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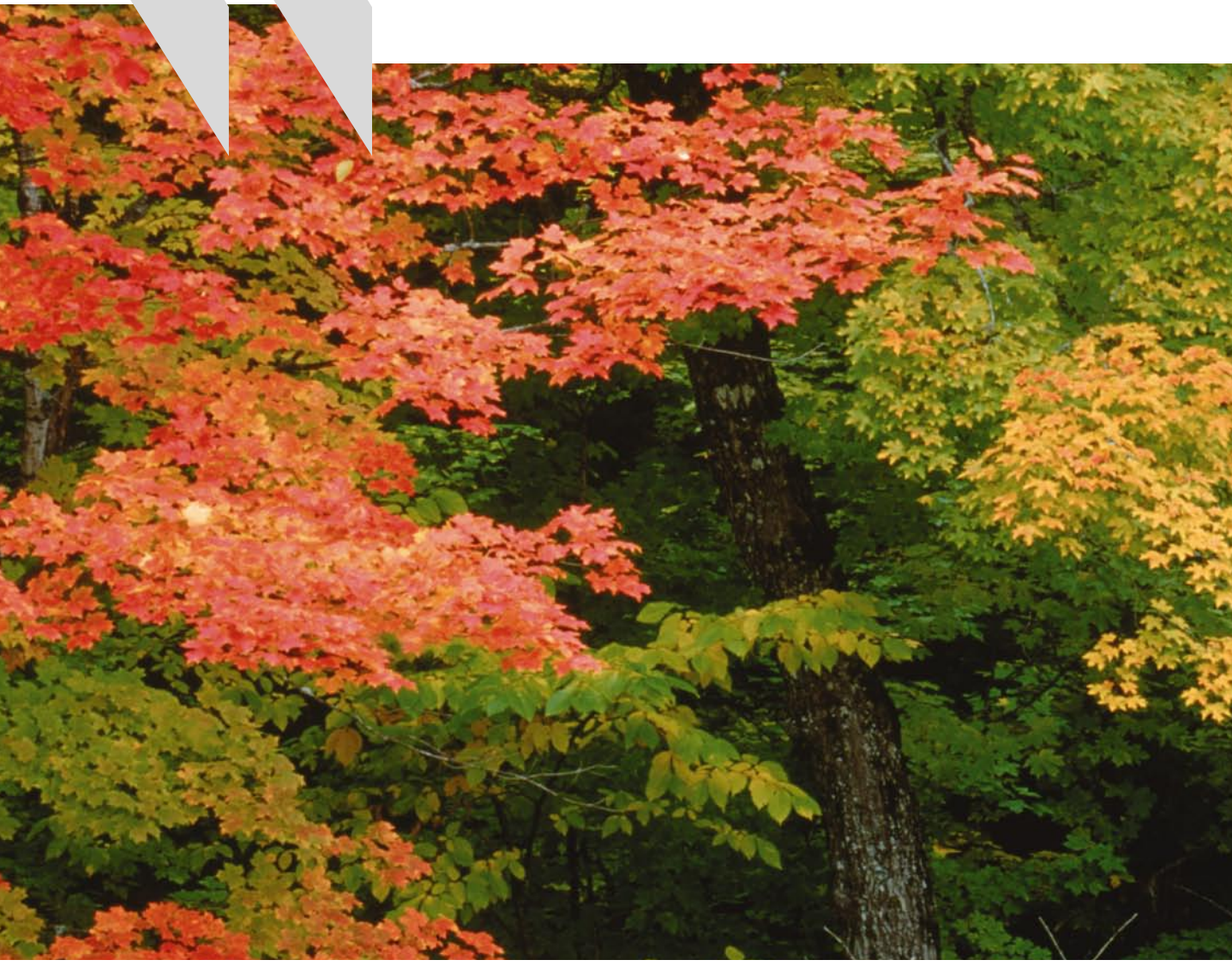
AUSTRIA



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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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This survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

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This Survey is published on the responsibility of the Economic and Development Review Committee (EDRC) of the OECD, which is charged with the examination of the economic situation of member countries.

The economic situation and policies of Austria were reviewed by the Committee on 18 June 2007. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 25 June 2007.

The Secretariat's draft report was prepared for the Committee by Rauf Gönenç, Rina Bhattacharya and Jürgen Janger under the supervision of Willi Leibfritz and Andreas Wörgötter.

The previous Survey of the Austria was issued in July 2005.

BASIC STATISTICS OF AUSTRIA, 2006

LAND

Area (1 000 km^2)	84	Major cities (1 000 inhabitants):	
Agriculture (%)	31	Vienna[1]	1 630
Forest (%)	43	Graz[1]	250

PEOPLE

Population (1 000)	8 282	Labour force (1 000)	4 124
Inhabitants per km^2	99	Employment (1 000)	3 928
Natural increase in population, 2003 (1 000)	0	Agriculture (%)	6
Net immigration, 2003 (1 000)	36	Industry (%)	28
		Services (%)	66

PRODUCTION

GDP, current prices (billion euros)	257	Origin of value added (%)	2006
GDP per capita (1 000 USD in current prices)	39	Agriculture	2
Gross fixed investment per capita (1 000 euros)	6	Industry	31
		Services	67

GOVERNMENT

Public consumption (% of GDP)	18	Composition of Federal Parliament:	Seats
General government total revenue (% of GDP)	48	Socialist Party	68
Public debt (% of GDP)	69	Austrian People's Party	66
		Freedom Union	21
		Greens	21
		Alliance for the Future of Austria	7
		Last general election: October 2006	

FOREIGN TRADE

Exports of goods and services (% of GDP)	57	Imports of goods and services (% of GDP)	52

CURRENCY

Irrevocable conversion rate (1 euro)	13.7603	Euros per USD:	
		Year 2006	0.80
		March 2007	0.75

1. 2005.

Executive summary

Austria occupies a place among the top performing economies. Eastern enlargement of the European Union has provided a boost for the economy, and Austria is among the largest investors in neighbouring EU member countries as well as in south-eastern Europe. Living standards and overall employment rates are high while the risk-of-poverty rate is low. The very open Austrian economy is also benefiting well from the current European recovery.

However, some structural indicators signal concerns: some groups suffer from low employment rates; both output and employment in domestic service sectors are relatively low; and total factor productivity growth has been flat while accelerating in comparable countries.

To maintain its high living standard while containing the costs of an already expensive social security system, Austria must focus on strengthening framework conditions for growth and employment in general and seize every opportunity to improve incentives for higher labour utilisation and to promote innovation and competition. To this end, this Survey is making recommendations in the following areas:

- **Increasing competition in services.** *Reforming the regulatory framework in domestic service sectors along the lines of recommendations in earlier Surveys to make it more conducive to competition and innovation, while ensuring cost efficiency of the considerable increase in spending for priority areas.*
- **Removing obstacles to participation.** *Prevailing fiscal incentives for older workers and women with small children to withdraw from the labour market should be replaced by policies which avoid inactivity traps. Family benefits should be redirected to provide better and easier access to childcare services. Young migrants, as well as other labour market entrants from disadvantaged backgrounds, would benefit from making the Austrian education system less fragmented.*
- **Encouraging regional agglomeration gains.** *Agglomeration is an important driver for growth. Austria, together with its neighbouring countries, could reap more benefits from regional integration by moving faster to adjust the regulatory and administrative framework and develop infrastructure to meet the needs of an emerging transnational agglomeration around Vienna.*
- **Strengthening the fiscal policy framework.** *Austria's fiscal position is not far away from sustainability although spending pressures are looming. However, expenditure savings will likely be needed to create room for the next tax reform, and the budgetary framework and fiscal federal relations should be reformed to improve public finance management. Introduction of output-based budgeting and a medium-term budgeting framework are important in this context.*

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Assessment and recommendations

Economic performance has been strong

Austria's growth and employment performance has been good over the past decade. Trend GDP growth, at 2.2%, has exceeded the EU average and the employment rate is one of the highest in Europe, at about 70%. Moreover, regional income and employment differences remain particularly low, as well as the risk of poverty. Unemployment remains low at about 5½ per cent, and the country ranks high in the EU in terms of GDP per capita. Recent economic performance has also exceeded the euro area average, with real GDP growth at 3.4% in 2006, and inflation remaining at 1.7%. Austria continues to operate as an efficient economy, which successfully draws on its favourable location in the centre of an enlarged Europe.

The new grand-coalition government has a wider agenda

Parliamentary elections in autumn 2006 left the ruling centre-right coalition, which had pushed ahead with reforms in a number of areas, without a majority. While sticking to the main thrust of the reform agenda the new grand-coalition government (23rd Legislative Period) has extended its priorities more towards investment in growth enhancing measures while taking account of social concerns. Thus a balanced budget in structural terms is projected to be reached only by 2010. Education, innovation, environment, social issues and infrastructure investment will receive more funds from the budget, active labour market measures will continue to be financed at a high level, while public administration and health care are supposed to be areas with spending restraint. Other major reform areas in the policy agenda of the current government concern the negotiations over the new Fiscal Equalisation Law and the tax reform scheduled in 2010, the next election year.

To enhance prosperity Austria must focus on further strengthening framework conditions

Austria has established a top position among OECD economies through reforms which have helped flexible entrepreneurs and a well-educated labour force to generate high

incomes. Maintaining this position calls for an ambitious and multi-faceted strategy along the lines of the *Going for Growth* recommendations, aiming at:

- Making regulation in domestically-oriented sectors such as services more conducive to competition and innovation, while ensuring cost efficiency of the significant increases in spending for research and development.
- Improving labour market participation and employability of various vulnerable groups, such as older workers, low skilled, young migrants and women with small children, by reducing fiscal incentives for early retirement, providing better incentives to accept job vacancies or return to work and better education.
- Reaping the full benefits of regional integration by moving faster to adjust regulation and infrastructure to the needs of an emerging transnational agglomeration around Vienna.
- Strengthening the fiscal policy framework and making the tax system more growth and employment-friendly.

All opportunities need to be seized to maintain a leading position

For a leading economy like Austria, the guiding principle should not be about beating averages but rather maintaining its position among the best performing OECD countries. In this regard Austria could have done better over the recent past, in particular for non-manufacturing sectors that are sheltered from international competition. Austria was on a steady catching-up trend with the top OECD economies until the mid-1990s, but its relative position has regressed somewhat since then. Both its labour utilisation and labour productivity performance have since slowed down in relative terms. Total factor productivity growth has been flat since the 1990s, while it tended to accelerate in other well-performing OECD economies such as Sweden, Finland and the United States.

Austria's traditional sources of strength continue to deliver although non-standard labour contracts raise concerns

Austria's traditional sources of strength, which were instrumental in its earlier rapid catching-up, continue to deliver. The two most important of these are: *first*, the medium-sized but globally-driven enterprises' ability to use and further develop the most productive technologies; and *second*, the ability of businesses and workers to agree on wage and employment conditions that preserve the economy's competitiveness. The manufacturing sector has achieved record high productivity growth through the past decade without suffering from the relatively small size of the national science and technology base. Manufacturing firms are fully exposed to global competition, which is an important driver for productivity growth, and they also benefited in the 1990s from integration into the single EU market and with Central and Eastern Europe (see below). In parallel, employer-employee bargaining has focused on overall labour market performance, leading to real wage increases below productivity gains without pricing large groups of job seekers out of the market. The significant drop of real unit labour costs since 1995 and resulting gains in competitiveness underpinned a strong increase in profitability, while maintaining investment activity. The recent increase in temporary

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contracts is a source of flexibility but may also raise concerns about increasing dualism in labour markets. The severance pay insurance, introduced in 2003, extended eligibility to previously excluded workers and demonstrated how reforms could combine more flexibility with equity considerations. This could serve as a model case for an effort to make the standard labour contract more inclusive.

Entry barriers contribute to weaker outcomes in competition-sheltered activities

In contrast to exposed manufacturing firms, parts of the services sector are sheltered from competition, both domestic and global. Some key services have long remained under direct or indirect government control and under strict regulation or self-regulation in a competition-restricting manner. Limited competition appears to have contributed to relatively low productivity of the service sector as compared with manufacturing or service sectors in some other countries. *The government should address these differences and foster product market competition in all areas of the economy, including liberal professions, which would stimulate productivity and employment gains over the long-run.* Pro-competition initiatives in a number of market services in the 2000s have been seen to have positive effects on productivity and employment. *Nevertheless, there remains room for progress in a range of activities from government-dominated services such as public utilities, health and social housing, to private market services such as retail trade and the liberal professions.*

Labour market performance is good for core groups

The other source of relative weakness compared with the best performing OECD countries is the lower participation and employment rates of some segments of the labour force. Contrasting with the high employment rates of the core labour force of prime age men and women – the vast majority of whom have upper secondary education or more – employment is much lower for older, less skilled and non-native workers. Older workers have one of the lowest employment rates in the OECD area, as do unskilled workers with only compulsory education, while workers of immigrant origin have a relatively high unemployment rate. Young workers between 15-24 have a comparatively high employment rate, but their employment performance has weakened in the 2000s, while it has strengthened in benchmark countries. As far as the activity of women is concerned, labour force participation and employment rates are above international averages. But mothers of young children stay longer at home than in comparable countries, face weaker incentives for returning to work, and their human capital and pay levels are negatively affected. The economy's limited success in integrating non-core groups effectively into the labour market may have played a role in increasing structural unemployment over the recent period, which goes against the trend in other countries.

A prime objective is to strengthen skills and employability of disadvantaged groups via formal education…

Both academic tests and ultimate labour market outcomes reveal that incomplete education and lack of appropriate skills are a deeper problem in Austria than in comparable countries. A particularly high proportion of youngsters leave compulsory education with poor and uncertified skills, which give them access to neither valid professional and apprenticeship streams, nor, *a fortiori*, to tertiary education. As a result, too many young people between 15-24 are neither in education nor in employment. Particularly affected by this is the immigrant population, whose children are overrepresented in lower-ranked education streams. It is somewhat disturbing that, contrary to other high immigration countries, the school performance of immigrant pupils does not improve between first and second generations. The new government's programme intends to strengthen pedagogical content and linguistic training in kindergartens, but does not plan to introduce any *compulsory* pre-school education years. *This assessment of the outcomes of pre-school, primary and secondary education with respect to less well-performing children indicates that deep reforms are needed. Policy action will need to involve both the federal government, as the setter of standards, and sub-central governments, as providers and managers of education services. Schools' funding will need to reflect the challenges raised by the specifics of their student populations, and new approaches that give schools greater autonomy and accountability to pursue performance objectives in different social and cultural settings are recommended.*

… and active labour market policies and adult training

The Austrian government has placed a very strong emphasis on up-skilling through active labour market policies. Many initiatives have been launched, aimed at different target groups. As also confirmed by the experience of other OECD countries, there is evidence that more effective schemes (such as those based on temporary wage subsidies for "real" jobs in the first segment of the labour market as opposed to public works programmes) co-exist with less consequential ones. The *authorities should make the newly introduced programmes subject to close monitoring and assessment. Furthermore, efforts should continue to broaden the somewhat narrow base of suppliers of adult learning services beyond the entities run by social partners.*

Work incentives should be strengthened for certain groups

Work incentives in Austria are generally strong today but hampered by various fiscal measures for some groups:

- **Older workers.** The recent pension reform has been a major step forward to reduce fiscal subsidisation of early retirement. However, there are concerns about the new government's decision to relax some of these measures. In particular, the halving of the discount rate for each year of early retirement (after age 61 and before the legal

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retirement age of 65) would move the system further away from actuarial neutrality, encourage early retirement, and undermine the goal to increase Austria's very low employment rate of older workers.

- **Those who can still retire early for having done "heavy work".** Any widening of the definition of "heavy work" for purposes of early retirement would further reduce the already low labour-market performance of older workers. *The government should administer "heavy work" criteria for early retirement very parsimoniously.*
- **Those on disability benefits with some remaining work capacity.** "Disability" is the major remaining loophole, as evidenced by the fact that nearly 40% of those who took early retirement in 2005 did so on disability grounds, five percent more than only three years ago. The *authorities are aware of the need to reform disability benefit, and established a commission for this purpose. Efforts to tighten eligibility criteria should continue, in particular with regard to putting more emphasis on remaining work capacity.*
- **Some groups of public sector workers.** Public sector workers still retire too early and not much effort is under way to place these workers on public or private vacancies. *More efforts should be made to keep public sector workers in employment longer.*
- **Mothers of young children receiving childcare benefits.** *Family support schemes should be structured so as not to discourage activity, and the effective marginal taxation of female second earners who return to work should be reduced. The benefit system should be redesigned such that it helps more to reconcile work and family life for families with small children. This could best be done by using parts of the currently used funds for cash benefits to make more kindergarten services available, especially for children under three.*
- **Recipients of social assistance.** The government also plans to centralise social assistance and increase the "means-tested minimum social income" (to € 726 per month), which could reduce work incentives and generate an inactivity trap for low-income households. The authorities insist that stringent labour market participation requirements, to be administered by the public employment service, will help to avoid such inactivity traps. *They should closely monitor the impact of this measure on labour force participation rates and strictly enforce the work availability tests for which the responsible institutions will also have to be properly resourced. The new organisation of social assistance payments should be used as an opportunity to reform the very high benefit withdrawal rates of the current system.*

In general, policy formation should give more consideration to reducing inactivity and poverty traps. The planned tax reform in 2010 will provide a good opportunity to address this issue, by introducing provisions to make work pay, for instance through in-work benefits or tax credits.

