed across countries, with steep falls in Ireland, Portugal, Luxembourg and France, and no increases in Austria, Denmark and Sweden. In Japan, annual hours worked have fallen significantly since the early 1970s, notably in the 1990s.

About half of the annual hours gap between the United States and Europe is accounted for by a shorter work week in Europe and the other half by longer paid and other leave (Figure 3.3). In turn, 60% of the weekly hours gap between Europe and the United States reflects the fact that full-time workers in Europe work shorter weeks; the remainder reflects higher part-time incidence and shorter weekly hours worked by part-timers in Europe. The different proportion of part-time workers in EU countries, ranging from a high of 45% of all employees in the Netherlands to a low of 3% in the Slovak Republic, is an important reason for the hours worked differences between European countries.

Figure 3.1. **Annual hours worked¹ per worker vary across OECD countries, 2005**



1. Annual hours worked are based on standardised data (see Box 3.1) for all countries except for Japan, Korea, Mexico, New Zealand and Turkey where official data reported on the OECD Employment Outlook are used. Averages for OECD and European Union (EU15) are weighted by employment levels.

Source: European Union Labour Force Survey (EULFS); US Current Population Survey (CPS); Statistics Canada, Labour Force Survey; Australia, Labour Force Survey and OECD Employment Outlook, 2007.

StatLink <http://dx.doi.org/10.1787/254682684407>

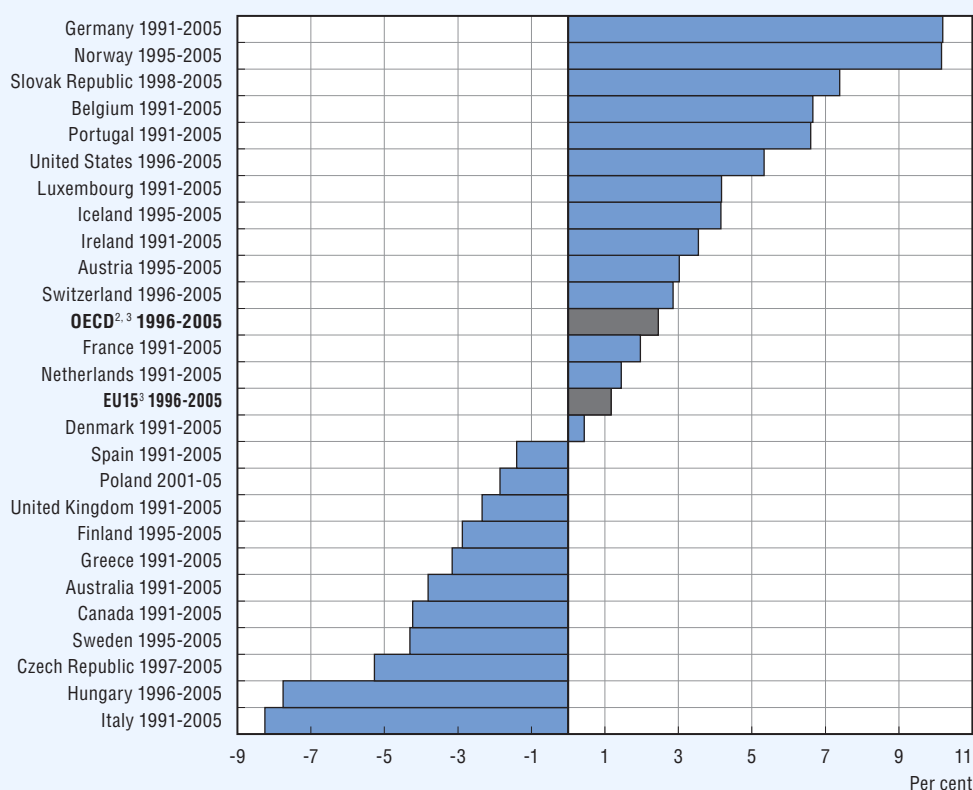
Box 3.1. Cross-country comparability of data on annual hours worked

Official data on total annual hours worked per person, as published annually in the *OECD Employment Outlook* and incorporated in the OECD Productivity database, are not compiled on the basis of an international standard. Therefore, they are not comparable across countries because methods, hours concepts, as well as data sources used to calculate these data differ. The OECD has established a standardised database on annual hours worked per employed person – including full- and part-time employees as well as the self-employed – using the same methodology and data sources as comparable as possible for all countries. This methodology uses information from Labour Force Surveys (LFS) and is described in Burniaux (2008b).

For several countries, standardised estimates of annual hours worked using this methodology are substantially different – with deviations up to around 10% – from corresponding official estimates (see figure). Despite these differences, the overall cross-country patterns remain unchanged, especially with respect to the gap in hours worked between Europe and the United States. Indeed, the gap in annual hours worked between the two areas is significantly wider on the basis of the standardised data.

Annual working hours: Differences between standardised and official estimates

Per cent of official estimates;¹ average 1991-2005



1. As reported in *OECD Employment Outlook*, 2006.

2. Average excludes the Czech Republic, Poland, the Slovak Republic and Switzerland.

3. Averages for OECD and European Union (EU15) are weighted by employment levels.

Source: European Union Labour Force Survey (EULFS); US Current Population Survey (CPS); Statistics Canada, Labour Force Survey; Australia, Labour Force Survey and *OECD Employment Outlook*, 2006.

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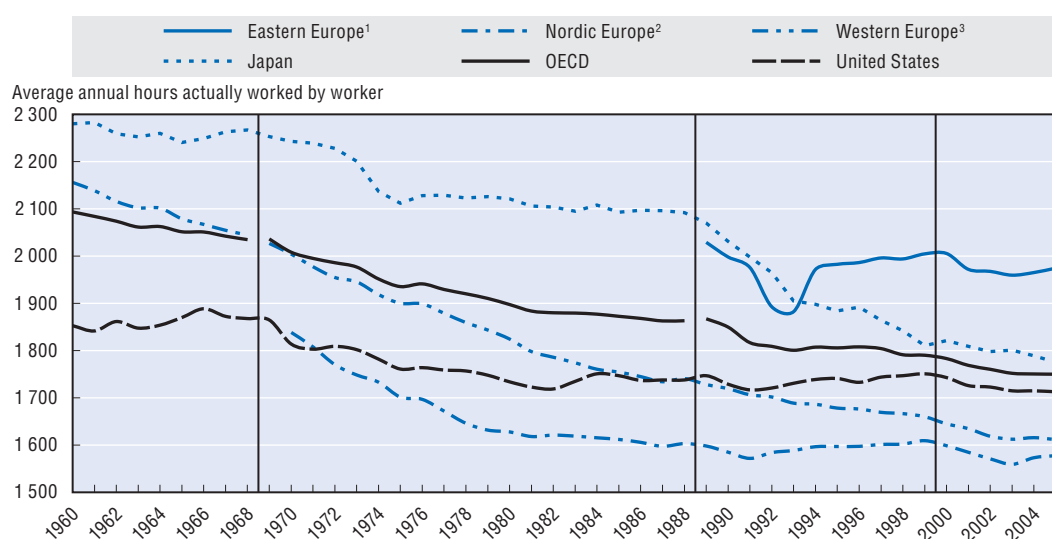
Box 3.1. Cross-country comparability of data on annual hours worked (cont.)

The large divergences between official and standardised data observed in several countries have a number of causes, including specific biases arising from different hours concepts and different ways of dealing with specific issues, such as the hours worked in the informal sector or the under-reporting bias of certain types of leave, such as sick leave, in some countries.

The standardised data are designed to be more comparable across countries. However, official data in some countries may incorporate adjustments that are seen to be required because of national circumstances, *e.g.* evidence of particular groups not being adequately represented in household surveys. Such adjustments may make official data more accurate in some countries, but make cross-country comparison invalid as other countries do not make such adjustments. Moreover, as the standardised data are subject to breaks in series and are only available for a relatively short time period, the non-standardised data may provide a better indication of changes over longer time periods.

Compared with official data, the standardised hours data point to a different decomposition of the GDP-per-capita gap between Europe and the United States into labour-utilisation and productivity gaps. The 6% higher hours worked in the United States according to the standardised data implies that productivity levels are reduced by the same amount. As the standardised hours data are not much different from the official data for the EU15 on average, this in turn implies that three-quarters of the shortfall in GDP per capita in the EU15 *vis-à-vis* the United States is accounted for by relatively low labour utilisation rather than one-half of it, when the comparison is based on official data. For some individual countries, the standardised data result in a very different split between productivity and labour-utilisation gaps. Since official data on hours worked are typically derived in conjunction with national accounts estimates of output, they are used in other parts of this publication even if, in principle, the standardised data are more comparable across countries.

Figure 3.2. Annual hours worked have fallen in most OECD countries



1. Czech Republic, Hungary, Poland and Slovak Republic.

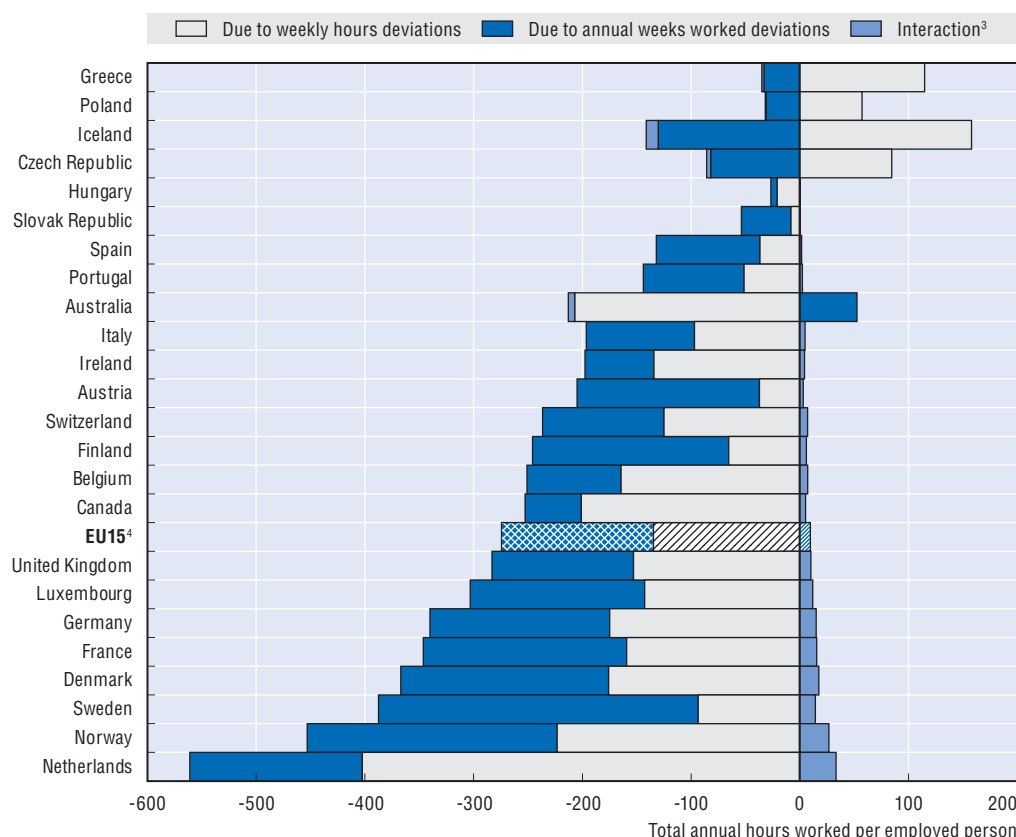
2. Denmark, Finland, Norway and Sweden.

3. Austria, Belgium, France Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Switzerland and United Kingdom.

Source: OECD, Productivity database and OECD Employment Outlook, 2007.

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Figure 3.3. **Accounting for cross-country differences in annual hours worked**
Differences in annual hours worked relative to the United States in 2005^{1, 2}



1. Countries are ranked according to increasing differences relative to the United States.
2. There is no statutory paid leave in the United States where 12 days of paid leave are imputed on the basis of estimates by Alesina et al. (2005).
3. Relates to a residual term corresponding to the interaction of both differences in weekly hours and weeks worked annually.
4. Average for European Union (EU15) is weighted by employment levels.

Source: European Union Labour Force Survey (EULFS); Statistics Canada, *Labour Force Survey*; US Current Population Survey (CPS); and Australia, *Labour Force Survey*.

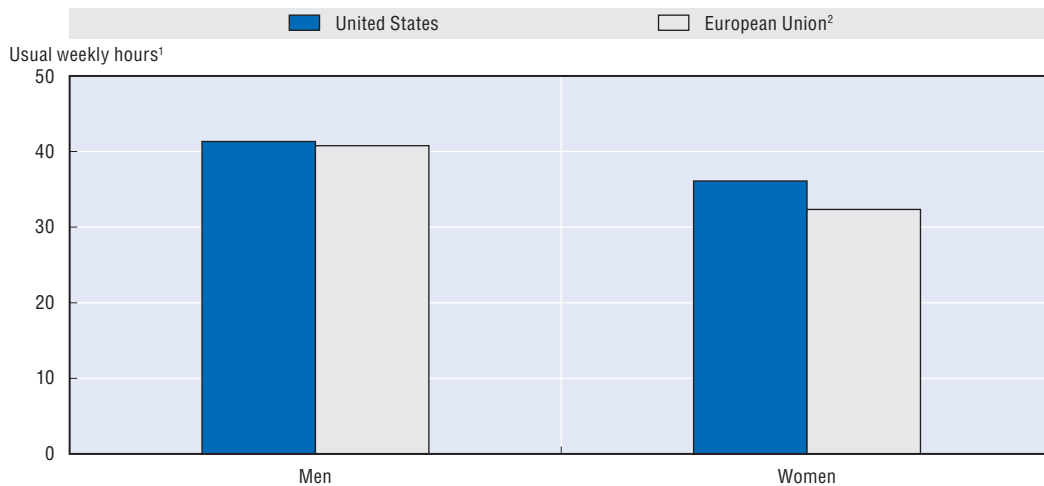
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Seen from a different angle, the gap in weekly hours between the United States and Europe primarily reflects different work intensities for women (Figure 3.4). Compared with their counterparts in the United States, women in Europe work shorter hours when they are engaged in either full-time or part-time work and are more likely to hold a part-time job. By contrast, the length of the work week of men – who typically work full time and are frequently seen as representing the core of the labour force – is only marginally shorter in Europe than in the United States.

Policies affecting hours worked per employed person

Policies affect total labour utilisation via their impact on employment levels and hours worked. In general, all policies that affect employment rates are likely to influence average hours worked in the economy. This is so because high overall employment tends to go hand in hand with higher employment of groups that typically have a relatively low work intensity and vice versa. Past studies have assessed the impact of taxation, transfers, working-time

Figure 3.4. **Women work shorter weekly hours in Europe than in the United States, 2005**



1. Usual weekly hours refer to the length of a usual work week; it corresponds to the number of hours per week that individuals work in general.

2. Average for European Union (EU15) is weighted by employment levels.

Source: European Union Labour Force Survey (EULFS) and US Current Population Survey (CPS).

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regulations, and labour and product market regulations on employment. The OECD study reported in this section reviews the impact of these policies on hours worked of men and women separately and disentangles the impact on hours worked from that on employment.

Taxation

In principle, taxes affect hours worked by influencing both the financial rewards from additional work and overall income. Hence, changes in taxes on labour income have two opposing effects. An increase in taxes reduces after-tax income, and thereby provides an incentive to work longer hours in order to mitigate the net income loss.³ But, at the same time, it also provides an incentive to substitute household work and/or leisure – that are untaxed – for taxed market work, hence a reduction in hours worked. Therefore, the net outcome on hours worked of changes in tax rates is ambiguous and has to be gauged through empirical evidence.

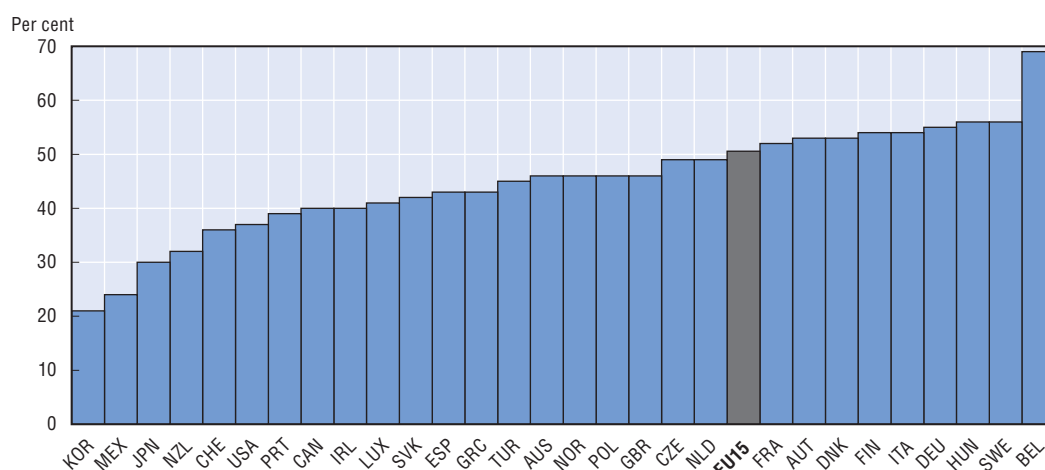
Transfers also influence hours worked and employment but in a negative way: higher benefits increase non-work income and thereby tend to reduce hours worked and employment. The disincentive on hours worked may even be compounded when benefits are withdrawn as earnings rise. However, as higher benefits may result in persons working relatively few hours completely withdrawing from employment, the change in composition of the workforce may show up in higher average hours worked of those remaining in employment. For reasons of data availability, however, the analysis which follows could not address the role of transfers in affecting working hours.

Recent OECD empirical analysis confirms that marginal tax rates have an impact on the decision to work longer or shorter hours.⁴ However, this impact could only be identified for women, possibly reflecting that home production, such as housework and childcare, has traditionally been regarded as a closer alternative to market production for women than for men, thereby making women more sensitive to changes in taxes. The results

suggest that a 10 percentage point reduction in personal income tax rates or social security contribution rates at the margin would increase weekly hours worked by women by 3½ per cent. In addition, such a tax reduction would tend to increase the employment rate of women by 1½ per cent, resulting in an overall 5% increase in the labour utilisation of women. The estimated responsiveness to marginal taxes and, in particular, the difference between men and women is in line with other research in this area.⁵ The OECD analysis was unable to find significant robust effects of changes in average tax rates, i.e. total personal income taxes plus social security contributions as a share of earnings, on hours worked by either men or women.

Marginal taxes differ significantly across OECD countries (Figure 3.5). In 2005, the marginal direct tax wedge⁶ – the increase in personal income taxes plus social security contributions as a result of an increase in earnings of one dollar or one euro or one yen – was significantly higher in the EU countries on average than in the United States and most other OECD countries. The difference was particularly marked for secondary earners – typically women. Among the EU countries, marginal tax rates were relatively low in Ireland and Luxembourg and comparatively high in Belgium, Sweden, Hungary and Germany.

Figure 3.5. **Marginal tax wedges also vary across countries, 2005¹**



1. Average of marginal tax wedges at each percentile of the earnings distribution computed from disaggregated taxation model. See Causa (2008) for details on the computation of the indicators.

Source: OECD, Taxing Wages database.

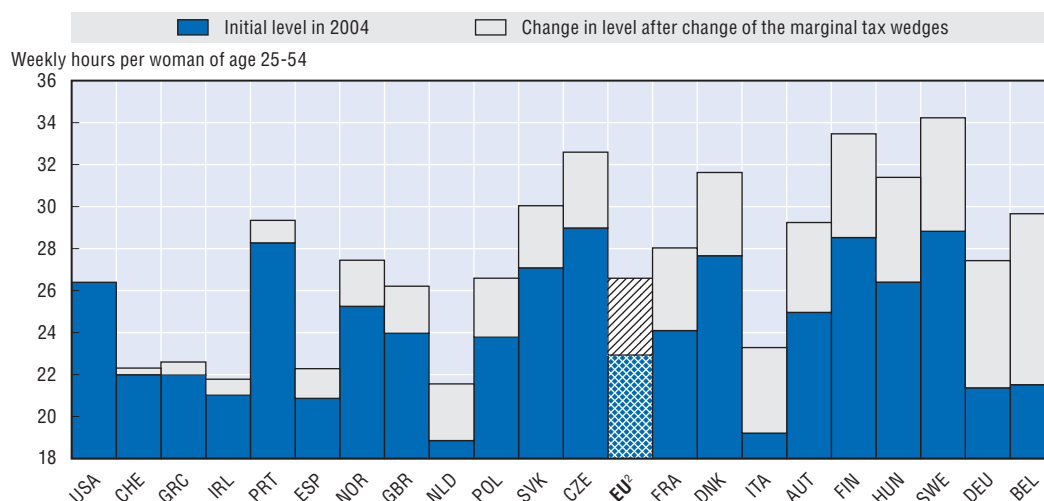
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The results of the OECD study indicate that the gap in average weekly hours worked by women between Europe and the United States could be closed if European countries were to align their marginal taxes on secondary earners to those in the United States (Figure 3.6). This illustrates the magnitudes involved and should not be seen as a realistic policy simulation: unless accompanied by other measures, sharp falls in marginal tax rates would imply much less redistribution via the tax system than at present and might be incompatible with equity objectives in European countries.

In addition to the impact of high marginal tax rates, many European countries have regulations and special arrangements embedded in tax and benefit systems that provide incentives to work part time or disincentives to work full time. These include the withdrawal of some benefits (such as housing and child benefits) above certain earnings levels, hours

Figure 3.6. Lowering marginal taxes in Europe to US levels would close the weekly hours gap with the United States

Impact on weekly hours worked by women¹



1. Countries are ranked according to increasing change in level after change of the marginal tax wedges.
2. The average for EU covers those European countries included in the figure, weighted by employment levels.

Source: European Union Labour Force Survey and US Current Population Survey (CPS).

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worked thresholds to qualify for social security benefits or below which employers are exempted from social security contributions, and regulations favouring work sharing (e.g. in Belgium and France). All these arrangements may have contributed to the larger share of employees working part-time in Europe compared with the United States.

In sum, the OECD analysis indicates that high marginal taxes and tax/benefit arrangements in Europe may contribute significantly to the weekly hours' difference vis-à-vis the United States. It seems likely that marginal taxes also play a role in determining the number of work-weeks over the year, but the empirical analysis could not examine this issue. In any case, other policies may have a stronger impact in this area.

Working-time regulations

Working-time regulations in OECD countries have typically been introduced with reference to health and safety concerns.⁷ Regulations of maximum hours worked might also be seen as a remedy for any tendency for individual decisions taken in isolation to lead to excessively long working hours. For example, vacation or other forms of leisure are likely to be more highly valued if they can be taken together with other members of the family or friends, and people may work too long if leave periods cannot be coordinated.⁸ Also, without common constraints on working time, employees may work too many hours in activities where it is difficult to measure the performance of individuals, as working long hours is a highly visible way for individual employees to signal their job commitment. However, working-time regulations may also prevent people from working as many hours as they would wish, and in this case the regulations reduce not only GDP per capita but also welfare.

Regulations that concern the length of the work week tend to be similar across countries but with notable exceptions. In EU countries, the length of the work week (including overtime) is capped at 48 or fewer hours (except in the United Kingdom where no limits apply), whereas there are no ceilings on weekly working hours in the United States, Japan

and Australia (Figure 3.7). However, in the vast majority of OECD countries, including the United States, normal weekly hours, i.e. the statutory length of the workweek beyond which overtime premia must be paid, is equal to 40 hours per week. Only in France and Belgium is the normal weekly hours limit below 40. However, in these and other countries, flexibility schemes that allow averaging of weekly hours over a long period have reduced the impact of such regulations on actual hours worked. For example, a low ceiling on normal hours is unlikely to limit hours worked in a busy period if the extra cost associated with overtime can be avoided by reducing working hours to below normal in a quiet period. This might explain why the effect of such regulations is in general found to be muted in OECD research and limited to hours worked by men. Even for men, they play a limited role in explaining the small differences in weekly hours worked between the United States and Europe.

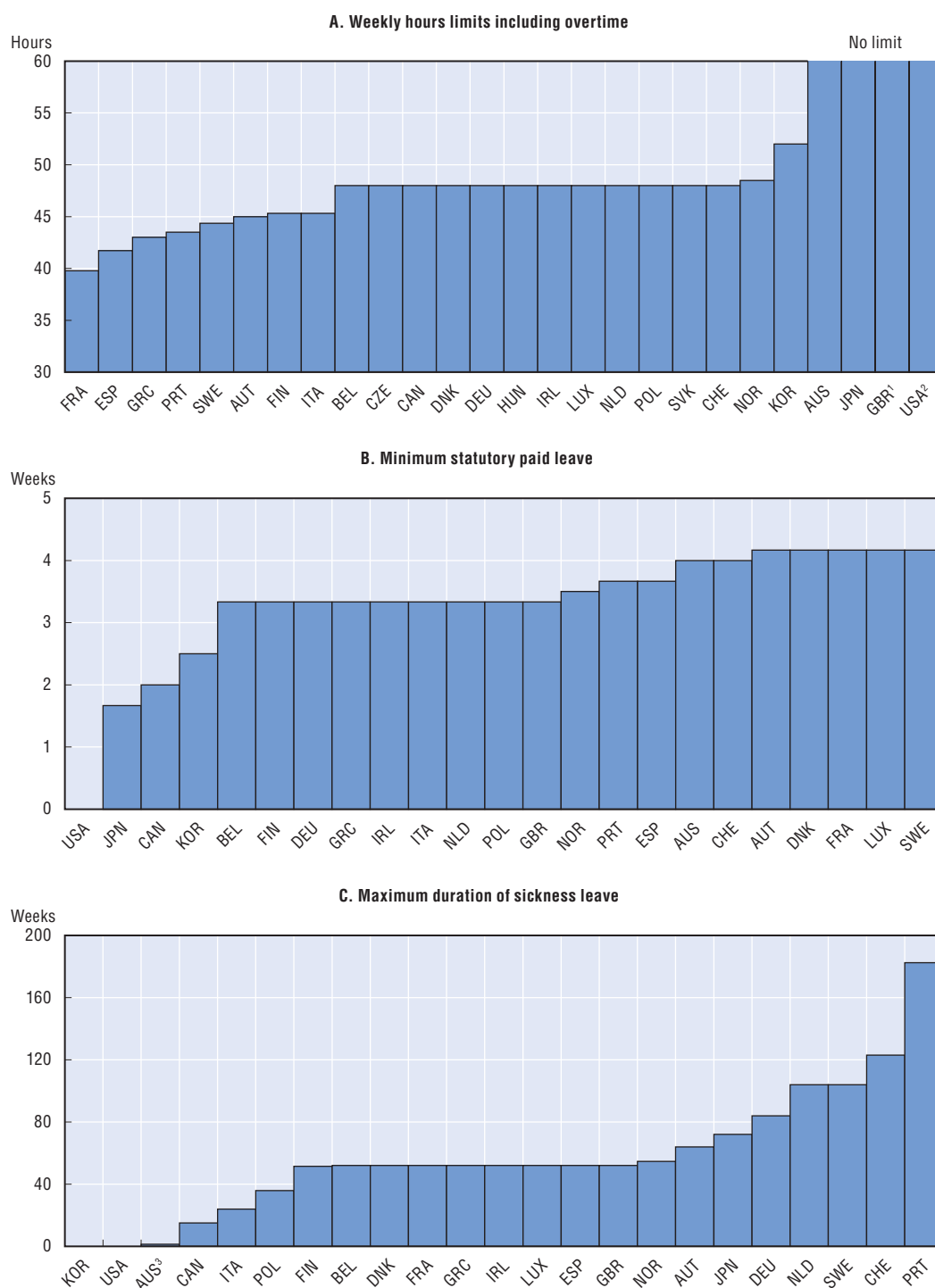
However, cross-country differences in legal minimum entitlement to annual leave account mechanically for the bulk of the gap in weeks worked per year between the United States and Europe. In the United States, there is no statutory minimum entitlement to paid leave and statutory annual vacation periods are short in Asian OECD countries and Canada. In the European Union, on the other hand, the minimum leave entitlement is 3½ weeks on average, and over 4 weeks in some countries (Austria, Denmark, France, Luxembourg and Sweden). The social partners can, and often do, negotiate longer vacation periods than stipulated in law.

Differences in statutory maximum duration of sickness and maternity leave may also contribute to explain the variation in annual weeks worked across OECD countries, as such entitlements tend to influence actual absence from work. In the United States, there are no legal entitlements to either paid sickness or maternity leave, with such arrangements, if any, determined by negotiations between employers and employees. In a majority of European countries, employed persons are entitled to be on sickness leave for more than a year on average if medical criteria are fulfilled, and the statutory maternity leave typically lasts for 14 to 26 weeks, with a much longer duration in some Nordic countries.

Other regulations

Previous analysis has examined the impact of employment protection legislation (EPL) and product market regulations, as well as the institutional set-up in labour markets, on employment (see *e.g.* OECD, 2006, and Bassannini and Duval, 2006). A more complete assessment of the impact of these regulations and institutions on total labour utilisation needs to cover also their impact on hours worked. The empirical evidence suggests that more restrictive EPL and anti-competitive regulations tend to marginally reduce the number of weekly hours worked by men but have no impact on weekly hours worked by women. It also indicates that stronger union power is associated with men working somewhat fewer weekly hours while the impact on working hours by women is the opposite.

The estimated negative effects on hours worked by men might reflect that stronger bargaining power of employees – which goes hand-in-hand with stronger employment protection, weaker competition in product markets and stronger unionisation – is used to reduce hours worked. In the case of employment protection, this hours-reducing effect appears to dominate the likely hours-raising effect of high firing costs, which in principle should encourage employers to use existing workers more intensively rather than hire new workers. Stronger union power may also have an hours-raising effect when it is used to

Figure 3.7. **Working-time regulations in OECD countries, 2005**

1. The United Kingdom is exempted from the 48 maximum weekly hours limit (including overtime) in the 1993 European Union Directive.
2. At the federal level.
3. The duration of sickness leave in Australia lengthens with each year of employment. The graph shows the increase in duration as a result of an additional year of employment.

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resist the expansion of part-time work; for men, the empirical results suggest that this effect is not sufficiently strong to offset the hours-reducing effect; for women, the overall positive effects of unionisation on hours worked suggest that this effect dominates.

Concluding remarks

Total labour utilisation is an important determinant of GDP per capita. Measures that remove barriers to employment will increase labour utilisation and thus raise GDP per capita even if they may reduce average hours worked per person employed. Such measures are identified as a policy priority in a number of OECD countries in *Going for Growth*. The evidence reported in this chapter suggests, in addition, that weekly working hours of women already in employment are influenced by marginal tax rates, while working-time regulations and other regulations affecting product and labour markets influence working hours of employed men. Policy settings in these areas may in many cases have gone too far from a welfare perspective, and where this is the case, reforms may raise not only GDP per capita but also overall welfare.

Notes

1. This chapter is based on Burniaux (2008a) and Causa (2008).
2. As explained in Box 3.1, Figure 3.2 is based on different and less comparable data on annual hours worked than used for Figure 3.1.
3. This would not be the case if the additional public spending financed by higher taxes is seen to provide income in kind.
4. Marginal effective tax rates, incorporating incentives embedded in both tax and benefit systems, would have been a better measure of overall incentives but could not be employed in the OECD study for lack of sufficiently long time series.
5. See e.g. Blundell and MaCurdy (1999), Cahuc and Zylberberg (2003) and Evers *et al.* (2006). For a more comprehensive review of individuals' reaction to taxes, see Causa (2008).
6. The direct tax wedge includes personal income taxes, and employee and employer social security contributions. Indirect tax is another component of the tax system that drives a wedge between labour costs and the purchasing power of take-home pay, but it is not included in the tax wedge due to data limitations.
7. In a few countries, such as Belgium and France, regulations of hours worked have also explicitly aimed at increasing the number of people at work, on the assumption that there is a trade-off between the number of employed persons and the hours worked per employed person.
8. See for instance, Alesina *et al.* (2005).

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PART II

Chapter 4

The Scope to Enhance Efficiency in Primary and Secondary Education

Using resources devoted to education efficiently is a major challenge for improving human capital and, in turn, living standards. This chapter assesses how efficiency in primary and secondary education varies within and across OECD countries, by benchmarking schools using a common metric derived from PISA scores. It also documents how institutional and policy settings for schools diverge significantly from one country to another, and provides estimates of the gains in efficiency that could be obtained from moving them closer to best practice in a number of areas.