Low-skilled workers should not be priced out of the market

The economy's capacity to offer low cost legal employment for low-skilled workers will determine Austria's ability to overcome the economic and social marginalisation of less-skilled groups. Even with moderate minimum wages negotiated by social partners at branch level, the labour market for the low-skilled cannot be considered to be cleared, as witnessed by the high share of unskilled among the unemployed. Nevertheless, the government now encourages social partners to negotiate a cross-sectoral minimum wage

for a full time work contract of € 1 000 compared with the lowest branch and occupational minimum wages of about € 670. In the view of the government this should mitigate poverty – in particular for women. But it also raises concerns since the absence of a national minimum wage was traditionally considered an important source of flexibility in the Austrian economy, particularly if the shift to a national minimum wage places it *de facto* on a centralised path. The authorities argue that such risks are limited because: *i*) negotiated wages set by social partners only constitute a floor for individual branches and actual wages usually exceed negotiated wages. Hence, only a small proportion of workers earn less than €1 000 per month *ii*) the wage elasticity of labour demand for workers in this income bracket is thought to be low because they are mainly engaged in sheltered professions, and *iii*) there is no intention to politicise the minimum wage because it will be negotiated by the social partners. Yet, *the government should pay the utmost attention to these risks. Concerns about poverty-at-work can be better addressed with in-work benefits. Reduction of the high tax wedge for low-skilled workers should also be a priority for lowering their cost of employment.*

The priority for innovation policy is welcome but the institutional setup should be streamlined and backed by additional reforms

Austria has buttressed its science, technology and innovation policies in the 2000s as a matter of economic policy priority. It has succeeded in raising total R&D expenditures by around one percentage point of GDP over the past ten years to around 2½ per cent in 2006, mainly due to more business R&D, and the government has recently reiterated its objective to raise R&D expenditures to 3% of GDP by 2010. While the soundness of targeting R&D spending is debatable, the policy priority as such is welcome, although considerable scope seems to exist to make spending more effective. Innovation activity as measured by output indicators increased in a number of fields although less than what might have been expected from the increase in spending. *Returns from R&D spending can be increased by strengthening framework conditions, in particular, increasing the scope for competition in domestic services sectors, encouraging financial markets to finance more innovation projects, improving the education system, and streamlining the current institutional setup for R&D and innovation policy.*

Strengthening competition and the breadth of financial markets

OECD work on growth suggests that competition in product markets (see above) and efficient capital markets are crucial for growth, because both provide *inter alia* incentives to engage in innovation activities. Broadening the scope for competition across Austria's hitherto sheltered service sectors (as argued above) would provide a boost to productivity and generate opportunities for employment and income. Furthermore, within the financial market, more needs to be done to develop venture capital. Government-sponsored innovation finance institutions play a useful pioneering role but should not cream-skim the market and crowd out private venture capital investors. *New structures for venture capital funds, which conform to international best practice and are compatible with the European Union's State Aid rules, should be created.*

Further improving human capital

An appropriately skilled labour force is key for innovation and productivity growth. In the past, a good part of Austria's productivity growth was achieved by capital deepening and adaptation of existing technologies, notably in manufacturing, During that time the education system, with its emphasis on primary/secondary and vocational education and a relatively low share of tertiary graduates, was obviously sufficient. Looking forward, with more firms adopting highly advanced technologies, including in services, more workers with higher education are likely to be needed. Currently Austria is drawing much less on tertiary education than its peers. *More efforts should be made to make the transition from vocational training to tertiary studies easier.* Austria's recent university reform to increase universities' autonomy and gradually introduce a small student fee was an important first step, but met with significant opposition; as a possible alternative to the payment obligation of tuition fees the new government has established a tutor and mentor system at universities/schools with the intention to reduce the drop-out rate at the universities. Those students who actively participate in the new system will get their tuition fee refunded. *This programme should be evaluated with respect to participation and outcome*. Higher private spending is essential for improving the quality, efficiency and labour market relevance of university education. *Universities should be allowed to set their own tuition fees. Avoiding the exclusion of cash constrained students could be achieved with a system of loans with income contingent repayments. Allowing universities to select students would also contribute to improving the quality of education and would reduce both drop-outs and study duration*. First evaluations of the impact of the recently introduced small student fees do not reveal any increasing bias of the social background of students.

Further improving innovation policies

The institutional framework for innovation policies was reformed in 2004 but some rationalisation should be considered. Governance structures for designing and implementing policies are rather complex with at least four Ministries involved, advised by two independent councils (the Science Council and the Council for Research and Technology), and three key R&D promoting agencies, which implement numerous and partly overlapping programmes. Effectiveness of R&D policies is likely to suffer from such fragmentation. *The number of responsible ministries should be reduced, preferably to only one ministry in charge of specific innovation policies (knowledge diffusion and application) and the other one being in charge of science (knowledge creation). Task sharing between agencies and ministries should be better clarified, and overlapping programmes of various agencies should be pooled. The effectiveness of individual support programmes and tax incentives should be assessed regularly by independent experts. The reports of the two existing Councils should be given more weight as independent advice in order to increase spending efficiency.*

More proactive policies would help deepen regional integration with Central and Eastern Europe

There remains scope for further economic integration with Central and Eastern Europe, but this is hampered by missing infrastructure. *Joint public/private sector policies stimulating these*

links such as the "Internationalisation Initiative" can continue to promote mutually beneficial regional integration. Immigration flows as well as cross border commuting are an important driver of regional integration and have strongly developed with direct neighbours, but further immigration from Central and Eastern Europe remains controversial. Despite this unease, labour flows between European Union Members are due to be fully liberalised from 2009 on. A further postponement until 2011 is only possible in the case of severe disruptions in the labour market caused by immigration from the new EU member countries. Labour markets *should be prepared for a possible increase in immigration flows from the new EU Member States. Fully building on these labour flows to further stimulate employment and growth in Austria by filling potential skill shortages should be considered*. Thanks to its favourable geographical location and strong historical ties, Vienna has already become an important hub for multinationals operating in the region. However this potential is not fully developed as yet and a deliberate strategy would help cultivate it further. *Reducing remaining bureaucratic hurdles faced by multinational enterprises, concerning notably the short and long-term residence of their personnel, as well as upgrading road and rail connections to eastern European capitals* (to the standards of western connections) *have been identified as priorities*. Concerning the latter, the new coalition government has already taken important steps. *All these measures should be part of such a strategy, together with the measures mentioned above to prepare the labour market.*

Fiscal balances should be put on a firmer path, through further structural budget measures

Austria's fiscal position is on a sounder path than in most OECD countries but remains exposed to considerable spending pressures over the long term which must be addressed to secure long term sustainability. The recent fiscal outturn was positive, with a general government deficit of 1.2% of GDP in 2006, better than the 1.9% anticipated in the budget. However, this was mainly on account of stronger than projected growth and exceptionally buoyant tax revenues; the cyclically-adjusted balance did not improve, despite the previous government's intentions to attain a balanced budget by 2008. The new government – established in January 2007 – postponed the target year for attaining a balanced budget over the cycle to 2010, but has not fully spelled out specific measures to achieve this. In the longer term, health expenditures are projected to grow rapidly and further reforms may be needed to contain them. Pension balances also remain dependent on demographic prospects, and on assumptions regarding the effective average retirement age in the decades ahead, where it will be important to reverse the early retirement incentives discussed above. Despite these challenges, structural budget reforms appear to have stalled. In May 2005 a political agreement had been reached to implement budgetary reforms in line with international best practice, including the implementation of a four-year medium-term budgetary framework and transition to "output-based" budgeting. However, the October 2006 election has led to a delay in the implementation of these reforms. *The authorities should implement the previously planned structural budget reforms. They should also produce medium and long-term scenarios for social security balances, closely monitor trends in health expenditures as well as planning the needed health reforms, and ensure the pension system's sustainability under alternative assumptions. Given that the output gap is closing, any revenue and expenditure windfalls should be used for reducing the deficit.*

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Budgetary room needs to be maintained and created to reduce the tax burden while significantly improving the tax structure

The total tax burden remains significant despite recent cuts, with a tax ratio of 42% of GDP. The previous government had announced its intention to reduce it to below 40% of GDP over the medium-term. The new government, while still intending to lower the overall tax burden, does not have a specific target for this. The next major tax reform initiative is scheduled for 2010. There is consensus on the need to change and optimize the tax structure as well as on the need to shift the tax burden away from heavy taxation of labour and self-employment and towards environmental taxes and excise duties. Some steps in this direction have already been taken in the recent past. A focus on environmental taxes is also justified by Austria lagging significantly behind its Kyoto targets and the need to take additional measures. However, despite such consensus in principle, it seems politically difficult to alter the tax structure in the short term. For example, the inheritance tax will be allowed to expire in 2008 and the gift tax might be abolished too. *These steps should be reconsidered. Emerging budgetary room from stronger growth should be maintained and new room should be created with structural reforms, which deliver expenditure savings in order to finance a tax reform that reduces the tax burden and improves the tax structure. Revenue yields from fixed assets such as land and real estate should be increased, first of all by updating the property tax base which has not been revalued for several decades. Excise and environmental taxes should also be increased where justified.*

Output-based budgeting should be introduced as soon as possible

"Output-based" public expenditure management is needed in Austria, both because the public sector is an important service provider, and because spending is rising sharply in some areas. According to the experience of other OECD countries, there are serious risks of compromise on the quality of newly introduced programmes in areas where public spending is expected to grow rapidly. Spending is also particularly high on social transfers, housing and other subsidies, and tax expenditures. When long-established programmes absorb large resources on a routine basis, constituencies build up with a vested interest in their continuation irrespective of their social benefits and costs. Consequently, there is a considerable room for assessing the effectiveness and cost-efficiency of many spending programmes. Such assessments will be required by the transition to "output-based" public expenditure management planned for 2013. Even if this tool still remains experimental across the world, it involves a crucial "information and documentation" element which can be used to increase the quality, effectiveness and cost-efficiency of various programmes. *The authorities may wish to accelerate the transition to output-based budgeting in specific pilot areas, by emphasising the formal documentation of the costs and benefits of selected programmes. These assessments should be conducted independently and with high technical standards.*

The reform of fiscal federal relations is crucial

More effective fiscal federal relations are crucial for making progress with fiscal consolidation in the short term, and for the adoption of modern budget management

techniques over the medium-term. Significant quality increases and cost reductions are needed in services jointly funded and provided at the federal and sub-central government levels. Many sub-central governments are hesitant to fully implement earlier OECD recommendations set out in the *2005 OECD Economic Survey*, such as increasing their tax-setting powers, enforcing a medium-term budget framework, shifting to output-oriented budgeting, and fully harmonizing accounting rules. Some also do not see the need for harmonising the pension schemes for civil servants of the states and municipalities with the general pension scheme, as has already been done in the case of federal civil servants. *Federal and sub-central governments should jointly identify and overcome these objections in the context of negotiations over the next Fiscal Equalization Act and establish a time table for implementing earlier OECD recommendations.*

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Chapter 1

Challenges facing the Austrian economy

Austria has a well-performing and wealthy economy. However, maintaining this leading position requires dealing with a number of emerging challenges: Firstly, even as a successful and open economy it has to cope with evolving competitive opportunities and pressures as a direct neighbour to the catching-up economies of Central Europe. Secondly, after having put in place highly flexible and inclusive labour market institutions, it suffers from a weakening performance in certain vulnerable labour market segments. These involve older, less-skilled and immigrant workers and arise from both intense competition from low cost countries and from shortcomings in the tax, benefit and education systems. Third, ambitious new innovation strategies seem to lack fully supportive framework conditions such as the competition environment in service sectors and in the education infrastructure, from pre-school to university ladders. Fourth, although the country enjoys a more sustainable long-term fiscal position than most other OECD countries, the level of public expenditures and taxes remain high and their quality and composition suffer from a number of distortions. This chapter provides an overview of short and long-term economic trends and highlights these challenges, which are investigated in more detail in the subsequent chapters.

Austria belongs to the group of well performing OECD economies with a relatively high income level and steady growth performance. At the same time it has additional growth potential that can be realized through additional policy reforms. Growth remains rooted in areas of traditional strength, such as export oriented manufacturing and internationally oriented banking and finance, which are remarkably competitive. Furthermore, the rate of employment of prime age skilled workers is very high. The key challenge for the Austrian economy is to broaden its base by increasing employment and productivity in all sectors of the economy, including the sheltered service sectors, and fostering the employment of those at the periphery of the labour force, such as the young, the less skilled, the elderly and the immigrants.

Significant reforms have been introduced in the 2000s, including important tax, administrative and pension measures to reduce the overall fiscal burden on the economy while ensuring the sustainability of the pension system. Policy initiatives were also taken in the labour market, notably through new active labour market programmes, to increase the employment rate of older workers, of the less skilled and of youth. Government support to innovation was also considerably increased in order to help Austria become more of a technology-leader rather than a technology follower and to accelerate productivity growth. Since early 2007 a new "grand coalition" government has been in place, which broadly supports and confirms these priorities together with a further emphasis on social concerns (Box 1.1).

This chapter first looks at Austria's recent economic performance and past trend growth and the strengths underpinning them. It then assesses the additional room available for improving the growth and employment record, in light of the experience from best performing OECD countries, as identified in OECD's *Going for Growth* exercise. The chapter identifies the key challenges to preserve and further improve the performance of the economy, which are examined in more detail in the following chapters.

Recent economic performance and outlook

Austria has a good record of reconciling economic efficiency with equity considerations. GDP per capita is the ninth highest in the OECD and the fourth highest in Europe.[1] Income distribution is one of the most equal in the OECD, while inter-regional differences in wage and employment rates are particularly small.[2] The international competitiveness of the economy is strong and improving. The employment rate of the working age population reaches 69% (almost matching the "Lisbon target" of 70% for the European Union) even if methodological differences make rigorous comparisons difficult.[3] The "risk of poverty" is one of the lowest in the EU.[4] However, unemployment has increased,[5] growing from 4% in 1995 to 4.8% in 2006, while it declined in the 15 older countries of the European Union (EU15).

In cyclical terms the economy is in 2007 in its fourth year of recovery, following an exceptional three-year stagnation period between 2001 and 2003[6] (Figure 1.1). The upturn

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Box 1.1. **A new "grand coalition" government**

Parliamentary elections in autumn 2006 left the centre-right coalition which was ruling since 2000 and had pushed ahead important reforms in a range of areas without a majority. The opposition Social-Democratic Party (SPÖ) got 68 seats, and the incumbent coalition leader Austrian People's Party (ÖVP) obtained 66 seats. The remaining 49 seats of the Parliament were shared by the Greens and two right-wing parties.

After long negotiations, SPÖ and ÖVP decided to re-create a "grand coalition" government similar to the one which had ruled the country between 1987 and 1999 and in the post-war years up to 1966. They agreed on a comprehensive government programme published in February 2007, shifting priorities somewhat more towards social issues while postponing budget consolidation by two years. The key orientations of this programme are to:

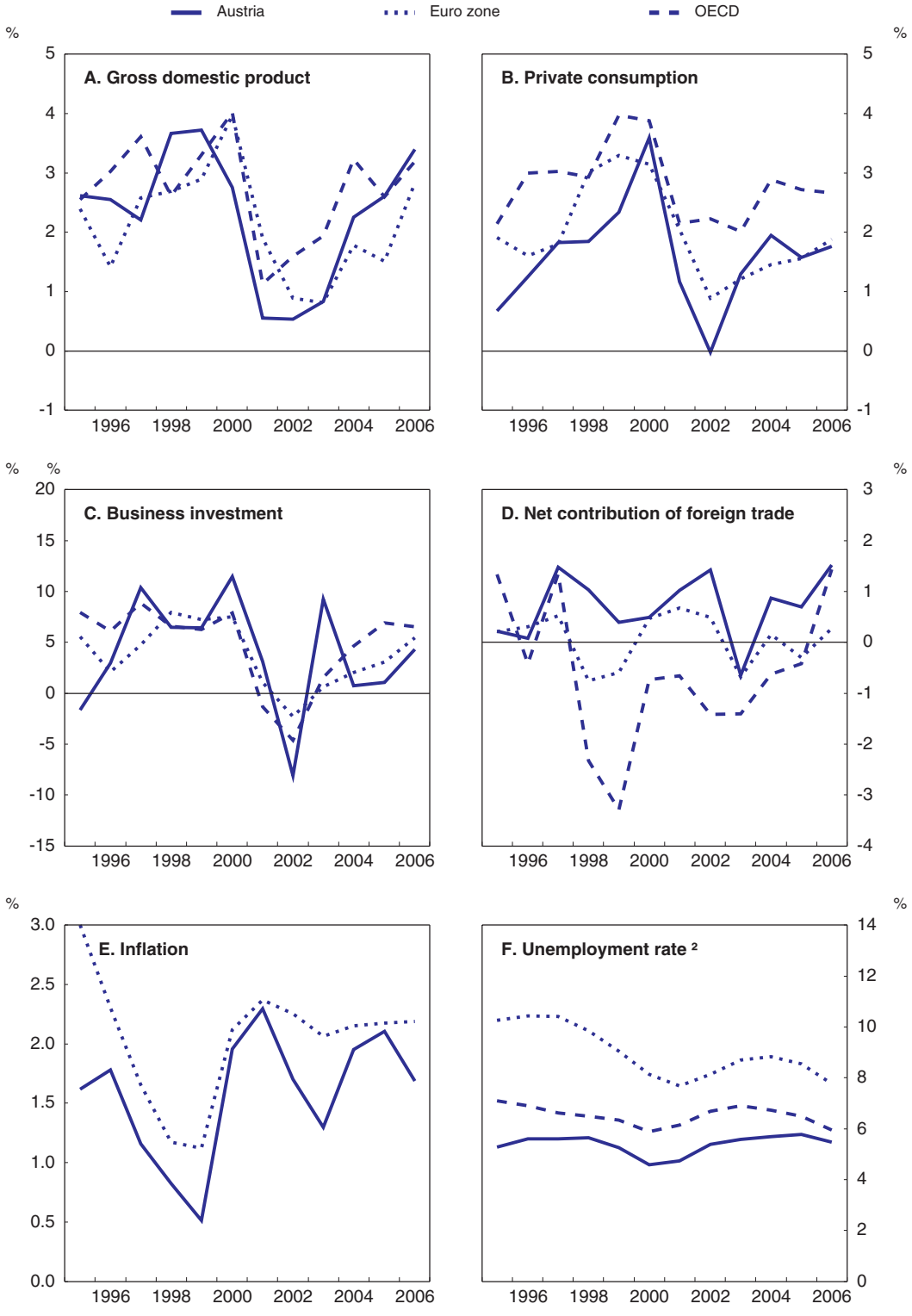
- further foster economic growth and reduce the unemployment rate below 4%, with particular emphasis on promoting small and-medium sized enterprises and implementing active labour market programmes;
- ensure a monthly minimum income of € 1 000 for those in work, and € 726 for the inactive (the official poverty line);
- promote an education offensive, through increased funding, limiting school classes to no more than 25 students, and promoting foreign languages;
- maintain the momentum on the previously launched innovation policy with a view to raise total expenditure on research and development above 3% of GDP;
- introduce administrative reform to streamline the functions of the different levels of government, based on proposals presented by the "Austria Convent" established by Parliament in 2005 to examine reform of the Constitution;
- pursue the previously announced policy of fiscal consolidation, with an aim to achieve a balanced budget over the economic cycle – the target date for this has, however, shifted from 2008 to 2010.

SPÖ controls the Chancellery and most of the *social* ministries, such as Education, Social Security, Health and Women Affairs. ÖVP controls the more *economic* ministries such as Finance (associated with a Vice-Chancellorship), Economy and Labour, and Science. The government has more than a two/thirds majority in Parliament necessary to revise the Constitution. The composition of the government and its programme seem to herald that economic policies will remain on track, while new social policy objectives will be phased in and may have important impacts on work incentives and labour market outcomes. Conditions are more ripe than before for the constitutional reform of federal/fiscal relations.

Source: Government Programme 2007-2010, Economist Intelligence Unit.

was led by robust net export and private investment growth, following a steady improvement in external competitiveness. Domestic consumption followed with a longer-than-usual lag, and somewhat hesitantly, even after significant personal income tax cuts granted in 2005. The persisting weakness in household confidence initially created concerns about the sustainability of the recovery. However, the most recent surveys confirm that household confidence is now improving and consumption is expected to strengthen.[7] Inflation has remained subdued despite energy price increases, supported by ongoing wage moderation.

Figure 1.1. **Recent economic performance**[1]



1. Annual percentage change except for the net contribution of foreign trade and the unemployment rate.
2. ILO definition, standardised by OECD.

Source: OECD Economic Outlook No. 81 database.

StatLink http://dx.doi.org/10.1787/068617050881

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The recovery has been backed by supportive monetary conditions in the euro area. The fiscal stance also added stimulus, with the structural fiscal deficit deteriorating as a result of a far-reaching tax reform, a series of business cycle stimulation packages and delays in the intended expenditure cuts.[8] Despite this fiscal deterioration, which the authorities have committed to reverse gradually (also in line with the European Stability and Growth Pact), public and financial market confidence in the soundness of macroeconomic policy has improved. The important pension reform implemented in steps since 2000 played a major role in consolidating confidence despite short-term fiscal drifts, by improving the long-term sustainability of public finances. Long-term real interest rates declined to a historically low 1½ per cent in 2006, and business sector confidence reached historical heights. Macroeconomic prospects remain robust amid the start of the monetary tightening cycle in the euro area and a soft landing is projected over the next two years.[9] The Austrian economy is fully benefiting from the German recovery (Table 1.1)

Table 1.1. **Outlook for 2007-08**

Austria: Demand, output and prices

	2003 Current prices € billion	2004	2005	2006	2007	2008
Private consumption	128.2	2.0	1.6	1.8	2.1	2.3
Government consumption	41.4	1.4	1.9	0.9	0.9	1.0
Gross fixed capital formation	48.1	0.2	1.3	4.1	4.1	2.7
Final domestic demand	217.7	1.5	1.6	2.1	2.3	2.2
Stockbuilding[1]	–0.6	0.3	0.0	–0.3	–0.2	0.0
Total domestic demand	217.1	1.6	2.0	1.9	2.1	2.2
Exports of goods and services	109.8	9.5	6.9	8.3	7.0	7.7
Imports of goods and services	100.7	8.4	6.1	6.2	5.2	7.7
Net exports[1]	9.1	0.9	0.7	1.5	1.3	0.5
GDP at market prices	226.2	2.3	2.6	3.4	3.2	2.6
GDP deflator	. .	1.7	1.5	1.4	1.9	2.3
Memorandum items						
Harmonised index of consumer prices	. .	2.0	2.1	1.7	1.6	1.9
Unemployment rate[2]	. .	5.7	5.8	5.5	5.3	5.3
Household saving ratio[3]	. .	8.8	9.1	9.1	9.0	8.9
General government financial balance[4]	. .	–1.3	–1.7	–1.2	–0.8	–0.6
Current account balance[4]	. .	1.7	2.1	3.2	4.1	4.5

Note: National accounts are based on official chain-linked data. This introduces a discrepancy in the identity between real demand components and GDP. For further details see OECD *Economic Outlook: Sources and Methods*, *www.oecd.org/eco/sources-and-methods*.

1. Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.
2. See data annex for details.
3. As a percentage of disposable income.
4. As a percentage of GDP.

Source: OECD Economic Outlook No. 81 database.

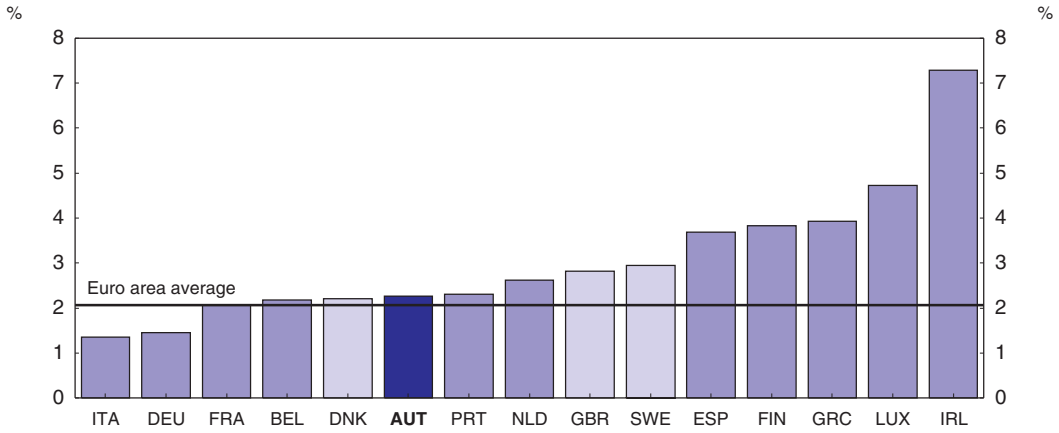
Trend growth is stronger than in the euro area…

With the cyclical recovery being on track and the output gap gradually closing,[10] the economic policy discussion centers again on the underlying growth trend. Austrian trend growth reflects, beyond cyclical influences, the economy's capacity to develop its productive potential by building up capital, labour and technology resources.

The trend growth rate over the last decade has been stronger than in other euro area countries. Between 1995 and 2006 real GDP grew at a yearly rate of 2.3 %, higher than the Euro area average (but lower than the best performing countries of the zone) (Figure 1.2).

Figure 1.2. **Economic growth in Austria and in the European Union**

Average annual growth 1995-2006



Source: OECD Economic Outlook No 81 database.

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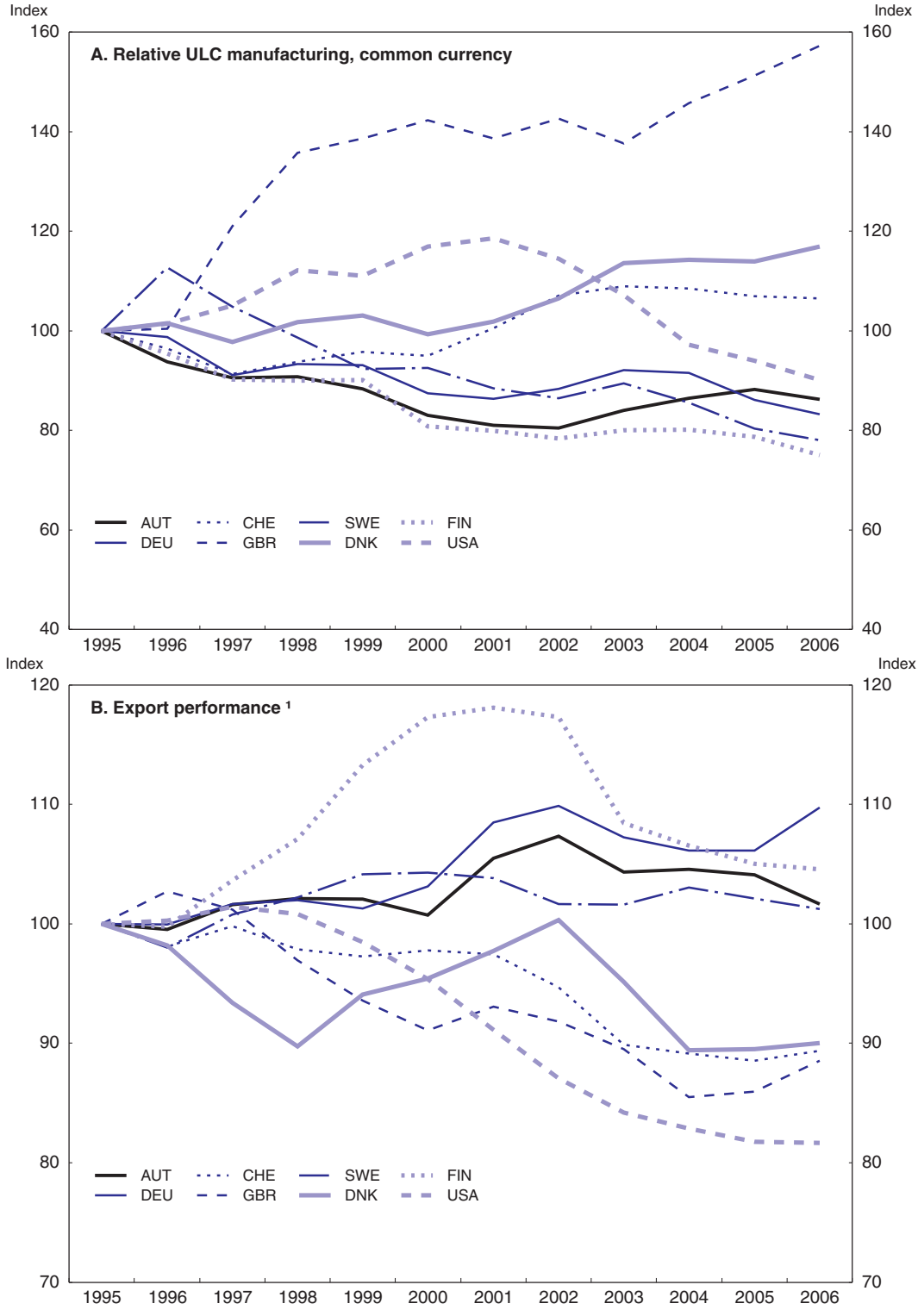
Certain unique sources of strength underpinned Austria's above-average performance:

- *Growth has been driven by a steady long-term increase of exports and business investment in manufacturing*. Export growth between 1995 and 2006 has been one of the strongest in the euro area at a yearly average of more than 8%, against a weighted euro area average of less than 6%. The growth of exports was also less volatile than in the euro area, and stimulated a durable increase of investment in export-oriented sectors. The yearly average growth rate of investment in manufacturing (Austria's main exporting sector) reached 6.1% against 4.0% in the euro area between 1995 and 2003. Austria has achieved one of the highest cumulative contributions of net exports to medium-term growth among OECD countries.[11]
- *A strong improvement in the two main determinants of competitiveness underpins this performance*. Real wage growth remained below productivity growth and this permitted a fall in unit labour costs. Austrian firms contained their unit labour costs well below euro area averages.[12] Despite the appreciation of the Euro *vis-à-vis* other global currencies, Austria remained one of the OECD countries having achieved the strongest fall in relative unit labour costs between 1995 and 2005 (Figure 1.3). This was due to strong productivity growth[13] and subdued wage increases achieved in parallel,[14] an uncommon combination realized through Austria's consensual wage negotiation system (Box 1.2). Strong immigration from Central and Eastern European neighbours and Germany's eastern Länder also contributed to wage moderation. Resulting competitiveness gains permitted exporters to significantly increase their market share, and these gains rather than any superior growth in export markets led the medium-term growth. It is sometime presumed that Austria has benefited from outstanding export market growth, emanating from its rapidly developing Central and Eastern European neighbours, but the

Figure 1.3. **Austria's competitiveness and market share gains**

Index 1995 = 100



1. Growth of exports/growth of export markets.

Source: OECD,Economic Outlook No. 81 database.

StatLink http://dx.doi.org/10.1787/068715727054

Box 1.2. **Austria's social partnership system**

According to social partners "60 years of social partnership have made a decisive contribution to the success of Austria and made it one of the most prosperous and stable countries in the world today".[1] Social partnership is indeed a "voluntary and long-term" device of co-operation between employers and employees and forms a central feature of the political economy of Austria.

The stated objective of social partnership is to "secure and enhance the prosperity of all levels of the population, by strengthening the country's competitive position as a location for business". Its core instrument is a consensual wage policy, based on collective agreements at branch level, finalized in autumn or winter each year for about 500 different branches. The negotiations take into account domestic productivity and international price and exchange rate developments. Sectoral agreements may also contain provisions on workplace environment, work hours, and other employment conditions. Agreements are compulsory for all enterprises in a sector and there is no opt-out. They cover 98% of the labour force.

Social partnership has supported strong growth and high employment by containing inflationary pressures, and helps maintain international competitiveness even under a strong currency. It therefore contributes to cyclical stabilization in the short term, and to stronger growth in the long term. At the same time, there is evidence that it encourages the formation of strong "producers' coalitions", which may favour sectoral regulations and slow down microeconomic adjustments, at the expense of customers. This influence appears to have been more significant in areas sheltered from the disciplines of foreign competition.

The scope of social partnership was recently broadened, with the inclusion of new negotiation branches such as post-school education, household and health services. On the other hand, more flexible ways of compliance are now available for enterprises. "Delegation clauses" offer variable options for wage settlement and open the way to more decentralized bargaining. In these cases works councils are allowed to negotiate wage agreements at company level.

The re-formed "grand coalition" may be giving a new stimulus to social partnership, this time as an instrument of consultation on economic and social reforms. The government and social partners have expressed a common will to extend their consultations to areas such as education, social security, rural adjustment, ownership changes in family enterprises, public health, and local public service obligations. Social partners have recently co-sponsored an in-depth study of the medium-term growth prospects of the economy by the Austrian Economic Research Institute (WIFO), as a framework for their policy discussions. They agreed to meet twice a year on strategic issues, with a view to "support those people affected by the inevitable changes, to minimise the risks they face as much as possible, and to take advantage of the great opportunities presented".[2] In this respect it might be worthwhile to revive again the *Beirat für Wirtschafts- und Sozialfragen* (Council for Economic and Social Questions) as a forum for discussions about policy challenges.

1. Joint declaration of social partners on the future of social partnership in Austria (Bad Ischl Declaration), 6 September 2006.
2. Bad Ischl Declaration.

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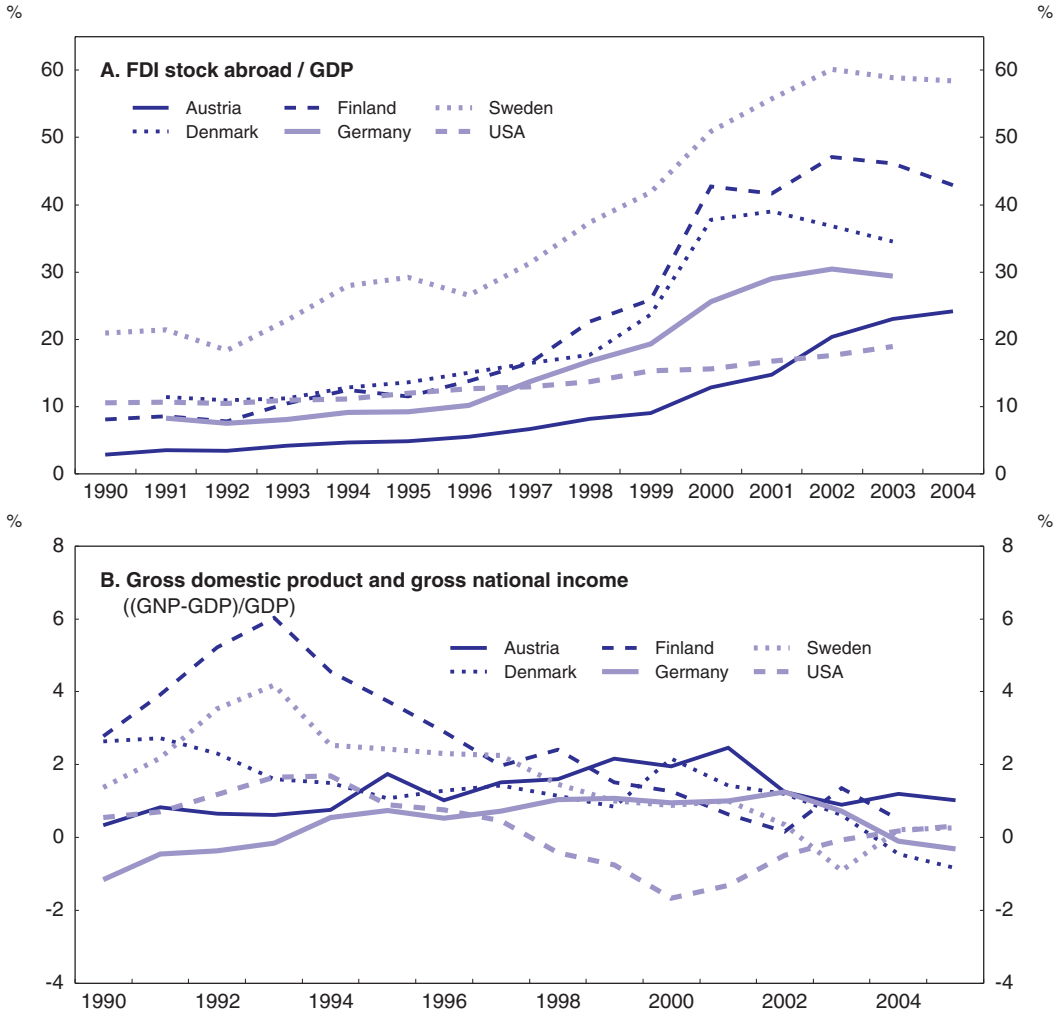
average growth rate of its export markets has actually been below euro area averages, also because of its small presence in the rapidly growing overseas markets.[15]

- *Growing integration with Central and Eastern Europe permitted Austrian firms to further reinforce their performance*. As discussed in detail in Chapter 2, manufacturing firms rapidly increased their intermediate imports from low-cost neighbouring countries, through direct investment and cross-border procurement. Despite its small size, Austria has become either the largest or the second largest foreign investor in most of these economies, and since the late 1990s realized the largest increase in the "outward FDI/GDP" ratio among all OECD economies (Figure 1.4). Austria is now one of the few OECD countries where investment incomes earned from abroad are higher, and growing more rapidly, than non-residents' remitted revenues.
- *Increased productivity growth originated from the structural strengthening of outward-oriented sectors*. Austria's joining first the European Economic Area and then the European Union in 1995 gave the strongest stimulus to productivity growth, through direct competition

Figure 1.4. **The growth of an "Austrian economy abroad"**



Source: OECD, database and National Accounts database.