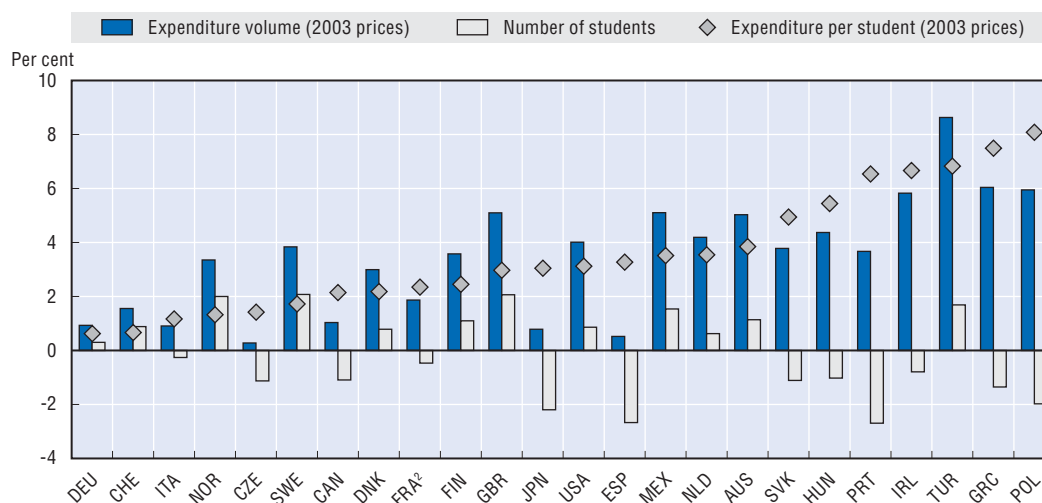
Introduction

Improving the education of the population boosts the productive capacity of the economy and hence raises living standards. The skills acquired through education constitute an important part of human capital and can be raised by increasing the number of teachers and other inputs devoted to education. Indeed, spending per student in primary and secondary education has risen rapidly over the past decade (Figure 4.1) and total spending at the two levels is now approximately 3% of GDP on average in OECD countries or on average almost 10% of public spending. An alternative and better, but more challenging, way to boost human capital would be to use the resources in the education sector more effectively without additional public spending. A focus on efficient use of resources can also help meet shifts in the demand for different types of education. Even if efficiency gains are used to reduce spending on education rather than to increase human capital, they still increase living standards of the population, by allowing either tax cuts or additional public spending in other fields – in both cases involving a transfer of resources from the education sector to other productive activities.¹

This chapter assesses how well resources are employed in primary and secondary education across OECD countries and then identifies a number of policies that may

Figure 4.1. **Compulsory education: Students and spending¹**

Average annual changes between 1995 and 2003



1. Compulsory education refers here to primary, secondary and post-secondary, non-tertiary education. Countries are ranked in ascending order of change in expenditure on educational institutions per student between 1995 and 2003. For Italy, Poland, Portugal, Switzerland and Turkey, public expenditure and public institutions only. For Greece and Hungary, public expenditure only.
2. 1995 to 2002.

Source: OECD, *Education at a Glance*, 2006.

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increase efficiency in educational spending as well as presenting indicators of the quality of institutional settings in this sector.² The main findings are:

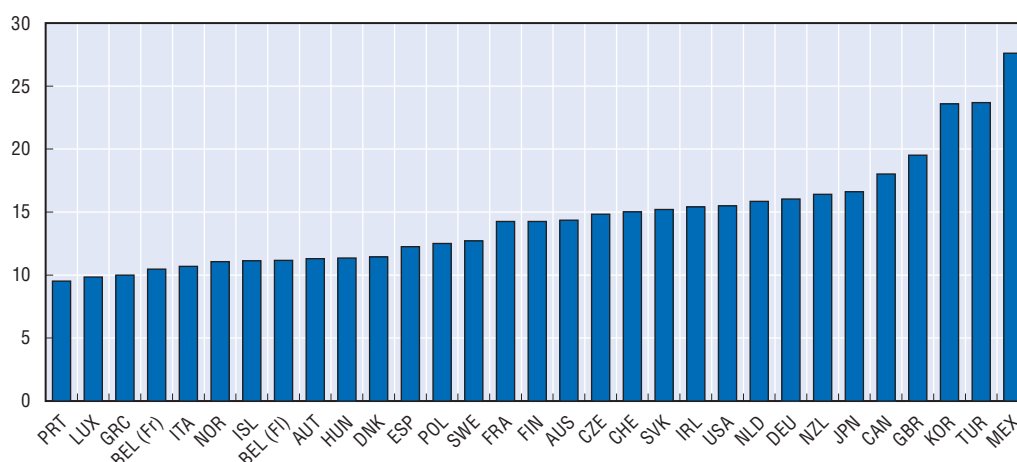
- Efficiency varies markedly across countries and also across schools within countries. The potential improvement by moving a typical national school to OECD best performance is estimated at between 20% and 40%, depending on the measurement technique and the country in question. Even the more limited ambition of moving poorer performing schools to national best performance could lead to aggregate efficiency gains of between 6% and 16% in individual countries.
- There are large differences in the institutional settings that are likely to influence the efficiency of public spending on primary and secondary education. In particular, countries differ in the extent to which they allow user choice, provide information about the performance of individual schools, apply outcome-based budgeting arrangements and delegate managerial autonomy to the school level. Indeed, while policy-settings that are conducive to more efficiency are well developed in a number of countries, they are almost absent in others.
- The empirical analysis suggests that adopting best-practice settings in a number of policy areas covered by the current study could reduce inefficiency by around one-fifth for the typical school in the OECD.

Measures of efficiency

An ideal measure of the efficiency of a school or an entire school system would compare inputs with the achievement of the various objectives set for education systems. In this broad definition, inputs comprise not only budgeting, human and physical resources but also the pupils themselves with their varying social and family backgrounds. The objectives typically cover not just student abilities in a narrow cognitive sense but also the equality of achievements within the system as well as providing students with a sense of national culture and identity and social engagement skills.

Measuring efficiency under this wide definition is unfortunately not feasible. Hence actual measures always represent a compromise with the ideal notion which needs to be borne in mind when interpreting these measures. In practice, comparisons of school systems have often been based on measures such as the student-teacher ratio. Efficiency if based on this simple measure varies substantially across OECD countries (Figure 4.2), with the ratio of students to teachers in some low-income OECD countries being twice as high as in some high-income countries.

This simple indicator gives an incomplete and potentially misleading picture of efficiency in the education sector because the measures of both inputs (teachers) and outputs (students) are overly simplistic. First, the output measure does not take into account the quality of education: teaching that results in high attainment is better than teaching that does not. Second, the indicator does not account for inputs other than teachers that affect the efficiency of the teaching process: a teacher with access to better teaching resources is likely to be more successful than a teacher not having access to such resources. Third, it ignores the impact of home circumstances of pupils on education outcomes: for example, pupil attainment is likely to be adversely affected by language barriers and, if this is not taken into consideration, estimates will show teaching efficiency to be worse than is actually the case.

Figure 4.2. **Student-teacher ratios**¹

1. The number of students per teacher refers to primary and secondary education in 2003 or latest year available: 2001 for Canada, 2002 for Korea, Portugal and Switzerland.

Source: OECD, *Education at a Glance*, 2006.

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Recent OECD analysis aims to correct for these shortcomings and thereby move the measurement of efficiency closer to the ideal notion. It assesses efficiency relative to best practice using the so-called data envelopment technique (Box 4.1). This analysis uses the average performance of the individual school in the 2003 PISA test scores on literacy, mathematics and science as a measure of “quality-adjusted” output.³ The inputs used in the analysis include the quantity of teaching inputs (teacher and computer availability per student) and measures of the socio-economic and language background of the average student, to assess the availability of educational inputs in the home and account for barriers to attainment.⁴ As stated above, there are other valid objectives that are not taken into account in the PISA assessment or where fulfilment is difficult to measure, such as non-cognitive skills. The OECD measures of efficiency, based on a narrower set of outputs, may thus give a distorted picture of cross-country differences in efficiency to the extent that the unmeasured outputs differ across countries and are uncorrelated with measurable outputs.

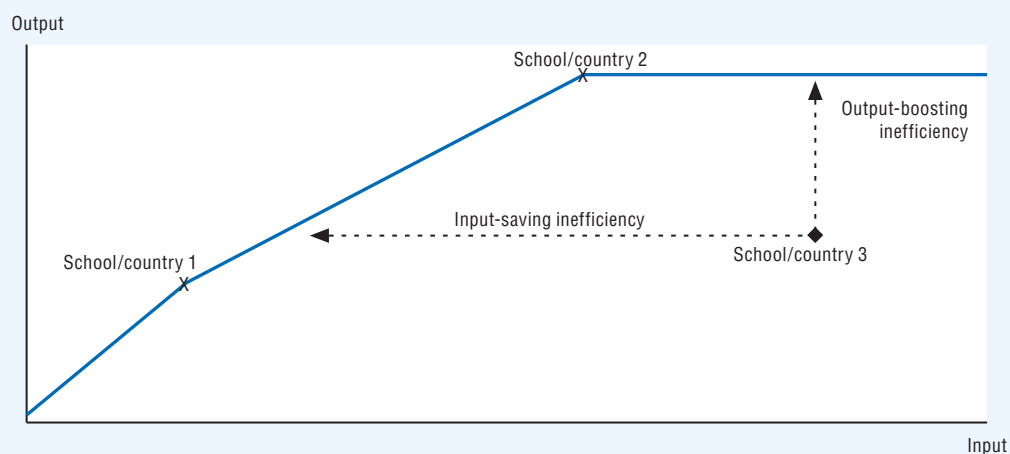
Estimates of efficiency based on the data envelopment analysis for the typical (median) school of each country are presented in Figure 4.3. Estimates are shown both for the potential reductions in inputs with unchanged outputs (Panel A) and the potential improvements in output, i.e. average PISA score, for unchanged inputs (Panel B), and uncertainty ranges around these point estimates. The main results are:

- There are significant differences across countries, suggesting scope for many countries to gain by moving to *international* best practice.⁵ The estimates suggest that the gains could be substantial for Greece, Hungary, Iceland, Luxembourg, Norway and the United States.⁶ On the other hand, the potential to eliminate inefficiency in the median schools in Korea and Japan appears relatively modest.
- On average, the PISA scores of students in the typical school in the typical OECD country are around one-fifth below the level that could potentially be reached if the inputs were deployed as efficiently as in the very best schools in the OECD. The corresponding potential savings in teaching inputs from moving to best performance are in the order of magnitude of a third.

Box 4.1. Assessing efficiency using data envelopment analysis

A measure of efficiency is given by the potential gains from moving to best practice using so-called data envelopment analysis (DEA). The method constructs an efficiency frontier based on the input and output data from all the countries/schools of a sample. In essence, as shown in the figure below, the frontier is constructed from the schools or countries (school/country 1 and school/country 2 in the figure) that *envelop* the remaining observations and thus provides a benchmark by which the efficiency of school/country 3 can be judged. By assumption, the frontier determines best practice, and potential efficiency gains for specific countries or schools are measured by their position relative to the frontier or the envelope. In the “one-input-one-output” case given in the figure, a measure of the efficiency shortfall in terms of unachieved output is given by the ratio of a school’s output to the output on the frontier for the same level of inputs (i.e. the point on the frontier vertically above school/country 3). Conversely, the ratio of inputs on the frontier to the school’s inputs at the same output (i.e. measured horizontally from school/country 3) is a measure of inefficiency in terms of excess inputs. In the case of multiple inputs or outputs, the measures of efficiency are determined in a similar fashion by holding the relative proportions of either inputs or outputs constant in measuring the distance to the frontier. Countries or schools can then be benchmarked on the basis of potential efficiency gains compared to the measures of best practice. A fully efficient school would score 1. The estimates of efficiency use statistical techniques to assess and correct possible biases that can arise when the sample size is small or the data are sparsely distributed.

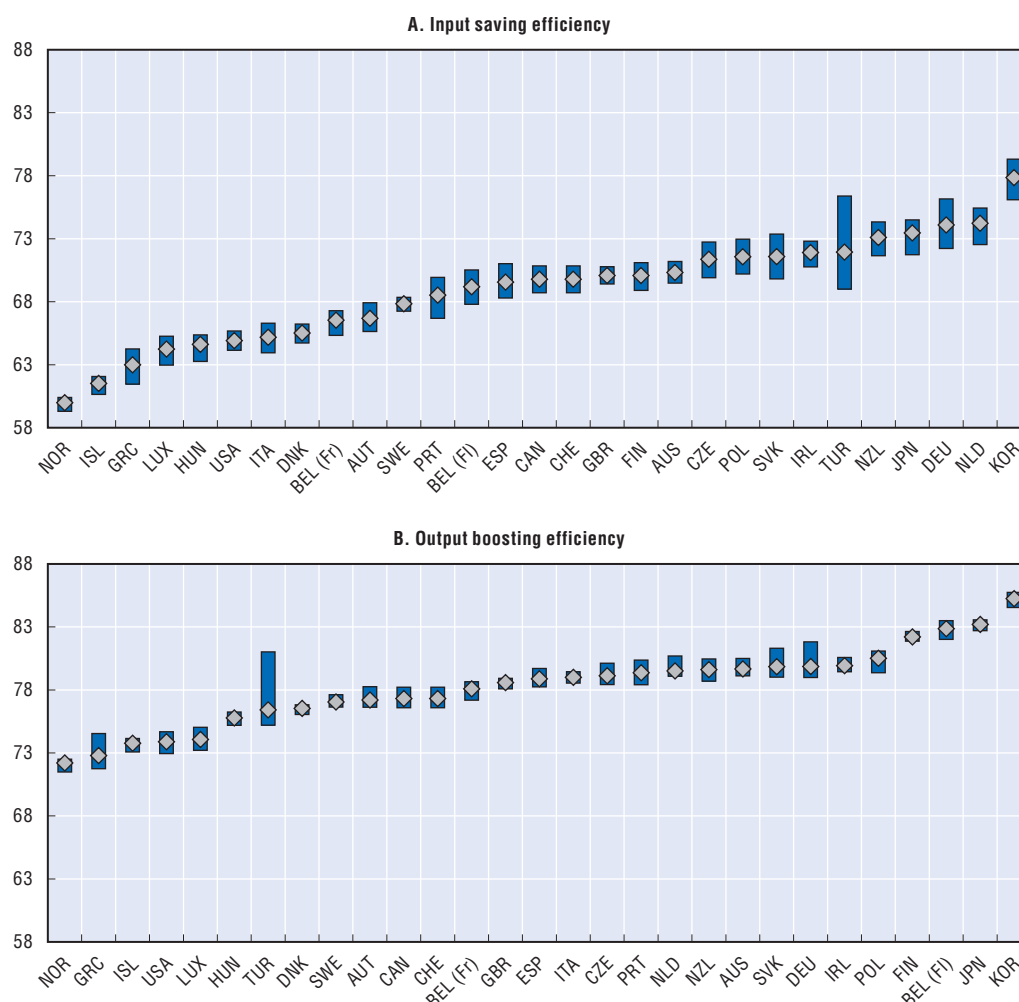
The “efficiency frontier” and measurement of inefficiency¹



1. The “efficiency frontier” has been designed under the assumption of non-increasing returns to scale. In practice, different assumptions about the shape of the frontier can be made and this choice can affect the measurement of efficiency. The results reported in this chapter, while based on the assumption shown in the figure, are not sensitive to this assumption.

Another way to assess performance is by examining the implications of schools moving to *national* (rather than international) best practice. Figure 4.4 presents the aggregate resource savings or aggregate gains in PISA scores that are implied if all schools within a country attain the degree of efficiency of the best performing school in that country.⁷ Significant differences across schools within some countries give rise to sizeable potential resource-saving gains particularly in Belgium, Greece and Italy. Correspondingly,

Figure 4.3. **Estimates of technical efficiency for the median school**¹
Per cent of efficiency of best practice



1. DEA performed with four inputs (teaching and computing resources, socio-economic status of students and language background) and one output (average PISA score). The figure shows a bias-corrected estimate of efficiency and 95% confidence intervals.

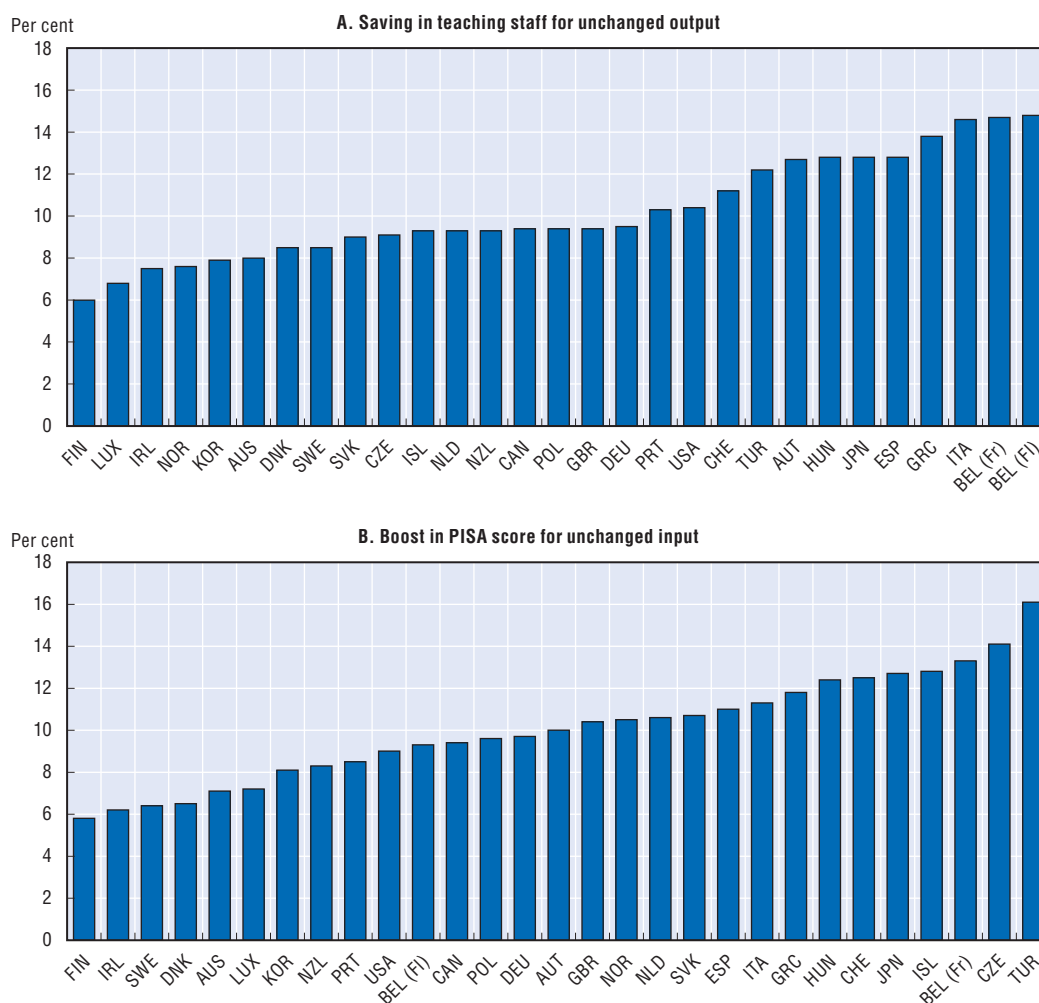
Source: Sutherland, D., R. Price, I. Joumard, C. Nicq (2007), "Performing indicators for spending efficiency in primary and secondary education", OECD Economics Department Working Papers, No. 546.

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the gains in PISA scores from moving to best national performance are potentially substantial in the Czech Republic and Turkey, reflecting the large variation in efficiency across schools in these countries. To put this into perspective, these potential gains, if realised, could be worth in excess of an additional year's education.⁸

Efficiency-enhancing policies

Government policies play an important role in determining how well primary and secondary schools perform. Broadly speaking, the policy indicators presented here measure the extent to which policies ensure that there are incentives for individual schools to perform, guard against resources being wasted and encourage the efficient

Figure 4.4. **Potential gains from moving to national best practice**

Source: Sutherland, D., R. Price, I. Joumard, C. Nicq (2007), "Performing indicators for spending efficiency in primary and secondary education", OECD Economics Department Working Papers, No. 546.

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allocation of resources. Based on indicators of policy in the relevant areas (Box 4.2), the following documents how a number of policy settings, for which information is available, differ across OECD countries and provides evidence linking different policies to efficiency.

Market efficiency: Competitive pressure and benchmarking

User choice is an important driver for encouraging efficiency. Indeed, allowing pupils and/or their families to choose between schools is likely to make schools respond better to needs – provided that public spending follows the user. For user choice to play this positive role, however, care is needed in its design. In particular, policy needs to guard against greater choice aggravating social segregation by widening performance gaps between sought-after schools and other schools. For example, a specific problem in this context is the design of mechanisms to deal with failing schools.⁹

All countries appear to allow some elements of user choice. However, the extent is relatively limited in France, Greece and Turkey (Figure 4.5, panel A). In Belgium, the Netherlands and Spain – three countries where private schools represent a sizeable share of all schools – user choice is well developed, with a choice both between public and private providers and among public schools. Residence-based selection policies effectively limit user choice in many OECD countries (Figure 4.6) and these types of policies are shown in OECD empirical analysis to be associated with higher levels of inefficiency.¹⁰ Empirical results also indicate that private schools that are dependent on government financing also tend to be more efficient in their use of resources than public schools.

Benchmarking – providing comparative information on the performance of individual schools – can help to identify best practices and, in association with user choice, increase competitive pressures and thereby improve service provision. The use of benchmarking ranges from almost none in Austria, Belgium (Flemish community) and Switzerland to extensive coverage of high quality indicators in Hungary, Iceland, the Netherlands and the United Kingdom (Figure 4.5, Panel A).

Box 4.2. Indicators of policy settings

The indicators reported in this chapter were constructed from responses to a detailed questionnaire sent to national authorities. The questionnaire was based on a framework derived from previous OECD analysis of public sector efficiency (Joumard *et al.*, 2004) that assessed the potential impact of different types of policies on the efficiency of the delivery of public services. This framework groups policies by their impact on prioritising and allocating resources effectively, their impact on managing spending once priorities have been set, and the potential impact of policies in creating incentives for – in this case – individual schools to perform better.

The resulting system of indicators of policies that affect school efficiency covers: resource allocation, budget management and “market framework” (see figure). For the *resource allocation* area, the two most important components are the degree of decentralisation of decision making and the extent to which resources are matched to specific needs. For *budget management*, the two key components concern the extent to which policy is outcome-focused and the degree of managerial autonomy, especially at the school level. The components for the *market framework* area provide information about competitive pressure in service provision generated by benchmarking and user choice.

In building such aggregate or composite indicators, an assessment needs to be made of the relative importance of (or weights given to) policies in different areas at the disaggregated level. The approach adopted here consisted of using the technique of random weights, which assumes complete uncertainty about the appropriate individual weights used in the construction of each aggregate indicator. Each indicator was calculated 1 000 times, with different (random) weights used in each construction. This technique also sheds light on the consistency of policies in that there will be greater variation in the composite indicators when individual policies are relatively inconsistent in a given policy domain. In interpreting these aggregate indicators it is important to bear in mind that in some cases reforms are in the process of being implemented. In other cases, particularly in federal countries, the responses may not hold across all areas of the country.

Box 4.2. Indicators of policy settings (cont.)

Structure of institutional indicators

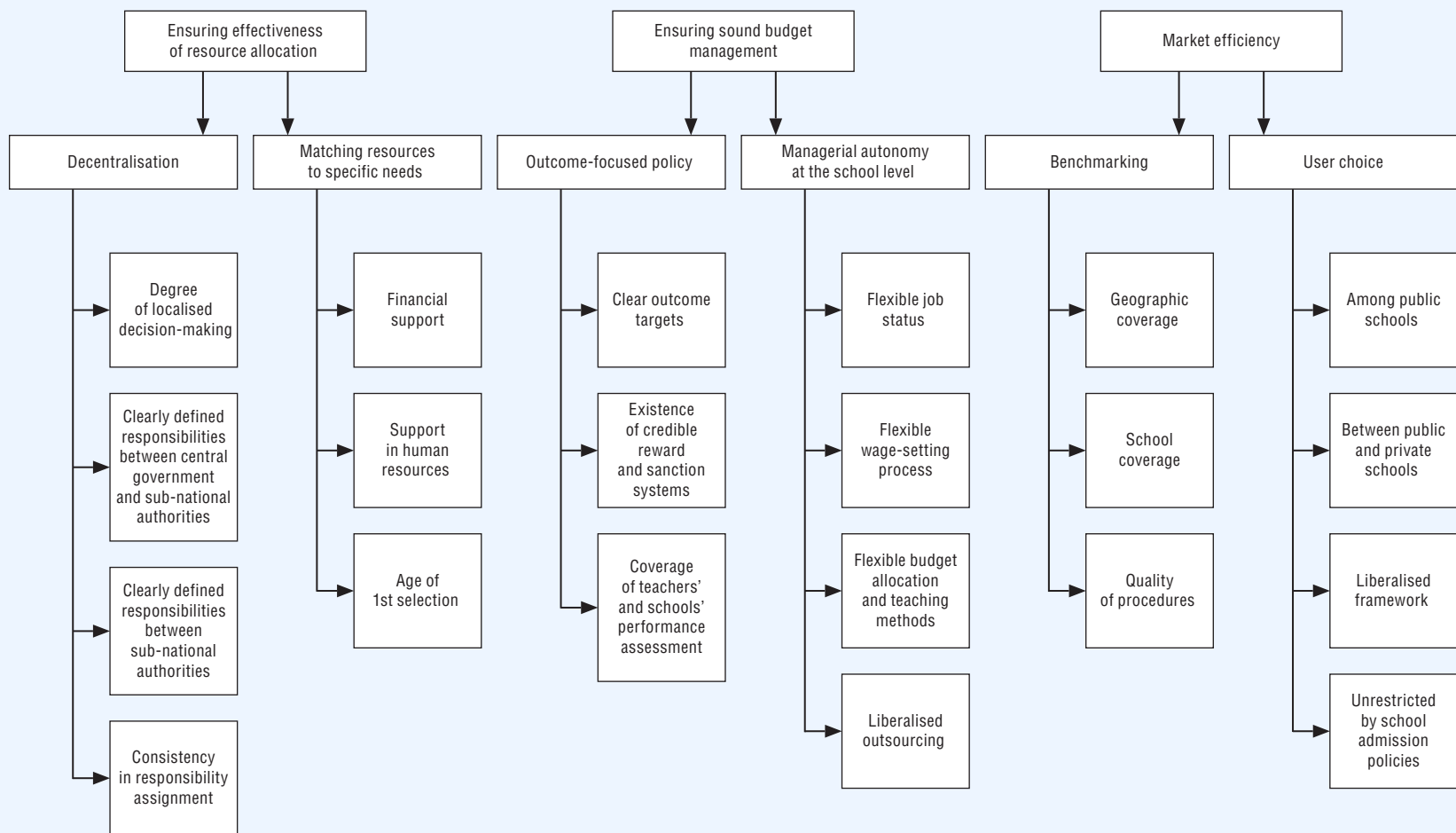
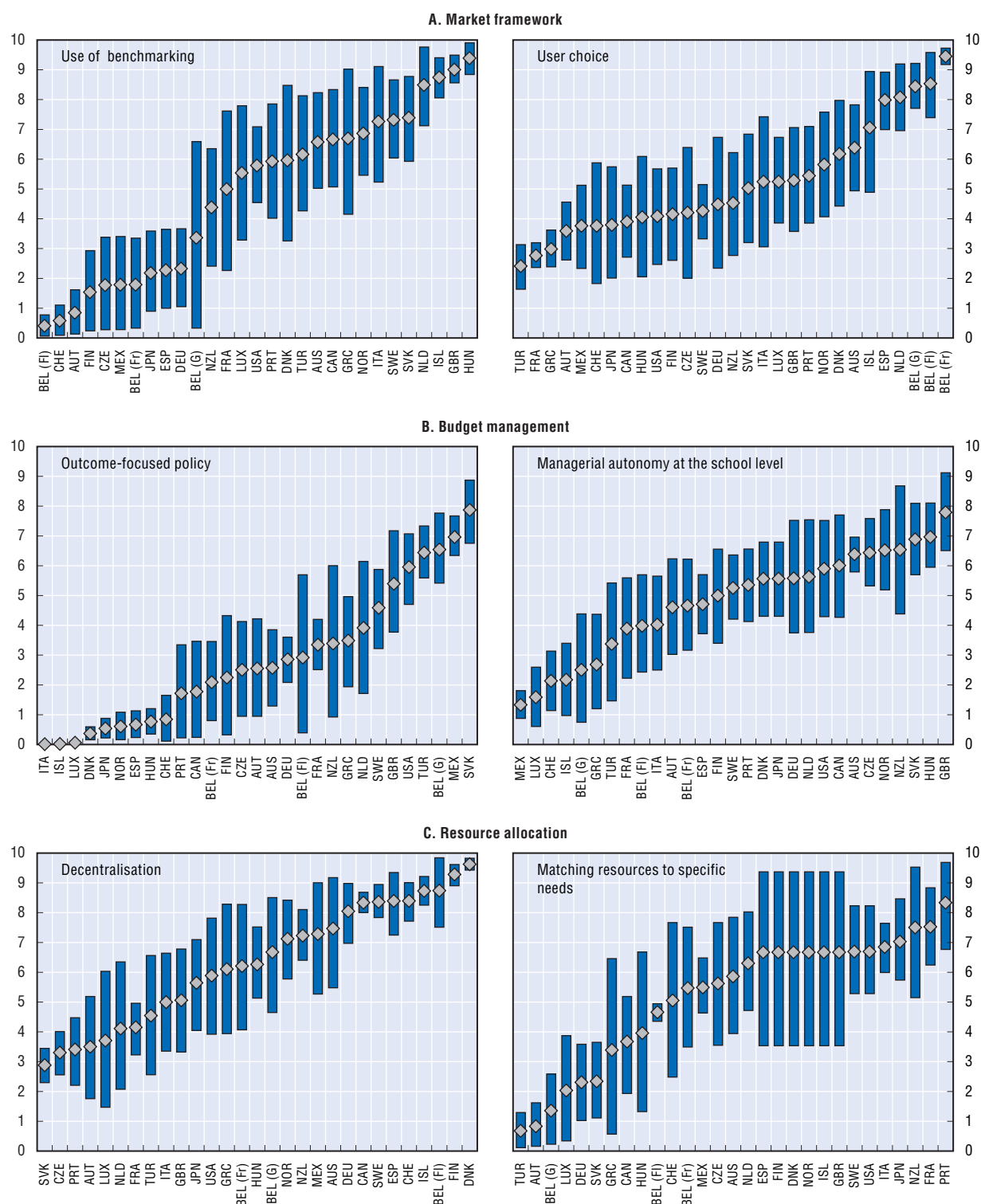
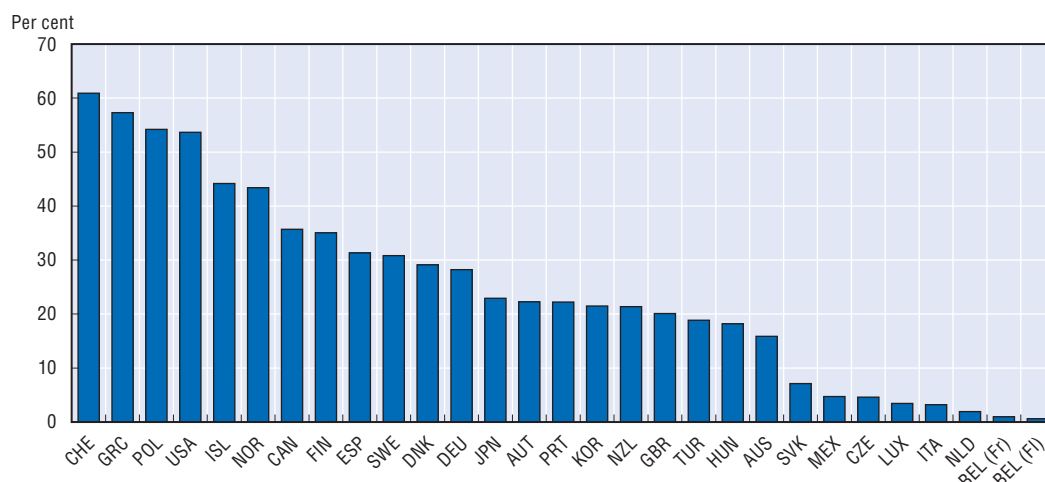


Figure 4.5. Indicators of institutional design/quality¹

1. The indicators are measured on a scale from 0 to 10, where 10 corresponds to best practice. The figure gives the average and the range that contains 90% of the 1 000 random weighted indices. Indicators for Belgium are presented for each of the communities: German – BEL (G), Flemish – BEL (Fi) and French – BEL (Fr).

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Figure 4.6. **Schools using residence-based selection**
Share of schools reporting residence as a prerequisite in selection



Source: OECD, PISA 2003 database.

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Budget management: Outcome orientation and managerial autonomy

Outcome-focused budgeting sets clear performance objectives for public educational institutions, which encourages greater efficiency than if budgets do not contain performance targets and are limited to financial objectives. An outcome-based budgeting approach requires clear targets to be established, a credible reward and sanction system to be in place, and wide coverage of performance assessment mechanisms. However, the benefits stemming from establishing clear targets need to be balanced against the risk of focusing too much on quantified targets at the expense of other objectives that are less amenable to quantification.¹¹

With well defined performance objectives and incentives to reach them, a high degree of managerial autonomy, especially at the school level, should make for greater efficiency in the use of resources. The extent of overall managerial autonomy comprises a number of dimensions, including the discretion allotted to school managers in managing human resources, setting wages, allocating budgets and teaching methods as well as outsourcing certain activities.¹² OECD empirical analysis provides evidence of a link between aspects of managerial autonomy at the school level and higher levels of efficiency in the school. More specifically, schools where leaders have a greater degree of managerial autonomy over resources – particularly as regards personnel-related decisions – appear to use resources more efficiently.¹³

OECD countries have adopted different combinations of the extent of outcome orientation and the extent of managerial autonomy. Countries pursuing a consistent package, with both strong target setting and strong managerial autonomy to achieve such targets, include the Slovak Republic and the United Kingdom. Some other countries (including Iceland and Luxembourg) put little emphasis on target setting and give school heads little freedom to manage. In several countries, relatively strong managerial autonomy goes hand-in-hand with weak outcome-focus (including Norway and Canada), or managers are given little operational freedom despite being subject to performance objectives (including France, Mexico and Turkey). Rebalancing policies to ensure coherence between output-orientated objectives and managerial autonomy to achieve these objectives should in principle help education authorities enhance efficiency.

Resource allocation: Decentralisation and matching resources to need

Decentralisation of responsibilities for primary and secondary education to sub-central governments enhances efficiency insofar as educational needs may differ from one geographical area to another and resources should be matched to these. However, decentralisation can become counter-productive and raise costs if it is poorly designed, resulting, for instance, in overlapping responsibilities between levels of government. Thus, the gains that may accrue from decentralisation depend on both the degree of localised decision-making power and the extent to which the allocation of this power is clearly defined and consistent.

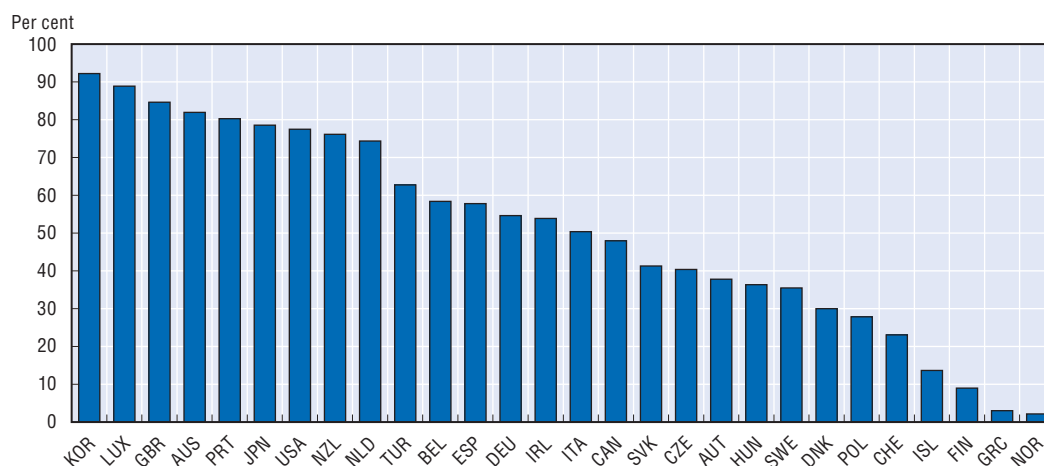
A second aspect of resource allocation is the ability of the education system to ensure that resources are matched to specific needs. Such considerations are important in order to prevent any tendency of education systems to under-provide for less able pupils. For example, “cream skimming” the more able students, while advantageous for the individual school, can have detrimental effects at the aggregate level. To avoid such outcomes, mechanisms are needed to ensure that specific educational needs – such as overcoming language barriers to learning – are taken into consideration in financing schools and that resource availability is sufficient to meet student needs. A further complication to ensuring that less able student needs are met is the practice of student sorting, which empirically appears often to have a negative impact on less able students.¹⁴ Student sorting or streaming within the school is widespread in many OECD countries, particularly in English-speaking countries and appears to be detrimental to efficiency. Recent OECD work reveals that schools that stream students, and particularly those that do so systematically for all classes, are less efficient than schools that do not stream students, or stream students only partially, other things being equal.¹⁵

The extent of decentralisation and matching resources to specific needs varies noticeably across countries (Figure 4.5, Panel C). The policy stance is relatively favourable for reaping gains from decentralisation in a number of countries, such as Denmark and Finland. At the other end of the spectrum, policy settings appear more centralised in the Czech Republic, Portugal and the Slovak Republic. The ability to match resources to specific needs appears well developed in France, Portugal and New Zealand, and relatively underdeveloped in Austria and Turkey. Empirical evidence in recent OECD work reveals that differences in efficiency across schools within a country are less marked when the policies in place are generally favourable to matching resources to specific needs and/or decentralisation of responsibilities.

Policy trade-offs

In practice governments are faced with trade-offs that lead to policy settings which may influence the measure of public spending efficiency. For example, small schools tend to be less efficient. Indeed, schools that are larger than the OECD average, presumably because they are better able to exploit economies of scale, are at least 6% more efficient in their use of resources than small schools.¹⁶ However, school size may be related to geographic constraints, as maintaining schools in isolated communities typically entails operating smaller schools. Indeed, relatively small schools are more common in Finland, Greece, Iceland and Norway (Figure 4.7), and there is a rough correlation between population density and school size.¹⁷ While there are regional policy arguments for sustaining small schools, it nonetheless needs to be recognised that this comes at the cost of lower levels of efficiency and, probably more importantly, also often lower levels of

Figure 4.7. **Share of large schools**
Share of schools larger than the OECD median school



Source: OECD, PISA 2003 database.

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student attainment. In this light, policy options that can raise school size, such as reconsidering catchment areas for schools could be considered, although this would also need to be balanced against the consequences of longer commutes for students.

A second apparent trade-off is between schools having more teachers and better qualified teachers. Recent OECD empirical evidence suggests that schools with more qualified teachers – and also countries where the relative remuneration of teachers is higher – can employ fewer teachers without negatively affecting student attainment.¹⁸

The potential overall gains from policy reforms

A final question that stems from consideration of the policies discussed above is what the impact on performance would be if schools adopted best practice. To examine this, the estimates of the influences of policy from recent OECD empirical work were used to calculate the potential total impact on performance if schools adopted a range of efficiency-enhancing policies. The policies considered included adopting national benchmarking of school performance, reducing streaming within schools, not imposing residence-based selection criteria, granting managerial autonomy to schools over their resources, and increasing the size of schools to at least that of the typical size of a school in a small town of between 3 000 and 15 000 inhabitants.¹⁹ The calculations suggest that if these policies were adopted around one-fifth of the estimated degree of inefficiency of the typical school in the typical country could be eliminated. In some countries, such as Switzerland, the potential gains are somewhat higher, as a consequence of small school size and widespread use of residence-based selection, while in others, such as the Netherlands, the gains are relatively small by virtue of larger school size and many of these policies already being in place.

Notes

1. Decisions about the amount of resources devoted to education need to take into account possible returns to investment in education, which this chapter does not discuss.
2. This chapter draws on recent OECD analyses in Gonand (2007), Gonand *et al.* (2007), Sutherland and Price (2007), Sutherland, Price, Joumard and Nicq (2007) and Sutherland, Price and Gonand (2008).
3. School-level data are not available for all OECD countries in the 2003 PISA database. Analysis was also undertaken at the level of country averages but gave similar conclusions to those obtained at the school level and is thus not presented here. The national-level analysis included broad equality of educational attainment ("equity") as a second educational objective revealing broadly similar results as regards efficiency estimates as when PISA scores were the sole objective. "Equality" was not considered as an objective at the school level for technical reasons as very homogenous school-level performance could co-exist with marked heterogeneity across schools. Greater detail on the procedures and a wider set of results is given in Sutherland *et al.* (2007).
4. The input variables used in the analysis were: the number of teachers per 100 students; the number of computers per 100 students; the PISA index of the *Economic, Social and Cultural Status* of the pupils in the school (rebased on the sub-index of the highest level of educational attainment of the pupil's parents); and a measure of the share of students who spoke the national test language(s) at home.
5. For the median school, the uncertainty around the estimate is noticeable in the case of Turkey, which is a consequence of the input/output mixes of Turkish schools being relatively different from those in other countries.
6. Gonand (2007) estimates that the long-run impact on GDP could amount to as much as 6% for some countries if they managed to move towards international best practice in maximising outputs.
7. The best performing school is defined as the performance of the school at the 95th percentile. The calculations exclude schools above the 95th percentile and also schools below the 5th percentile, as they may be affected by special factors.
8. For the mean PISA score of 500 points, a boost to output of around 8% would be equivalent to the impact of an additional year's education. This estimate uses the rule-of-thumb that raising the PISA mathematics test score by around 40 points is roughly equivalent to an extra year of education (OECD, 2004). Even raising performance of the least efficient schools to that of the median could yield sizeable gains in a number of countries.
9. OECD (2006) and Field *et al.* (2007).
10. The results reported in Sutherland and Price (2007), which build on regression analysis of school-level efficiency across 5000 schools throughout the OECD area, imply that a typical school that has to attract students is about 3% more efficient – other things being equal – than a school which uses residence as a prerequisite for pupil selection. The results reported in the empirical literature give mixed support to the impact of different types of user choice. Hoxby (2003) demonstrates that choice can generate greater efficiency but also underlines that this outcome depends on programme design.
11. Joumard *et al.* (2004).
12. However, allowing schools to determine their own assessment policies may be counterproductive by weakening standards. Indeed, the recent OECD analysis supports the importance of comparing school performance on a standardised basis as a spur to greater efficiency as noted in other empirical work (Bishop, 2006; Fuchs and Woessmann, 2007).
13. Granting managerial autonomy over resources to schools could raise efficiency levels by almost 1% on average for schools that do not currently enjoy full autonomy. In some cases the potential gains could double where schools possess very limited autonomy over their resources.
14. Field *et al.* (2007).
15. In other countries, student sorting may occur *between* schools. The empirical evidence on sorting between schools (or *tracking*) suggests that if it is implemented at an early age it tends to strengthen the impact of students' socio-economic background on their subsequent achievement (Field *et al.*, 2007).
16. Sutherland *et al.* (2007).
17. The correlation coefficient between the share of schools larger than the OECD median school and population density is 0.45.

18. At the same time, and consistent with other empirical studies, it is difficult to establish a robust correlation between the observable markers of teacher quality and levels of student attainment. However, other evidence, such as the importance of teacher quality in explaining within-school variation in student performance underlines the potential importance of boosting teacher quality. See OECD (2005).
19. The policies considered are to some extent determined by availability of information and the calculations omit other potentially important policies for which internationally-comparable information is absent, such as policies that attract or retain better teachers.

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PART II

Chapter 5

Policies to Enhance Investment in Higher Education

Higher education is widely considered to be critical to sustain growth and to adapt to globalisation. As a consequence, OECD governments are considering reforms to address perceived shortcomings of existing higher education systems, while preserving or enhancing equality of access to higher education. This chapter shows how labour market conditions, policies and institutions affect private incentives to invest in higher education, as well as the ability of individuals to finance this investment and the supply characteristics of core educational services. It also assesses the relative importance of several reform options to affect the number of new tertiary education graduates across OECD countries, and, in this context, considers the trade-offs involved.

Introduction

OECD governments see higher education as a critical factor for increasing living standards and adapting to globalisation. In many OECD countries, however, the quality of higher education has suffered from a large increase in the number of students at a time when public resources are under pressure from competing demands, such as those related to pensions and health care. Another concern has been the length of time for students to complete their studies, which reduces the period over which both the individual and society benefit from educational investment. Moreover, the rationale for general public support, granting (near-) free access to universities in many countries, is not clear-cut. Indeed, public support for higher education entails subsidising persons who are likely to have relatively high lifetime incomes and who come disproportionately from relatively well-off families. In addition, support for students on a national basis is difficult to reconcile with the fact that skilled labour is becoming more and more internationally mobile. These issues are pushing OECD governments to implement reforms to reduce the perceived shortcomings of higher education systems while preserving or (preferably) enhancing equality of access to higher education.

Private returns are a main determinant of investment in higher education. When these returns are high, individuals have strong incentives to acquire higher education, but they must also have access to financing. In many countries, families provide most of these financial resources, but some OECD countries have developed universal financing systems for students. The institutional set-up of higher education also influences investment, notably the extent to which it provides autonomy for universities and other higher education institutions in managing resources and setting objectives, together with incentives to improve performance and rules for accessing funds. In sum, investment in higher education is affected by a number of supply and demand factors which in turn are affected by different types of policies.

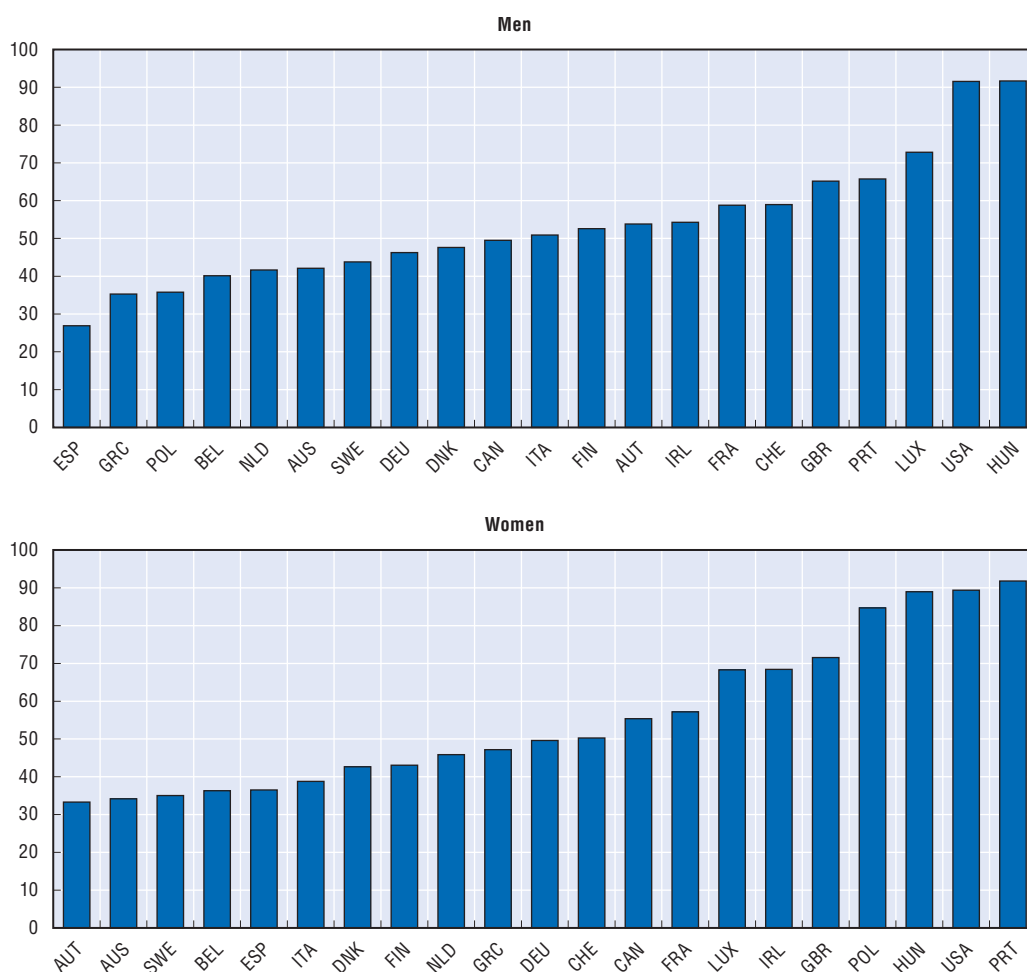
Against that background, this chapter documents how labour market conditions, policies and institutions affect private incentives to invest in higher education, the ability of individuals to finance this investment, and the supply characteristics of core educational services.¹ The chapter finally assesses the relative importance of several policies affecting the number of tertiary-level graduates across OECD countries, and, in this context, discusses the trade-offs involved.

The main determinants of investment in higher education

Private returns to higher education

From an economic point of view, the individual incentives to invest in higher education essentially consist of a higher future stream of earnings after graduation, with the difference in wage levels compared with a person with upper-secondary education referred to as the *wage premium*. These premia reflect mainly the increases in labour productivity related to higher human capital. The results presented here control for a range

Figure 5.1. **Gross wage premia from higher education,¹ 2001²**
Per cent of gross earnings of workers with upper-secondary education



1. Estimates of the increase in gross hourly earnings relative to a worker with a secondary education qualification, controlling for individual characteristics other than education attainment.

2. Except 1997 for Hungary; 2000 for Poland and Switzerland.

Source: European Community Household Panel (ECHP); Consortium of Household Panels for European Socio-Economic Research (CHER); Cross-National Equivalent File (CNEF) and the Household, Income and Labour Dynamics in Australia Survey (HILDA).

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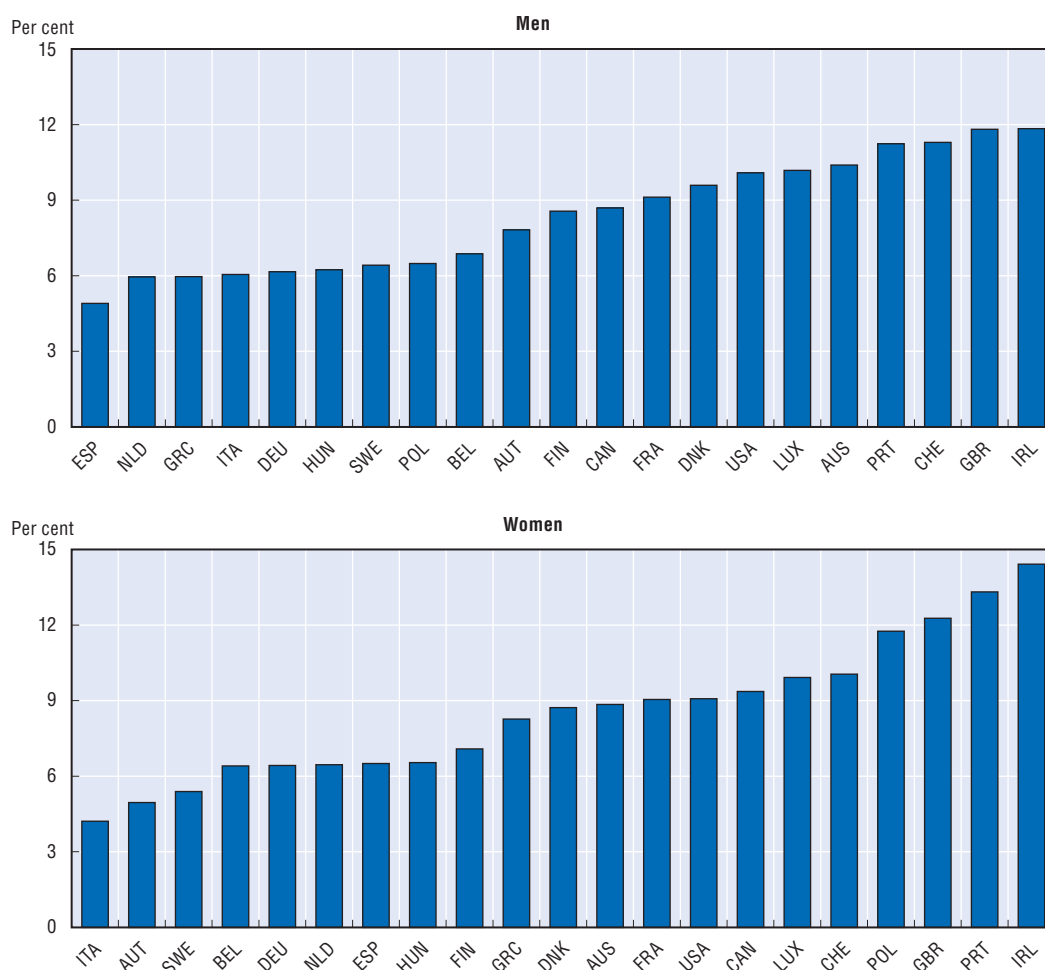
of other factors influencing wages and suggest that higher education can indeed provide a substantial premium: it ranges from around 25% for men in Spain and 30% for women in Austria to above 90% for men in Hungary and the United States, and women in Portugal (Figure 5.1).² On average, earnings of individuals with tertiary education are nearly 55% higher than for workers with only secondary education.

Participating in higher education is an investment, and a private internal rate of return can be calculated as a comprehensive measure of the economic incentive for individuals to take up higher education. On the benefit side, the dominant driver is the wage premium. In addition, higher education implies a higher probability of being employed throughout working life (the *employability premia*) and eventually higher statutory pension and unemployment benefits. On the cost side, the internal rates of return take into account both the direct costs of education (e.g. tuition fees) and the opportunity costs, which

consist of several years of forgone income of an upper-secondary educated individual over the duration of tertiary studies. The latter represent the bulk of total private costs. The progressivity of taxation also affects the rate of return to education, with returns being reduced when the marginal tax rate is high compared with the average tax rate. Finally, the calculations of the returns also take into account general labour productivity growth, which matters because the higher educated tend to work relatively later in life, enjoying additional productivity gains.

The estimated internal rates of return for 2001 vary from around 4% to over 14% across gender and the 21 OECD countries covered by the analysis (Figure 5.2). The average return (across both countries and gender) is 8½ per cent. This is substantially higher than long-term market interest rates adjusted for inflation, making tertiary education a potentially attractive investment. The range of returns for women is wider than for men. Gender differences in the returns are particularly large in Poland (over five percentage points). Relatively low returns for both men and women are found in Spain, Italy, the

Figure 5.2. **The private internal rates of return to tertiary education,¹ 2001²**



1. These rates of return include wage, employability, unemployment benefit and pension premia associated with tertiary education and are adjusted for taxation. They also include the opportunity and direct costs of education. They are calculated assuming that labour productivity grows at 1.75% per year in all countries.
2. Except 1997 for Hungary; 2000 for Poland and Switzerland.

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Netherlands, Sweden and Belgium. These low education returns are driven by below-average wage and employability premia, which more than offset low (direct or opportunity) costs. Hungary, although with very high wage premia, also displays relatively low returns due to very high marginal taxes. In contrast, Ireland, the United Kingdom and Portugal have among the highest returns for both men and women because these countries have high wage premia, reinforced either by high employability premia and/or low costs of education.

The availability of individual financing for education

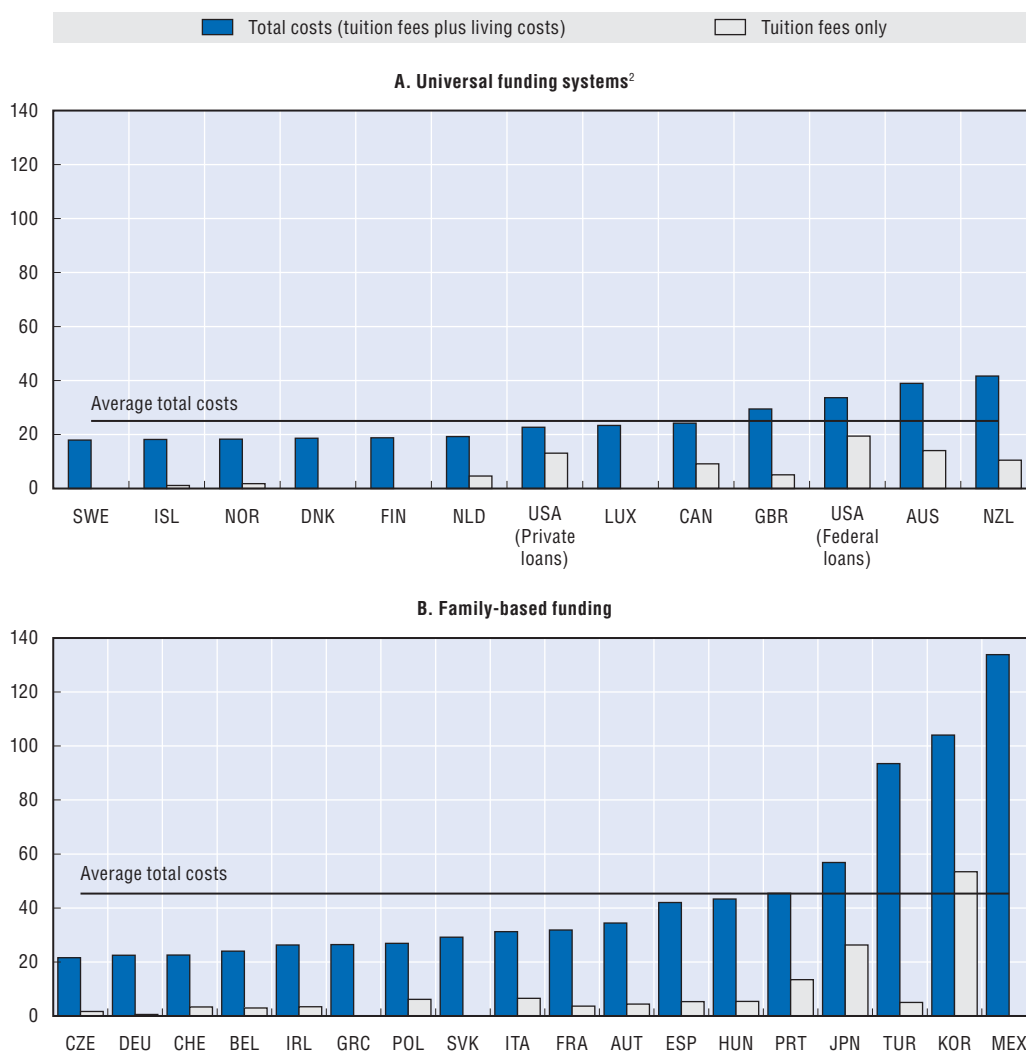
Relatively large returns in principle provide strong incentives for individuals to invest in higher education.³ However, insufficient access to financing may prevent them from responding to these incentives. This may reflect traditional credit market imperfections related to lenders' lack of information on students' abilities and motivation, the uncertainty about their future income and the lack of collateral. In addition to market imperfections, incentives arising from the education returns may be blunted because students engaging in higher education are unsure about what kind of final grade they will obtain – or even if they will get that far – as well as the level of salary they will get thereafter. For the individual, this risk may be larger than the average risk to society at large and risk aversion may therefore unduly restrain investment in education. At the same time, students may have exaggerated perceptions of the actual risks involved, also holding back investment.

To ease financing constraints, several OECD governments have put in place specific funding systems for students in tertiary education. In this respect, OECD countries can be classified into two main groups: i) those having *universal funding* systems that consider higher education students as financially independent from their parents, with family income typically not taken into account for determining the level and the type of funding; and ii) those relying on *family-based* systems where higher education students are considered as being members of their families, both for the purposes of financing and taxation, and with the funding typically being means-tested.⁴

The degree of financing constraints faced by prospective higher education students can be measured as the ratio of estimated average annual expenses during study for a higher degree, i.e. tuition fees and living costs, to the sum of the estimated available sources of financial support. Financial support includes student loans and grants, but also resources provided by families and part-time student work.⁵

Based on this estimated ratio of total costs to total individual funding, financing constraints for students differ markedly across OECD countries (Figure 5.3). Some countries have created universal student-loan systems (e.g. most English-speaking countries), others provide generous grants (e.g. Nordic countries), but the majority of countries still rely mainly on family transfers. In many countries, annual investment in higher education is a significant share of resources for a median household, even where tuition fees are low. Korea and Japan combine relatively high tuition fees with family-based funding, which implies a substantial saving effort for low-income families. Interestingly, despite high tuition fees in some universal funding countries, the cost-to-resource ratio is typically somewhat lower than in family-based systems.

Figure 5.3. **Costs of education relative to available individual funding, 2006¹**
In percentage of available resources



1. Available individual funding includes student loans and grants, expected earnings from part-time work and family resources.
2. For the United States, both the amount of loans provided through federal funds and by the main private loan system are included.

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The institutional set-up of educational supply

Several institutional features affect the supply of education by higher education institutions. This happens, for example, through their influence on the freedom of institutions to manage resources and set objectives, their incentives to improve performance, and the funding rules for tertiary education institutions. Based on detailed information concerning institutional features that influence these main characteristics, collected from countries and regions within countries and transformed into quantitative scores, a summary indicator of the supply flexibility of higher education was constructed reflecting the situation around 2006 (see Box 5.1).⁶

Box 5.1. Features covered in the supply indicator of tertiary education

The summary indicator covers institutional features that fall into three main categories:

- *Input flexibility* comprises the criteria for the selection of students, institutional autonomy to decide on the sources and structure of funding (e.g. level of tuition fees), and staff policy (e.g. hiring/firing rules and wage setting).
- *Output flexibility* includes the discretion to decide on course content, product diversity (short-term, part-time, distant learning studies), existing regional restrictions to access higher education institutions (captured by the degree of regional mobility of students) and the existence of restraints on the number of students or diplomas attributed each year (*numerus clausus*).
- *Accountability* of higher education institutions covers features of evaluation and funding. Relevant aspects of evaluation include the type of evaluation (independent agency, stakeholders) and the public availability of evaluation reports. Funding rules can be output-based (e.g. graduation and quality rankings) or based on past spending trends or inputs (e.g. number of students). Information on the types of private entities that provide funding (e.g. households and businesses) is also covered.*

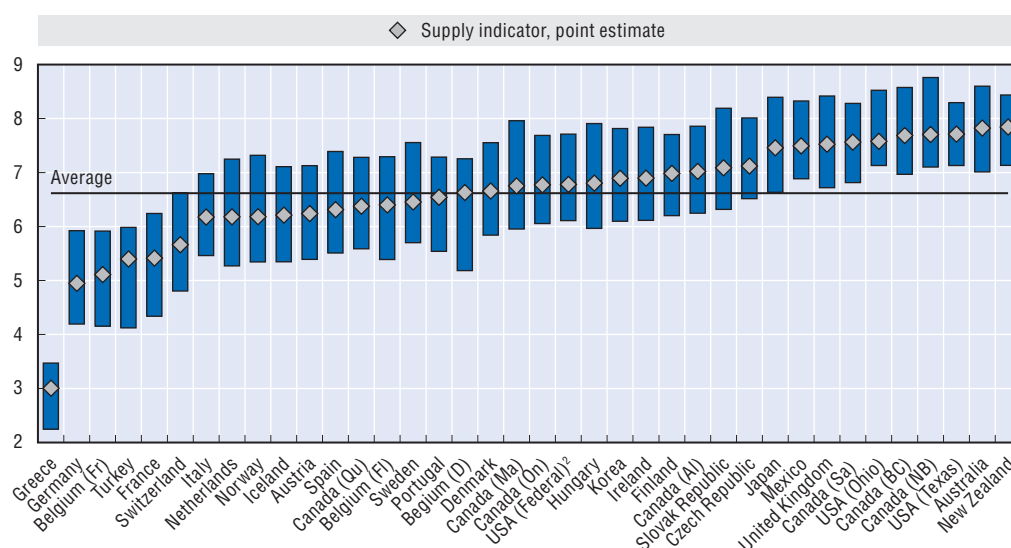
These different categories were aggregated using simple averages, (i.e. using uniform weights) of individual indicators, but sensitivity analysis around this weighting scheme was carried out. The overall composite indicator is constructed in such a way that it increases with higher input and output flexibility, and accountability.

* The current version of the indicator does not cover market-based mechanisms of accountability, as in most countries tertiary education is dominated by public provision and regulation. Nevertheless, to increase cross-country comparability (in particular vis-à-vis the United States) an extended version of the indicator is being prepared.

The summary indicator of supply flexibility is significantly below average for Greece, Germany, Belgium (French-speaking region), Turkey and France, reflecting that these countries/regions have relatively rigid and centralised systems. The countries or regions with more flexible and incentive-based systems are New Zealand, Australia, the two US states included in the study (Ohio and Texas), three Canadian provinces, the United Kingdom and Mexico (Figure 5.4).⁷ The bands in Figure 5.4 correspond to uncertainty ranges for the estimates; they capture uncertainty about the weights to give to individual institutional features in determining the overall indicator and reveal that the two groups of countries and regions just described are indeed significantly different from the OECD average.