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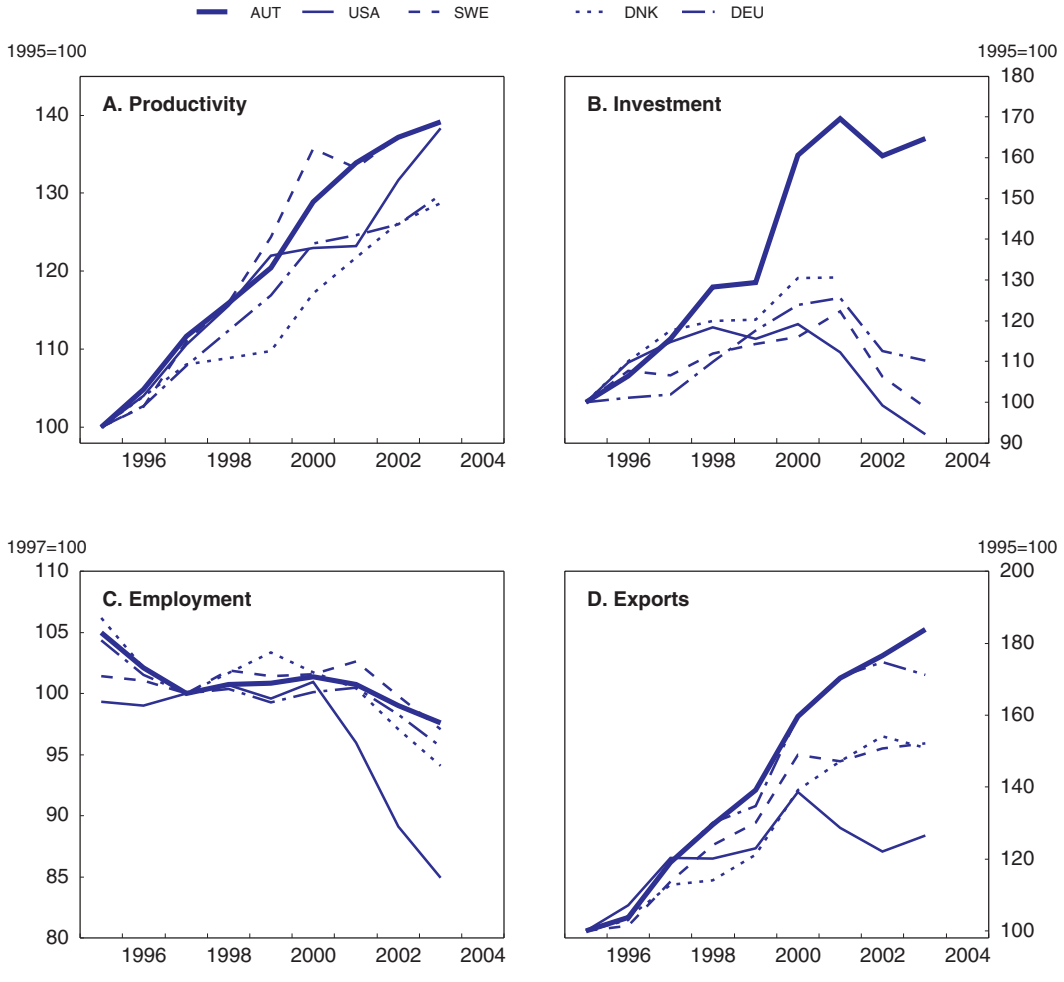
effects in the single market, and pro-competitive reforms following European directives for the implementation of competition policies and the liberalization of network industries. Following the crisis of the then nationalized industries, reform efforts which started in the 1980s and the privatizations which followed gave also a positive impulse to productivity. Large size enterprises quoted in the Vienna Stock Exchange increased considerably their profits[16] and many of the family-owned medium-sized firms, reinvigorated by their competitiveness gains, re-invested growing profits in new competitive ventures, including research-and-development, product innovations and other niche-building efforts. Between 1995 and 2005 Austria realized the strongest increase in business sector's R&D activities in the OECD, and according to the European Union's Community Innovation Surveys Austrian industry has become much more innovative than before and in comparison to many other countries.[17] The productivity, investment and employment growth in outward-oriented sectors outperformed most other euro area countries (Figure 1.5).

Figure 1.5. **Outward-oriented sectors have been the driving engine of growth**

Manufacturing sector, index



Source: OECD, STAN database.

StatLink http://dx.doi.org/10.1787/068733354361

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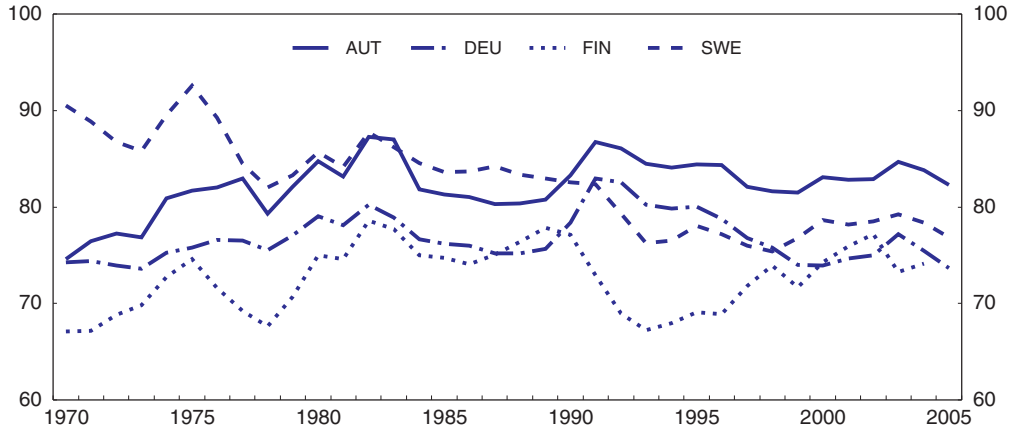
... but growth performance can and should be further improved

Trend growth has been above the euro area average but this is probably not an adequate benchmark for Austria. First, the euro area average is not a good norm, as this region's growth has been relatively weak in comparison with better performing OECD countries. The euro area countries (pre-euro entry) were catching-up with the United States' GDP per capita level until early 1990s, that catch-up then stopped and has since been reversed (Figure 1.6). In this context, Austria succeeded to stabilize its GDP per capita gap *vis-à-vis* the United States, with the important gap in labour productivity persisting and the degree of labour mobilization remaining slightly behind the United States[18] (Figure 1.7). Then, over the past decade a number of small open European economies, including Sweden, Finland and Ireland, improved their growth performance, reflecting a high or increasing rate of total factor productivity growth. Austria's performance ranked mid-way during this last period (Figure 1.8). While part of the differential may be allocated to idiosyncratic factors, like the weight of information technology (IT) equipment supply in some Scandinavian countries, or the high rate of foreign direct investment (FDI) in Ireland, there is a remaining gap *vis-à-vis* best performers which can be addressed by economic reforms.

Figure 1.6. **Selected countries' long-term convergence with the United States**

Percentage gap with respect to US GDP per capita, at current PPP's



Source: OECD, National Accounts database.

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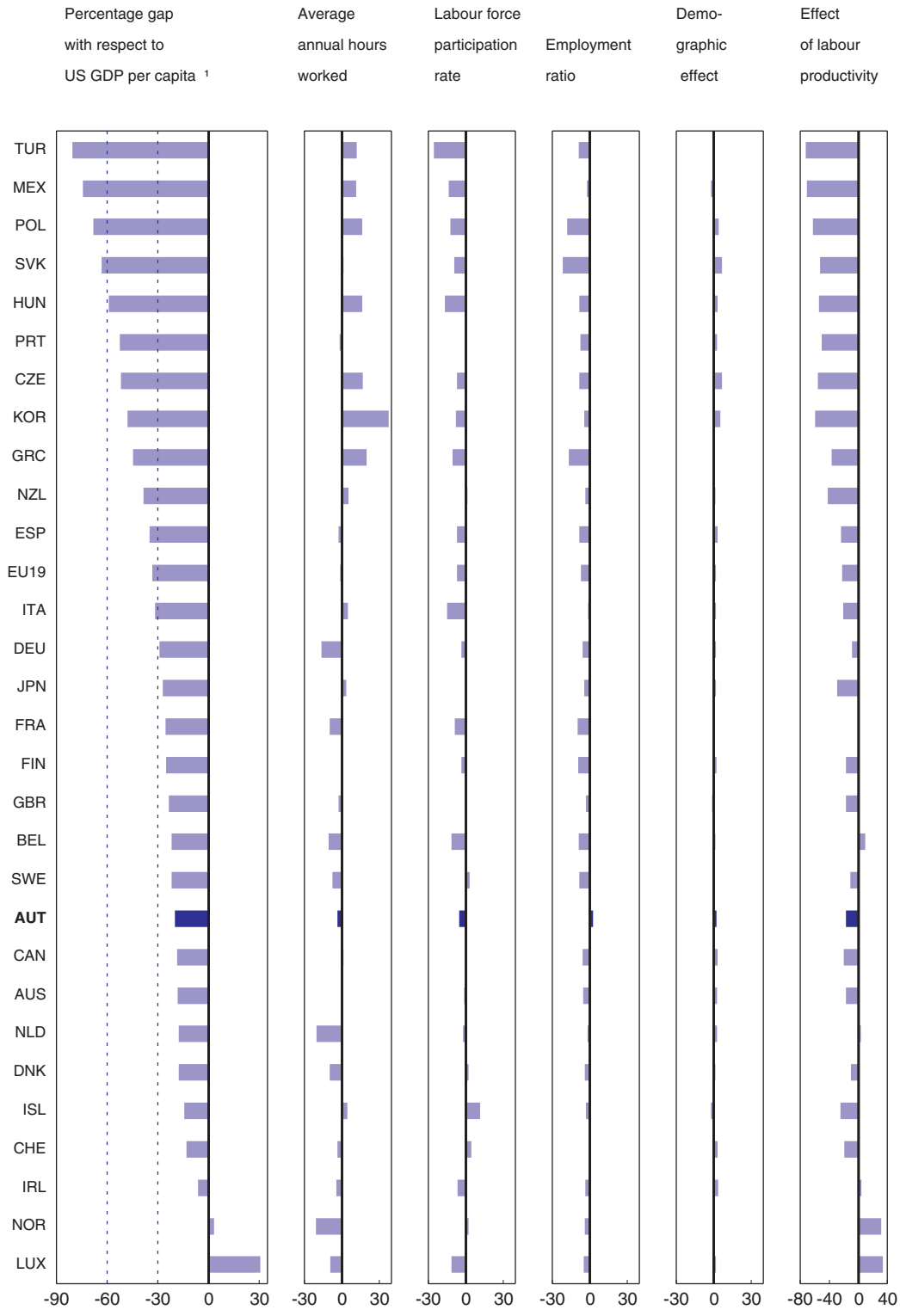
Three areas of relative underperformance *vis-à-vis* benchmark countries appear to deserve the attention of Austrian policymakers: labour market mismatches, a lagging service sector, and regulatory and tax impediments.

Mismatches in the labour market

There are still limited but growing mismatches in the labour market. A contrast is apparent between a very well-performing core and a less well performing periphery of the labour market (Figure 1.9). The employment rate of the *prime labour force* (*i.e.* of male and female workers aged between 25-54, most of them with upper secondary education) is superior in international comparison. However, such good performance does not extend to the employment of the less-skilled and the elderly, which falls clearly short of

Figure 1.7. **Sources of persisting real income differences**

2005



Source: OECD (2007), *Going for Growth*.

StatLink http://dx.doi.org/10.1787/068742083308

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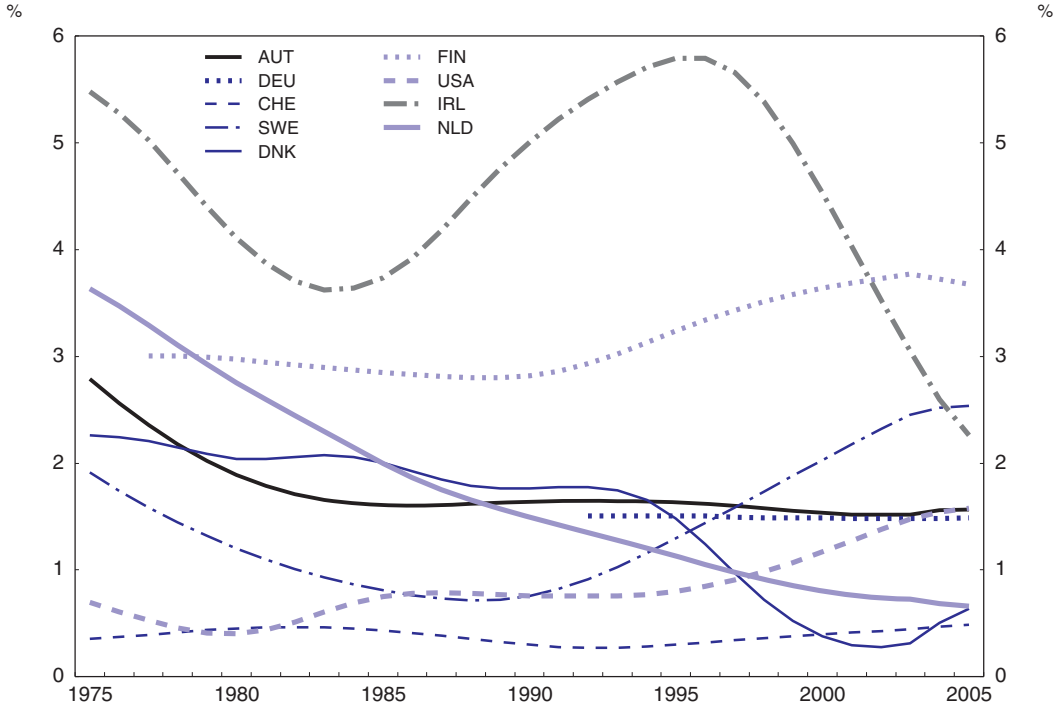
Figure 1.8. **Trend total factor productivity (TFP)**[1]

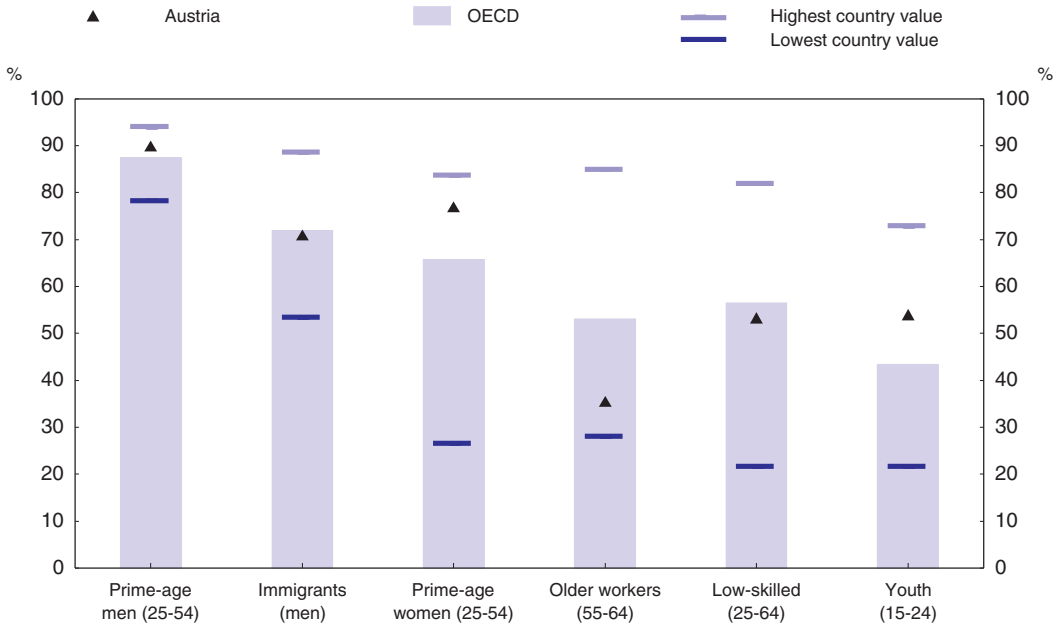


1. Total economy, trended.

Source: OECD Economic Outlook No. 81 database.

StatLink http://dx.doi.org/10.1787/068762073004

Figure 1.9. **Employment rates differ strongly across population groups, 2006**[1]



1. Some of the groups overlap. Data for male migrants are for 2004 and low-skilled are for 2005. Population-weighted averages for all OECD countries. For male migrants, it is an average of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Slovak Republic, Spain, Sweden, Switzerland, United Kingdom.

Source: OECD, Labour Force database.

StatLink http://dx.doi.org/10.1787/068783754477

international benchmarks. The employment rate of immigrants is average in international comparison but with differences among immigrant groups (Figure 1.9).

While the low employment rate of older workers primarily reflects the generous retirement benefits granted before the pension reform, which are now phased out, the lower activity of the low-skilled and immigrants (as compared to the best performing countries) reflect their relatively lower human capital. There seems to be also a large wedge between the productivity level of many workers in these segments and their actual compensation costs, penalizing their employment prospects. Despite relatively low minimum wages negotiated at branch and occupational level, these high effective employment costs are due in particular to very high labour taxes.[19]

The mismatch between the human capital endowment of workers in these weaker segments and labour market demands is now becoming more apparent.[20] Differentiated outcomes from formal education and training partly explain these mismatches, as certain groups clearly receive lower quality and less labour-market-relevant basic and professional education than others. These differences persist across generations. The divide seems to operate throughout the entire education stream, from pre-school to university education. *Pre-school education* is not compulsory and is of uneven quality across kindergartens; *secondary education* is highly fragmented with a deep divide between high and low quality schools, including between the stronger and weaker parts of the well-established vocational education system. *Tertiary education* faces a similar segmentation, with many university students failing to develop the skills demanded in the labour market. *Lifelong adult education* is generally well-developed but does not contribute enough to the further qualification of those in the weaker parts of the labour force. As the recently launched measures aiming to alleviate these effects have to date had only a limited impact on the labour force as a whole, this deep segmentation continues to characterize the labour market.

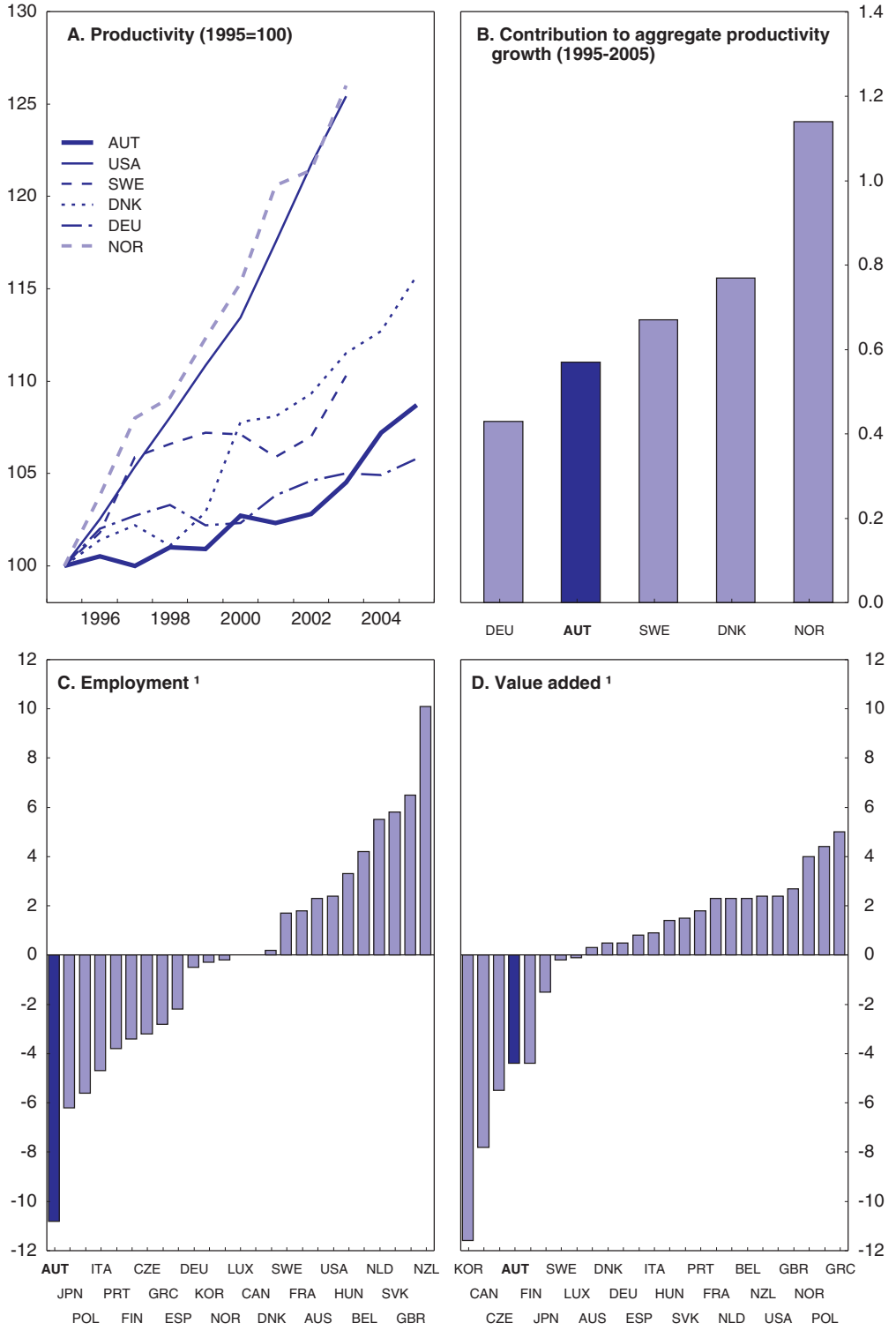
Productivity and employment lags in inward-oriented sectors

There is evidence that the performance of competition-exposed and globally oriented manufacturing has kept on strengthening, at the same time that the performance of competition-sheltered and inward oriented sectors has been falling behind international benchmarks. Productivity measurements in services are more difficult and less internationally standardized than in manufacturing, yet available evidence point to the persistence of such an aggregate gap over the past decade. This applies both to government-owned and controlled public services, and to often highly regulated private services. The service sector as a whole, which in the most advanced OECD economies plays an important role in total productivity and employment growth, appears less dynamic in Austria in terms of both productivity and employment growth (Figure 1.10 and Table 1.2). A more disaggregated analysis shows diverging performances within the services sector, with more competitive activities such as business services having upgraded their performance in the more recent period.