Investment in higher education: avenues for reform

There are significant differences in recent tertiary level graduation ratios across OECD countries (Figure 5.5).⁸ The highest graduation ratios are observed in Korea, New Zealand, Japan, Iceland and Ireland, and the lowest in Turkey, Mexico and Greece. Graduation ratios have been growing almost everywhere and much faster for females than for males, so that the number of female graduates has almost converged to the male number for the average OECD country. Focusing on stocks rather than flows, the ratios of tertiary graduates to the population between 25 to 64 years old still differ widely across countries, ranging from around 10% in Italy and Portugal to above 35% in North America.

Figure 5.4. **Composite indicator of supply flexibility of higher education, 2005-06**¹

1. Canadian provinces are: Al: Alberta, BC: British Columbia, Ma: Manitoba, NB: New Brunswick, On: Ontario, Qu: Québec and Sa: Saskatchewan. Belgian regions are: Fr: French Community, Fl: Flemish Community and D: German-speaking Community. The bars correspond to 95% confidence intervals obtained through a large number of simulated random weights on individual subcomponents of the synthetic indicator.
2. In interpreting this value for federal provisions concerning supply flexibility and accountability it should be taken into account that federal funds only account for a small share of total funding of US tertiary education institutions.

Source: OECD calculations based on questionnaire answers received from member countries.

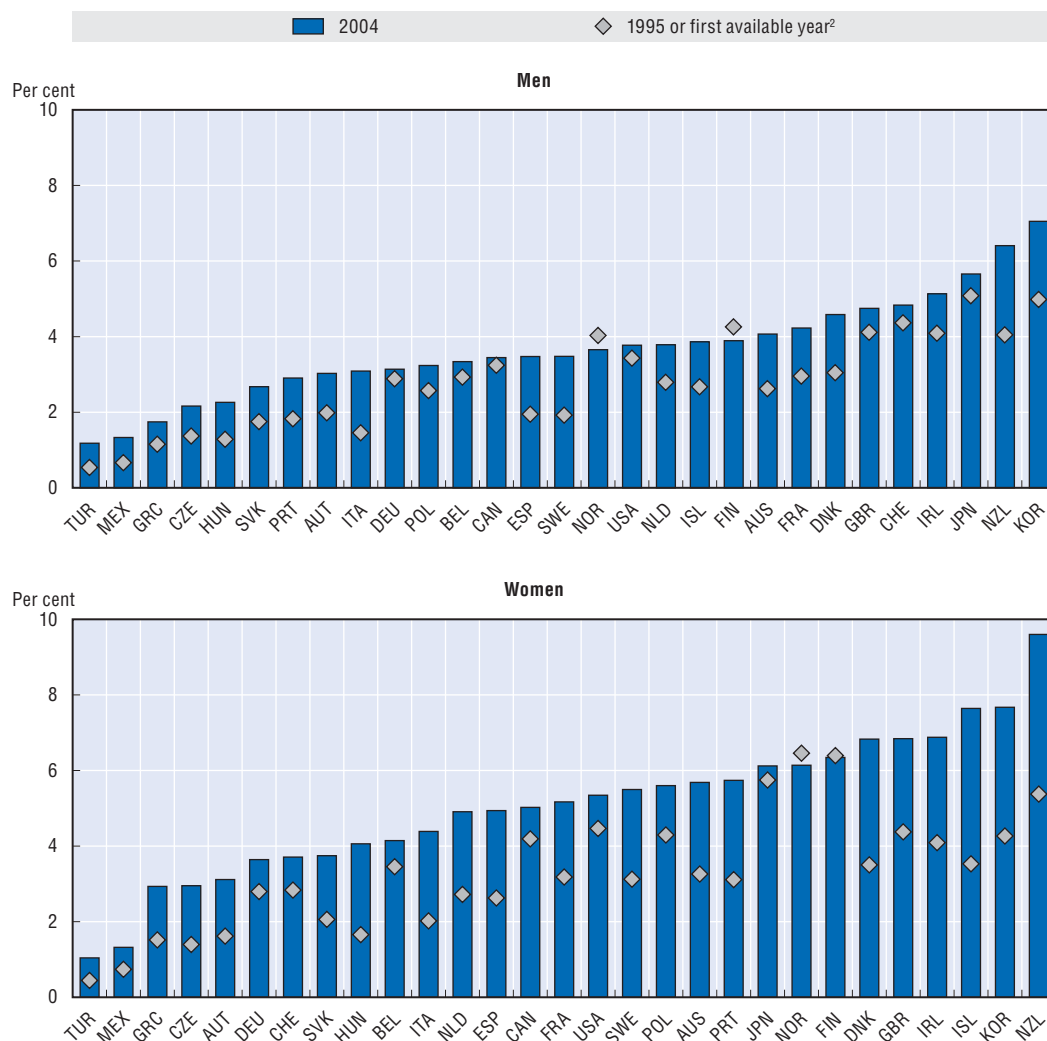
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Graduation patterns across countries, gender and time appear to reflect the main determinants of investment reviewed above. More specifically, empirical analysis reported in Oliveira Martins *et al.* (2007) suggests that private returns influence graduation ratios positively, whereas the existence of financing constraints, as defined above, influences investment negatively. In addition, the responsiveness of supply of higher education is positively related to graduation ratios. Thus, a university system that better matches students' preferences (*e.g.* because it offers a larger choice of programmes) is likely to attract more students. In addition, systems allowing for shorter study duration and intermediate diplomas are more attractive since they provide students with the option of deciding when to stop the investment (see Heckman *et al.*, 2005). For similar reasons, those systems may reduce drop-out rates when students are relatively impatient to start participating in the labour market.

Even though the mix and focus of higher education reform depends on each country's specific conditions, the framework developed in this chapter allows different options for reforming higher education systems to be identified. All reforms require finding an appropriate balance between different public policy objectives, the basic objectives being notably to enhance equal opportunities of access, avoid distorted investment choices and, where expansion of education is required, to avoid compromising quality. Some tentative avenues for reform are discussed below.

Increasing autonomy and accountability of higher education institutions

As suggested by the supply indicator shown above, countries such as Greece, Germany, France and Belgium could benefit from moving towards a more incentive-based system of

Figure 5.5. **New tertiary graduates as a share of the population aged 20-29 by gender¹**

1. Tertiary graduates cover all individuals, including individuals over the age of 29.

2. 1996 for Mexico and New Zealand, 1998 for Iceland, 1999 for Switzerland and 2000 for Belgium and Poland.

Source: OECD, *Education at a Glance*, 2006; UNESCO education database and Eurostat.

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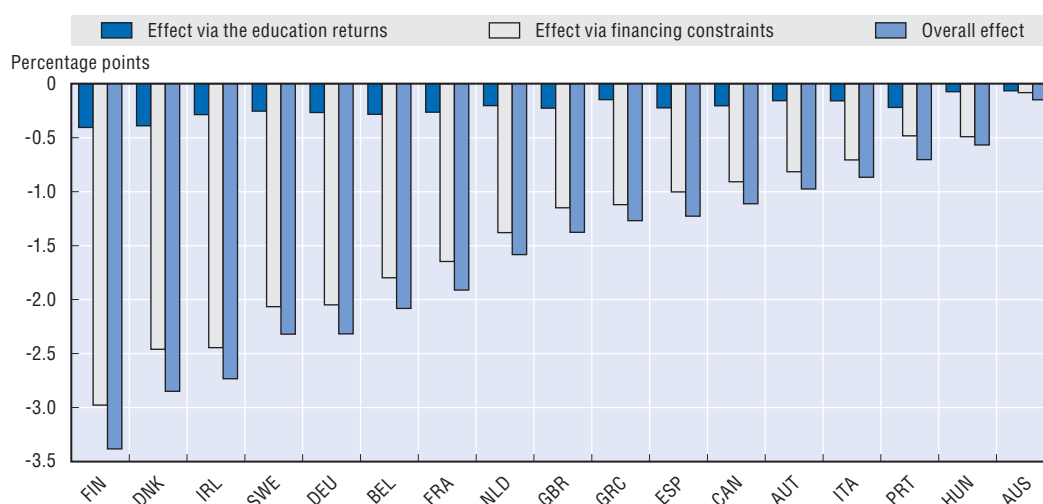
higher education. Directions for reform would involve more autonomy for universities in student selection and staff policy, more reliance on independent and public evaluation, and funding based on outputs rather than inputs. The possibility for offering more diversified studies, notably shorter duration courses, could help to meet individual demands for education more effectively. As there are strong complementarities among all these policy components, reforms are more effective when implemented in a coordinated way.

Increasing tuition fees

Acknowledging the large returns from higher education that, on average, accrue to individuals, and the implied redistribution towards people with high lifetime income, a number of countries have been raising (or introducing) tuition fees. Raising fees can be helpful for improving students' incentives to reduce study duration and to provide funding

for improving the quality of education. However, the empirical work underlying this chapter also shows that increasing fees may have a negative impact on returns and increase liquidity constraints, when appropriate individual financing arrangements are not implemented in parallel. Illustrating this point, Figure 5.6 shows that increasing the fees approximately to the levels currently existing in Australia (a country that recently re-introduced tuition fees at significant levels) without at the same time reforming student loan and grant systems could have a substantial negative impact on graduation ratios. Most of the estimated negative impact is due to the increase in the financing constraints rather than reduced returns from education. These results explain why in practice countries that have raised tuition fees have also taken action to improve financing for students so as to be able to reap the benefits of having higher tuition fees without suffering the cost of diminished access to higher education.

Figure 5.6. **Impact of an increase in tuition fees on graduation ratios assuming unchanged individual financing policies¹**



1. Effect on graduation ratios of increasing tuition fees up to the sample mean plus two standard deviations. (The United States is not included because the level of net tuition fees is already above the sample mean plus two standard deviations.)

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Developing student loan and grant systems

With or without tuition fees, a student loan system to finance the direct and living costs of higher education would help to maintain equality of access and better exploit the pool of talent in the population. As discussed above, a number of countries have potentially tight liquidity constraints for students; these include notably Mexico, Korea, Turkey, Japan and Portugal. Both public loans and public guarantees for private loans can soften liquidity constraints and ease the access to higher education for low-income students. However, these systems may not fully address the problem of an excessive risk aversion by potential students, especially when coupled with insufficient information about the returns to education. Some countries, such as Australia, the United Kingdom or Sweden, have addressed this problem by tying loan repayments to future incomes after graduation.

Student grants may seem debatable in conditions of high private returns and in view of prospective incomes of recipients. Even when grants are justified as a way of maintaining returns in the face of progressive taxation, or ensuring equality of access for

the more disadvantaged groups, reforms of grant systems may be desirable to strengthen individual incentives. For example, loans could be (partly or fully) converted to grants upon completion within a set time in order to encourage shorter study duration. As well, loans could be offset against future tax liabilities, increasing the incentives to seek jobs in the country of graduation. However, trade-offs would still arise as the first solution may curb enrolment of risk-averse students and the second solution may be seen as unduly restricting migration of high-skilled workers.

Other policies influencing investment in higher education

Policies aimed at removing impediments to the creation of part-time jobs can have a positive effect on incentives to engage in higher education by making part-time work more easily accessible to students. This would reduce the opportunity cost of studying and help students finance their living costs while they are enrolled in university. Overall, the returns would also increase. This could also reduce risk aversion, but should be gauged against potential costs related to increased study duration.

While investment in higher education has typically not been a primary motivation for tax reforms, changes in taxation can have implications for incentives to invest in higher education. In particular, a less progressive tax system will increase average returns to higher education, although it may also raise general distributional concerns.

As a final point, with a large range of policies – both general and specific to the education sector – influencing education outcomes, it is important in any reform effort to take a holistic view on the incentives generated for supply and demand for tertiary education. While individual policy instruments may sometimes involve trade-offs between different policy objectives, such trade-offs may be overcome or at least mitigated by the use of additional policy instruments.

Notes

1. This chapter is mainly based on Oliveira Martins *et al.* (2007) and Boarini and Strauss (2007). The focus is on core educational services, in contrast to research activities, which display different characteristics and concern only a small number of higher education institutions.
2. Based on data for individuals, see Strauss and de la Maisonneuve (2007).
3. See Becker (1967); Freeman (1986) and Heckman *et al.* (2005).
4. When countries combine elements of both systems, they were classified accordingly to the dominant features.
5. As an approximation, family resources were set equal to the so-called “equivalised” median household disposable income (i.e. adjusted for family size). Estimates of expected earnings from part-time student work were based on assumptions of half-time work at 80% of the average wage of a secondary-educated worker and were adjusted for country-specific youth employment rates.
6. Information was provided by national authorities through a questionnaire. For Belgium and Canada the answers were provided by regions/provinces. For Canada, these answers were aggregated into a single country estimate by using weighted averages, the weights corresponding to the population in each province. For Belgium, the country level indicator is a weighted average of the Flemish and Francophone regions. For the United States, the questionnaire was answered by the federal authorities and by the state authorities in Texas and Ohio.
7. The federal indicator for the United States may provide a rather imperfect picture of the institutional settings, as state-level education policies play a predominant role in that country.
8. These rates are defined as the yearly number of new graduates over the population 20-29 years old. This study uses harmonised data on the number of graduates, i.e. new graduates recorded by highest diploma achieved divided by the population in the age group 20-29. Harmonised graduation ratios

can differ from standard graduation statistics where the same person can be recorded more than once because he or she has more than one diploma at the tertiary level. For example, the United States and Canada appear to rank somewhat lower than in usual graduation statistics, which are affected by cross-country differences in the number of intermediate diplomas delivered during student years.

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PART II

Chapter 6

Economic Geography and GDP per Capita

Distance to global markets can influence GDP per capita through its impact on trade flows, which in turn affect the efficiency of domestic business. Nevertheless, it has been argued that the world is “becoming flatter” – the so-called “death of distance” hypothesis. This chapter reports new transport cost data that show there is little evidence that the cost of transporting goods has declined over time relative to their price. It also suggests that distance to markets has significantly depressed living standards in remote OECD countries and raised them in centrally located countries. In addition, it argues that GDP per capita has been boosted in a few OECD countries by large natural resource endowments.

Introduction and main findings

OECD countries differ significantly in terms of proximity to world markets and natural resources endowments. Even if these factors are rarely invoked to account for international differences in material living standards, they might contribute significantly to explaining the variation in GDP per capita across countries. Indeed, the fact that high-income countries tend to cluster together suggests that they derive mutual benefit from proximity to each other. Also, the exploitation of oil or other natural resources seems to be associated with higher incomes, although experience suggests that the link is not automatic.

This chapter examines how much of the cross-country dispersion in GDP per capita in the OECD area can be accounted for by economic geography factors, restricted here to two types: the proximity to areas of dense economic activity and the endowments of natural resources.¹ The main findings are as follows:

- The cost of international telecommunications has fallen sharply in all countries, but, in contrast to popular belief, there is little evidence that the cost of transporting goods has declined relative to their price during the past two or three decades. This might be because the available data fail to adequately capture improvements in the quality of transport services. In any case, the impact of distance on the structure of trade has not declined over time.
- Distance to markets significantly affects GDP per capita. Remoteness from markets relative to the OECD average appears to reduce GDP per capita by as much as 10% in Australia and New Zealand. Conversely, the benefit from a favourable location may be as high as 6% of GDP in the case of Belgium and the Netherlands.
- Natural resource endowments have a positive effect on GDP per capita in OECD countries. This result contrasts with empirical findings for developing countries, suggesting that the quality of institutions may be of key importance in determining the impact of resource abundance. Not surprisingly, the main beneficiaries of rich resource endowments are Norway and, to a lesser extent, Australia and Canada. Higher net exports of primary products as a share of GDP relative to the OECD average in the early 2000s may have raised GDP per capita by 8% in Norway and by 2% in Australia and Canada.
- Geography factors could mask underlying productivity performance, with the risk that the policy priorities identified in *Going for Growth*, based on data that are not adjusted for geography, are not the most appropriate ones. In practice, this is not the case: low productivity levels are identified as the main performance weakness in the same countries on the basis of unadjusted and adjusted productivity performance.

Why geography matters

Distance is most likely to influence GDP per capita through its impact on trade flows, which in turn affect the degree of efficiency of domestic businesses. Distance directly raises transport costs and thereby reduces trade in much the same way as a tax on exports or a tariff on imports. This limits the opportunity for countries to concentrate production

in activities where they have a comparative advantage: domestic businesses produce goods that could be supplied more efficiently from abroad if it were not for transportation costs. By segmenting markets, distance also limits the extent to which domestic firms can operate on an efficient scale, and more generally exploit increasing returns to scale. Moreover, by providing a natural shelter from foreign competition, the pressure is weakened on domestic companies to be efficient and to innovate.² Similar arguments also apply to the effect of within-border distance, with densely populated countries likely to benefit from more effective factor and product markets, as well as from better infrastructure. Furthermore, the clustering of innovative activities suggests that there are extra benefits associated with such concentration. However, congestion costs ultimately limit the advantages of agglomeration.

As for the impact of natural resources, a country that is richly endowed benefits from the rent received from extraction. However, experience has shown that resource-rich countries are not necessarily better off than countries with meagre endowments. Indeed, the literature on the net effects of natural resource endowments on economic performance remains largely inconclusive. A rich endowment could lead to a lack of fiscal discipline and thus macroeconomic instability, the investment of resource rents in worthless projects and/or low pressure to implement growth-enhancing structural policies. Thus, the ability to benefit from natural resource endowment depends on other factors such as political institutions and property rights, which tend to be well developed among OECD countries. Nonetheless, even for these countries, concern is often expressed about the so-called “Dutch disease”: abundance of a resource may drive up non-traded costs and wages, thereby crowding out activities such as the production of manufactured goods and offsetting, or more than offsetting, the direct benefits of the resource rent, especially if there are some dynamic spillovers from manufacturing.

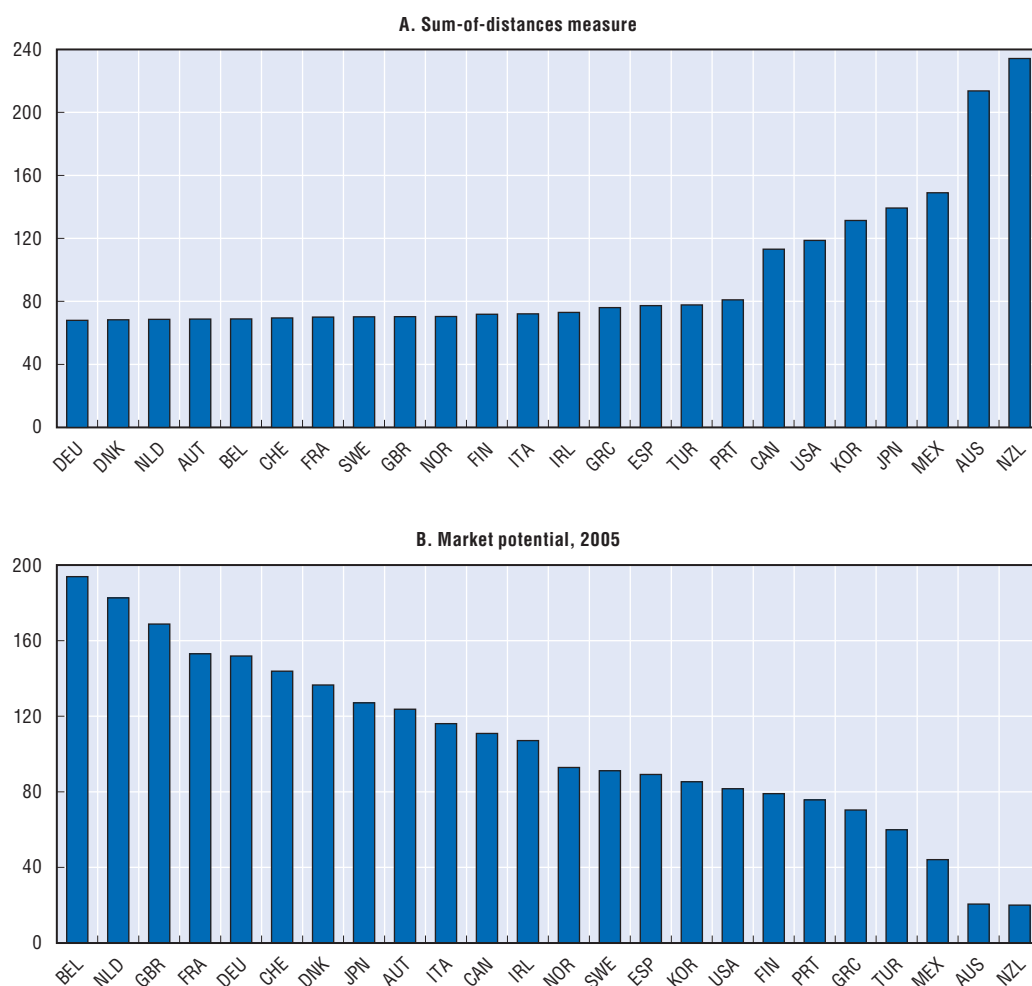
The distance of OECD countries from world markets

OECD countries differ widely in their geographical location, with some countries being surrounded by numerous large neighbouring economies, whereas others are far from economic centres. The most direct measure of a country's remoteness is the sum of its distance, measured in kilometres, from all countries in the world (Figure 6.1, Panel A).³ Based on this crude but simple measure, European countries have the most central location, the countries of North America are more than 50% further from all countries on average, while Australia and New Zealand are even twice as distant as North America. However, this measure depends on how geographic areas are split up. For example, a different picture would be obtained if the European Union was considered as one entity only or if the distances to each of the states/provinces in North America were taken into account.

An alternative and more refined measure of proximity to markets is market potential. In order to give more weight to large, dense and nearby countries, market potential is intuitively defined as the sum of all countries' GDP weighted by the inverse of the bilateral distance from the country under consideration. Other indicators, such as access to markets, use information on trade flows between countries to take into account actual rather than potential access. These measures paint the same broad-brush picture as the sum-of-distance measure, but allow for greater differentiation between broad groups of

Figure 6.1. **Distance/proximity to markets**¹

Average across countries = 100



1. The world is grouped into 32 areas: Africa, Australia, Austria, Belgium, Brazil, Canada, China, CIS countries, Denmark, Eastern Europe, Finland, France, Germany, Greece, Ireland, Italy, Japan, Korea, Latin America (other than Brazil and Mexico), Mexico, the Middle East, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States and Asia (other than the countries already included). The sum-of-distances measure sums the distance of each country to the 32 areas. The market potential measure is the sum of all areas' GDP weighted by the inverse of the bilateral distance. The distance measure is the capital-to-capital distance between countries and the internal distance based on the surface area within countries. The two indicators were normalised so that the average across countries is equal to 100.

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countries. Ranking the countries according to their market potential allows to distinguish five groups, in ascending order (Figure 6.1, Panel B):

- The remote and sparsely populated countries of Australia and New Zealand.
- Lower-income peripheral countries: Mexico, Turkey, Greece and, to a lesser extent, Portugal.
- High-income peripheral countries, Korea, Canada and the United States.
- Continental Europe, the United Kingdom and Japan.
- The centrally located and dense economies of Belgium and the Netherlands.

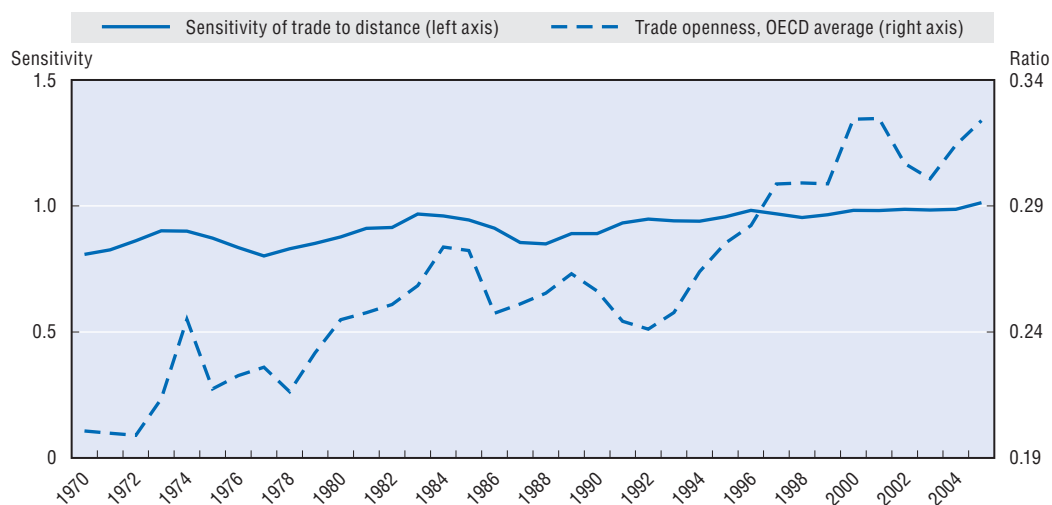
Proximity to markets has been very persistent over time, despite the rising economic importance of Asia, which has significantly benefited only Japan and Korea among OECD countries.⁴

The “death of distance” and the evolution of transport costs

There is a commonly held view that distance has become less important for trade over time. The premise of the so-called “death-of-distance” or “earth-is-getting-flatter” hypothesis is that technological advances in transportation and communications have reduced the cost of moving products and information across long distances to such an extent that distance now plays a minor role for businesses. Indeed, there have been major technological innovations in this area: containerisation has boosted efficiency in maritime transportation and inter-modal freight transportation more generally; better jet engine technology has increased efficiency in air transportation; and productivity in the road-haulage industry has risen with better technology. All transport modes have also benefited from improvements in information and communications technology.

However, in contrast to the death-of-distance hypothesis, empirical evidence indicates that trade between countries decreases with the distance between them to at least the same degree today as 30 years ago (Figure 6.2). As a result, countries tend to concentrate on trade with their neighbours, and trade relatively less with more distant partners (Leamer, 2007).⁵ More precisely, a 10% increase in distance still reduces trade by around 10%, and this effect has not diminished over the last 30 years. As an example based on these empirical estimates, due to the sole effect of distance, France’s imports from Australia or New Zealand would be only around 3% of its imports from the United Kingdom.⁶

Figure 6.2. **Trade openness and sensitivity of trade to distance**¹

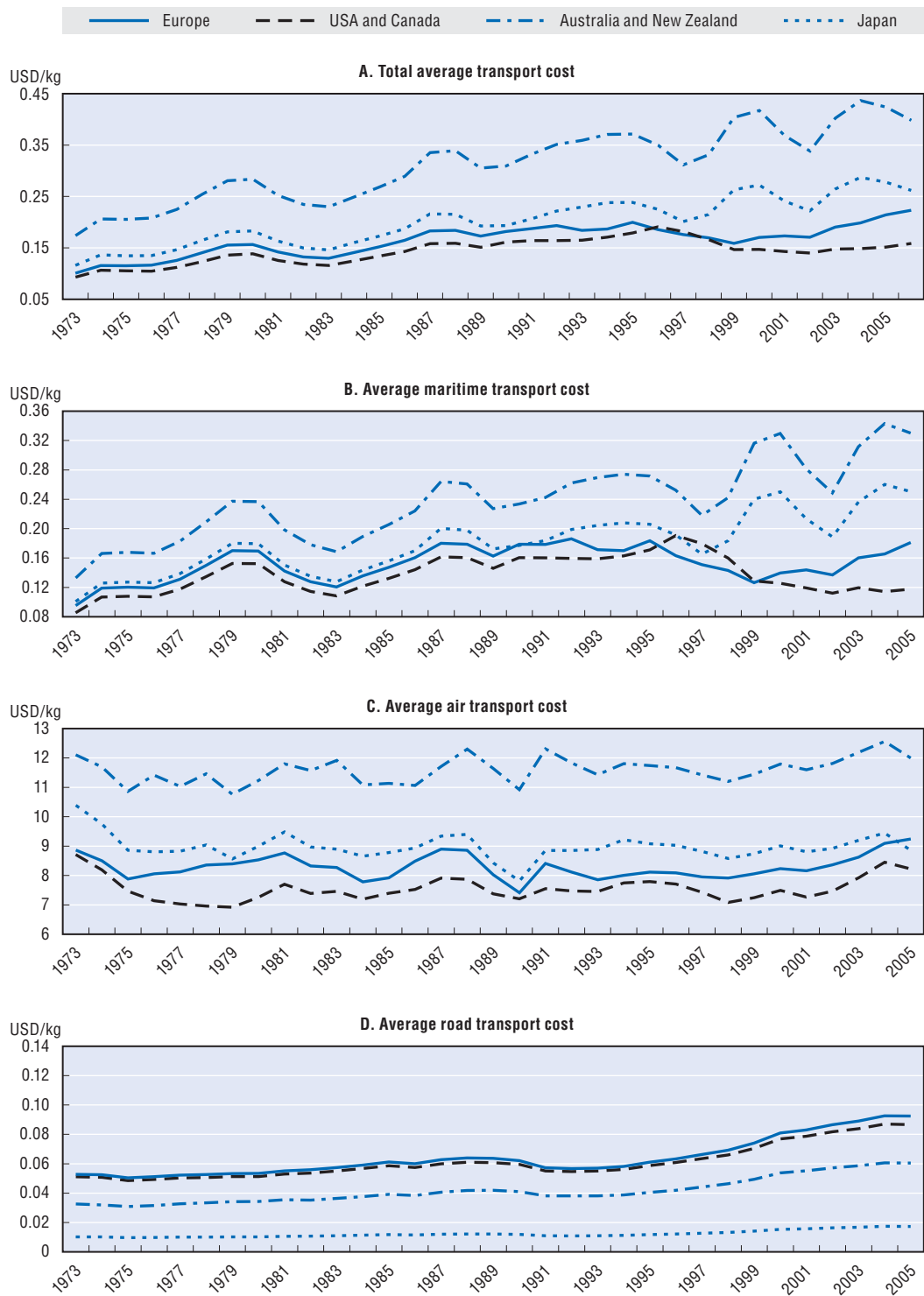


1. Sensitivity is the elasticity of bilateral trade to distance estimated from a gravity equation. A sensitivity of one means that trade is reduced by 1% when distance increases by 1%. The trade openness ratio is the average of imports and exports divided by GDP.

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The continuing importance of distance is in line with estimated price developments (measured per weight unit) for transport services (Figure 6.3, Panel A; for details see Golub and Tomasik, 2008).⁷ Measured relative to prices of manufactured goods, i.e. goods most likely to be transported, the price of transport services seems to have been increasing over the past 30 years.

Figure 6.3. **Real average transport costs**¹



1. For each mode, real average transport costs is the average cost expressed in USD/kg deflated by the US manufacturing goods deflator (2000 = 1). Total average transport cost is a weighted average of maritime, air and road transport cost.

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With the price of transporting a given weight of goods increasing over time, it is not surprising that distance is still playing an important role in trade. However, it needs to be kept in mind that data on transport costs are incomplete and do not take into account quality improvements, such as faster speed, better reliability and timeliness. In addition, due to innovations outside the transport sector, the composition of traded goods has changed significantly over the past decades, and many valuable goods are now relatively light, *e.g.* electronic chips. Consequently, transport costs have risen less, and might even have fallen, relative to the value of transported goods.⁸

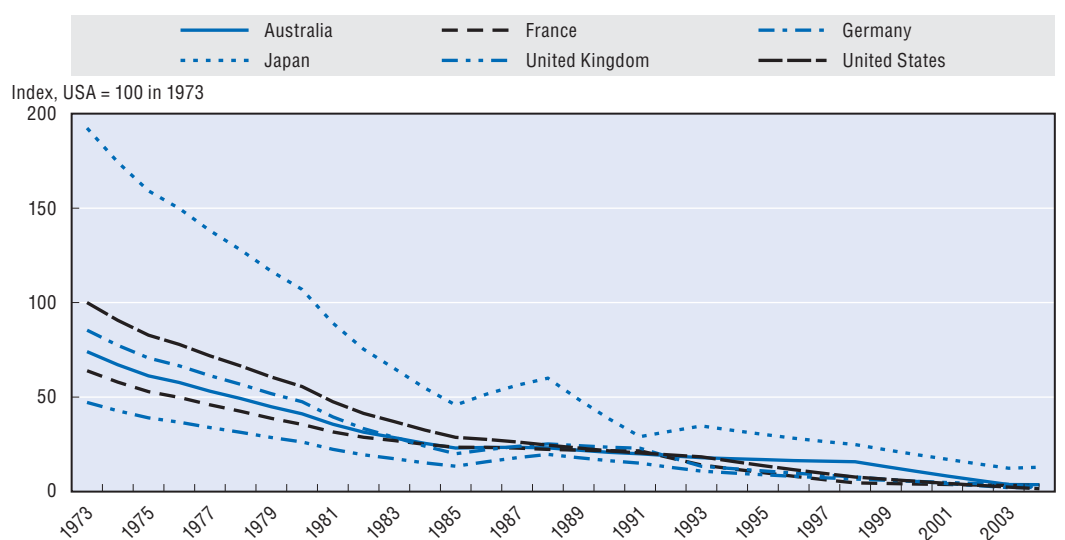
The trends for average prices of transport services mask important differences across modes of transport:

- Maritime transport costs rose relative to the price of manufactured goods on all major routes from the mid-1970s to the mid-1990s (Figure 6.3, Panel B). Since then, they continued to increase for goods transported from Asia, while they fell significantly for goods transported from North America and, to a lesser extent, Europe.
- Air transport costs have remained broadly constant in real terms and thus fallen significantly relative to maritime transport costs (Figure 6.3, Panel C). This has been reflected in the significant increase in the share of goods transported via this mode.
- Real road transport costs have significantly increased (Figure 6.3, Panel D), but their contribution to total international transport costs is generally small.