Weaknesses in the domestic regulatory and tax framework

The quality of the regulatory and tax framework of the economy does not seem to have kept pace with the rapidly moving OECD benchmarks over the past decade. There appear to be shortcomings in market entry conditions in general, and in exposure to competition in service sectors in particular. The OECD's regulatory databases, which only include data until 2003, reveal that product market indicators in terms of company start-up, foreign direct

Figure 1.10. **Inward-oriented sectors' performance is lagging**
Services, indexes and percentage shares



1. 2003, deviation of share in total economy from OECD median (percentage).

Source: OECD, *STAN* database, *National Accounts* and Economics Department Working Papers No. 427.

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Table 1.2. **Productivity growth in manufacturing and services**

A. Productivity growth in manufacturing and aggregate market services[1]

1995-2003

	Annual productivity growth in manufacturing	Annual productivity growth in market services	Differential between manufacturing and market services (1/2)
Austria	4.2	1.5	2.8
Germany	3.3	1.2	2.75
Sweden (1995-2002)	4.6	1.2	3.83
Denmark	3.2	2.3	1.39
United States	4.1	3.3	1.24

1. All services except government and social services.
Source: OECD, *STAN* database.

B. Differential between productivity growth in manufacturing and selected services[1]

1995-2004

	Austria	United States	United Kingdom	Denmark	Sweden	Germany	Netherlands
Wholesale and retail trade	2.3	1.2	2.3	1.3	3.0	2.9	0.1
Hotels and restaurants	3.6	3.5	4.1	3.9	3.9	7.2	2.7
Financial intermediation	1.6	0.6	1.3	–1.8	3.1	0.0	0.4
Real estate and business services	7.4	3.9	4.9	3.5	6.0	6.9	2.3

1. Calculated as the difference between average annual productivity growth in manufacturing and in selected service sectors.
Source: EU *KLEMS* database.

investment, competition policy rules and sectoral regulations were relatively unsupportive of new entry and competition until that date. According to this data, Austria remained one of the more restrictive OECD economies in comparison to benchmark countries. Recent reforms aimed at shortening the company start-up process and reducing restrictions on FDI, and Austria has made definite progress on its product market indicators. Yet other OECD countries have also enhanced their market conditions and Austria's relative position will be clarified only through future updates of these comparisons. Liberalization initiatives started also in certain important sectors such as retail trade,[21] but the overall picture appears to be lagging *vis-à-vis* the best performing countries (Table 1.3 and Figure 1.11).

Table 1.3. **Burdens on entrepreneurship according to OECD, 2003**

	Administrative regulation		Number of mandatory procedures to register a public limited company	Individual enterprise	Typical cost to register a public limited company (euro)	Number of authorisation to operate a retail trade business[1]	Number of authorisation to operate a road freight company
	1998	2003					
Austria	1.8	1.9	25	17	2 232	6	6
Germany	2.5	1.9	13	4	1 330	4	4
Finland	2.5	1.3	13	7	252	2	3
Sweden	2.0	1.1	11	6	186	2	3
United States	1.4	1.1	7	3	221	. .	5
Denmark	1.1	1.1	10	1	0	. .	4
United Kingdom	1.2	0.8	9	2	40	3	5

1. Registration and notification requirements to sell food and clothing (6: if registration, notification, licence for commercial activity and licence for outlet sitting are required to sell food and clothing).
Source: OECD Product Market Regulation Database.

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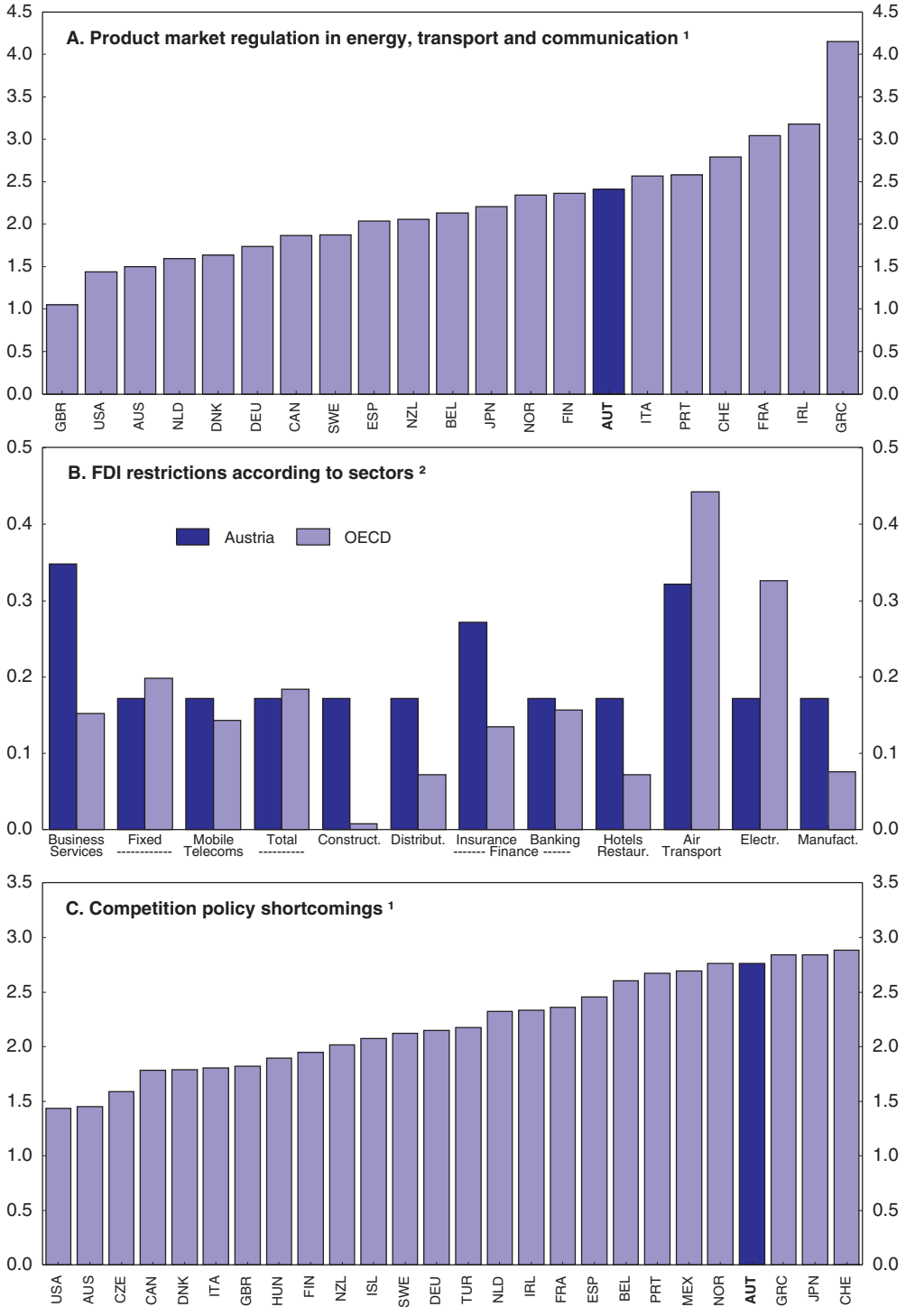
Figure 1.11. **The regulatory framework does not promote competition and stronger performance in inward-oriented sectors, 2003**



1. Scale normalised to 0-6 from least to most restrictive of competition.
2. The underlying methodology is explained in the quoted source. Scale normalised to 0-1 from least to most restrictive of competition.

Source: OECD, Economics Department, Working Paper No. 530; OECD (2007), *Going for Growth*.

StatLink http://dx.doi.org/10.1787/068825482838

Through its *Going for Growth* exercise, the OECD has established an evidence-based link between the quality and competition-friendliness of Member countries' regulatory frameworks and their macroeconomic performances. In the case of Austria, this exercise has emphasized the causality between competition-restricting product market regulations, the administrative costs of company start-ups, and the shortfalls in the education system, and the country's relative lags in diffusion of new technologies and labour productivity growth. Table 1.4 displays some of the apparent links between policy lags and performance weaknesses as documented in this project.

Table 1.4. **Links between policy lags and performance weaknesses in Austria**
Binary links between policies and performances in eight areas

Policy area	Deviation from OECD benchmark[1]	Related performance area	Deviation from OECD benchmark[1]
Anti-competitive product market regulations	–1.72	Labour productivity growth	–0.67
Anti-competitive product market regulations	–1.72	Diffusion of information and communication technologies (ICT)	–0.94
Product market regulations for start-ups	–0.95	Labour productivity growth	–0.67
Product market regulations for start-ups	–0.95	Diffusion of information and communication technologies (ICT)	–0.94
Product market regulations for retail trade	–0.75	Labour productivity growth	–0.67
Product market regulations for professional services	–0.68	Labour productivity growth	–0.67
Tertiary education	–1.16	Labour productivity growth	–0.67
Secondary education (PISA performance)	–0.05	Labour productivity growth	–0.67

1. Deviation from OECD benchmarks.
Source: Underlying database of OECD's "Going for Growth" project (2007).

The existing tax framework also raises certain concerns. The tax ratio is higher than in several OECD countries at a similar GDP per capita level.[22] The structure of taxes also displays features which may hinder the employment and growth performance of the economy. Labour taxes are higher, and environmental and property taxes lower than in comparable countries. Recent tax reforms have not reduced but rather increased these wedges. High top marginal tax rates on personal income and on self-employment income may also hinder entrepreneurial activity, even if there is no *direct* empirical evidence to support this (Figure 1.12 and Figure 3.6 below).

Four issues investigated in the Survey

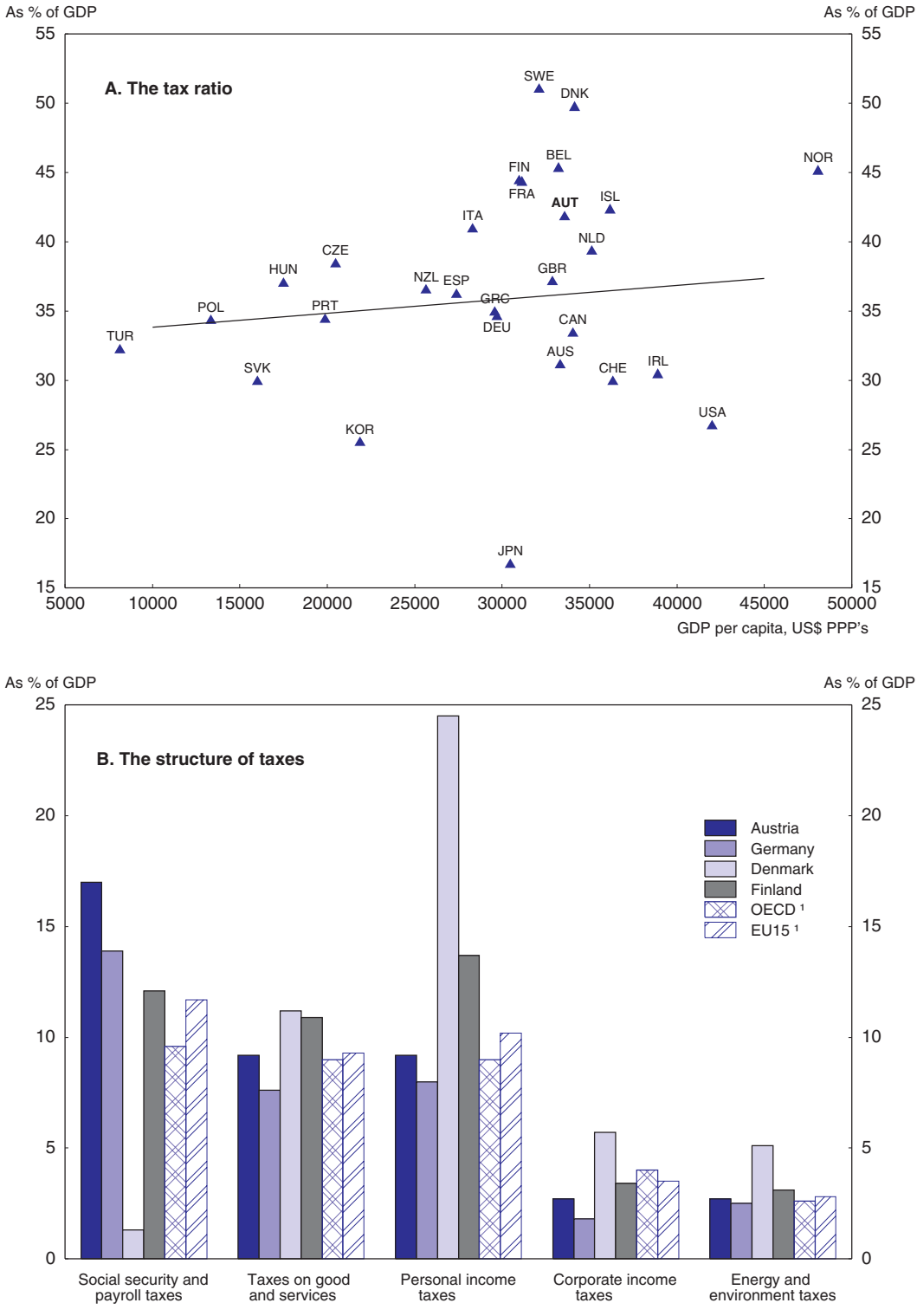
In the context of these challenges the Survey focuses on four specific issues:

Deepening regional integration with Central and Eastern Europe

Austria continues to further its regional integration with Central and Eastern Europe. Deeper trade and investment links have boosted productivity, competitiveness, profits and investment. At the same time, the process has posed adjustment challenges for Austrian businesses, under growing competition not only from neighbor country firms but also from intra-company procurement and sub-contracting networks. Even if a good deal of adjustment has already taken place, Central and Eastern economies continue to rapidly catch-up, build-up higher quality human and physical capital, and climb-up the

Figure 1.12. **The tax burden remains high and its structure may hinder growth**

2005



1. Simple averages.

Source: OECD, *Revenue Statistics*, *National Accounts* and European Environment Agency.

StatLink http://dx.doi.org/10.1787/068840255473

technological ladder in trade specialization. Opportunities and adjustment challenges are therefore expected to continue to unfold in the years ahead. Direct immigration is also continuing from these proximate and culturally close countries, and inflows of both highly skilled and less skilled workers may further accelerate with the full liberalization of labour movements among European Union countries. At the same time Vienna is becoming a *de facto* regional hub for Austrian and foreign multinationals operating in Central and Eastern Europe, and its further potential to become the economic centre of the region could be better exploited with a more deliberate and focused strategy. These challenges and opportunities of regional integration are discussed in Chapter 2.

Overcoming the segmentation of the labour market

The labour market is polarized between a well-performing core and more vulnerable segments. Aware of this segmentation challenge, the authorities have adopted a broad range of measures in the 2000s aiming to strengthen both labour supply and demand in the weaker parts of the labour market. The new government established in February 2007 announced a number of additional policies, some directly addressing the recognized weaknesses, and others being more controversial in terms of their expected impact. Given the significant stakes associated with overcoming labour market segmentation, both from the perspective of economic growth and that of social balance, a review of the effectiveness and cost-efficiency of new active labour market policies is needed. The likely impacts of new policies that the government is intending to introduce should also be analysed. Chapter 3 provides a review of this agenda against the background of the OECD's revised Job Strategy.

Backing innovation policy with further framework reforms

A "paradigm shift" about the contribution of innovation and innovation policies to growth is highly topical in Austria. There is an apparent general agreement that the traditional model based on the transfer and absorption of international technologies, which permitted sustained productivity gains despite a relatively thin national science infrastructure (the so-called "Austrian Paradox") may have exhausted its potential. Ambitious policy initiatives have already been taken, and are further planned, to make the country more of a frontier technology producer than a technology follower. These efforts aim to strongly upgrade the science infrastructure, enterprises' technological capabilities, and researchers' human capital. At the same time, recent OECD work and Austria's own experience suggest that fuller competition in the whole set of product markets and more diversified and complete capital markets may be at least as important for successful innovation as specific R&D and innovation policies. There is therefore a strong case for reviewing the effectiveness of technology policies and for backing them with broader reforms to sharpen incentives for productivity growth. These issues are considered in Chapter 4.

Strengthening the framework for fiscal policy and public expenditures

Government policies aim at increasing public spending in *growth-enhancing* areas such as research and development, education, active labour market policies, and transport infrastructure. This is in the context of already high public spending on social transfers, housing and other subsidies, and tax expenditures. Cross-country OECD experience suggests that, for both newly introduced and rapidly growing, as well as the long-

established and routine public spending programmes there is in general a need to assess the effectiveness and cost-efficiency of spending. There is considerable evidence in Austria that such assessments, which could not be introduced on a large scale to date, would be useful in helping the government pursue more focused policy objectives, and phasing out schemes with low social returns. The authorities are also determined to eliminate the persisting fiscal deficit over the business cycle, which requires a further consolidation effort, including on medium and long term social security balances. At the same time, they maintain a stated medium-term objective of reducing the total tax burden, and shifting the tax structure in a growth enhancing direction. Against this extremely demanding fiscal policy agenda, federal/fiscal relations continue to be structured in complex and not fully transparent ways, which facilitates neither the optimisation of expenditures according to policy objectives, nor a smooth fiscal consolidation process. Chapter 5 investigates the requirements of short and long-term fiscal consolidation, public expenditure rationalization, and tax reforms.