One area where the presumed “death of distance” does not seem to be at all exaggerated is international communications since costs have fallen in all countries to a very low level (Figure 6.4), facilitating the transfer of some parts of the production process to more distant geographic areas. Historical data indicates that the substantial cross-country variations in costs that still prevailed in the early 1970s had largely disappeared by the late 1980s, and since then the downward trend has continued, bringing costs to

Figure 6.4. Real cost of a one minute international telephone call from selected origin countries

Expressed in dollar terms at actual exchange rates and deflated by US GDP deflator



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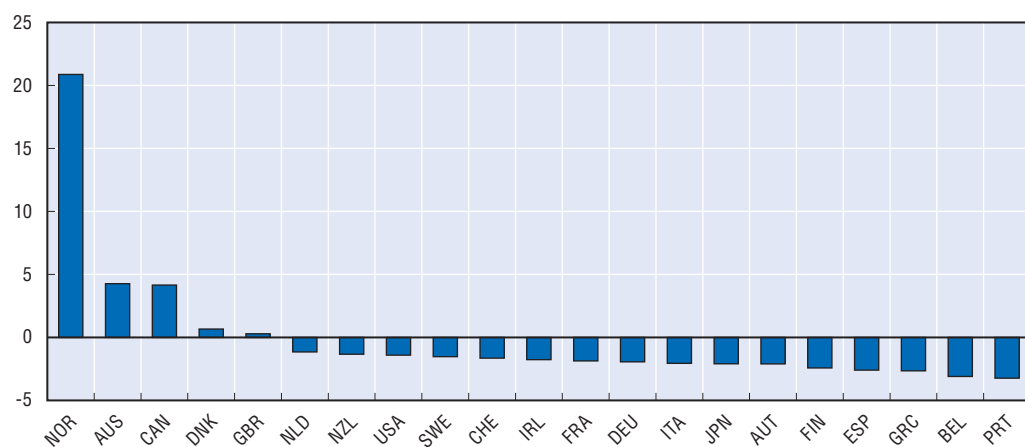
basically zero during the early 2000s. The nominal average cost of a one-minute international call was around USD 0.15-USD 0.35 by 2004 in most countries. New Zealand and Japan had higher rates of about USD 0.6 and USD 1.1 respectively.⁹

Natural resources

Natural resources include renewable resources, such as fish and timber; non-renewable resources, such as petroleum, natural gas and minerals; and could be extended to agricultural products and natural amenities that are central to tourist services. In most empirical economic studies though, the availability of natural resources is proxied by production, exports or net exports of primary products.¹⁰

On this narrow definition, natural resource endowments differ significantly across OECD countries. Figure 6.5 ranks countries based on the share of net exports of primary products excluding agriculture in GDP. According to this measure, relatively richly-endowed countries include Norway and, to a lesser extent, Australia and Canada. Denmark and the United Kingdom are also small net exporters of primary products. At the other end of the spectrum, based on this indicator, the countries least endowed in non-agricultural primary resources are Spain, Greece, Belgium and Portugal.

Figure 6.5. **Net exports of non-agricultural primary products, average 2000-04**
Per cent of GDP



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The impact of economic geography on GDP per capita

There is growing evidence that proximity to markets has a positive effect on economic performance.¹¹ Focusing on 21 OECD countries between 1970 and 2004, access to markets appears to have a significant impact on GDP per capita over and above other determinants, including investment in physical capital and the stock of human capital.¹² Unsurprisingly, Australia and New Zealand are the big losers from their geographic location (Table 6.1). To a lesser extent, Greece, Portugal and Finland are also at a disadvantage compared with the average country. The beneficiaries are the continental European countries, especially Belgium and the Netherlands, and the United Kingdom. The size of the estimated effect is large: remoteness is estimated to penalise Australia and New Zealand by around 10% of GDP. Conversely, Belgium and the Netherlands are seen to benefit from proximity to world markets by around 6% of GDP compared with the average country.

Table 6.1. Impact of geography on GDP per capita¹
 Difference in per cent, average 2000-04

	Proximity to markets	Natural resources
Australia	-10.6	1.7
Austria	1.8	-0.8
Belgium	6.7	-1.2
Canada	2.1	1.7
Denmark	2.2	0.3
Finland	-2.4	-1.0
France	3.4	-0.7
Greece	-3.7	-1.1
Ireland	0.6	-0.7
Italy	1.3	-0.8
Japan	3.0	-0.8
Netherlands	5.6	-0.5
New Zealand	-10.1	-0.5
Norway	-1.5	8.5
Portugal	-2.7	-1.3
Spain	-1.2	-1.0
Sweden	-1.4	-0.6
Switzerland	3.3	-0.7
United Kingdom	3.8	0.1
United States	-0.3	-0.6
<i>Minimum</i>	<i>-10.6</i>	<i>-1.3</i>
<i>Maximum</i>	<i>6.7</i>	<i>8.5</i>
<i>Average</i>	<i>0.0</i>	<i>0.0</i>

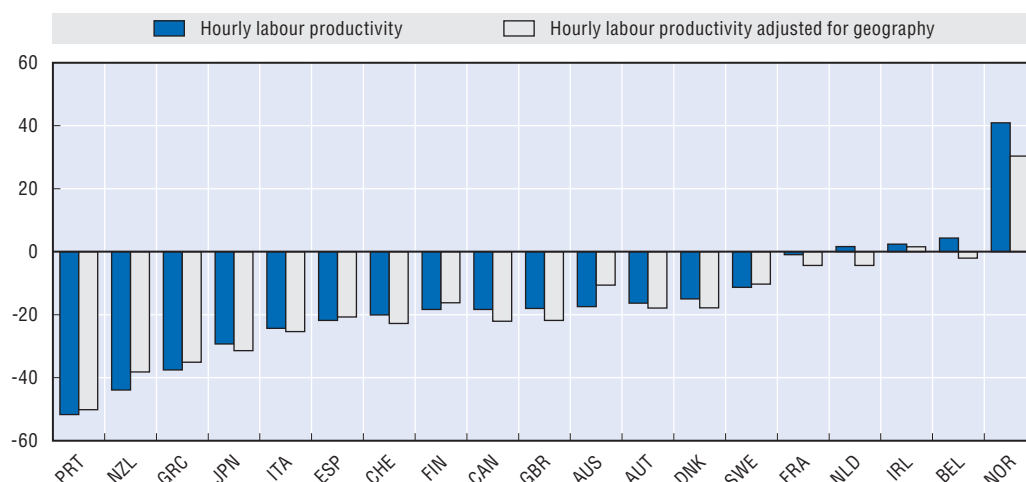
1. Taking Australia and proximity to markets as an example, the table should be read as follows: compared with the average country in the sample, the distance to markets of Australia contributes to lowering its GDP per capita by 10.6% on average over the 2000-04 period.

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In addition, the long-run impact of resource endowments on the level of GDP per capita is estimated to be positive. Taken at face value, empirical results suggest that OECD countries, as a consequence of the quality of their institutions or policies, have escaped the “resource curse” discussed in the literature on economic development. Based on the admittedly imperfect indicator used in this chapter, natural resources may contribute to raise GDP per capita relative to the OECD average by as much as 8% in Norway and by around 2% in Australia and Canada (Table 6.1). Most other OECD countries are relatively resource-poor and the relative absence of natural resources therefore tends to lower GDP per capita relative to the average but the effect is generally less than 1%.

Geographical characteristics, such as distance and resource endowments, affect countries’ productivity performance but are essentially given. Hence, productivity should be adjusted for the impact of geography in order to assess “underlying” performance, which is what can be influenced by economic policies. When the effects of proximity to markets and natural resources are discounted, three main results stand out (Figure 6.6). First, the three countries that record the highest levels of apparent productivity are those that have the most favourable geographical environment: Norway, because of natural resources, and Belgium and the Netherlands, because of their location in an area of large and dense economic activities. When the geography effects are taken into account, labour productivity in Belgium and Netherlands is close to that of the United States. Second, roughly half of the difference between Australia and the United States in terms of labour

Figure 6.6. **Apparent and adjusted hourly labour productivity, 2006¹**
 Percentage gap vis-à-vis the United States, total economy



1. Labour productivity is measured as GDP per hour worked (see Chapter 1). This apparent labour productivity is then adjusted to take into account the estimated effects of both access to markets and natural resources. Only the countries covered by the empirical analysis are shown.

Source: OECD Economic Outlook, No. 82 and OECD Employment Outlook, 2007.

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productivity seems to be due to geography. Finally, for the other countries, including New Zealand, most of the labour productivity gap with the United States is not explained by geographical factors.

Policy implications

The impact of distance on economic performance is consistent with scale economies, which in principle could justify interventionist policies to build up critical mass. In theory, under certain conditions, the presence of increasing returns to scale – unit costs fall as greater output is produced – might justify public support to offset a disadvantage due to remoteness. However, experiences from around the world underline the risks of government failure in managing such support programmes. In fact, public subsidies can lessen the pressure on companies to become efficient rather than help them to build up their strength.

Much less controversially, national authorities can contribute more effectively to reduce the impact of distance on economic performance by ensuring that regulations do not unnecessarily inflate transport costs and that the necessary infrastructure is in place. Although regulations on transportation within borders have been reduced considerably in recent decades, cross-border freight transportation is still subject to extensive regulation. Competitive pressure on international air routes often remains fairly weak due to restrictive bilateral air service agreements and limits on ownership of national carriers. Road transportation on many international routes is hampered by a lack of “cabotage” rights. And international scheduled maritime freight services are still operated as price-setting cartels on many key routes, reflecting the fact that this activity is exempted from national competition legislation in many OECD countries. As the owner and/or regulator of essential transport infrastructure, the government must guarantee adequate capacity in, and the efficient use of, road networks, ports, airports and other transport facilities.

As highlighted above, OECD countries differ significantly with respect to geographic factors that matter for economic performance. Whether they exploit geographical advantages or not depends on policies and institutions. Likewise, disadvantage due to remoteness from world markets does not seem to affect what are good structural policy settings; thus geographical positions cannot serve as an excuse for bad idiosyncratic structural policy choices. Consequently, the diagnosis of weaknesses underlying the selection of priorities in *Going for Growth* is not seriously affected by even the most extreme geographical positions.

Notes

1. This chapter is based on Boulhol, de Serres and Molnar (2008) and Boulhol and de Serres (2008).
2. Distance can also influence physical and human capital investment with implications for GDP per capita. Proximity to world markets may raise the returns to such investments and hence countries close to world markets may have higher capital stocks than in more remote countries with beneficial effects on their GDP per capita (see Redding and Scott, 2003; Breinlich, 2007).
3. Two measures of distance were used leading to very similar results. The first combines capital-to-capital distance between countries and a measure of internal distance based on the surface area. The other one uses distances between main cities both within and between countries.
4. The impact for other OECD countries' access to markets is muted for two reasons. First, the share of Asia minus Japan in world GDP has gained less than 4 points since 1970. Second, even Australia and New Zealand, often seen as significant beneficiaries of strong growth in Asia, are far from the centres of growth in this area. For example, the geodesic capital-to-capital distance between Australia, on the one hand, and China and Korea, on the other, is 9 000 and 8 400 km respectively. For Germany, these distances are 7 400 and 8 100 km respectively. Moreover, Australia and New Zealand have not benefited from large regional integration, such as driven by NAFTA or the European Single Market Programme.
5. Even if the elasticity of trade to distance has remained mostly unchanged, trade flows could have increased for any given level of distance due to different factors (such as tariffs, technological innovation which allows for the slicing up of the value chain, the decrease in oil prices in the 1990s and possibly technological innovation in transport). The "death of distance" hypothesis is sometimes interpreted as referring to non-distance related increase in trade.
6. In reality, this percentage was 15% and 5% in the 1970s for Australia and New Zealand, respectively; 8% and 2% in the 1980s; 4% and 1% in the period between 1990 and 2005.
7. There are other possible explanations for the continuing importance of distance. For instance, geographical distance may be a proxy for a more general concept of distance that includes differences in culture, religion, legal systems, etc. (Brakman and van Marrewijk, 2007). Also, with the reduction in trade protection over the past decades, tariffs are less relevant for trade, and, conversely, the relative importance of transport costs as a remaining barrier to trade has increased (Clark, Dollar and Micco, 2004).
8. According to Hummels (2007), the weight/value ratio of traded goods has fallen especially for the United States, since the early 1990s: one dollar (in real terms) of traded merchandise weighs much less today than in the 1970s. Hummels reports that the real value of trade grew 1.5 per cent per year faster than its weight since 1973. Because the measures above refer to the costs in dollar per kg, they underestimate (overestimate) the decline (rise) in *ad valorem* transport costs.
9. The "death of distance" assumption in telecommunications requires sufficient international data transmission capacity. For example, Australia and New Zealand have both faced difficulties boosting international capacity via undersea cabling. In contrast, the Netherlands has the highest international transmission capacity.
10. Various measures of natural resource endowments have been used in the empirical literature. The most direct is wealth in non-renewable natural resources as a share of total wealth. A main drawback of such a measure, at least for the purposes of the study reported in this chapter, is the lack of a time-series dimension. The main alternatives proposed are usually based on exports of primary products. However, export-based measures can give a distorted picture of the stock of natural resources for some countries. For instance, gross primary exports as a share of GDP tend to

artificially boost the importance of resource endowments in relatively small countries with high shares of both imports and exports, such as Belgium or Finland. For these reasons, the variable used in the empirical analysis reported here is measured as the ratio of net exports of primary products to GDP.

11. Empirical studies have covered a broad range of data: cross-sections of 101 countries (Redding and Venables, 2004), US counties (Hanson, 2005), and European regions (Breinlich, 2007; Head and Mayer, 2006).
12. Various measures of access to markets were tested: the sum-of-distances measure, market potential and a measure derived from actual bilateral trade flows. The effect of market access on GDP per capita was then estimated directly, as well as on top of the usual determinants of GDP per capita. The impact of market access was found to be robust to both the specifications and the various measures. See Boulhol, de Serres and Molnar (2008) and Boulhol and de Serres (2008) for details.

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PART II
Chapter 7

International Trade in Services and Domestic Regulation

Services are often sheltered from competition in OECD economies, and international trade in services has barely increased relative to trade in goods in recent decades. Considerable behind-the-border regulatory barriers restrict the entry of foreign suppliers and make it harder for domestic suppliers to compete abroad. Such barriers include not only the overall level of restrictiveness, but the consistency of regulation across countries. This chapter describes how reducing differences in national regulations as well as the major restrictions in this area could lower trade costs, boosting productivity and GDP per capita.

Introduction

Services account for more than two-thirds of GDP and an even larger share of employment in a typical OECD economy. Hence, productivity growth in services is crucial for sustaining overall income and productivity growth. International trade and investment are important sources of productivity improvements in manufacturing, and there is no reason why this should not be the case in services as well. However, services are relatively sheltered from international competition, and services trade has generally been less dynamic than trade in goods over the past few decades.

This chapter¹ describes recent developments in international services trade, identifies the major barriers in this area, and explores how lowering them can boost trade and productivity. The main findings are:

- Services are traded less than goods, and import penetration of services has not increased more than for goods.
- Although formal barriers to international trade in services are rare in OECD countries, behind-the-border regulatory barriers restrict the entry of foreign suppliers and make it harder for domestic suppliers to compete abroad. Furthermore, differences in national regulations also reduce trade by imposing costs on exporters to enter different national markets.
- If all OECD countries were to align the stance of all competition-restraining regulations to the lowest level in the OECD area, trade in services could rise by 90% on average and 140% in the most highly regulated countries.
- The increase in GDP per capita levels as a result of these trade gains could amount to about 2% on average, and over 3% in the countries with the most stringent and idiosyncratic regulations. Heightened competition could strengthen these gains dynamically by encouraging innovation activities.

The nature of trade in services²

The most obvious form of trade in services is that providers located in one country supply services to residents of another country. This can involve services crossing borders, e.g. when residents in one country buy transportation and financial services from a foreign country. It may also involve the customer crossing borders to buy services abroad, as is the case when domestic residents travel and consume abroad. These transactions are, in principle, recorded in trade statistics.

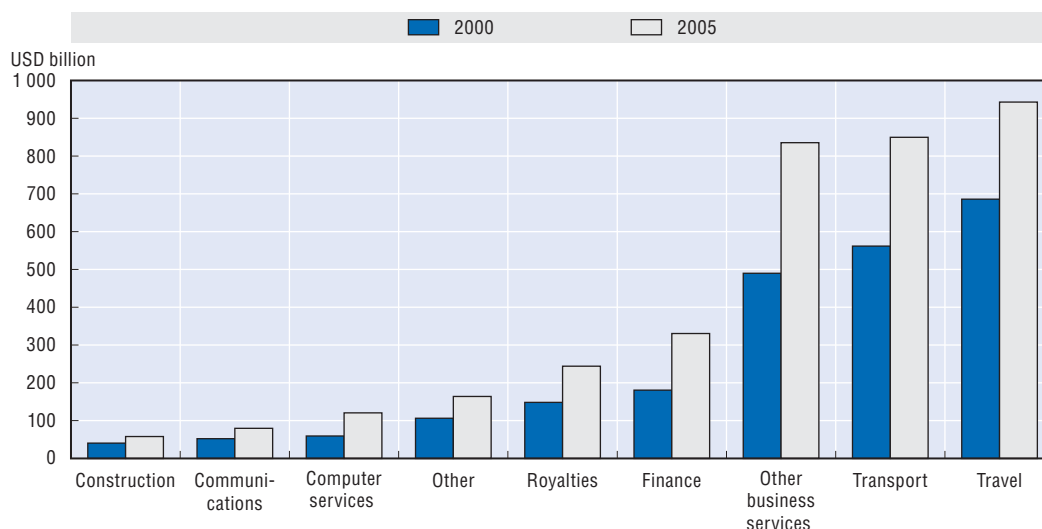
An alternative way for non-residents to provide services, which is often not captured in traditional trade statistics, is to establish a commercial presence or move in person to a country to sell the service. Indeed, unlike trade in goods, it is typically the service provider rather than the service that crosses international borders. Engineering and architectural services, for instance, can in principle be transmitted electronically in the form of drawings and designs, but complementary tacit knowledge cannot. Engineering firms that provide

services abroad therefore typically either have a commercial presence at the construction or fabrication site, or visit it frequently. Likewise computer services can be provided electronically, but often need to be complemented with problem-solving and advice that can only be effectively provided on-site. Therefore, although information technology developments have opened new opportunities for cross-border trade in those services that can be digitised and transmitted electronically, commercial presence and movement of non-residents is still required for trade in many services.

The relative importance of trade in goods and services

Services trade has fluctuated around a fifth of total trade in goods and services since the 1970s, and stood at around 20% of global and OECD trade in 2006 (OECD, 2007). OECD exports and imports of services grew by 55% to 60% from 2000 to 2005, about the same pace as for goods trade.³ The largest services trade volumes are in travel, transport and other business services, while trade growth has been strongest in computer services, finance, and other business services (Figure 7.1).⁴

Figure 7.1. Trade in services by sector in OECD countries¹



1. Trade in services is defined as imports plus exports. Finance includes insurance and royalties include licence fees.

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The share of foreign affiliates' sales in total domestic sales of services tends to be higher than traditional import penetration rates for services, but it is still relatively small. For example in the United States, where data are most readily available, import penetration in services was less than 5% in 2006, while sales of foreign affiliates accounted for about 6% of total expenditure on services in 2004.⁵

Regulatory restrictiveness and idiosyncrasies in regulation

There are few formal barriers to trade in services among OECD countries. For cross-border trade, significant restrictions remain only in the financial sector. However, while consumption abroad is generally not restricted, issues such as non-portability of health insurance and non-recognition of foreign education qualifications can limit consumption of health and education services abroad. OECD countries also have relatively

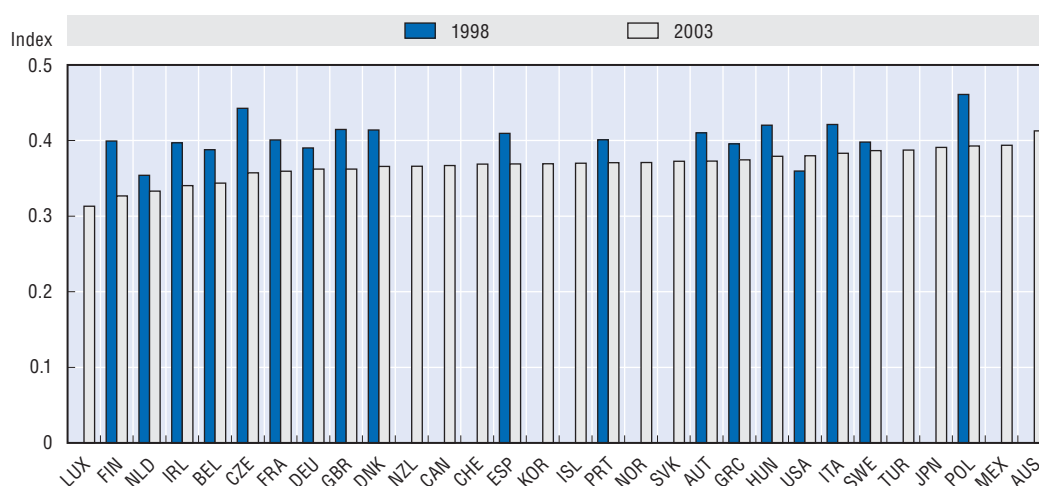
few restrictions on foreign ownership, though this varies from one country to another. In general the use of such restrictions is constrained by regional trade agreements as well as the General Agreement on Trade in Services (GATS) under the auspices of the WTO.⁶

It is widely recognised that the most important impediments to trade in services at present are behind-the-border regulations. Such regulations can hamper trade in services even when product market regulation applies both to local and foreign service providers as they are often more burdensome for foreign than for local service suppliers. Indeed, several surveys have documented that the procedures involved in, for instance, obtaining a license to operate or trade, constitute substantial upfront direct and indirect costs for firms which plan to enter a new market. For small and medium-sized firms such costs can amount to as much as six months' sales proceeds.⁷ The possibility that domestic regulation can substantially reduce the value of market access commitments is recognised in the GATS, which provides a mandate to negotiate regulatory principles ("disciplines" in WTO terminology).

Regulatory barriers to trade take the form of barriers to enter a foreign market as well as increased costs of operating in that market.⁸ And not only does the level of regulation affect trade in services, but differing regulatory requirements among countries can be an additional barrier to entry in their own right. While international harmonisation of standards for goods has a long history and is overseen by well-established international bodies such as the International Organization for Standardization, services standards and regulation are largely national and (sometimes) sub-national. They typically relate to the service provider rather than the service, and may differ considerably between countries even when they have the same level of regulatory restrictiveness and the same objectives.

There may be good reasons for imposing regulation, such as for health and safety, but when, for instance, qualification requirements are specific to each national market, international service providers must incur the compliance cost in each and every market they enter, limiting the number of countries a firm can afford to enter.⁹ Likewise, when regulation limits the scope of business, such as by restricting the kind of activities that banks, law firms or accountants can engage in, differences among countries imply that service providers must adapt their business models to each country. Such requirements can even specify the legal form of businesses, restrict the use of certain types of labour or intermediate inputs, as well as impose various administrative burdens. Since a firm's business model often defines its brand and competitiveness, such regulatory barriers can be prohibitive.

Recent OECD research has focused on the trade effects of regulatory heterogeneity on trade in services, by comparing the regulatory stance of countries on a bilateral basis to create an index that measures the degree of heterogeneity or harmonisation present in countries' regulatory stances.¹⁰ Figure 7.2 depicts the average heterogeneity score of individual countries relative to all other OECD countries in 1998 and 2003. The index suggests that the degree of heterogeneity is similar across OECD countries, with three to four of every ten regulations differing from trading partners' on average. Within this narrow range, Luxembourg, Finland and the Netherlands had the lowest average scores in 2003, implying a relatively high degree of harmonisation, while Australia had the highest average score, or highest degree of heterogeneity across regulatory instruments. The index was lower in 2003 than in 1998 for all countries (for which data are available), except the United States.

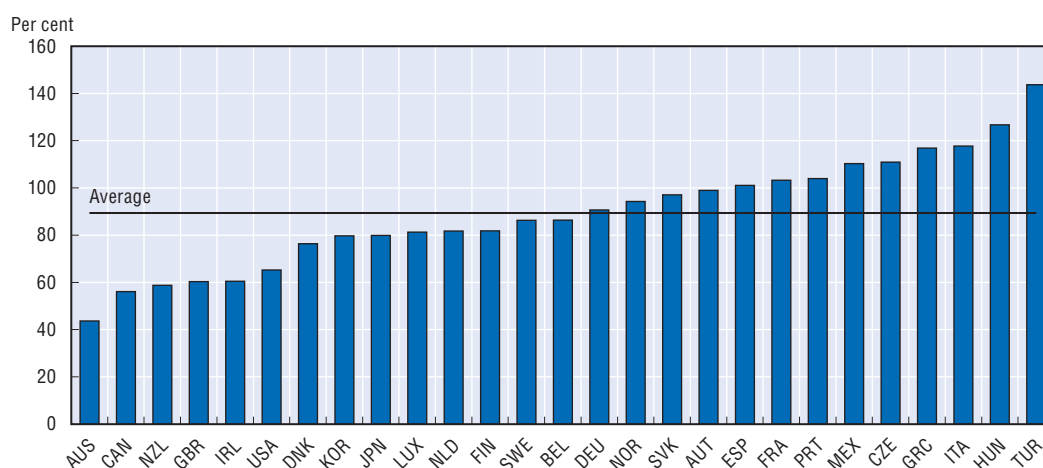
Figure 7.2. **Regulatory heterogeneity index, country unweighted averages**

Source: The Netherlands Bureau for Economic Policy Analysis.

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The impact of regulatory restrictiveness and regulatory differences on trade in services

Empirical evidence suggests that countries with restrictive regulation are less likely to import services in general, and from countries with a different regulatory regime in particular, due to heightened trade costs. This effect is strongest for regulatory measures classified as foreign ownership restrictions and discriminatory procedures. Restrictive regulation also appears to impede local firms from entering foreign markets. This is illustrated by Figure 7.3, which presents the estimated impact on trade in services if all OECD countries reduced their average level of regulatory restrictiveness to the lowest national average level observed in the OECD area, and at the same time fully harmonised

Figure 7.3. **Estimated increase in trade in services following full harmonisation of product market regulation on the least restrictive stance**

Source: Kox and Nordås (2007).

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the bilateral stance of all individual regulations with respect to their trading partners.¹¹ This could be accomplished in part through acceptance of each others' regulations, such as through mutual recognition of service provider's home country qualifications.¹²

On average, it is estimated that trade in services could rise by 90% following this re-alignment of national regulatory stances. Since trade in services represents about a fifth of overall trade, and trade accounts for about 44% of GDP on average, this increase would translate into a nine percentage point rise in the average share of trade to GDP. But this increase would vary widely across OECD countries. Countries with the most restrictive stances, such as Hungary and Turkey, would likely benefit the most (as much as a 140% increase in trade, albeit from a low base), while those with the least restrictive stance of regulation, such as Australia, would benefit less (an over 40% increase), even if they have idiosyncratic regulatory regimes.¹³ These increases are of course very large, but to put the results into perspective, it is noted that exports of services from the Slovak Republic almost doubled in nominal dollar terms between 2000 and 2005, following a period of deregulation and harmonisation of regulation towards EU standards.¹⁴

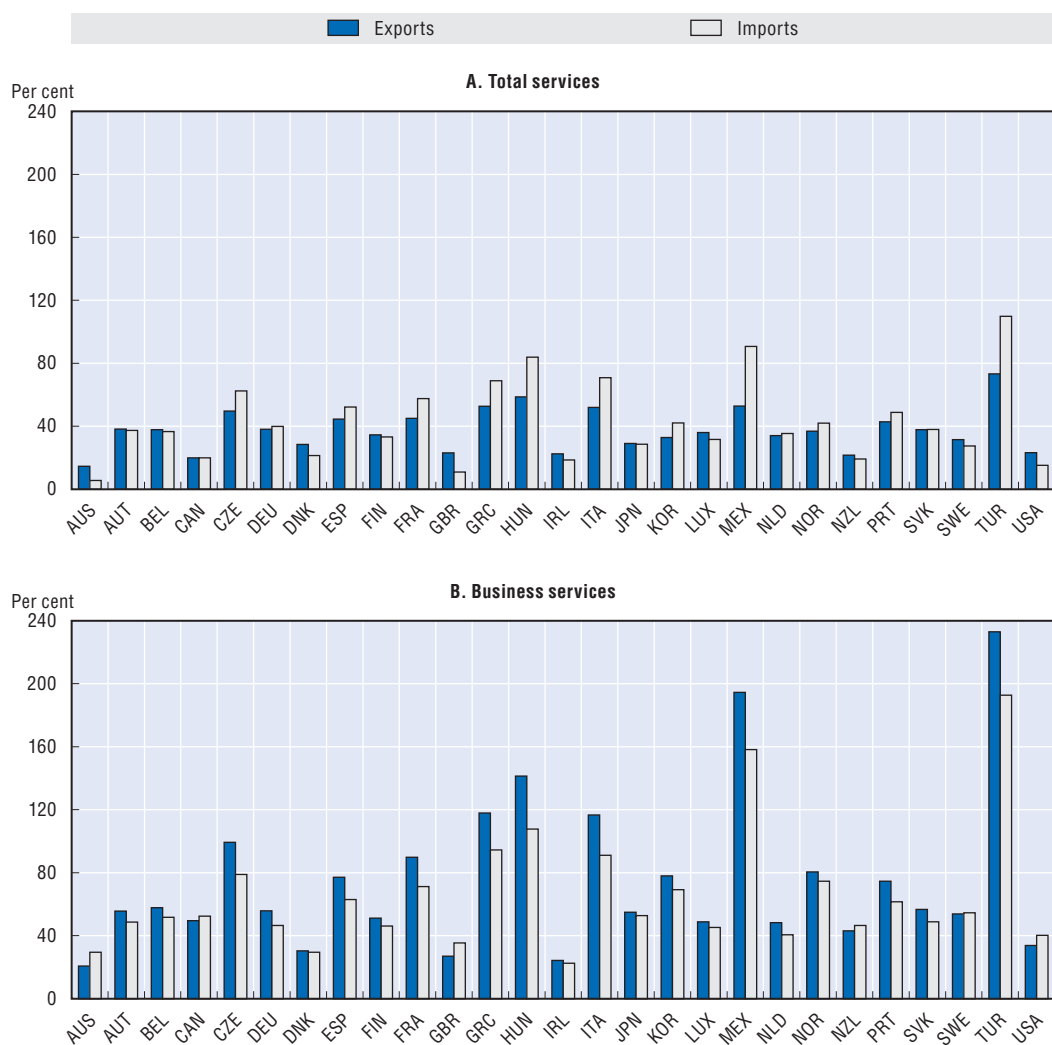
A reduction in just the level of regulation contributes two-fifths of the gains from regulatory reform, with further gains possible if countries harmonise their regulation.¹⁵ Figure 7.4, Panel A shows the estimated result of just reducing the level of regulation on overall services trade (on average, a 37% increase in services trade), while Panel B depicts the impact on trade in business services specifically. Trade in business services is more sensitive to regulatory restrictiveness than is trade in services in general (see Leshner and Nordås, 2006). The estimated increase in trade from aligning all regulations to the least restrictive level is on average 50% in the business services sector, and for most OECD countries exports would increase more than imports.¹⁶ Although these results are just simulated changes in trade following regulatory reform, they are on a scale of actual changes during the latest five-year period for which data are available (see Figure 7.1), suggesting that regulatory reform could sustain and enhance growth in services trade.