Notes

1. At € 31 008 in current prices in 2006, and at US$ 34 393 in current purchasing power parities in 2005.
2. The Gini coefficient of income distribution was about 25 in Austria in 2000, in the vicinity of Scandinavian countries, against an OECD average of 31. In 2005, the ratio of total income received by the top quintile (the 20% of the population with the highest income) to that received by the lowest quintile was 3.8, against an EU15 average of 4.8 and 4 in Netherlands and 3.3 in Sweden. The coefficient of dispersion of unemployment rates across domestic NUTS 2 regions was 4.1% in 2005 against an EU-15 average of 10.9%.
3. According to standard ILO and OECD definitions seasonally unemployed workers in construction and tourism, as well as other groups like the unemployed who work in minor jobs, are included in the employed population and no difference is made between full-time and (relatively few) part-time workers.
4. "Risk of poverty" (relative poverty) gauges the share of the population living with less than 50% of median income. It affects 12% of the population in Austria against 9 to 12% in Scandinavian countries and an OECD average of 16%.
5. This may also be related to an acceleration of "non-economic" immigration in the last decade as a result of family reunifications facilitated by a new immigration law, and humanitarian immigration by asylum seekers from the Balkans.
6. This protracted stagnation was a rare event in Austria, due to the coincidence of a cyclical trough in the wake of the bursting internet bubble and the even stronger downturn in Germany on the one hand, with perceived household income losses after the introduction of pension reform on the one hand.
7. Consumer surveys in winter 2007 revealed a clear improvement in households' assessment of their personal circumstances and consumption prospects. The upturn was unambiguous for educated young workers but prospects remained negative for the less-skilled and those above 50.
8. The cyclically adjusted general government deficit increased from 0.25% of GDP in 2002 to an expected 0.77% of GDP in 2007.
9. OECD projections presented in *OECD Economic Outlook*, June 2007. The Austrian Economic Research Institute (WIFO) projected a stronger decrease in the unemployment rate over 2007-2008.
10. The size and time profile of the output gap differ in different estimations but point in the same direction. With the strong recovery the gap should disappear by end-2007 or more gradually.
11. The cumulative net contribution of foreign trade to GDP growth between 1995 and 2004 has been 7.8% in Sweden, 7.1% in Finland and 5.9% in Austria, against 4.9% in Germany, 2.4% in Japan, –2.9% in Italy, –1.3% in France and –7.2% in Spain.

12. Manufacturing unit labour costs in euro terms decreased by a cumulative 38% between 1995 and 2005, while they decreased by 15% in Sweden and 7% in Germany, and increased by 19% in Italy, 17% in Denmark and 3% in Finland.

13. Labour productivity growth has been one of the steadiest in Europe between 1995 and 2005 in Austria. Cumulative labour productivity growth by 2005 amounted to about 20% over 1995, against 24% in Sweden, 12% in Germany, 10% in Switzerland and 5% in Italy.

14. In other euro area countries productivity and wage outturns have been more closely correlated during this period. The cumulative real wage increase in Austria (nominal increase in labour compensation costs deflated by the GDP deflator) amounted to about 5% between 1995 and 2005, while it reached 27% in Sweden, 8% in Switzerland, 1% in Germany and –5% in Italy.

15. This is because of the relative stagnation of the German market (which absorbs half of Austrian exports) through most of the period. Between 1995 and 2005 Austrian export markets grew by a cumulative 75%, while Germany's increased by 77%, Italy's 78% and Finland's by 79%.

16. Growing corporate profits underpinned the spectacular performance of the Vienna Stock Exchange in the most recent period. Stock prices in Vienna showed the highest international increase, with no significant rise in price/earnings ratios. Between 1996 and 2006 stock prices increased by about 300% in Vienna against 154% in New York, 143% in London, and 173% in Paris.

17. These Innovation Surveys are summarised in Chapter 4.

18. The relatively small gap in labour mobilization is measured in number of hours worked per working age population. The rate of employment is clearly lower in Austria than in United States but more Austrians work full time.

19. These features of the labour market are discussed in detail in Chapter 3.

20. As unemployment and job vacancies grew in parallel – see Chapter 3.

21. Shop hours were partly liberalised in 2003 and will be further extended by 2008. There were also some gradual liberalisation measures in some liberal professions such as accountants.

22. Although no direct link is established between the macroeconomic tax ratio and growth performance across OECD countries – as outcomes depend not only on the tax burden, but also on the quality and growth relevance of public services provided with the collected taxes – the high tax burden put an additional onus on the quality of public expenditures.

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ANNEX 1.A1

Follow-ups to the Recommendations of the 2005 OECD Survey of Austria

Recommendations	Action taken since previous Survey
Policy assessment on fiscal policy	
Budgetary procedures should be improved	
Output-oriented budgeting could be applied more widely. The impact of group taxation on tax revenues and firm behaviour needs to be monitored. A medium term budgeting framework should be introduced and fiscal sustainability calculations carried out at the beginning of each government period for all levels of government.	Whereas basic fiscal sustainability calculations currently already form part of the Coalition Agreements, there are plans to introduce a binding medium term budgeting framework for the following budgets, *i.e.* for 2009 and onwards. Output-oriented budgeting would also be part of the reform but would only be introduced after a transitory period due to its wide implications. Of course, the Austrian tax administration holds the view that the evaluation of new measures is important. However, as a general evaluation of all measures leads to higher compliance costs for taxpayers without considerable benefits for the tax administration in all respects, we chose to evaluate individual, important measures, such as the group taxation regime, tax benefits for research and development and tax benefits in general. However, the group taxation regime, which was introduced in 2005, could not be evaluated so far, as corporate taxpayers can file their tax returns up to 1.5 years after the tax year has ended.
Earmarking of the extra-budgetary Family Burden Equalisation Fund (FLAF) should be given up, and the Fund should be fully integrated within the federal budget.	No action taken.
The government should also take the opportunity to offer more stable, less distortive revenue sources for lower levels of government in exchange for some currently used levies.	The Austrian constitution provides that reforms in that field have to be negotiated with subnational governments before being implemented. The present fiscal equalisation period is going to end in 2008. MoF intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Budgetary savings from administrative reforms should be made more effective	
Consideration should be given to: widening the definitions of admissible reassignments of civil servants (see the 2003 *Economic Survey of Austria*); establishing a temporary work agency for public sector workers; and offering outplacement services for such persons.	No action taken
Completing pension reform	
The pension schemes for civil servants of the states and municipalities should be harmonised with the rules of the general scheme. Lower levels of government are urged to provide regularly updated information about their implicit future spending liabilities and develop systematic fiscal sustainability calculations. Special early retirement programmes need to be terminated and more efforts made to reallocate redundant public sector workers.	The new government pointed out clearly that more pressure will be exerted upon the states and municipalities in regard to harmonise the pension schemes of their civil servants on the basis of the federal rules.

Recommendations	Action taken since previous Survey
It should be monitored that the regulation that recipients of unemployment insurance or assistance benefits lose their benefit entitlement after one year if they are eligible for an early pension does not discourage older unemployed from actively searching for a job.	No monitoring undertaken so far
Consideration should be given to make binding the envisaged demographic correction mechanism for pensions.	Is foreseen in the programme of the government
All types of old age pensions should be made actuarially fair around the statutory retirement age, while the impact on labour supply should be monitored carefully. The subsidised old-age part-time employment scheme should be monitored closely and phased out if it reduces labour supply.	Due to the pension reform 2004, the deduction is 4.2% p.a. for early retirement. There is also a pension loss of 10% between 2003 and 2004. In extreme cases the loss can amount to 22% in comparison to the former regulations. To avoid social hardship, the deductions for those who are affected by the transition law have been reduced to 2.1% (a loss of 16% is still possible). In the new pensions account pension scheme the deduction rate is still 4.2%. The monitoring of old-age part-time employment scheme shows that take up since the reform in 2004 has clearly decreased.
The new "heavy workers" channel into early retirement should be revised. As a minimum, employers of "heavy workers" should be requested to make a financial contribution that fully covers the additional costs.	No action taken, would increase labour costs
Disability benefits need to be reformed	
With respect to invalidity pensions it should be required that persons who are not able to work in one field need to accept work in another occupation that is acceptable on health grounds. Assistance by the labour office needs to be offered.	A reform of the invalidity pension is envisaged in the programme of the new government (proposals should be developed until August 2008)
As a first step, due consideration should be given to the disability pension reform proposals of the respective Working Group of the previous Pension Reform Commission. Proposals should be refined and adapted in the light of recent international experience by a new Disability Reform Commission.	Proposals are planned for August 2008
The tax system should be made more efficient	
Tax reform should be continued by simplifying the tax system and reducing economic distortions via slashing tax expenditures, including preferential treatment for selected occupational groups so as to create room for further cuts in statutory tax rates. The impact of group taxation on tax revenues and firm behaviour needs to be monitored.	According to the programme of the new government, a major tax reform is planned for 2010. The main aims will be a tax relief for businesses and employees, a simplification of the Austrian tax system and a reduction of the total tax ratio to GDP.
An option to go further would be introducing a dual income tax system with a uniform flat rate for all types of capital income and progressive taxation of earnings.	Changes and a new structure for the taxation of capital income will be discussed in connection with the tax reform 2010.
Caps on energy tax payments should be phased out. Energy tax rates should be adjusted such that sectors not participating in the mission trading regime pay higher energy taxes than other greenhouse gas producers.	According to the Energy tax directive instead of caps minimum rates are applied on energy intensive enterprises. Phasing out energy tax reimbursement totally would affect international competitiveness of enterprises.
Policy assessment on federal fiscal relations	
Tax sharing arrangements should be improved	The OECD recommendations are valuable contributions towards a modern and efficient system of fiscal federalism. The Austrian constitution rules that reforms in that field have to be negotiated with subnational governments before being implemented. The present fiscal equalization period is going to end in 2008.
Distribution of tax revenue shares across sub-national governments should be more closely linked to indicators for demand of local services, taking into account the demographic composition of the population, as well as the provision of services by centres of agglomeration which are demanded by residents of neighbouring municipalities.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Revenue allocations to the different levels of government should be fixed for a longer period than four years.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Earmarking of specific tax revenues should be given up.	Austria will discuss the OECD recommendations in the agenda of the reform negotiations in 2008.

Recommendations	Action taken since previous Survey
Tax-setting powers of sub national governments should be strengthened.	The OECD recommendations are valuable contributions towards a modern and efficient system of fiscal federalism, but one has to bear in mind the administrative cost of tax regionalisation. The Austrian constitution rules that reforms in that field have to be negotiated with subnational governments before being implemented. The present fiscal equalization period is going to end in 2008.
Valuation of real estate for tax purposes should be updated more frequently and unified across sectors in line with market valuations.	A pilot project establishing the participation of municipal authorities in the assessment procedure in order to benefit from synergy effects and to improve the assessment of real estate has been implemented. The Austrian Constitutional Court has repealed the inheritance tax *inter alia* due to the valuation of real estate for inheritance tax purposes. The impact of this judement on the general valuation of real estate for tax purposes has to be examined.
The states should be allowed to set a flat-rate surcharge on the personal income tax schedule subject to a corridor whose width is to be determined by the federal legislator.	Austria will discuss the OECD recommendations in the agenda of the reform negotiations in 2008. At the moment, the Austrian revenue sharing system does not provide for such surcharges. Especially with regard to the personal income tax, such a system would have to be assessed. Without an agreed common rate for all states, such (different) surcharge rates would be rather complicated to administer.
The states' levy on the municipalities should be abolished.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Transfer flows between government levels need to be targeted better and become more transparent	The OECD recommendations are valuable contributions towards a modern and efficient system of fiscal federalism. The Austrian constitution rules that reforms in that field have to be negotiated with subnational governments before being implemented. The present fiscal equalization period is going to end in 2008.
The tax revenue redistribution mechanism among sub-national government levels should be simplified and made more transparent, reducing compensation effects on own tax revenues below 100%.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Earmarked transfers to lower levels of government should be reduced. Earmarked federal government funding for residential construction subsidies and infrastructure spending of the states should be phased out.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
The consultation mechanism should apply to legislation causing both positive and negative cost spillovers to other levels of government. Compensating payments within the consultation mechanism should be made on an *ex ante* basis, rather than on the basis of *ex post* cost.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Co-financing should be strictly limited to cases where clear externalities are present and local provision is nonetheless preferable, and should be based on output rather than input indicators.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Returns to scale in services provided by municipalities need to be better exploited	The OECD recommendations are valuable contributions towards a modern and efficient system of fiscal federalism. The Austrian constitution rules that reforms in that field have to be negotiated with subnational governments before being implemented. The present fiscal equalization period is going to end in 2008.
Consideration should be given to promote merging small municipalities where this can reduce administrative costs.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Regulation on the creation of municipal associations, notably across borders of states, should be eased.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Local authorities should be able to purchase services from each other.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Income replacement schemes run by sub-national governments need to be reformed	The OECD recommendations are valuable contributions towards a modern and efficient system of fiscal federalism. The Austrian constitution rules that reforms in that field have to be negotiated with subnational governments before being implemented. The present fiscal equalization period is going to end in 2008.

Recommendations	Action taken since previous Survey
Social assistance and unemployment assistance for recipients who are able to work should be combined into one means-tested income replacement scheme. Responsibility for the financing of social assistance payments should be moved to the federal government, with the Public Employment Service (*Arbeitsmarktservice*) in charge of disbursing the benefits. Recipients should cease to be obliged to repay social assistance benefits, while ensuring that needs testing and work availability testing are strict.	The Federal Government is negotiating with the states in order to build up a one stop shop for social assistance recipients who are capable to work. The one stop shop should be run by the PES-agencies. Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
The responsibility for the financing of combined means-tested income replacement benefits for individuals who are not disabled or unable to take up a job for other reasons should be assigned to one level of government, and care needs to be taken that the segregation of responsibilities for paying unemployment-related benefits and job placement is overcome.	The present Programme of the Austrian Federal Government for the 23rd Legislative Period states that with the aim of achieving more rapid processing and greater simplicity for the customer, social services, unemployment benefit, emergency relief benefits, etc. shall all be brought together in a single organisation ("one stop shop") with a consistent external image. For all of these areas, from social assistance through to services currently provided by the Labour Market Service, citizens will in future have just one point of contact. Because of the different structures that underpin these services (principle of beneficence, principle of social security), a complex structure will be needed to support this "entrance portal". An appropriate organisational concept shall be drawn up jointly by the Federation and the Provinces, also with the involvement of the municipalities and the Labour Market Service. In line with the aim of creating a service-oriented "one-stop-shop" at the district administrative authorities, their experience as service companies that enjoy close proximity to the citizens, and as authorities that efficiently implement Federal and Provincial legislation shall be developed further. The payment process itself must not inevitably be the responsibility of the authority, but could also be carried out by private organisations (for example by banks and financial institutions, via a chip card). The decision regarding granting of payment must, however, remain the responsibility of the authority.
Fragmentation in decision-making should be overcome	The OECD recommendations are valuable contributions towards a modern and efficient system of fiscal federalism. The Austrian constitution rules that reforms in that field have to be negotiated with subnational governments before being implemented. The present fiscal equalization period is going to end in 2008.
Financing and spending responsibilities for hospitals and practicing physicians should be assigned to one government level.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
Sub-national levels of government should not be able to block hospital supply planning decisions unless they are fully in charge of paying for hospital-provided health care services.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
The annual sustainable development implementation reports should contain an explicit statement about the main indicator changes to be achieved by individual programmes. The terms of reference for the evaluation of the overall strategy should include an explicit request to assess the cost effectiveness of individual programmes. Future prioritisation of programmes should take cost effectiveness explicitly into account.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
The government should therefore make sure that the measures outlined in a big interdisciplinary flood study are also implemented by the responsible lower levels of government. Conditioning part of federally provided transfers on compliance with appropriate flood risk prevention measures could enhance efforts in the right direction.	In 2006 a new successful private-public partnership project to create a mapping and zoning system for natural catastrophes (floods), called HORA, was developed in Austria. This publicly accessible model about natural risks shall contribute to increase awareness of new risks. In addition to HORA a working party of experts is discussing a comprehensive and appropriate solution.
A mechanism should be put in place within the National Strategy for Sustainable Development which would allow the reconciliation of the different dimensions of sustainable development before the start of supra-regional projects. Indicator reports should include benchmarking information, which would allow a comparison of how Austria fares with respect to programme efforts and international best practice performance.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.

Recommendations	Action taken since previous Survey
The budgeting framework at all levels of government should be revised	The OECD recommendations are valuable contributions towards a modern and efficient system of fiscal federalism. The Austrian constitution rules that reforms in that field have to be negotiated with subnational governments before being implemented. The present fiscal equalization period is going to end in 2008.
Extra-budgetary funds should be fully integrated into the budgets of the respective governments.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
The accounting framework should be fully harmonised across government levels.	Austria intends to include the OECD recommendations in the agenda of the reform negotiations in 2008.
A medium-term budgeting framework as well as long-term sustainability analyses should be introduced at all levels of government.	The Stability Pact already covers all levels of government, although further improvements are possible. Moreover, the MoF has plans for a budgeting reform on federal level which would include a binding four-year medium-term budgeting framework in addition to the current sustainability analysis in the Coalition Agreement.
Output-oriented budgeting should be introduced, with ministries held responsible for programme management, on the basis of an improved information base for cost and benefit analysis of spending and revenue programmes.	If the above mentioned reform should be accepted this year, it would include the OECD's recommendations, although there would be a four-year transitory period for implementing output-oriented budgeting since it would mean a considerable change in administrative culture. Nevertheless, already current initiatives as the "flexi-clause" projects in certain areas incorporate this shift in responsibility.
Policy assessment on productivity and innovation	
Framework conditions for start-ups should be improved further	
Administrative costs of setting up enterprises should be further reduced. Some taxes raising insignificant revenues should be simplified or abolished so as to reduce the fixed costs of newly founded enterprises.	The implementation of the standard cost model and the reduction of the administrative costs borne by companies by 25 % until 2010 is planned at the moment. The abolition of taxes with little revenue will be discussed in connection with the tax reform 2010. Austria has set a European benchmark by introduction of the Start-up Promotion Law (*Neugründungsförderungsge- setz*) in 2000 which substantially reduced the administrative cost of setting up new enterprises. The *Unternehmergesetzbuch* has been reformed, new legal forms have been created and entering the company register ahs been made easier. Electronic linkage of authorities has been refined.
The range of trades requiring certificates of qualification to set up a business should be further narrowed. Certification of qualification should be associated with employees rather than owners. For services in the liberal professions compulsory chamber membership should be dropped.	Since last survey the number of regulated trades has not been reduced in Austria. An entrepreneur not having the required certificate of qualification to set up a business has the possibility of appointing a manager who fulfils the required qualifications. The need of certificates of qualifications for lawyers is part of most jurisdictions in the world. This is true also for the compulsory chamber membership coupled with disciplinary jurisdiction over lawyers to guarantee their independence from the State and its administration. According to Article 6 of the European Convention on Human Rights these regulations are indispensable. These needs are associated with employers and employees of a law firm. Only persons holding a certificate and being a member of a lawyer's chamber can act as lawyers and provide legal services. The same applies to Austrian public notaries.