How reforms of service markets can boost productivity and income per capita

How do the predicted changes in services trade following regulatory reform translate into changes in income and productivity? The linkages between regulation, trade and productivity are complex, and are discussed further in Box 7.1. Figure 7.5 shows the predicted changes in GDP per capita by country, following reduction of regulatory restrictiveness to the lowest level in the OECD as well as a full harmonisation of product market regulation (i.e. reducing the heterogeneity index to zero). The scenario should be seen as an illustration of the potential gains in productivity levels from introducing best practice regulation, not a forecast, and does not include possible dynamic effects from technology spillovers or higher returns on investment in R&D and capital.¹⁷

The estimated gains in productivity are quite substantial (around 2% on average), and are strongest in countries that currently have the highest levels of regulatory restrictiveness and countries in which businesses are deeply integrated into international production networks. Some of the biggest gains would accrue to small OECD economies with the highest GDP shares of services trade or those that have a high share in comparison with their overall trade openness, with an estimated increase in GDP per capita for these countries of around 3% or more. Although Turkey is predicted to see the largest increase in

Figure 7.4. **Predicted increase in trade following a reduction of regulatory restrictiveness to the lowest level observed in the OECD area**



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services trade, the increase is from a relatively low base, and the impact on total GDP is smaller. The smallest gainers, Canada and Australia, could still increase GDP per capita by more than 1%.

In conclusion, an open, competitive and well-regulated services market is crucial for productivity and income gains in the services sectors as well as for the performance of manufacturing and the economy as a whole. The extent to which the potential productivity gains from specialisation can be realised depends on transaction costs with outside local and foreign suppliers. Transport, communications and finance provide services that facilitate transactions both within countries and across borders and the more competitive these sectors, the lower the transaction costs. Moreover, the gains from regulatory reform would be enhanced substantially if countries move together when undertaking regulatory reforms, thus reducing trade costs as much as possible and enhancing the gains from trade.

Box 7.1. Regulatory reform, trade and productivity: what are the linkages?

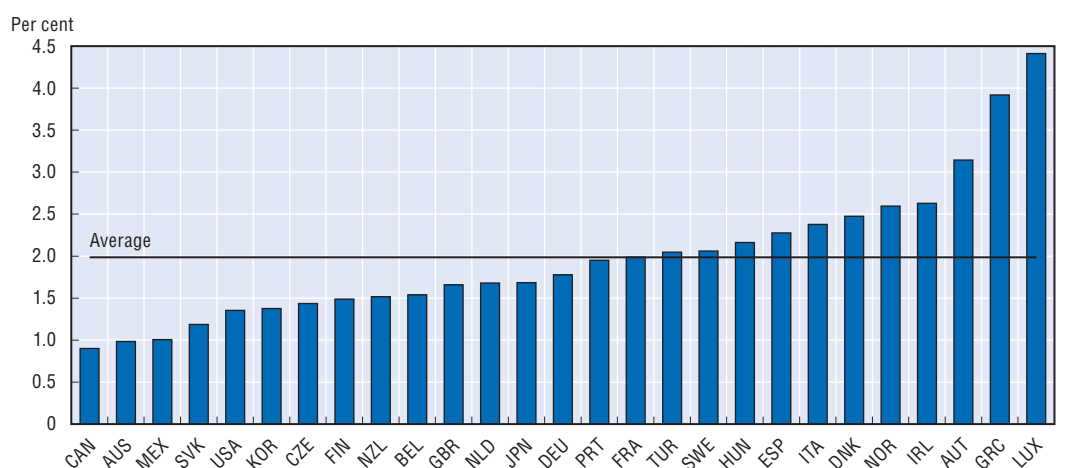
Regulatory reforms reduce trade costs and barriers to entry, encouraging entrepreneurship and expansion into international markets, and thus increasing trade and openness. At the same time, there is a strong and positive relationship linking openness to international trade with higher income levels, by raising productivity. The *OECD Growth Study* found that a 10 percentage point rise in openness was associated with a 4% increase in GDP per capita (OECD, 2003a), a similar average impact to that found in Boulhol and de Serres (2008) and Frankel and Romer (1999).

A variety of channels support the linkages between trade and productivity, including: improvements in the international division of labour through deeper specialisation of labour; gains in economies of scale in production; spillovers that arise from technology embodied in capital goods; and increases in investment in R&D and capital that result from gains in efficiency and factor returns (see, for instance, Nordås *et al.*, 2006). Each of these channels appears to play an important role, although until recently, there was limited evidence on the dynamics of their interactions.

New evidence suggests that the main mechanism through which deregulation enhances trade, and in turn productivity, works by supporting the creative destruction process that reallocates economic activity towards higher-productivity firms. Lower trade costs enable productive non-exporting firms to export and enable existing exporters to increase their shipments. This process increases the scale and market share of high-productivity firms in export industries, causing low-productivity firms to decline and exit (Bernard *et al.*, 2007). The dynamics of this process strengthen trade shares in sectors with comparative advantage, improving specialisation and efficiency, resulting in higher GDP per capita.

The sources of productivity gains from trade in services specifically come from a combination of more competitive services markets and the effect of more efficient and diversified services inputs into other sectors of the economy. If a broad supplier base exists, firms can source expertise in non-core areas from outside suppliers, locally or internationally instead of producing the service in-house. Furthermore, outsourcing a service often means replacing an in-house multi-task employee by a team of outside specialists competent in each task. Likewise, in a diversified and competitive market the existence of rental services for buildings and machinery, accounting services, information and communications technology and related services can lower the entry barriers for entrepreneurs in all sectors by reducing the necessary upfront investment and labour costs in the early stages of establishing a business.

Figure 7.5. **Estimated increase in GDP per capita following full introduction of best practice regulation**



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Notes

1. This chapter draws on Kox and Nordås (2007).
2. In this chapter the definition of trade in services corresponds to that in the balance of payments (BOP) statistics. BOP defines trade (both in goods and services) as trade between residents and non-residents of a country. In the General Agreement of Trade in Services (GATS) under the auspices of the WTO, trade in services is defined more broadly and includes sales of foreign affiliates.
3. The growth rates refer to increases in current USD terms.
4. Some service trade, such as in transport services, are directly linked to trade in goods.
5. Import penetration and the share of foreign affiliates in total sales are calculated from US national accounts data and data on operations of multinational enterprises from the Bureau of Economic Analysis.
6. The services negotiations in the WTO have so far produced little liberalisation of services trade.
7. See CSES (2001) and the World Bank's *Doing Business* surveys.
8. See Gönenç *et al.* (2001) and Nicoletti *et al.* (2003) for an extensive discussion.
9. However, these restrictions also create rents which may encourage entry.
10. The measure of heterogeneity applied is to what extent country pairs gave the same response to each question in the OECD's product market regulation survey (see OECD, 2003b, and Conway *et al.*, 2005 for the details of the questionnaire). The response to most of these questions was either yes or no. If a country pair had identical answers to all questions, the aggregate score is zero; if they had a different answer to all questions, the aggregate score is one; while if there is a mix of similar and different answers, the index is between zero and one. The more harmonised regulation is, the lower the index score, regardless of the level of restrictiveness.
11. The simulation results should be seen as illustrative only. The large size of the deregulatory shock may result in an overestimate of its impact on trade, since a reduction in the level of regulatory restrictiveness may by itself reduce heterogeneity.
12. The draft Services Directive proposed to use a country-of-origin principle for regulating cross-border services in the European Union, see Vogt (2005). However, this principle was dropped in the final 2006 version.
13. Indicators of the levels of competition-restraining domestic regulations are depicted in the Statistical Annex to this volume.
14. The scenario was developed using gravity equation regressions with the usual bilateral controls (distance, common border, common language, whether or not both countries are members of the same regional trade agreements), augmented by the regulatory level and heterogeneity index (see Equation 1 in Kox and Nordås, 2007, Table A2.3). Predicted changes in exports and imports following full harmonisation were estimated by setting the heterogeneity index to zero for all country pairs, in addition to bringing the level of the regulatory index down to the level of the least regulated OECD country.
15. The simulation results should be seen as illustrative only. See footnote 11.
16. Regulation at home constrains domestic firms from competing in foreign markets and this effect is stronger than the impact of regulation in the importing country.
17. The simulations also do not include all the effects of barriers that may exist at the local level, such as the effects of building codes on architectural services.

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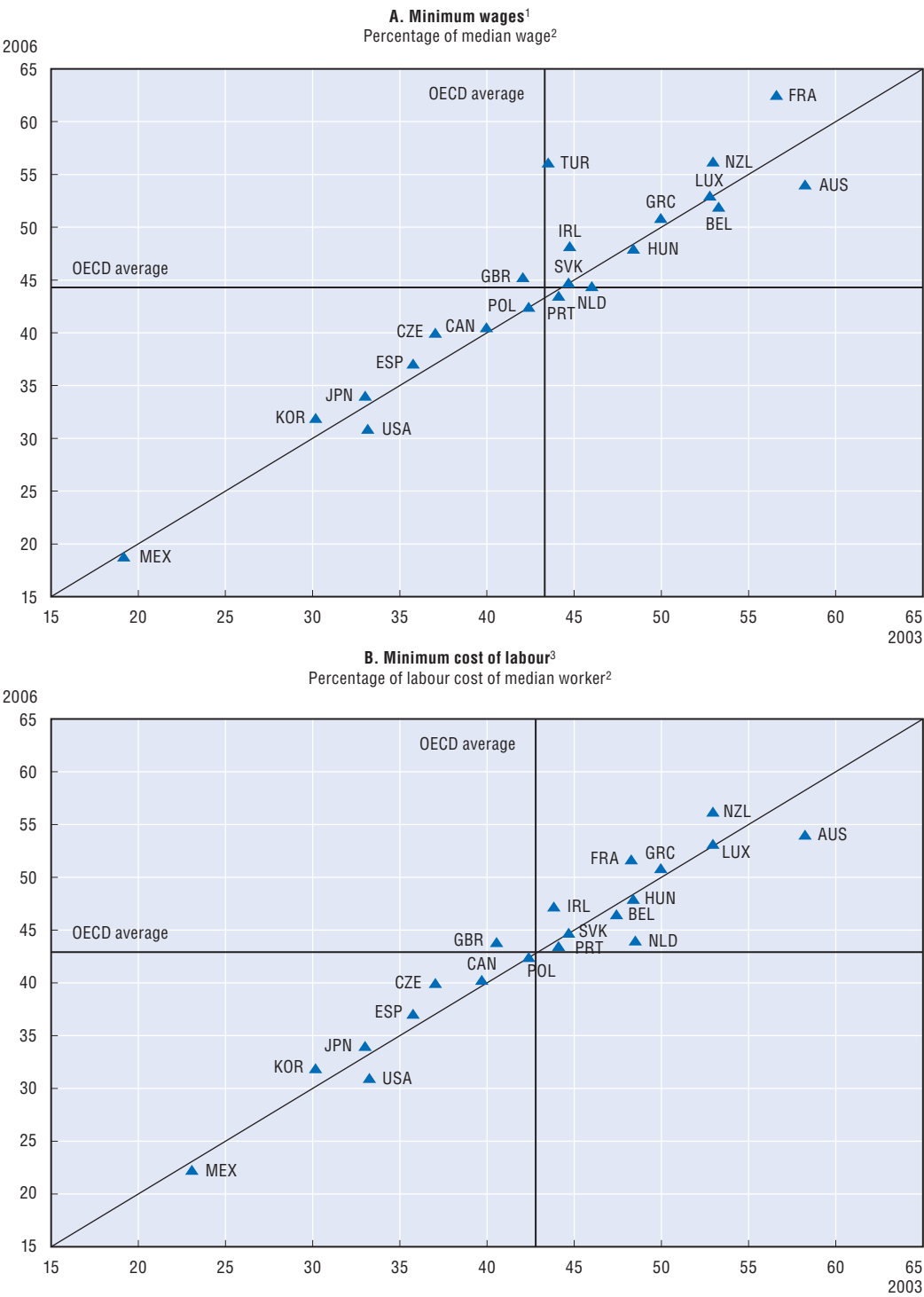
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ANNEX A

Structural Policy Indicators

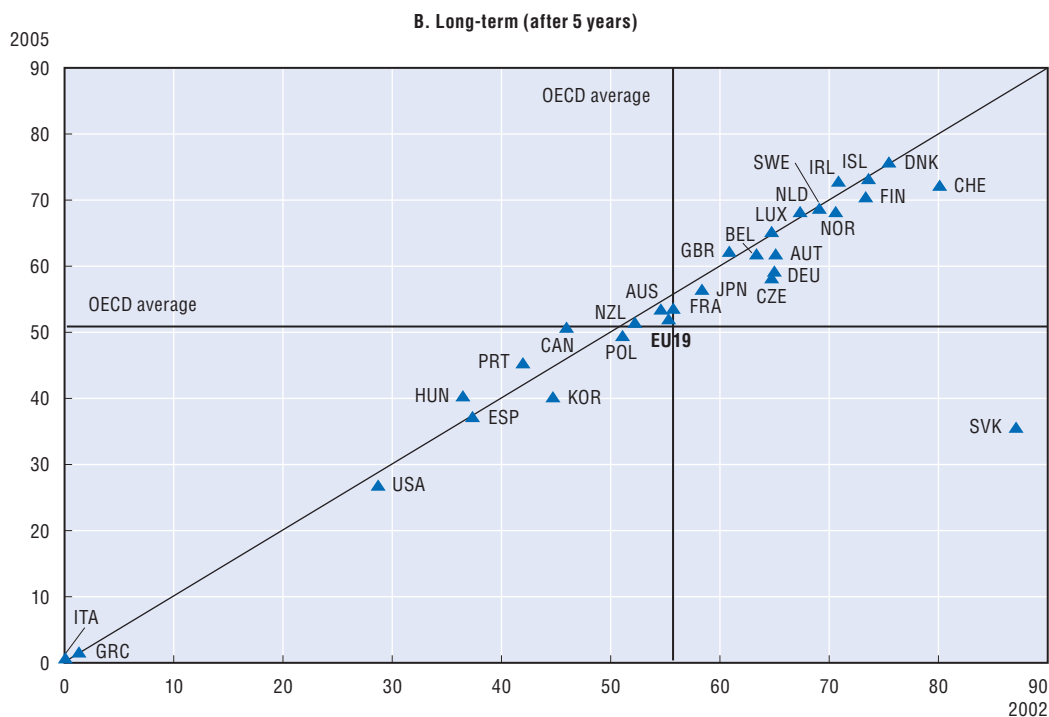
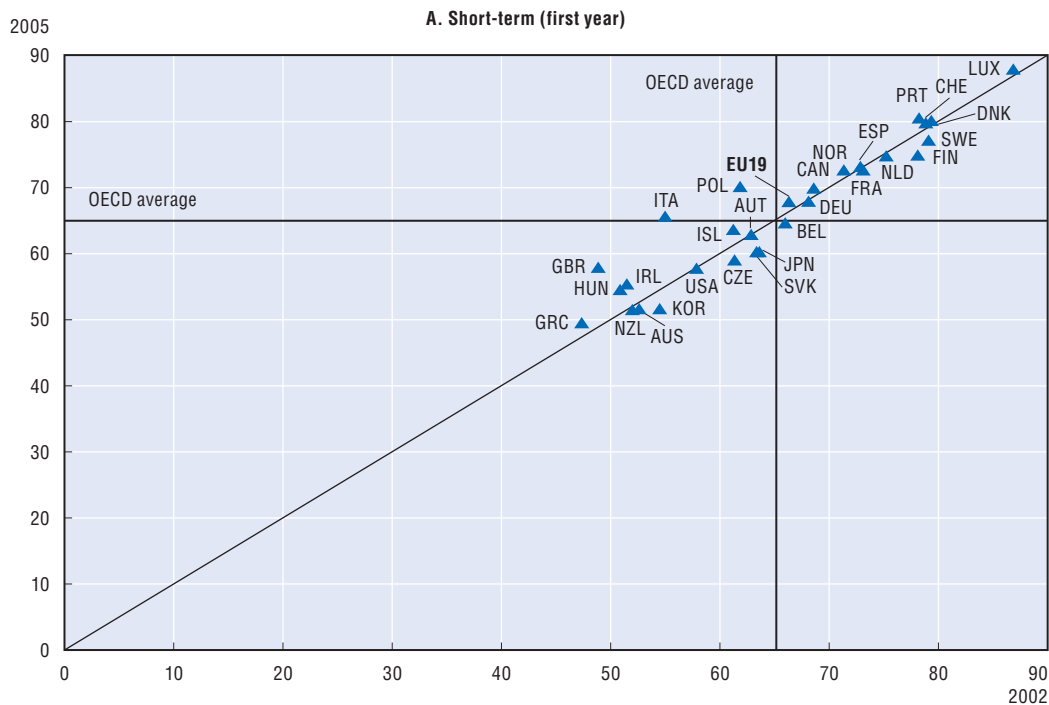
Figure A.1. **Cost of labour**



1. Missing countries do not have statutory minimum wage.
2. Exactly half of all workers have wages either below or above the median wage. Data for Greece, Mexico and Turkey refer to 2003 and 2005.
3. The cost of labour is the sum of the wage level and the corresponding social security contribution paid by employers.
Source: Chart A: OECD, Labour Force Statistics, 2007; Chart B: OECD Employment Outlook, 2007 and OECD, Taxing Wages database.

Figure A.2. **Net income replacement rates for unemployment**¹

Percentage of earnings

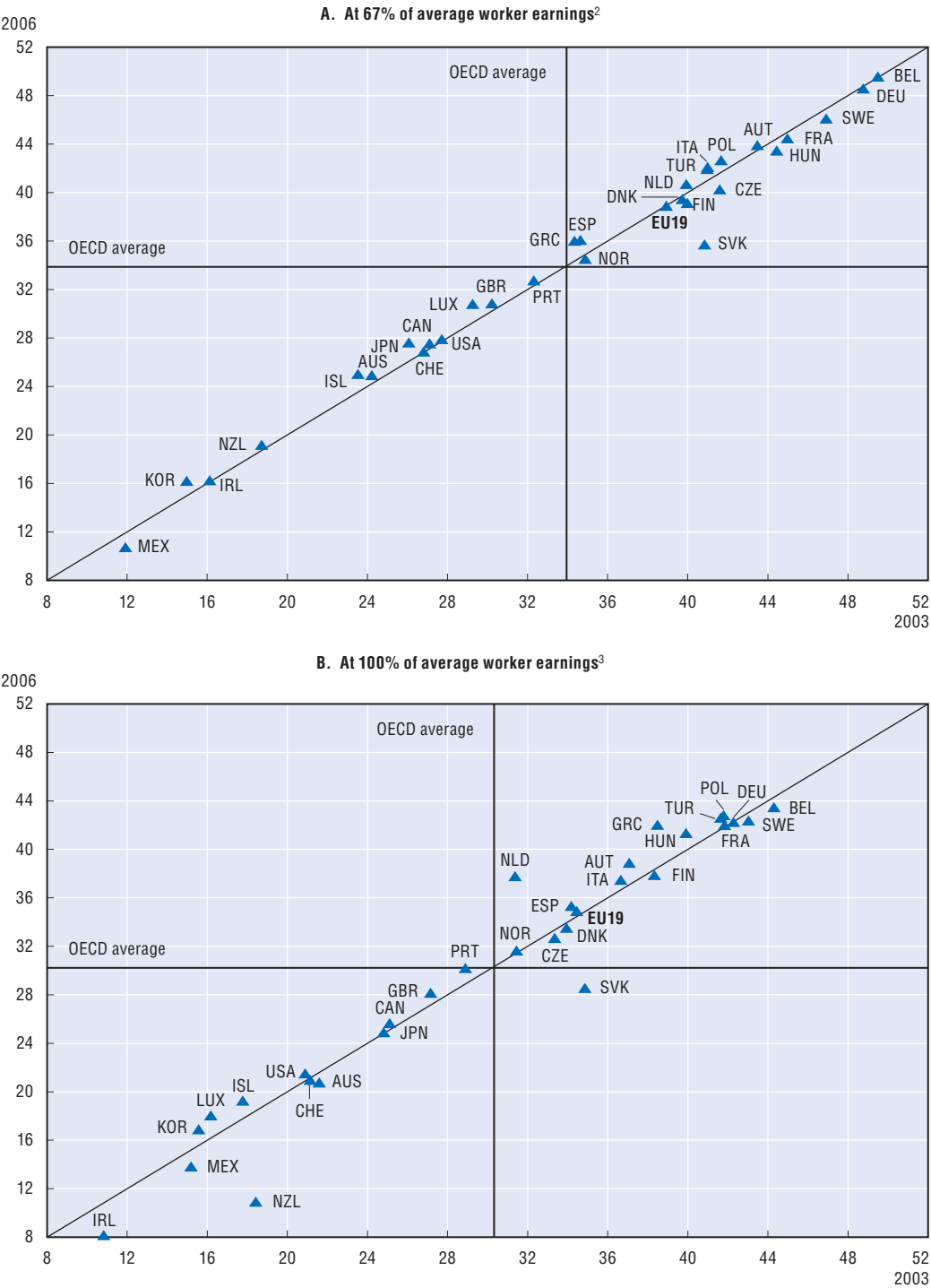


1. Average of replacement rates for unemployed persons who earned 67% and 100% of average worker earnings at the time of losing job.

Source: OECD, Benefits and Wages database.

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Figure A.3. **Average tax wedge on labour**¹
Percentage of total labour compensation



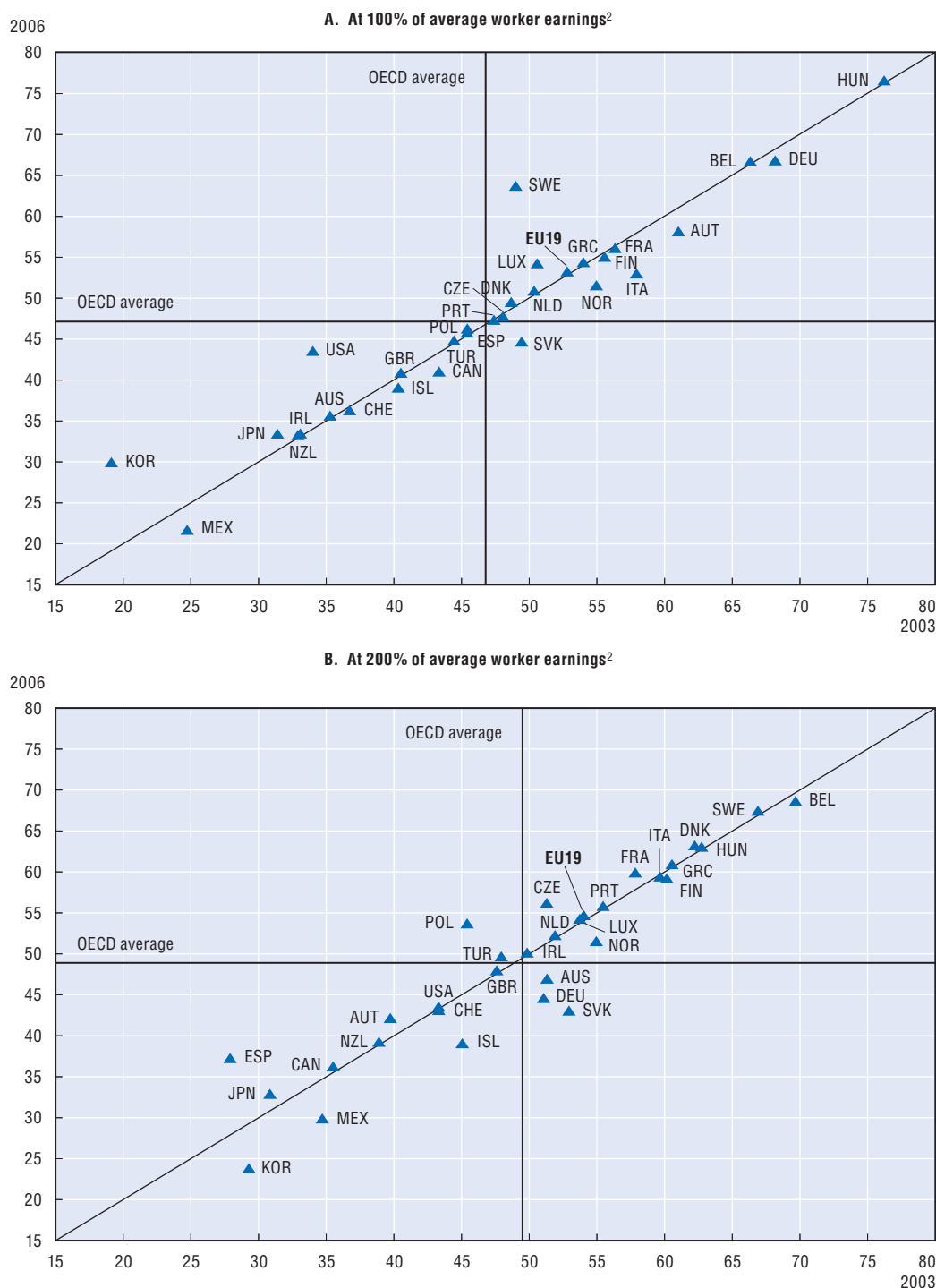
1. Measured as the difference between total labour compensation paid by the employer and the net take-home pay of employees, as a ratio of total labour compensation. It therefore includes both employer and employee social security contributions.

2. Single person with no child.

3. Couple with two children, average of three situations regarding the wage of the second earner.

Source: OECD, Taxing Wages database.

Figure A.4. **Marginal tax wedge on labour**¹
Percentage of total labour compensation

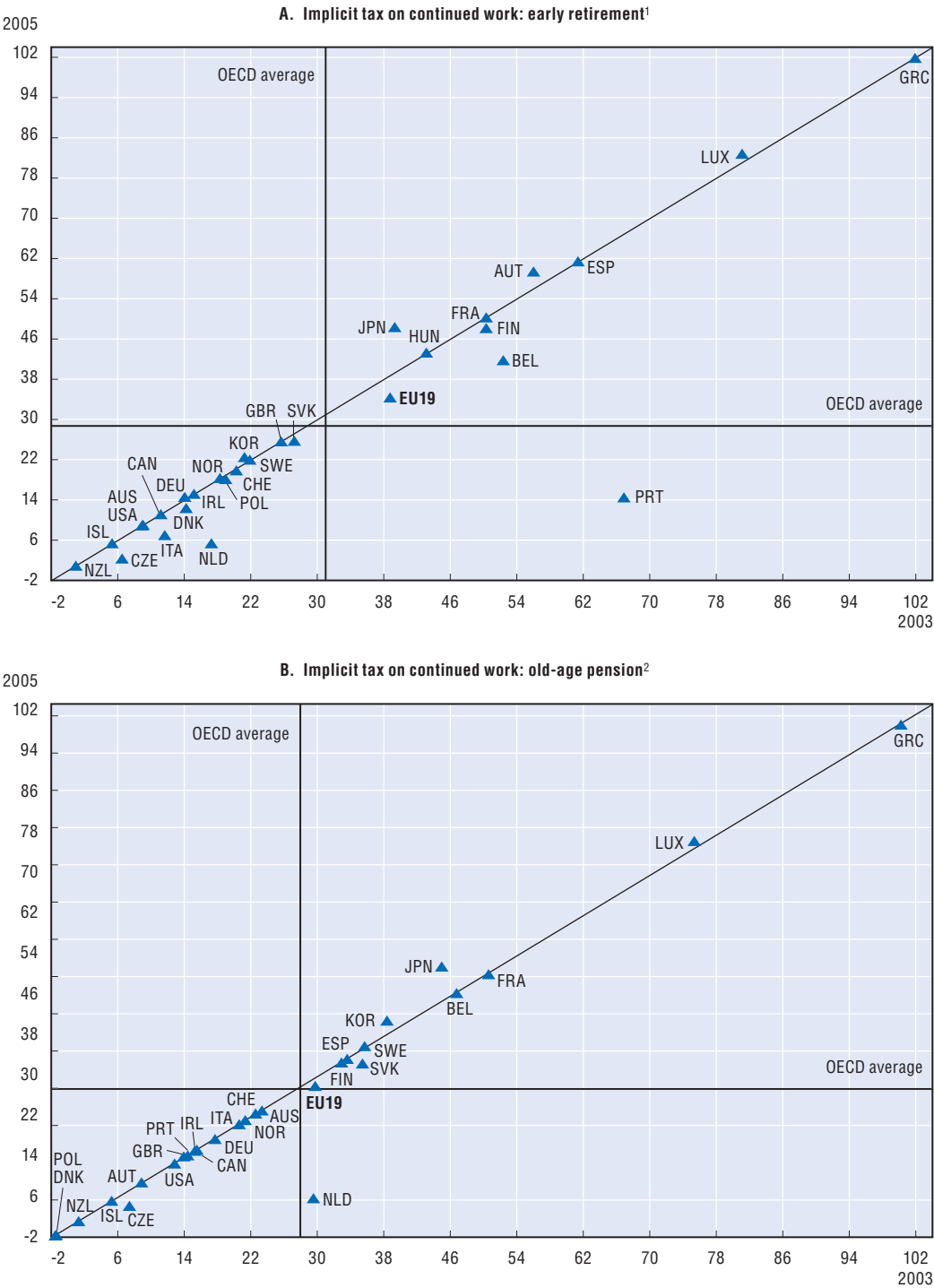


1. Measured as the difference between the change in total labour compensation paid by employers and the change in the net take-home pay of employees, as a result of an extra unit of national currency of labour income. The difference is expressed as a percentage of the change in total labour compensation.
2. Single person with no child.

Source: OECD, Taxing Wages database.

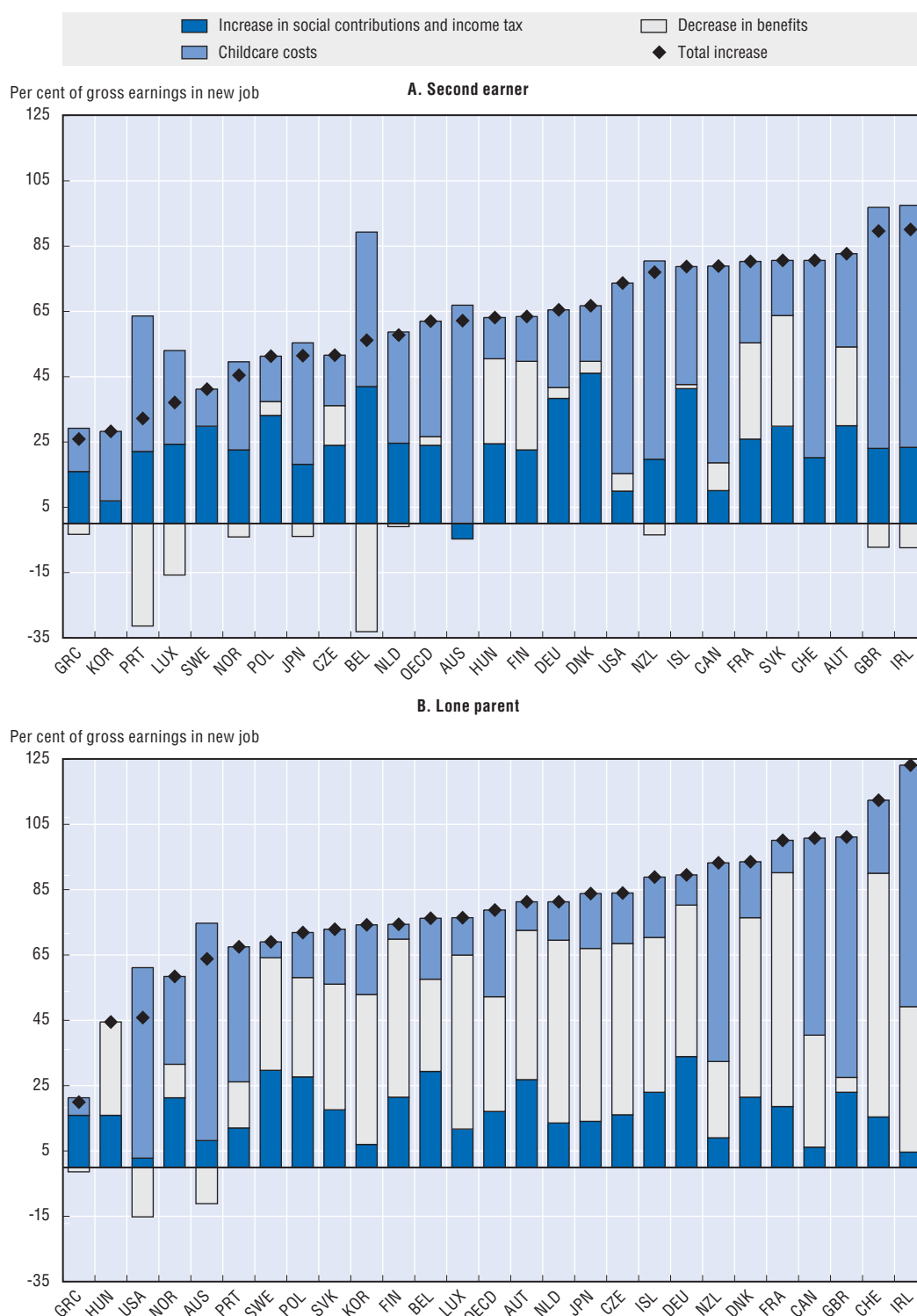
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Figure A.5. **Labour taxation**
Percentage of average worker earnings



1. Average of implicit tax on continued work in early retirement route, for 55 and 60-year-olds.
2. Implicit tax on continued work in regular old-age pension systems, for 60-year-olds.
Source: Duval, R. (2003), "The Retirement Effects of Old-Age Pension and Early Retirement Schemes in OECD countries", OECD Economics Department Working Papers, No. 370 and OECD calculations.

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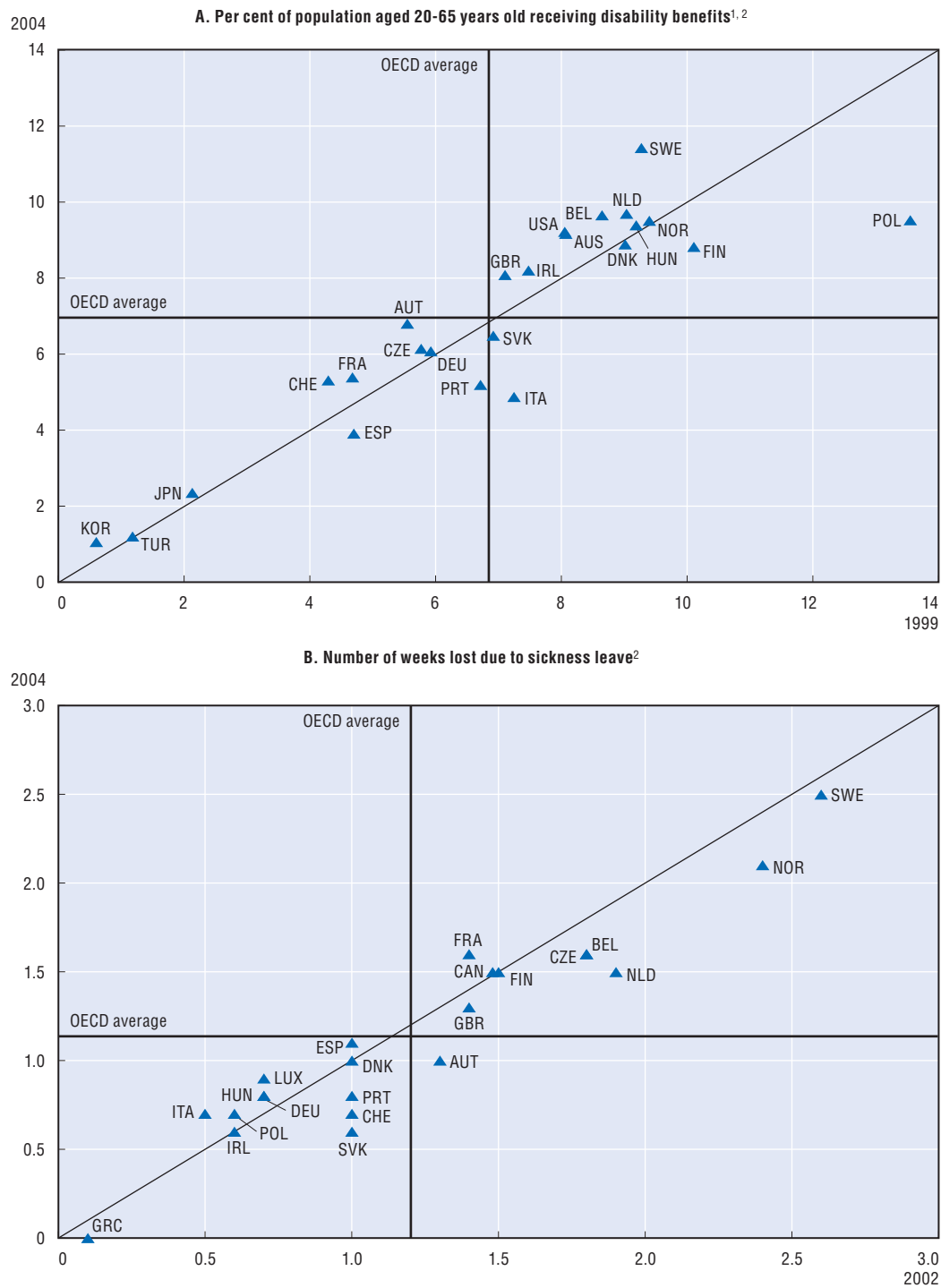
Figure A.6. **Implicit tax on returning to work, 2004¹**

1. Taking into account childcare costs and changes of taxes and benefits in case of a transition to a job paying two-thirds of average worker earnings.

Source: OECD, *Benefits and Wages: OECD Indicators*, 2007.

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Figure A.7. **Income support for disability and sickness**



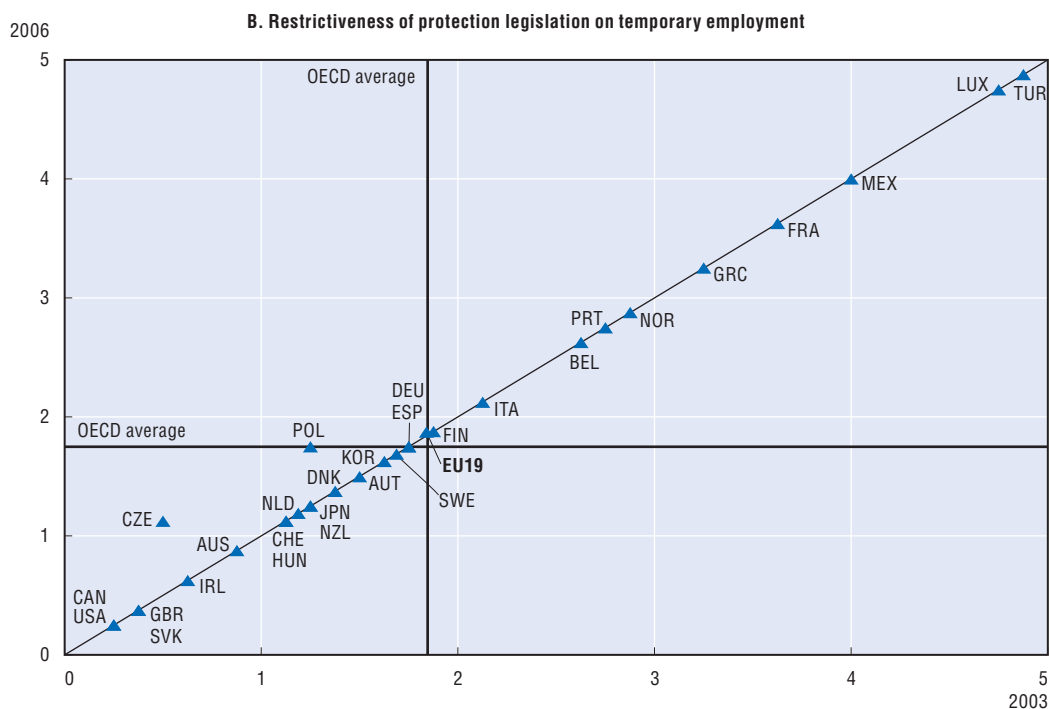
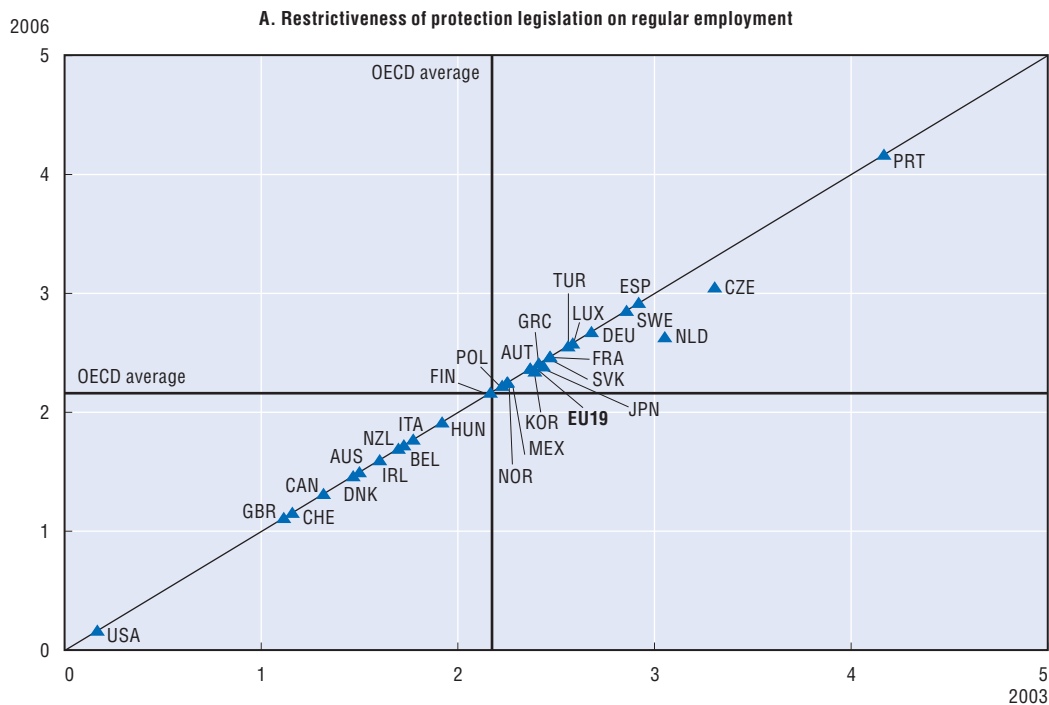
1. Disability benefits include benefits received from schemes to which beneficiaries have paid contributions (contributory), programmes financed by general taxation (non-contributory) and work injury schemes. Data for the Czech Republic, Germany and Italy are for 2003.

2. OECD average only for the countries shown on the graph.

Source: Chart A: OECD, *Transforming Disability into Ability*, 2003; Chart B: OECD *Employment Outlook* (Chapter 1), 2004 and OECD estimates.

Figure A.8. **Employment Protection Legislation (EPL)**

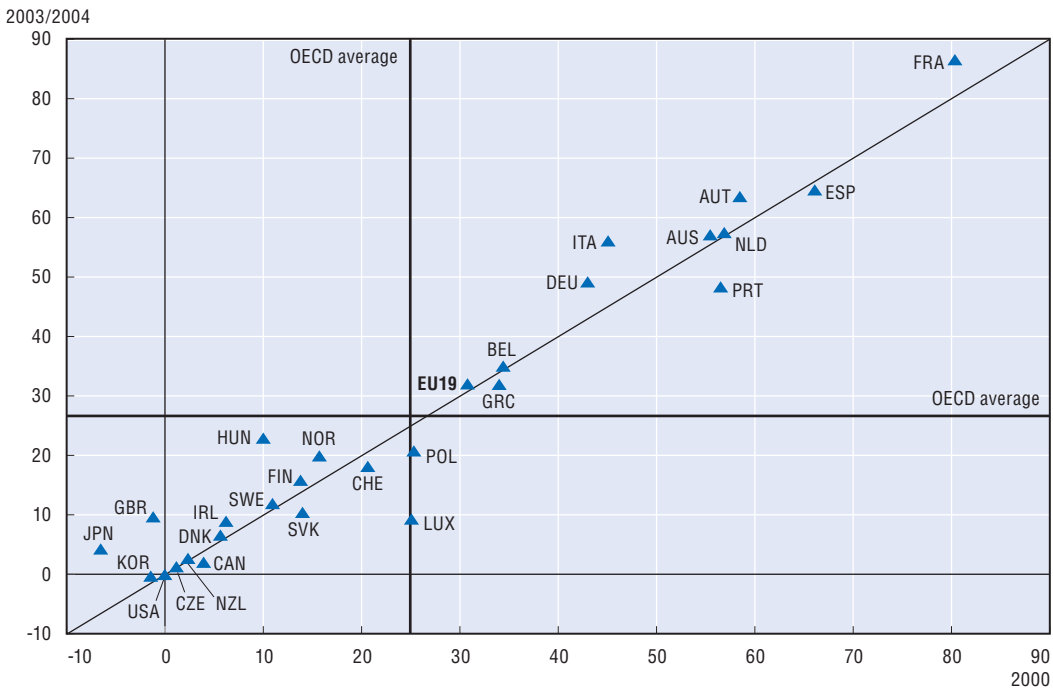
Indicator scale of 0-6 from least to most restrictive



Source: OECD Employment Outlook (Chapter 2), 2004 and OECD estimates.

StatLink  <http://dx.doi.org/10.1787/255772570204>

Figure A.9. **Difference between coverage rates of collective bargaining agreements and trade union density rates**¹



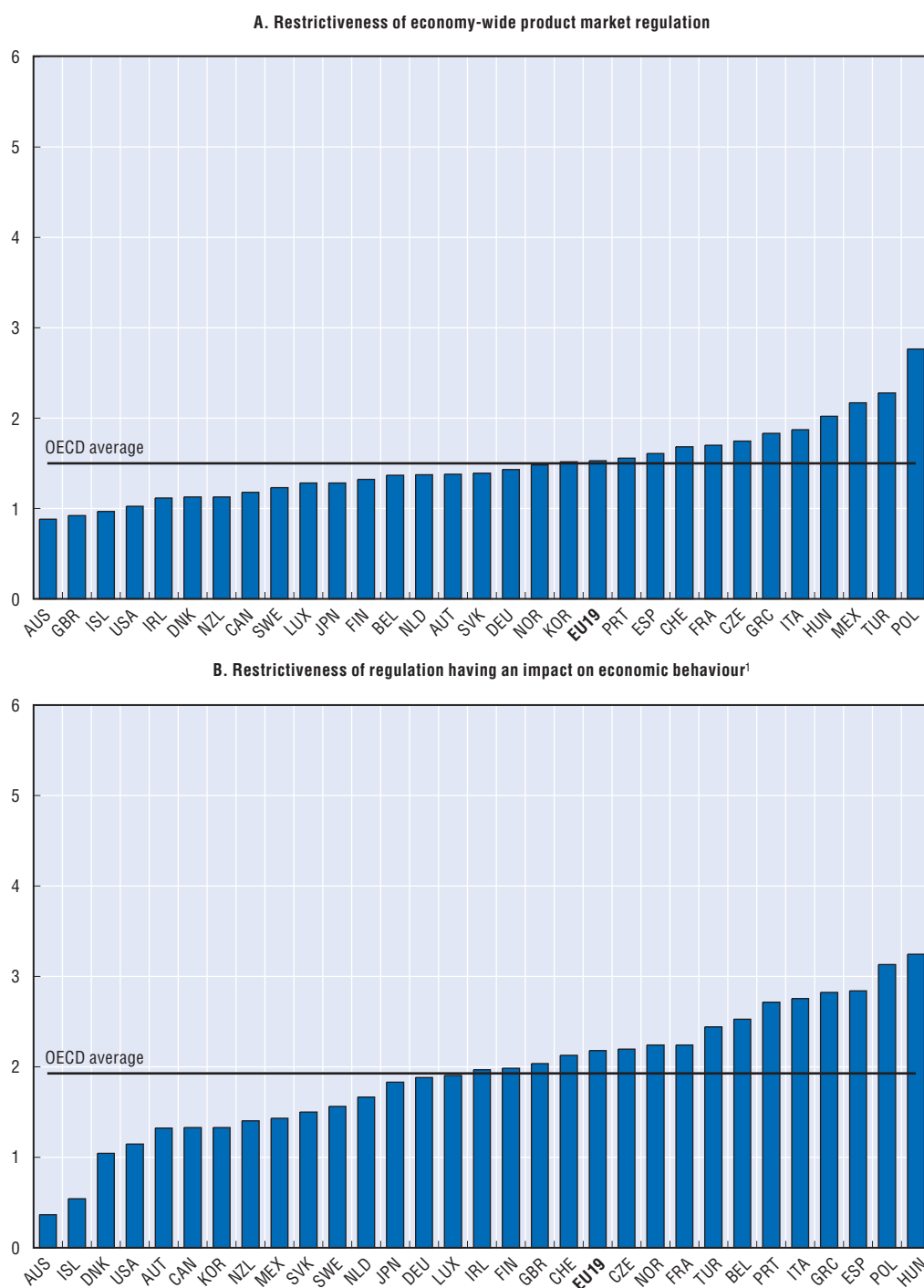
1. The coverage rate is measured as the percentage of workers who are covered by collective bargaining agreements, regardless of whether or not they belong to a trade union. The union density rate is the percentage of workers belonging to a trade union. Each data point on the figure is calculated as the simple arithmetic difference between the two rates.

Source: OECD Employment Outlook (Chapter 3), 2004 and data provided by national authorities.

StatLink  <http://dx.doi.org/10.1787/255806812807>

Figure A.10. **Product market regulation, 2003**

Indicator scale of 0-6 from least to most restrictive

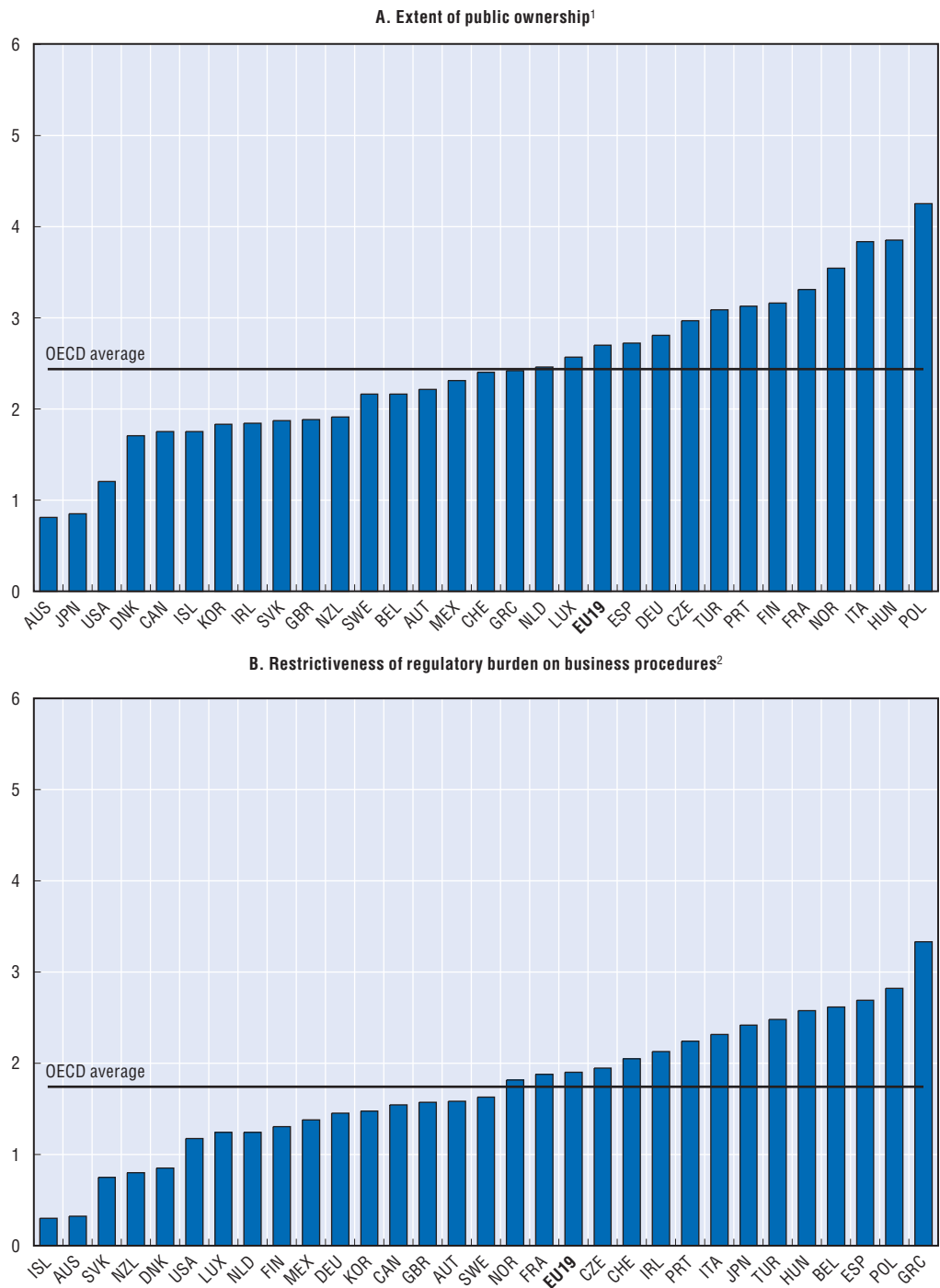


1. Economic regulation includes all domestic regulatory provisions affecting private governance and product market competition such as state control and legal barriers to entry in competitive market.

Source: OECD, Product Market Regulation database.

StatLink  <http://dx.doi.org/10.1787/255863300080>

Figure A.11. **State control of business operations, 2003**
Indicator scale of 0-6 from least to most restrictive



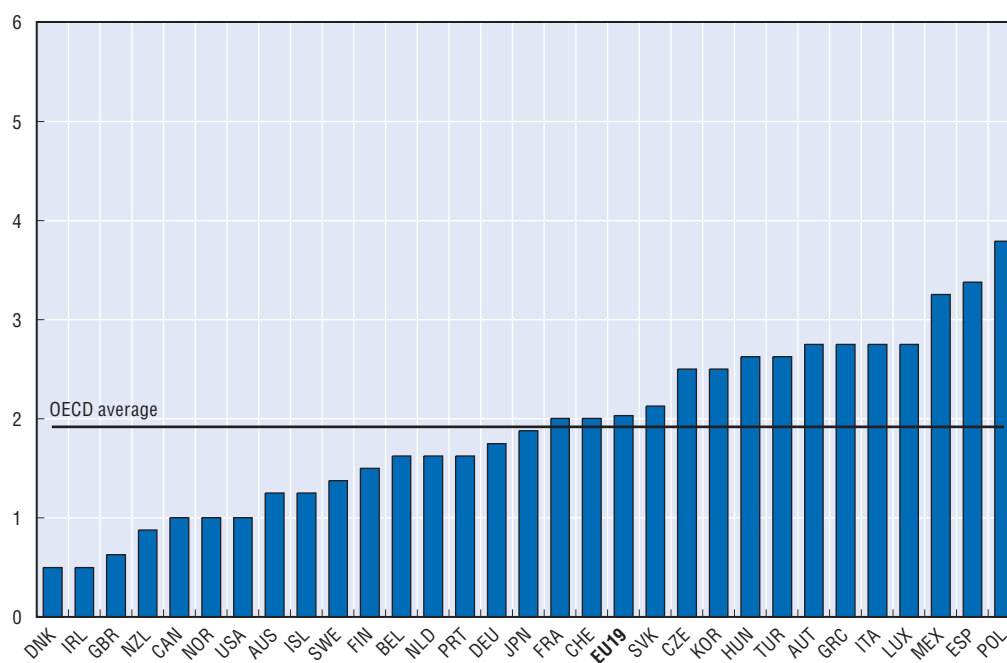
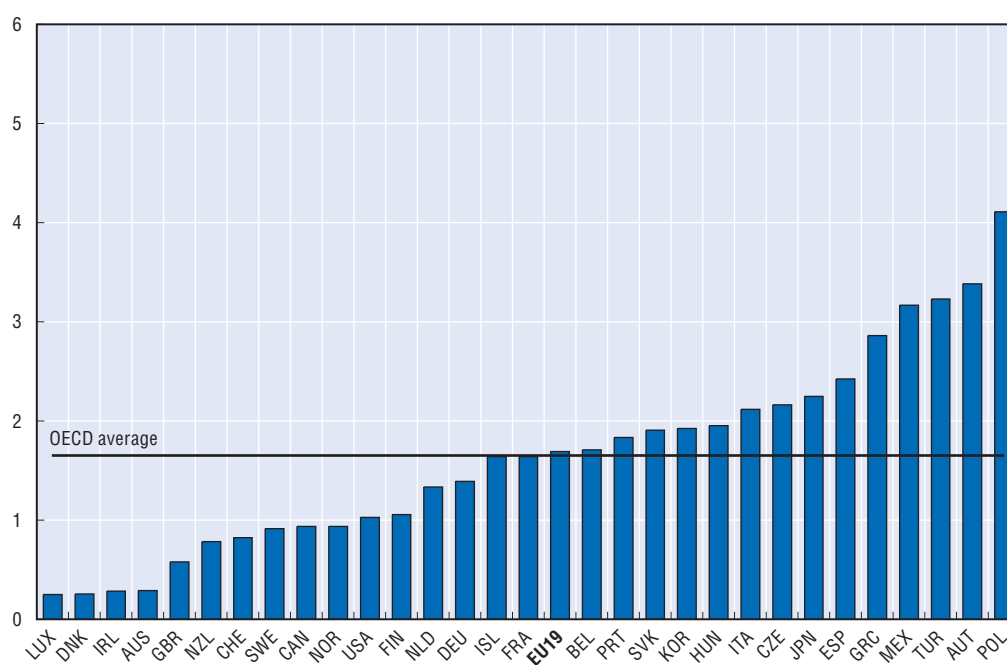
- 1. Covers scope and size of public enterprise as well as the direct state control over business enterprise (via voting rights or legislative bodies).
- 2. Concerns the involvement of the state in business operations via price controls or the use of command and control regulation.

Source: OECD, Product Market Regulation database.

StatLink  <http://dx.doi.org/10.1787/255872771213>

Figure A.12. **Barriers to entrepreneurship, 2003**

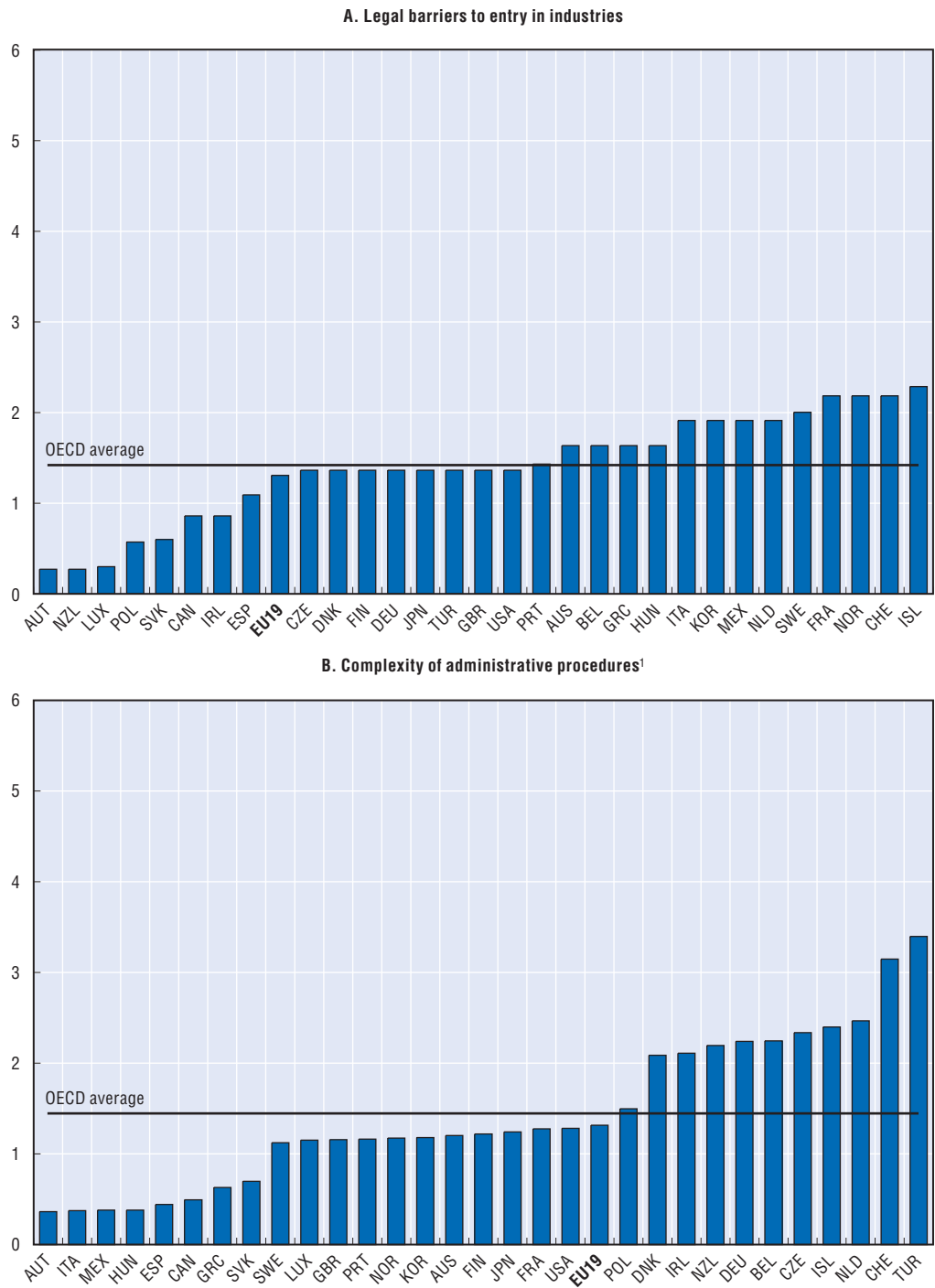
Indicator scale of 0-6 from least to most restrictive

A. Administrative burdens on corporations and sole proprietor start-ups**B. Sector-specific administrative burden**

Source: OECD, Product Market Regulation database.

StatLink  <http://dx.doi.org/10.1787/256008157417>

Figure A.13. **Barriers to entry, 2003**
Indicator scale of 0-6 from least to most restrictive



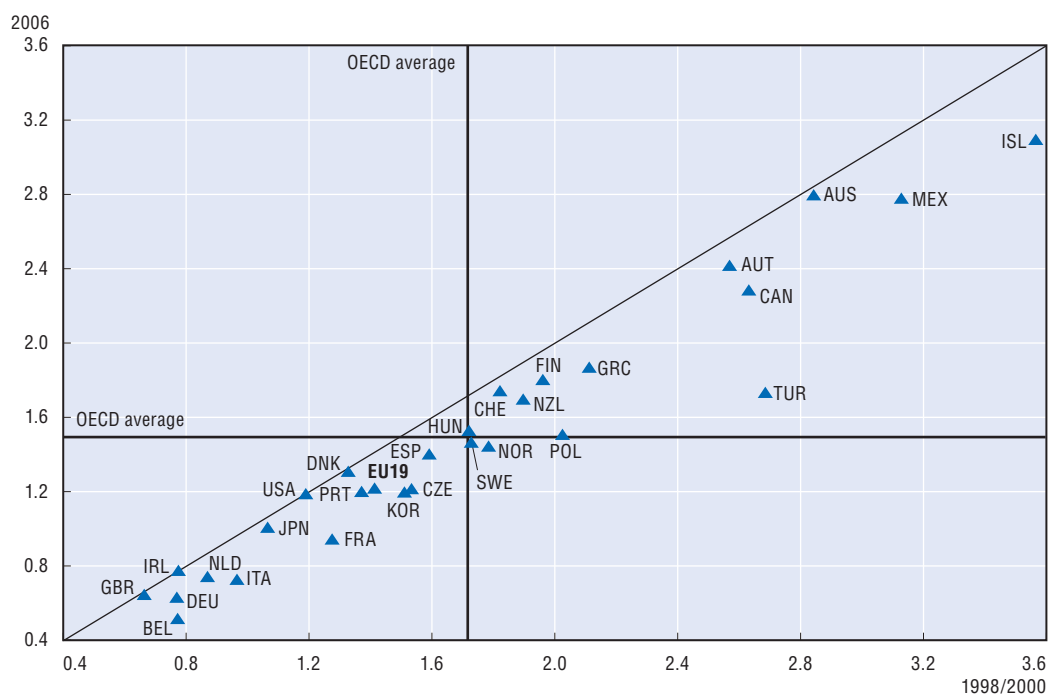
1. Concerns complexity of government communication of rules and procedures as well as of licences and permit systems.

Source: OECD, Product Market Regulation database.