Recommendations	Action taken since previous Survey
Competition in product markets should be further encouraged	
The institutional set-up of general competition law and enforcement should be simplified, giving more decision powers to the Federal Competition Authority (FCA). Investigative powers of the FCA should be strengthened. Consideration should be given to introduction of criminal charges for hard-core cartels. Consideration should be given to removing the role of the social partners in appointments to the Competition Court and the Competition Commission. The activities of the FCA should become more proactive, notably via more frequent investigations of product market segments. Application of the law to protect fair competition among retailers and their suppliers (*Nahversorgungsgesetz*) should be limited to cases of suspected abuse of market power.	The 2005 reform of the Cartel Act which entered into force on 1st January 2006 aligned Austrian national law to the new EC law. The Austrian typology of cartels with its differentiated rules was replaced by a general prohibition of restrictive practices. The national system of cartel notifications was abolished and a system of legal exception was implemented. Mergers have to be notified to the FCA instead of the Cartel Court but the latter remains the institution which will take decisions in cartel matters. Two of the threshold levels which demand such a notification have been raised. Cooperative ventures will be subject to merger control if they permanently fulfil all functions of an independent economic entity. The Cartel Court has to stop infringements of the Cartel Act and to give instructions to the concerned enterprises. Instead of this it can also declare commitment declarations of the concerned enterprises binding if it can be expected that these commitment declarations will prevent further infringements. One of the most important changes of the 2005 amendment of the Austrian Competition Act which also entered into force on 1 January 2006 was the implementation of a leniency programme. For reasons of transparency the FCA has to lay down its practice in implementing the leniency programme in a manual. If an undertaker wants to call upon the leniency programme the authority has to tell him in a not binding notice if it will apply the programme in this case. If it is necessary to fulfill its duties the Federal Competition Authority can demand from undertakers and associations of undertakers to provide information within a reasonable time. Furthermore it may examine business documents and demand any information required for the investigation on site. The Cartel Court has to instruct the undertaker to provide the requested information and the business documents if the FCA submits an application to do so. If the Cartel Court rules a house search not only business premises may be searched but also private rooms, because relevant documents are often kept there. The FCA also has the competence to file applications concerning the good conduct of undertakings in business affairs under the *Nahversorgungsgesetz* to the Cartel Court. Since the 2006 amendment of the Competition Act and the Unfair Competition Act the FCA may also file for injunctive relief in certain cases of unfair competition under the Unfair Competition Act. The government programme for the current legislative period schedules the merger of the Federal Cartel Prosecutor with the FCA. Furthermore the recent reforms of competition law are being evaluated.
In professional services, some existing provisions should be discontinued or reformed so as to minimise their distorting effect on competition. Recommended fee schedules, issued by the relevant associations should be prohibited and compulsory chamber membership in the liberal professions should be dropped. Exclusive rights granted to liberal professions should be narrowed. Regulation on shopping hours should be eased.	The amendments of the *Wirtschaftstreuhandberufsgesetz* (Chartered Accountants Act, 1 Sept. 2005), the *Ziviltechni-kergesetz* (Nov. 2005) and the new *BilanzbuchhalterGesetz* (Balance Sheet Accountant Act – came into force on 1st January 2007) contain major deregulations and improved access for the herein regulated professions. For the mentioned liberal professions fees schedules are not legally established (for the engineers they were abolished 1993 and for the Chartered Accountants 1999; for the Balance Sheet Accountants they were not institutionalized). Fee schedules for lawyers and public notaries are provided for in Acts. They are necessary for courts to accord the winner of a law case compensation for lawyer's fees and for the State to pay the Lawyer's Chamber for legal aid and to compensate legal fees in cases of State liability. Compulsory chamber membership for legal professions is necessary to provide disciplinary sanctions through bodies of the chamber. Exclusive rights are needed to secure the qualification necessary to protect the clients. Currently no further liberalization steps for the mentioned professions are in discussion (shopping hours: see below)

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Recommendations	Action taken since previous Survey
Telekom Austria should be fully privatised and the regulator should have effective means to impose a decision with immediate effect if this is necessary to ensure the effectiveness of a decision.	Regulatory decisions normally come to force immediately. There has been no significant legislative change since 2003. Changes in ownership of Telekom Austria: Since 10 October 2006, the ÖIAG has held 25.2% of shares of Telekom Austria AG after it had sold about 1 million shares via the stock exchange.
In the electricity sector, network access prices should be reduced and price transparency in retailing ensured. The constitutional requirement of majority government shareholdings should be abolished.	Network access prices for the electricity grid are fixed by the Energy Control Commission on the basis of preparations by the Energy Control GmbH. In that way, remarkable price reductions for network access were achieved in the latest years. Price transparency in the retail market is quite good. In fact, prices exceed only slightly those values which were calculated by the tariff calculators of Energy Control GmbH (Austrian energy regulator) or the Chamber of Labour on their respective homepages. no actions taken concerning the constitutional requirement of majority government shareholdings
The states are encouraged to use the opportunities of the federal framework legislation to liberalise shop opening hours more fully.	It is planned to further liberalize the shop opening hours as follows: The shops can be kept open on Mondays till Fridays between 06.00 a.m. and 09.00 p.m. and on Saturdays between 06.00 a.m. and 06.00 p.m. The total time of shop opening within the permissible scope of opening hours may not exceed 72 hours per week. The States (Provincial Governors) have no longer authorization to regulate the shop opening hours within federal framework legislation, but under certain conditions (for example an important event is taking place in the region or a place is of great significance to tourism) the Provincial Governors are authorized to extend the scope of shop opening hours. The planned amendment to the Shop Opening Hours Act 2003 shall come into force by the 1st of January 2008 the latest.
The flexibility of the labour market should be raised	
Consideration should be given to linking employers' unemployment insurance contributions to their dismissal record such that firms with lower dismissal rates contribute less (experience rating). There is a need for better activation – also by encouraging the use of flexible working time models – and measures to combat abuse of unemployment benefits by firms laying off workers temporarily.	Administrative regulations to combat abuse and to activate unemployed were implemented. Already several years ago a flexible working time model has been developed by collective agreement to tackle the problem of misuse concerning lay-offs. According to this collective agreement overtime-working hours during high season can be taken as compensatory time off after the high season period therefore prolonging the period the worker is employed. This model has been proven to be effective.
Part of childcare benefits should be provided as childcare vouchers, partly replacing current cash benefits. Reductions in childcare benefits depending on the income of the beneficiary should be phased. The tax credit for single-earner households should be abolished.	Parents may choose whether they wish to buy external child care or whether they prefer to take care of their child fully or partly themselves. The current system is flexible, unbureaucratic and does not cause any additional costs. Competences are divided between the federal and local level of government (child care benefits are dealt with at federal level, child care is dealt with at the sub-federal level. Child care benefits are offered independently of parents' income. Every child has the same value. There is no intention to abandon the tax credit for single-earner households. Parents often take the opportunity to take care of their children until the 2nd birthday. During that period of time, they are often in a situation of a single-earner household. If this tax credit were abandoned these families would be in a worse position.
Easing immigration rules for highly qualified personnel should be considered.	Regulations concerning immigration of highly skilled are quite flexible and will soon be even more improved according to the current government's statement of policy.
Hurdles for the supply of risk capital should be removed	
Pension fund regulation should focus on the overall risk diversification of the portfolio (the "prudent person" principle).	Investment rules are in line with the IORP-directive 2003/41/EC; Pension funds are obliged to implement a risk-management-system
Restrictive investment rules with respect to venture capital should be relaxed. Also, rather than giving tax preferences to a particular legal form of investment funds, equity and venture capital participations should be made subject to roughly the same tax regime with low taxation of the returns across all types of investors, including business angels and partnerships.	The tax regime for the "*Mittelstandsfinanzierungs-gesellschaft*", offering tax incentives for venture capital, will phase out in 2007. At the moment, a new tax and regulatory regime facilitating private equity and venture capital is being developed.

Recommendations	Action taken since previous Survey
Preferential tax treatment of retained profits should be abolished.	Will be discussed in connection with the tax reform 2010.
Minimum taxation of corporate profits should be lowered significantly or dropped. Widening the scope for carrying forward losses should be considered. The capital duty on share issue (*Gesellschaftssteuer*) should be abolished.	Will be discussed in connection with the tax reform 2010.
Government support for innovation should be streamlined	
The tax support system for R&D should be simplified. All R&D subsidy spending programmes should be subjected to evaluations by independent institutions. Evaluation should be extended to tax expenditures and the relative benefits of direct subsidies and tax concessions. Innovation policies should be co-ordinated across levels of government.	The Austrian research funding system is regularly evaluated and improved, modified and if necessary adapted to new developments. The "Evaluation Platform", where all ministries responsible for R&D and major research promotion agencies are involved, is dealing with this subject on a regular basis. The results of these evaluations are channelled back into the review and further development of programmes. One of the objectives of the foundation of the Austrian Research Promotion Agency in 2004 was the co-ordination, streamlining and simplification of R&D programmes. Since then, there has been an ongoing process of streamlining and adjustment of the R&D subsidy spending programmes. This has already yielded to the pooling and merging of research programmes. The updated guideline for R&D (FTE-Richtlinie) with effect of 01.01.2007 foresees compulsory monitoring and evaluation for every new subsidy spending programme. Though not explicitly mentioned within the guideline external evaluation will be preferred. The guideline was coordinated throughout the respective ministries. With the Austrian Budget Act 2007, all R&D tax incentives were uniformly restricted to R&D expenses spent in the EC/EEA. An evaluation of the R&D tax incentives is planned Evaluation studies are planned for comparing the relative macroeconomic benefits of direct subsidies and tax support.
Secondary education should be reformed	
Country-wide educational targets should be established against which the performance of schools can be assessed. Funding of schools should be linked to their relative performance. The schools' autonomy with respect to organising the learning environment and in personnel matters should be increased.	The process of setting up country-wide educational targets (educational standards) in grades 4 and 8 is being continued. It is not intended to link funding to performance in these standards. According to the present government programme, school autonomy (with regard to personnel matters) will be increased.
Full-day schooling should be extended.	Amendment of School Organization Act: When 15 pupils require it, a group has to be established.
Integration of children with immigration background into the school system should be fostered through more intensive language training and better access to cost-free programmes that lead to a general secondary school degree (*Hauptschulabschluss*).	According to the present government's programme, language training of children with immigration background should be improved and the share of early school leavers without formal school degree or vocational training should be reduced.
Financing and spending responsibilities for schools should be placed at one level of government. Reimbursement of teacher salaries to state governments by the federal government should be replaced by block grants depending on the number of pupils.	This is a matter of the constitution, which has not been resolved. Reimbursement of teacher salaries has actually been based on block grants depending on the number of pupils for some time.
The qualified-majority requirement for legislation on educational matters should be given up.	The requirement of a two-third's majority has been given up for most educational matters.
University reform should proceed further	
In linking university funding to performance, preference should be given to output-related indicators over input-related ones. One strategy would be to start with a small set of quantifiable performance indicators, to be broadened gradually.	Performance agreements between the universities and the related ministry are to be drafted every three years, for the first time in 2007. The three-year performance agreements and the formula-driven budgeting system supplement the governance system in higher education. 20% of the university budget allocated according to output related qualitative and quantitative indicators (field of teaching, and social objectives, research, mobility of students).

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Recommendations	Action taken since previous Survey
The government should ensure that the universities develop management capacity in the transition to increased autonomy.	Universities are governed by a university council (*Universitatsrat*), a senate (*Senat*), a Rectorate (*Rektorat*) and a rector (*Rektor/in*). Senates may set up decentralized collegial boards (*Kollegialorgane*) with or without decision-making competences. These bodies are regularly elected. The Universities are fully autonomous since 2004.
Admissible commercial activities for universities should be narrowly defined. Universities which are in financial difficulties should not be bailed out.	Every year, the universities submit performance reports to the Minister and financial statements audited by the university councils. An independent Science Council monitors and analyses the performance of the universities in the context of the Austrian higher education system as a whole, and from a European and international perspective. According to the § 15 (5) "*Universitätsgesetz 2002*" the government cannot be held liable for debts of universities.
The government should monitor whether the universities develop appropriate management capacity.	The universities report every year in form of financial statements and for the first time in 2007 in form of intellectual capital statements.
The impact of tuition fees should be further monitored and evaluated, also in comparison with international experience. Consideration should be given to allowing universities to increase the share of fee financing, complemented by an income-contingent loan scheme for students, by giving universities the right to set the level of tuition fees.	Increase by 12% of the study grants in 2007, also increase of the number of recipients No plans from the Ministry allowing universities to increase the share of fee financing
Further measures to improve access to higher education should be considered.	Extension of the existing monitoring system for school students.
It needs to be ensured that the new IPR system does not generate incentives for the universities to shift resources from their budget to research areas in which patenting revenues are likely to be largest at the detriment of fields in which research output is valuable but less likely to yield profits from patents.	Universities are fully autonomous since 2004. For the moment the Ministry isn't planning measures concerning the new IPR system and the universities.

Source: Austrian authorities.

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Chapter 2

Austria's deepening economic integration with Central and Eastern Europe

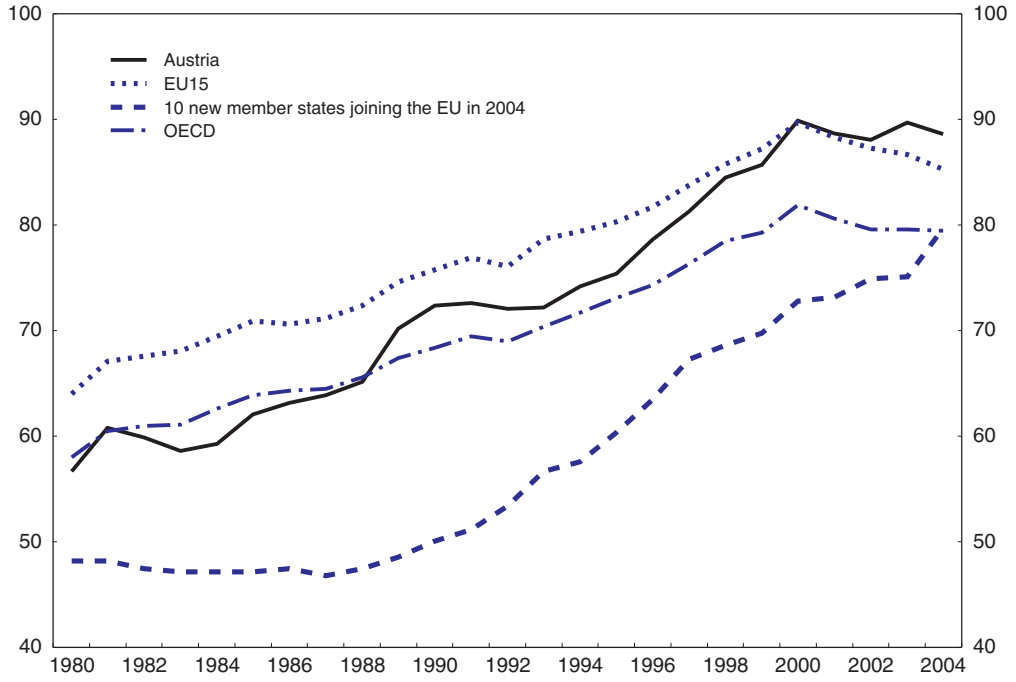
The Austrian economy has benefited substantially from the expansion of economic ties with Central and Eastern Europe, which has provided a significant boost to growth, productivity, competitiveness, profits – and (more controversially) aggregate employment. Indeed, among the older EU member states, Austria has benefited the most from the transition of the Central and Eastern European countries from planned economies to market economies, and the subsequent entry into the EU of the ten new member states, mostly from Central and Eastern Europe, in 2004. However, important segments of the population in Austria, and in particular low-skilled and semi-skilled workers in the manufacturing sector, appear to have been adversely affected by these developments.There is thus a need for policy measures to help those segments of the workforce that have had difficulty coping with growing competition from Central and Eastern Europe. Furthermore, more can be done to make Austria a more attractive location for highly skilled and well qualified expatriate workers and to maintain Vienna's position as a central hub for multinationals operating in the region. These include in particular the need to strengthen eastern transportation links and to reduce to a minimum bureaucratic hurdles and red tape for foreign enterprises seeking to operate out of Vienna.

Austria has had to cope with major changes in the international economic environment over the past decade and a half, in particular in its economic relations with its European neighbours. The accession of Austria, Finland and Sweden to the European Union in 1995 and the launching of Economic and Monetary Union (EMU) in 1999 both opened up new trade and investment opportunities for Austrian firms while at the same time subjecting them to increasing global competition. Concurrently, with the disintegration of Communism and the opening up of Central and Eastern Europe in the early 1990s, together with German unification in 1990, Austria's economic ties with Central and Eastern Europe have been growing rapidly. Consequently Austria has been confronted with radical changes in its international environment since 1989, which has had an impact on domestic economic outcomes and policies in a number of key areas.

The opening up of Austria's economy over the past few decades has been impressive, as illustrated by the economic globalization index compiled by the Swiss Institute for Business Cycle Research (KOF, 2007). This index attempts to capture the flows of goods, capital (portfolio and foreign direct investment) and services (income payments to foreign nationals) across countries, as well as the degree of restrictions on capital and trade flows.

Figure 2.1. **Globalisation in Austria: international comparison**

KOF Economic Globalisation Index



Source: Swiss Institute for Business Cycle Research (KOF).

StatLink http://dx.doi.org/10.1787/068840688844

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Measured from a scale of 1-100, with a higher number reflecting greater globalization, the KOF economic liberalization index for Austria increased from a value of around 51 in 1970 to over 88 by 2004. In terms of ranking, Austria moved from being the 29th most globalised economy out of 97 in 1970, to 22nd position out of 99 countries in 1985, and to 7th position out of 109 countries in 2004. Not only did Austria successfully climb up the globalization ladder over this period, but its economic globalization index rose from a value that was well below the EU15 average, and somewhat below the OECD average, in the early 1970s to one noticeably above the EU15 and OECD averages by 2004 (Figure 2.1). In short, over the past few decades Austria appears to have experienced a greater increase in its degree of openness to the world economy than many other economically advanced countries, including member countries of the EU15 and the OECD.

Against this background, this chapter focuses on analyzing the effects that economic integration with Central and Eastern European countries (CEECs) have had on the Austrian economy, with a focus on labour market developments, business profitability and competitiveness.