StatLink  <http://dx.doi.org/10.1787/256012803308>

Figure A.14. **Barriers to foreign direct investment**

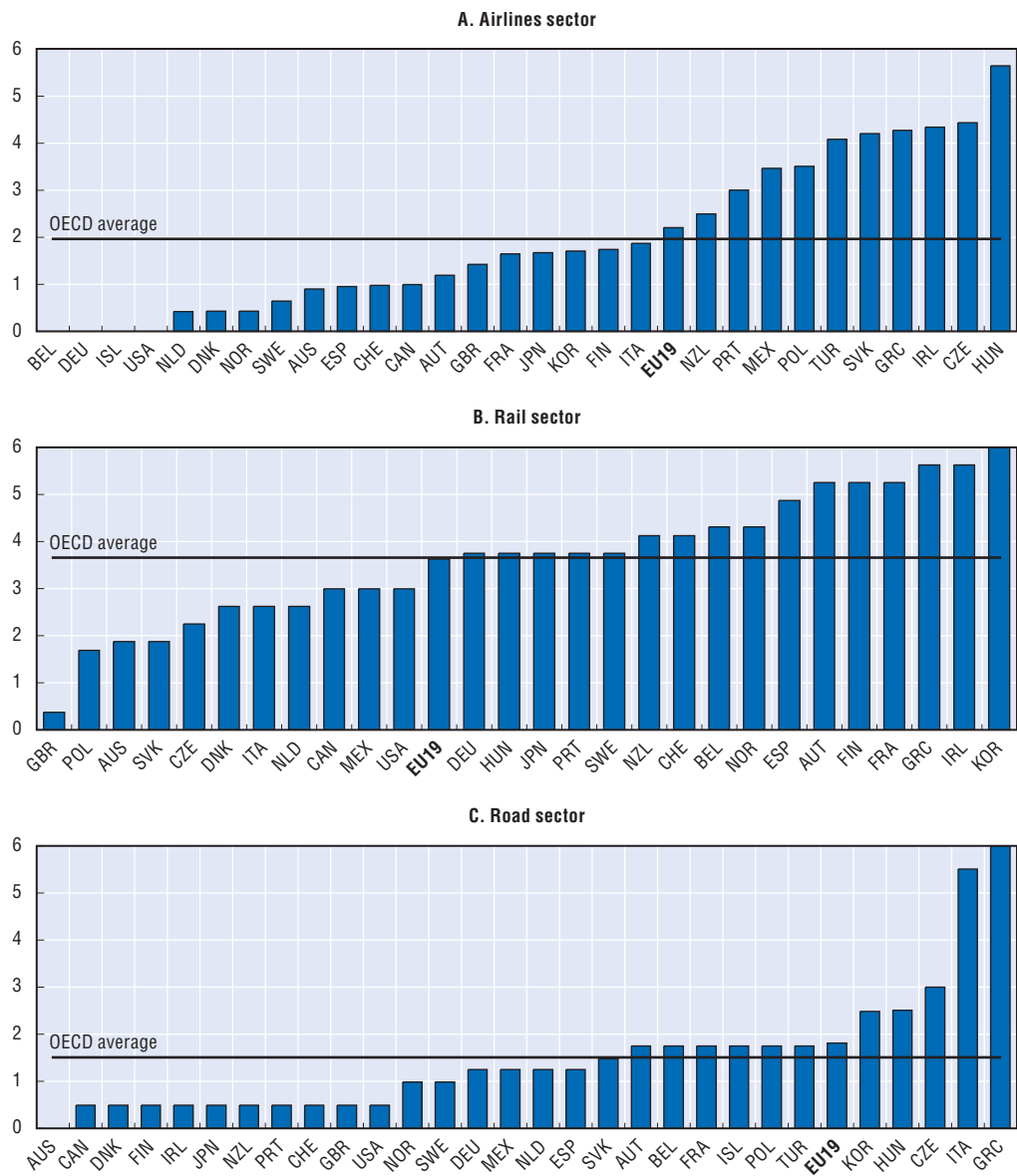
Indicator scale of 0-10 from least to most restrictive



Source: Koyama, T. and S.S. Golub (2006), "OECD's FDI restrictiveness index: revision and extension to more economies", OECD Economics Department Working Papers, No. 525.

StatLink  <http://dx.doi.org/10.1787/256076564173>

Figure A.15. **Sectoral regulation in the transport sector, 2003**
Indicator scale of 0-6 from least to most restrictive

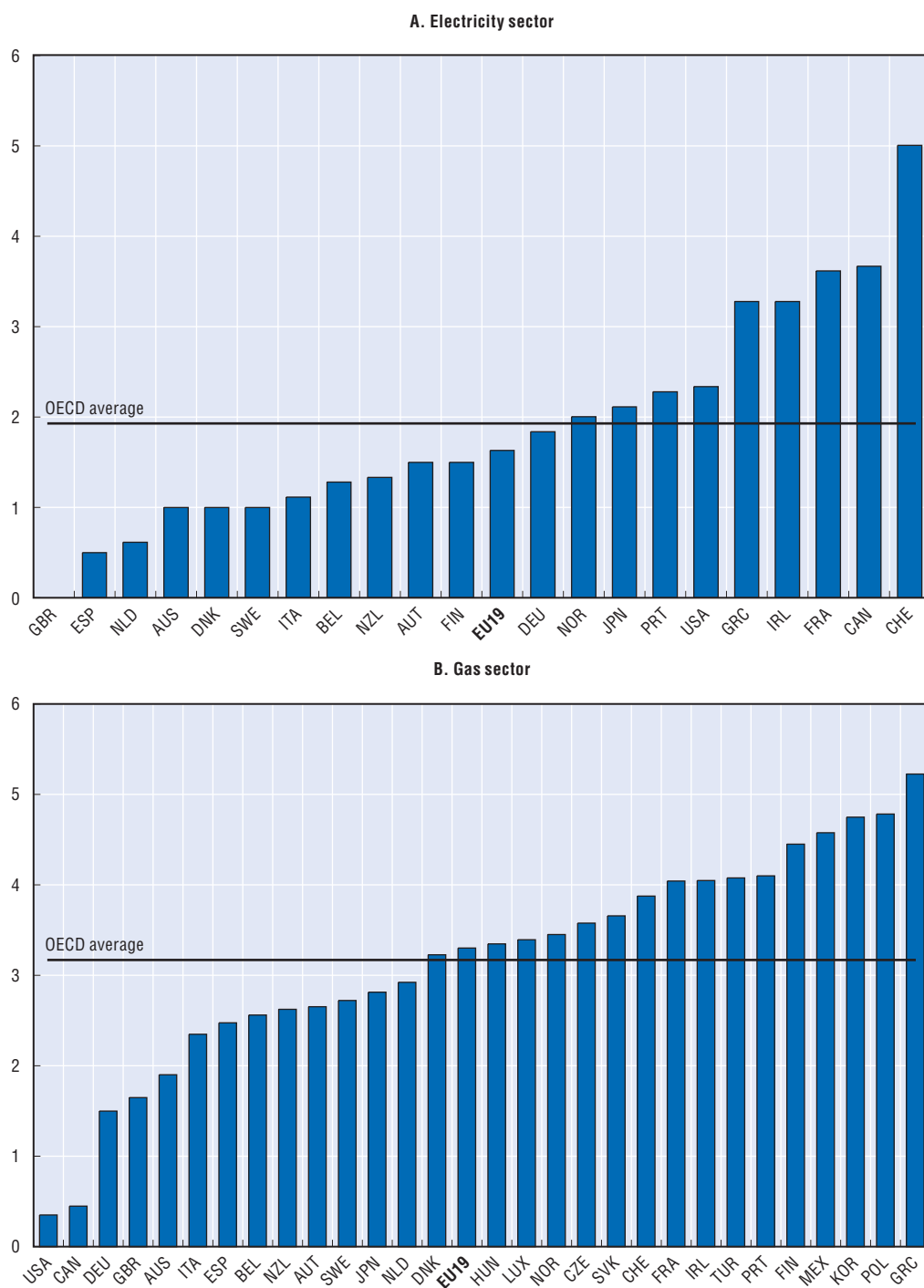


Source: OECD, Product Market Regulation database.

StatLink  <http://dx.doi.org/10.1787/256081026400>

Figure A.16. **Sectoral regulation in the energy sector, 2003**

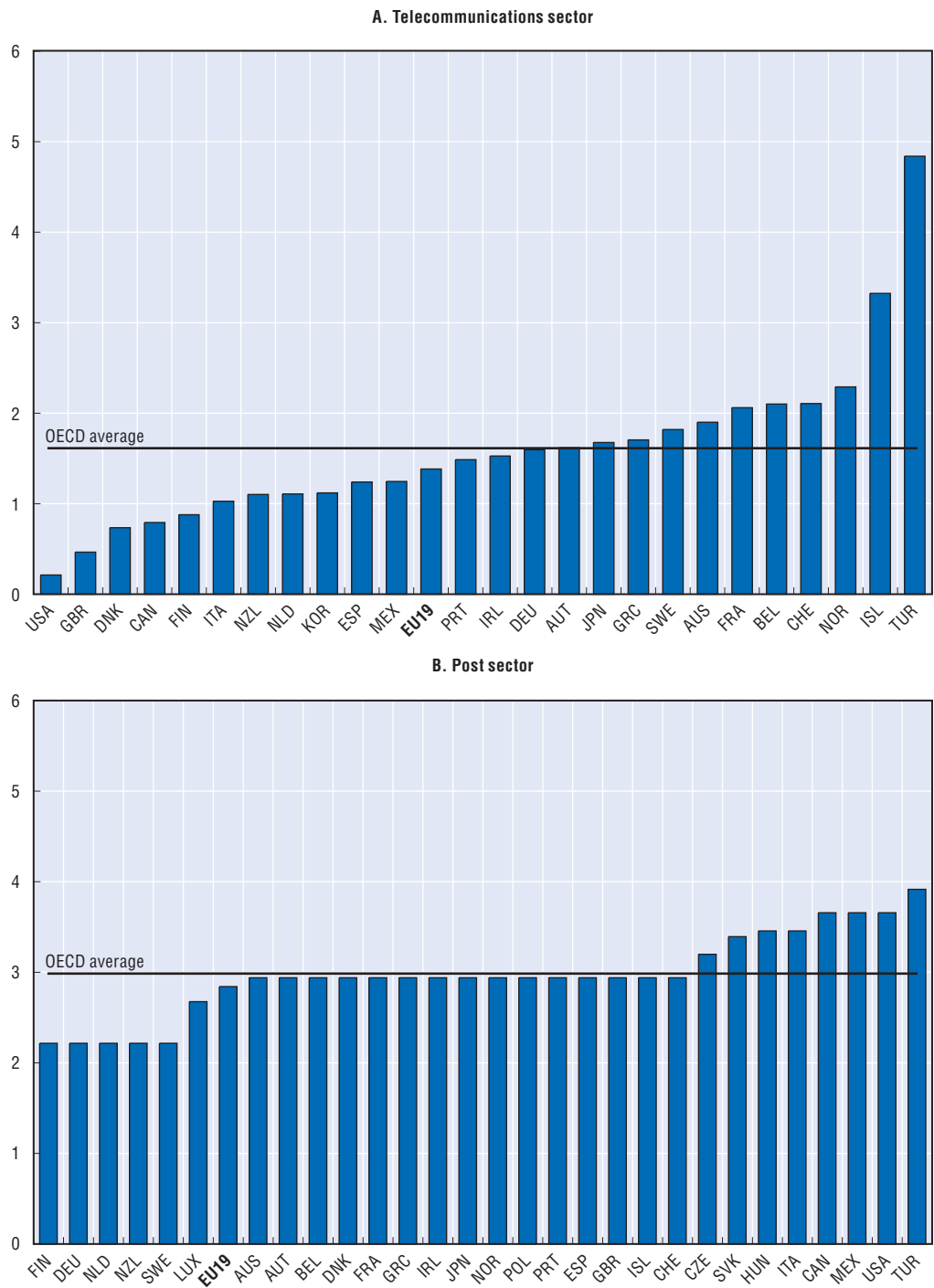
Indicator scale of 0-6 from least to most restrictive



Source: OECD, Product Market Regulation database.

StatLink  <http://dx.doi.org/10.1787/256088305802>

Figure A.17. **Sectoral regulation in the post and telecommunications sectors, 2003**
Indicator scale of 0-6 from least to most restrictive

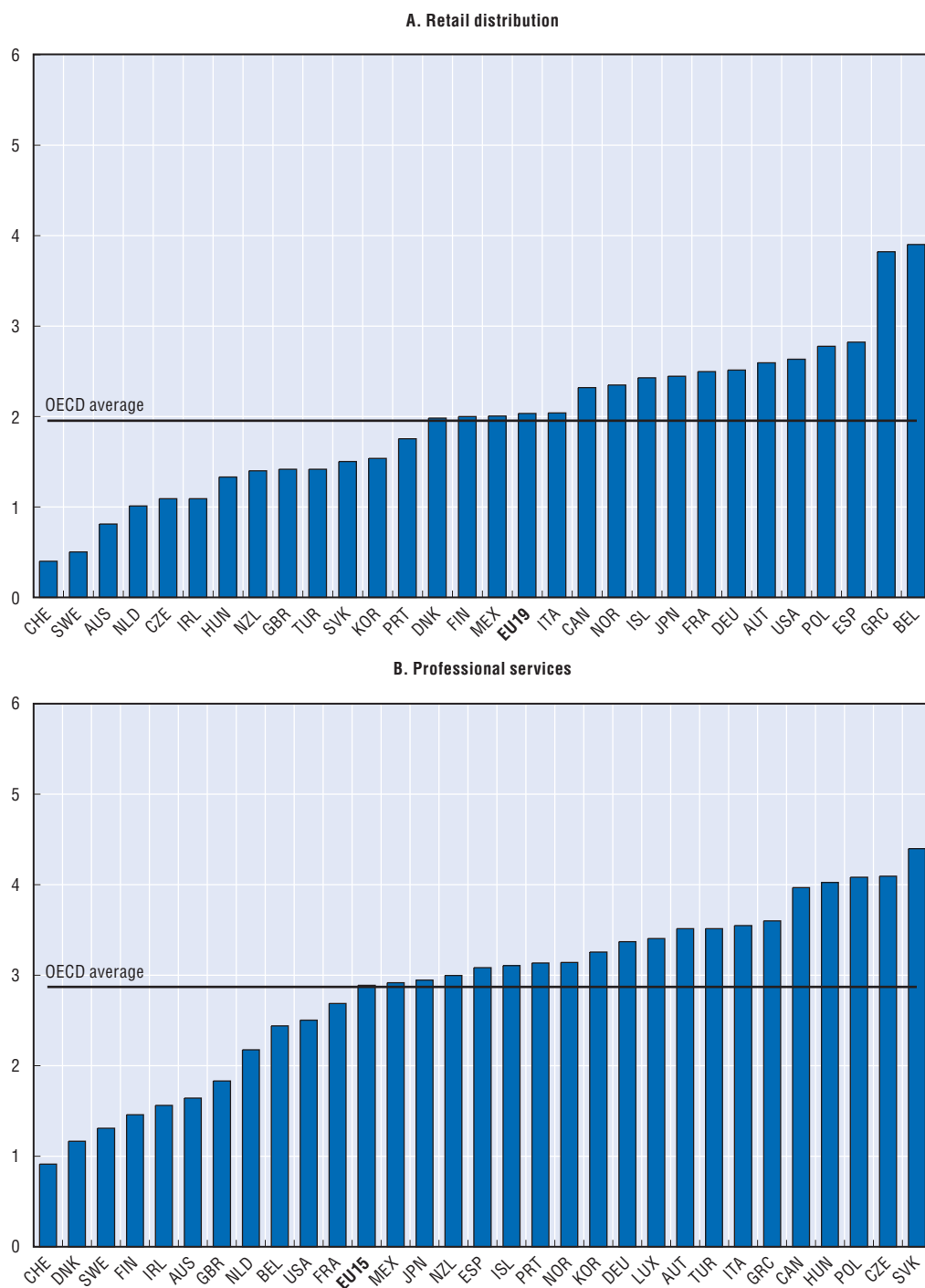


Source: OECD, Product Market Regulation database.

StatLink  <http://dx.doi.org/10.1787/256103224240>

Figure A.18. **Sectoral regulation in retail distribution and professional services, 2003**

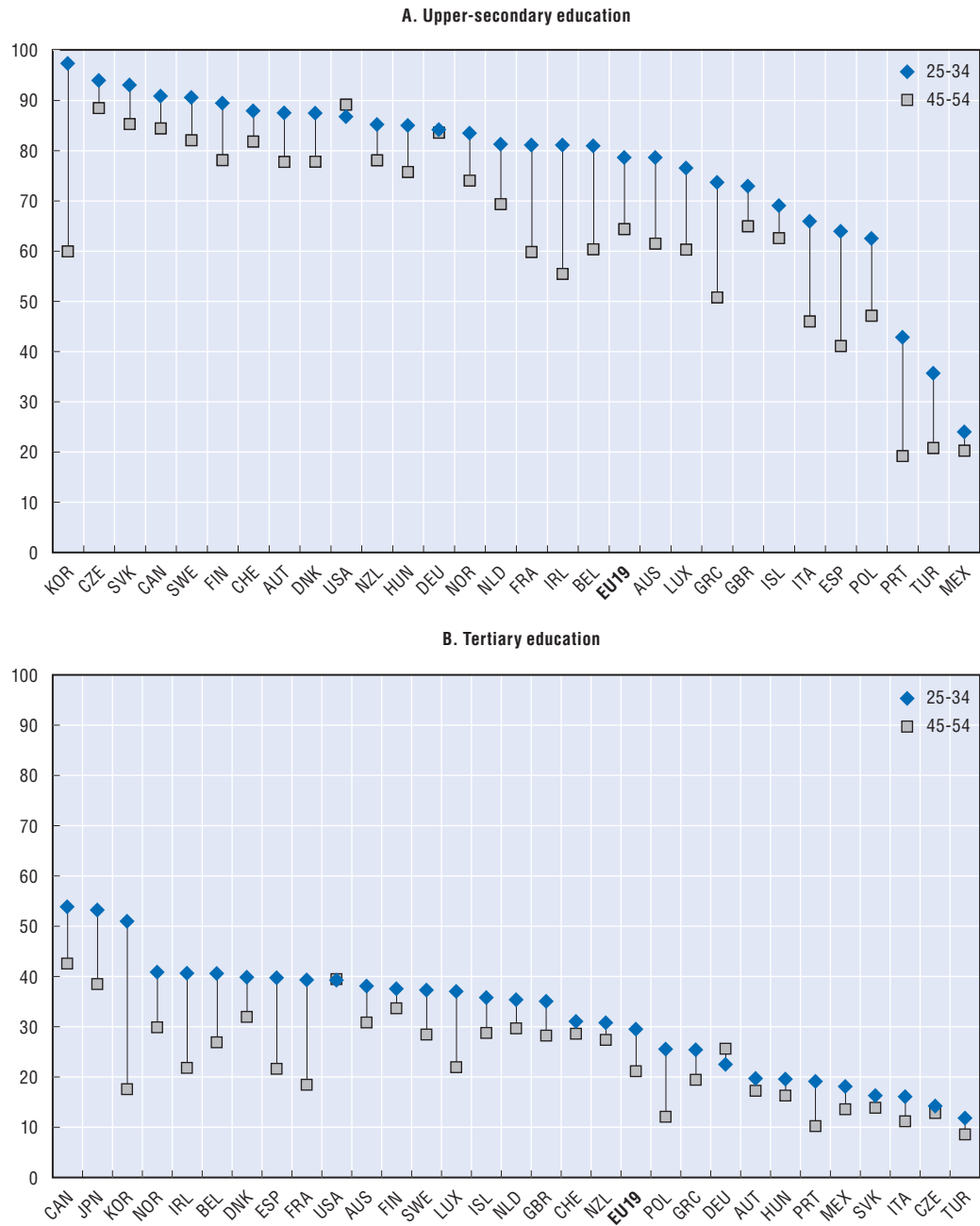
Indicator scale of 0-6 from least to most restrictive



Source: OECD, Product Market Regulation database.

StatLink  <http://dx.doi.org/10.1787/256107808861>

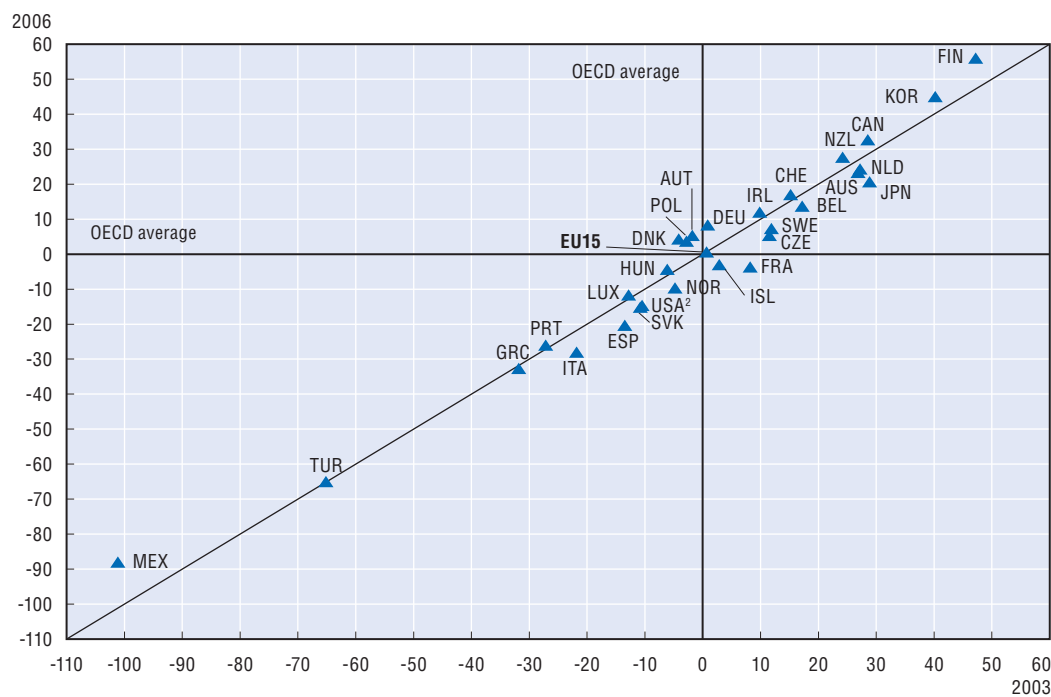
Figure A.19. **Educational attainment, 2005**
Percentage of population aged 25-34 and 45-54



Source: OECD, Education at a Glance, 2007.

StatLink  <http://dx.doi.org/10.1787/256120351401>

Figure A.20. Educational achievement
Deviation of PISA scores from OECD average¹

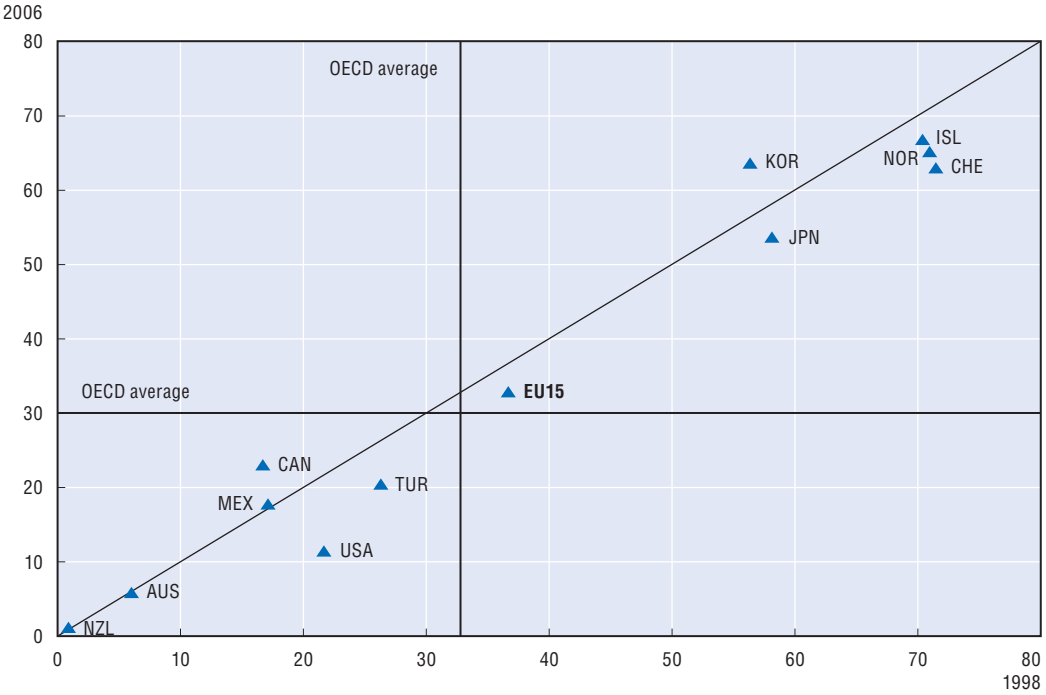


1. PISA stands for Programme for International Student Assessment. PISA scores refer to the average in reading, mathematics and science.
2. For the United States, average of PISA scores in mathematics and science only.

Source: OECD, PISA 2006: Volume 2: Data, 2007.

StatLink  <http://dx.doi.org/10.1787/256128504102>

Figure A.21. **Producer support estimate to agriculture¹**
Percentage of farm receipts

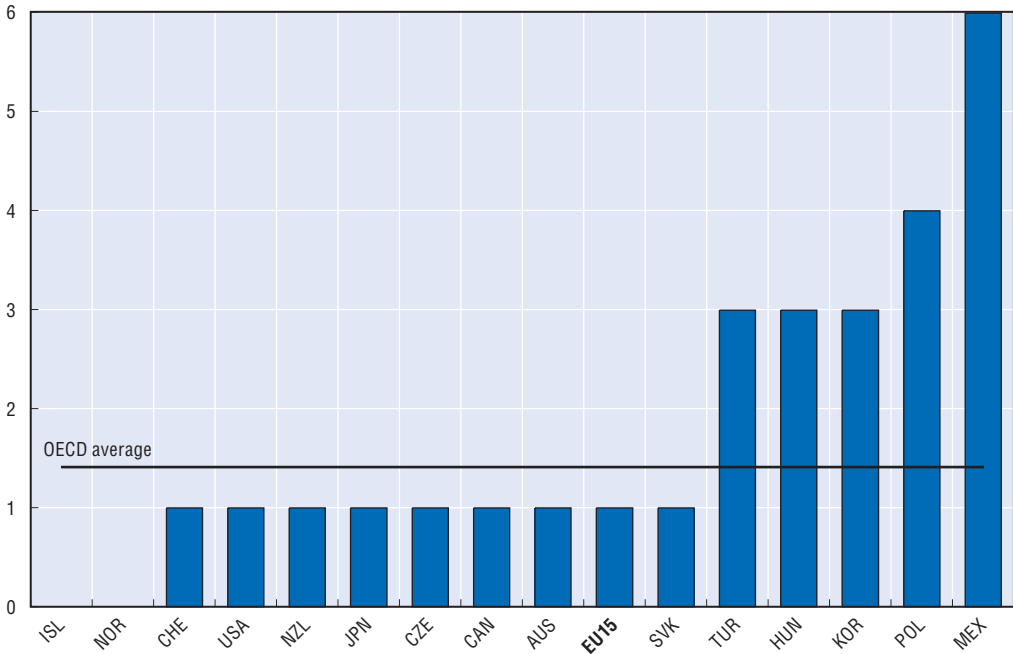


1. A single producer support estimate is calculated for EU countries.

Source: OECD, Producer and Consumer Support Estimates database.

StatLink  <http://dx.doi.org/10.1787/256173673633>

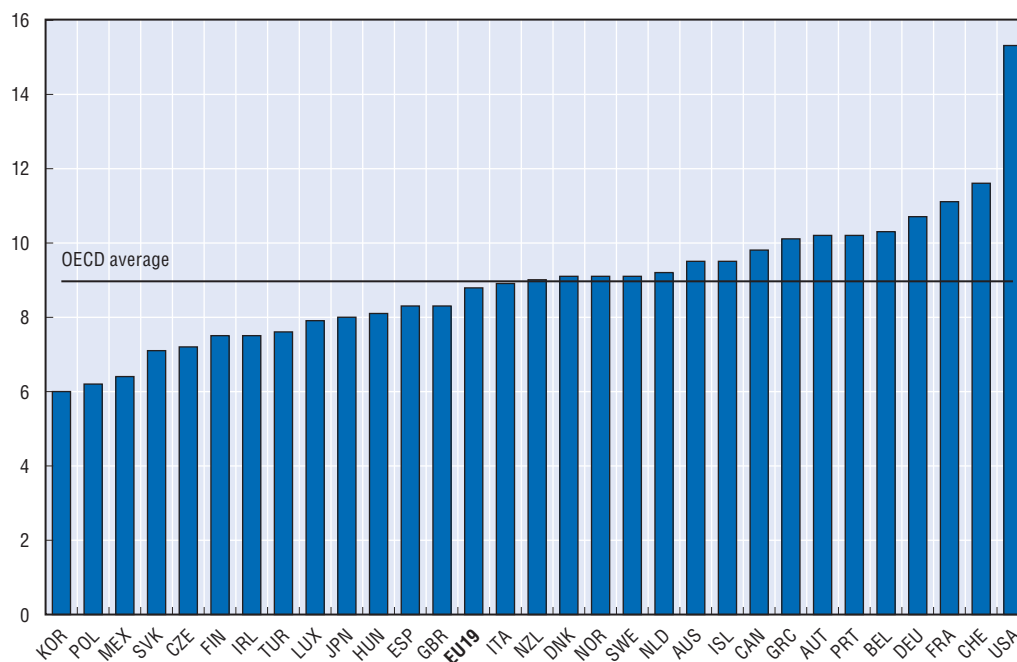
Figure A.22. **Importance of external trade tariffs, 2003**
Index scale of 0-6 from least to most restrictive



Source: OECD, Product Market Regulation database.

StatLink  <http://dx.doi.org/10.1787/256307537727>

Figure A.23. **Health expenditure, 2005¹**
Percentage of GDP

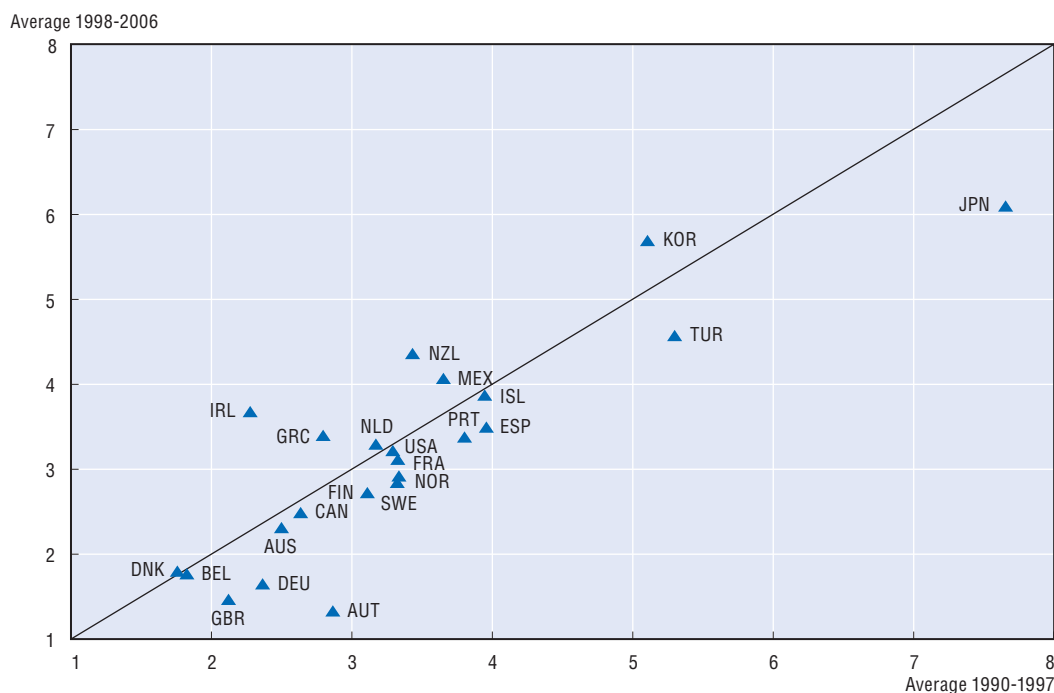


1. 2004 for Australia, Hungary, Japan and the Netherlands.

Source: OECD, Health database.

StatLink  <http://dx.doi.org/10.1787/256341341477>

Figure A.24. **Public investment**
Percentage of GDP



Source: OECD Economic Outlook, No. 82.

StatLink  <http://dx.doi.org/10.1787/256362225220>

OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(12 2008 01 1 P) ISBN 978-92-64-04284-1 – No. 55979 2008

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