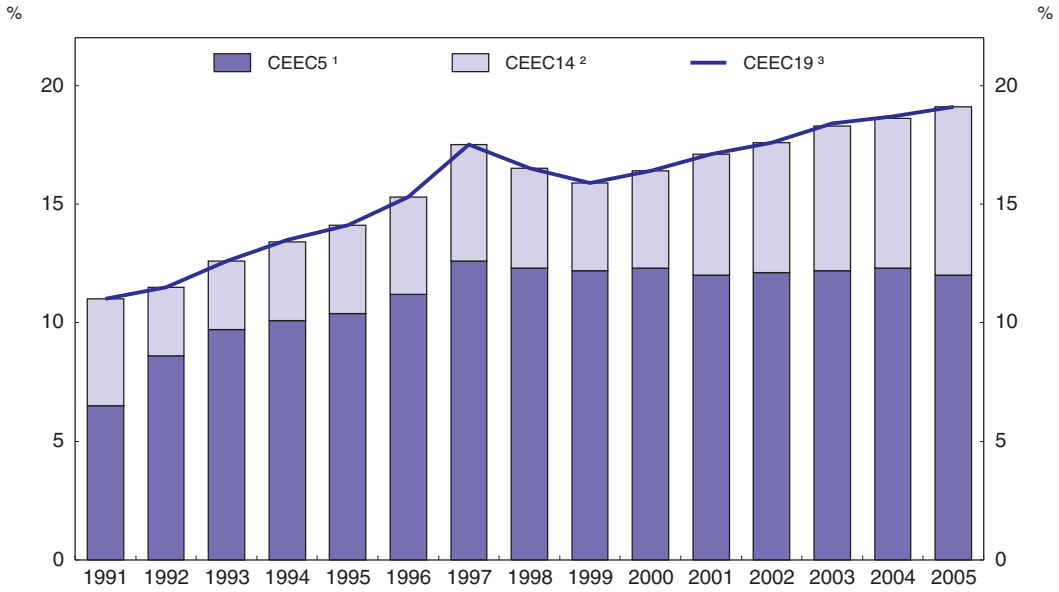
Growing economic integration with Central and Eastern Europe

Trade links with CEECs have been growing rapidly…

Austria took advantage of the opening up to Central and Eastern Europe to expand its trade ties with the region. Over the period 1991-2005 Austria's exports of goods to the CEEC19 countries grew by 11½ per cent *per annum* on average at constant prices while its total exports of goods grew on average by 7% a year.[1] As a consequence the CEEC19's share of Austria's total exports rose from 12½ per cent in 1991-95 to 18% in 2001-05 (Figure 2.2,

Figure 2.2. **Austria's exports to Central and Eastern Europe**

As per cent of total exports of goods



1. CEEC5 is for Czech Republic, Hungary, Poland, Slovak Republic and Slovenia.
2. CEEC14 is for Albania, Belarus, Bosnia, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Serbia-Montenegro and Ukraine.
3. CEEC19 = CEEC5 plus CEEC14.

Source: Statistics Austria.

StatLink http://dx.doi.org/10.1787/068841386811

Table 2.1. **Austria's trade**

	1991-95	1996-2000	2001-05	1991-95	1996-2000	2001-05	1991-2005
	(period averages)			(average % change p.a., at constant prices)			
Exports In % of total exports							
CEEC5	9.1	12.1	12.1	18.3	13.8	5.3	12.1
CEEC14	3.5	4.2	6.0	3.1	13.4	18.0	12.1
CEEC19	12.5	16.3	18.2	11.7	13.6	9.0	11.4
Imports In % of total Imports							
CEEC5	5.4	8.4	10.2	14.8	16.8	6.7	12.6
CEEC14	2.4	2.8	3.7	2.8	12.8	14.3	10.5
CEEC19	7.9	11.2	13.9	9.7	15.6	8.7	11.4
	In per cent of GDP						
Total exports	22.8	29.0	36.2				
Total imports	27.5	31.9	37.0				
Total exports and imports *of which:*	50.3	60.9	73.3				
CEEC5	3.6	6.2	8.2				
CEEC14	1.5	2.1	3.6				
CEEC19	. .	8.3	11.7				

1. CEEC5: Czech Republic, Hungary, Poland, Slovak Republic, Slovenia.
2. CEEC14: Albania, Belarus, Bosnia, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Serbia-Montenegro, Ukraine.
3. CEEC19: CEEC5 plus CEEC14.

Source: Statistics Austria.

Table 2.1 and Annex Table 2.A1.1). Export growth was particularly strong during the second half of the 1990s.

The import side shows a similar pattern, with Austria's imports of goods from the CEEC19 countries also growing by 11½ per cent *per annum* on average at constant prices over the period 1991-2005 – substantially higher than the growth of total imports of goods, which averaged 5½ per cent *per annum*. As a consequence the CEEC19's share of Austria's total imports increased from 8% in 1991-95 to 14% in 2001-05 (Figure 2.3, Table 2.1 and Annex Table 2.A1.1). Import growth also accelerated sharply during the second half of the 1990s.

While undoubtedly impressive, the growth in trade links with the CEEC19 countries started from a very low base at a time when the Austrian economy was opening up at a very rapid pace, boosted by the government's 2003 "internationalization initiative" (Box 2.1). Thus the contribution of the CEECs to Austria's increasing trade openness was relatively modest – while the share of total exports and imports of goods in Austria's GDP rose by 25 percentage points during 1991-2005, trade with the CEEC19 countries increased by only 8½ percentage points of GDP (Figure 2.4).

The commodity composition of exports of goods to, and imports of goods from, the CEEC5 countries, Bulgaria and Romania has not witnessed any dramatic shifts over the past decade or so (Tables 2.2 and 2.3). What is noticeable, however, is that the share in exports of what may regarded as low value-added products – such as agriculture and forestry, food products and beverages, textiles and apparel – has declined, while the share of higher value-added products has increased correspondingly. The same is true of

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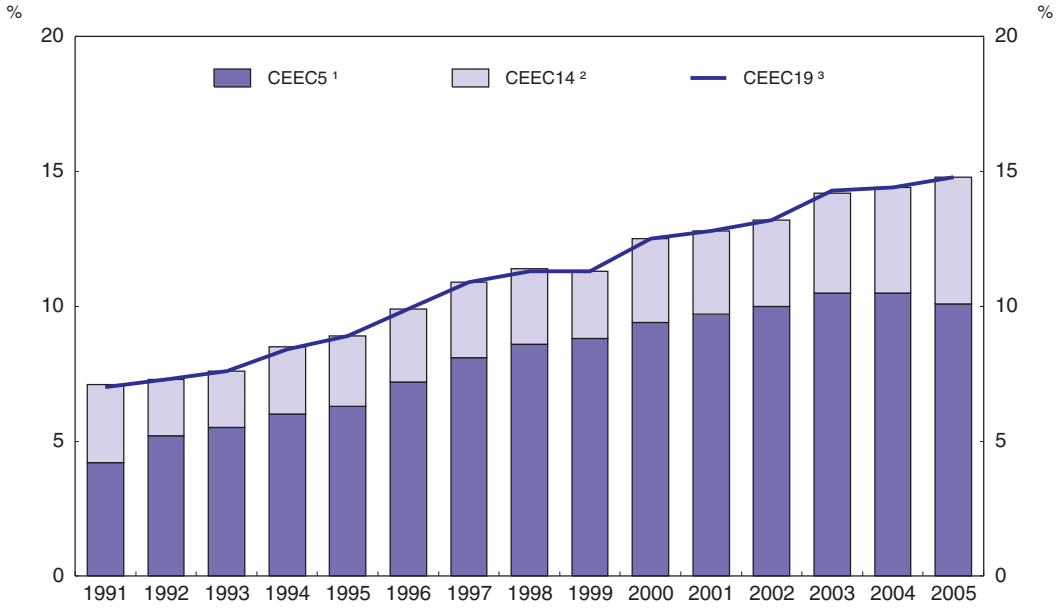
Figure 2.3. **Austria's imports from Central and Eastern Europe**

As per cent of total imports of goods



1. CEEC5 is for Czech Republic, Hungary, Poland, Slovak Republic and Slovenia.
2. CEEC14 is for Albania, Belarus, Bosnia, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Serbia-Montenegro and Ukraine.
3. CEEC19 = CEEC5 plus CEEC14.

Source: Statistics Austria.

StatLink http://dx.doi.org/10.1787/068881276326

imports. This shift in the composition of trade is consistent with the expansion of outsourcing activities in the manufacturing sector and the growth of intra-industry trade with Central and Eastern Europe.

but more striking has been the expansion of Austria's foreign direct investment in CEECs…

The growth in Austria's trade links with Central and Eastern Europe over the past decade and a half is indeed noteworthy. But perhaps even more striking has been the expansion of Austria's direct investment activities in the region. While Austria's trade with the CEEC19 countries almost tripled as a share of GDP during 1991-2005 (albeit from a very low base), there was a more than eightfold increase in the GDP share of net foreign direct investment (FDI) flows to the region (though starting from an even lower base). As a result Austria's stock of FDI in the CEEC19 showed a notable increase over the same period, rising from 1% to 7% of GDP (Figure 2.5 and Annex Table 2.A1.2). As a reflection of this the region's share in Austria's total stock of FDI more than doubled and its share in Austria's total net FDI flows also increased substantially, averaging around 70% in 2001-04 (Figures 2.6 and 2.7).

There has also been a noticeable change in the allocation of Austria's FDI within the region over this period. Prior to 1997, the bulk of Austria's FDI in the CEEC19 countries went to its immediate neighbours, the CEEC5 countries, whereas from 1997 onwards the CEEC14 countries have been significantly increasing their share of Austria's total net FDI flows to the CEEC19 region. Austria started its eastward FDI expansion in 1989, first in Hungary and then in the three other neighbouring countries – the Czech Republic, Slovenia

Box 2.1. **The Austrian government's 2003 internationalisation initiative**

In 2003 an internationalisation initiative "Go International" was jointly launched by the Federal Ministry for Economy and Labour (BMWA) and the Austrian Federal Economic Chamber (WKÖ), in order to increase the competitiveness of Austrian businesses. Altogether € 50 million of additional finance were earmarked for this initiative, and a Strategy Unit for Foreign Trade and Investment was set up at the BMWA. The internationalisation initiative reinforces and partly broadens existing instruments. It includes a comprehensive package of more than 30 measures – across departments and institutions – designed to raise awareness, transfer knowledge and promote the creation of business networks. The WKÖ handles the implementation of the bulk of these measures.

Key instruments for promoting Austrian exports and foreign direct investment include trade fairs and market information meetings focused on specific industrial sectors; co-financing of counselling for FDI projects; provision of an efficient and internationally competitive export financing system; and establishment and maintenance of a B2B contact platform. The co-financing of practical training abroad and trainee programmes in export-oriented enterprises, as well as promotion of in-company training programmes with a special focus on external economic relations, are other core elements of the internationalisation initiative. Another key component of this initiative is the co-financing of company and sector-specific market development studies whose focus is on the identification of projects, feasibility assessment of these projects, and evaluation of particular aspects of these projects such as their environmental and employment effects; a total of €2 million was made available for co-financing of these studies for the period 2004 to 2006. Special emphasis is given to assistance for first time exporters and measures to promote the image of Austria as an attractive business location. By end-2006 the WKÖ had organised some 600 events as part of this initiative, and an additional 18 marketing offices had been established in areas of interest to the Austrian export sector.

"Go International" and similar earlier initiatives seem to have been successful in addressing some of the structural problems of Austrian exporters and have, for example, contributed to a threefold increase in the number of Austrian exporting companies over the past decade. Originally planned to expire in 2006, "Go International" has been extended until the end of 2007, and a further extension until 2008 is under consideration.

and the Slovak Republic. However, from 1997 onwards, first Poland became an important host country for Austrian firms and then several countries within the CEEC14 became much more important, in particular Croatia, Romania, Bulgaria and Russia (Altzinger, 2005). Thus, while the CEEC5 countries accounted for 87% of net FDI flows to the CEEC19 and over 96% of Austria's total FDI stock in the region in 1996, these shares fell to 40% and 68% respectively by 2004.

Not only has there been a noticeable change in the allocation of Austria's outward FDI within the Central and Eastern European region since the mid-1990s, but its sectoral composition has also evolved in a significant way (Figure 2.8 and Annex Table 2.A1.3). More specifically, the share of manufacturing in the stock of FDI in the CEEC5 countries declined from just under 40% in 1996 to under 25% in 2004, with a corresponding increase in the importance of the service sectors. Particularly striking has been the increase in the share of financial intermediation (from 21% to 47% of the total stock) and of real estate and business services (from 8% to 14% of the total stock) over the same period. This hints at a

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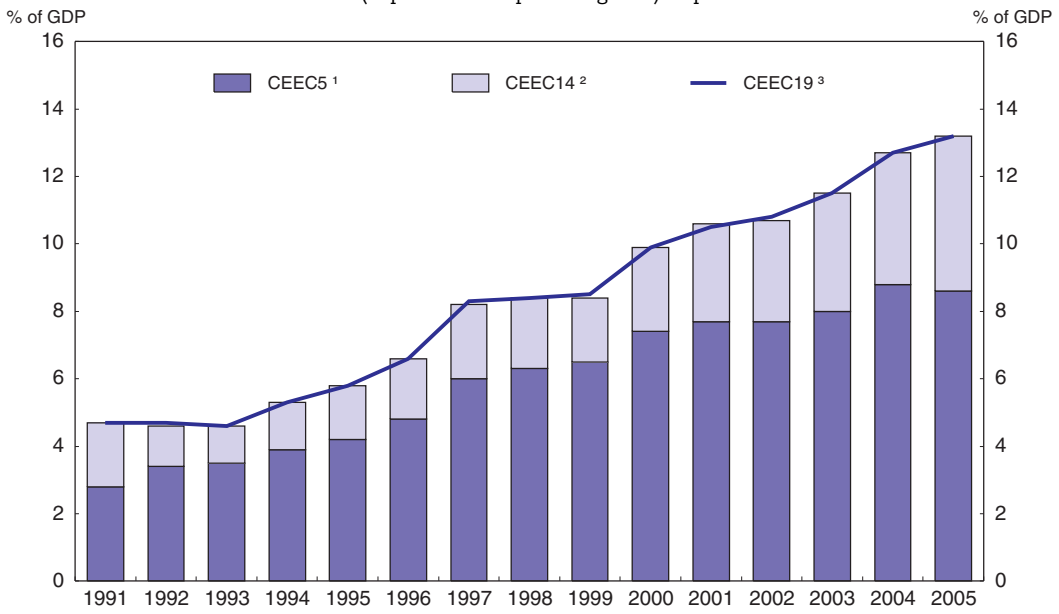
Figure 2.4. **Importance to Austrian economy of trade with Central and Eastern Europe**

Austrian trade (exports and imports of goods) as per cent of GDP



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2. CEEC14 is for Albania, Belarus, Bosnia, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Serbia-Montenegro and Ukraine.
3. CEEC19 = CEEC5 plus CEEC14.

Source: Statistics Austria.

StatLink http://dx.doi.org/10.1787/070023353854

Table 2.2. **Austria: composition of exports of goods to Central and Eastern Europe**

	Total exports, EUR million		% change	% share of total	
	1996	2005	1996-2005	1996	2005
Agriculture, hunting and forestry	59	86	44.9	1.1	0.6
Fishing	0	0	160.0	0.0	0.0
Manufacturing	5 214	12 972	148.8	97.7	97.7
of which:					
Food products and beverages	253	584	131.2	4.7	4.4
Tobacco products	14	60	313.3	0.3	0.4
Textiles	198	312	57.7	3.7	2.3
Wearing apparel, dressing and dyeing of fur	118	245	107.2	2.2	1.8
Leather, leather products and footwear	85	213	150.0	1.6	1.6
Wood and products of wood and cork	77	281	265.8	1.4	2.1
Paper and paper products, publishing and printing	366	606	65.6	6.9	4.6
Coke, refined petroleum products and nuclear fuel	200	812	305.6	3.8	6.1
Chemicals and chemical products	574	1,331	131.9	10.8	10.0
Rubber and plastics products	333	827	148.4	6.2	6.2
Other non-metallic mineral products	122	244	99.4	2.3	1.8
Basic metals and fabricated metal products	543	1 663	206.3	10.2	12.5
Machinery and equipment, n.e.c.	779	1 713	119.8	14.6	12.9
Office, accounting and computing machinery	119	331	176.9	2.2	2.5
Electrical machinery and apparatus, n.e.c	321	946	195.0	6.0	7.1
Radio, television and communication equipment	363	982	170.6	6.8	7.4
Medical, precision and optical instruments, watches and clocks	149	264	77.8	2.8	2.0
Motor vehicles and transport equipment	489	1 211	147.6	9.2	9.1
Furniture; manufacturing n.e.c.	111	346	213.2	2.1	2.6
Total exports	5 337	13 279	148.8	100.0	100.0

1. Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovak Republic, Slovenia.

Source: Austrian National Authorities.

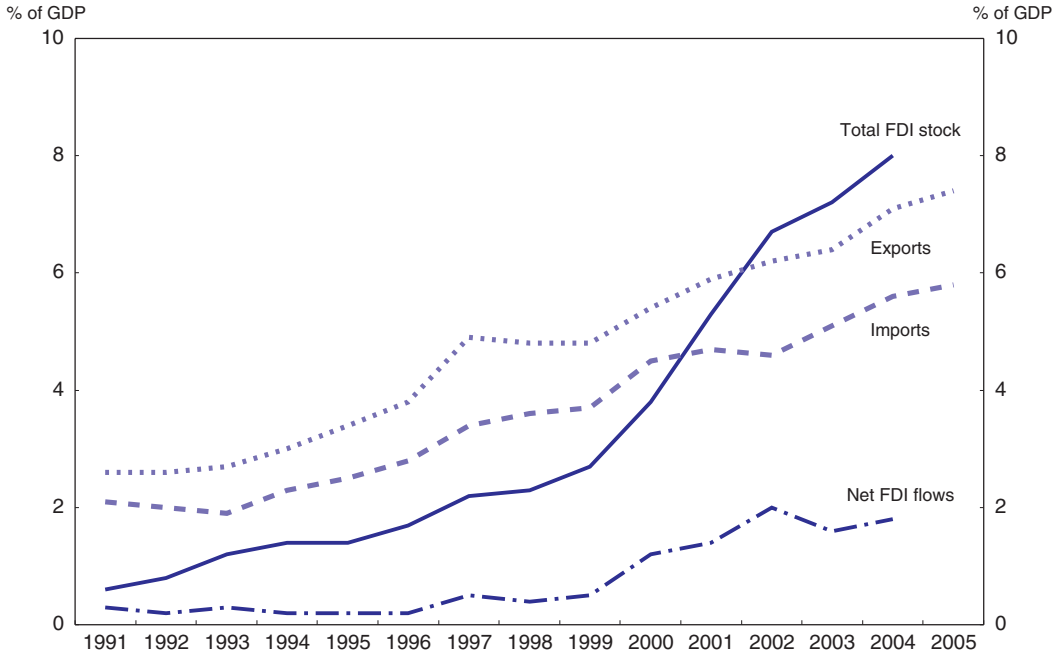
Table 2.3. **Austria: composition of imports of goods from Central and Eastern Europe**

	Total imports, EUR million		% change	% share of total	
	1996	2005	1996-2005	1996	2005
Agriculture, hunting and forestry	205	461	125.4	5.2	4.3
Fishing	1	2	11.1	0.0	0.0
Manufacturing	3 416	9 739	185.1	86.6	90.9
of which:					
Food products and beverages	133	500	274.9	3.4	4.7
Tobacco products	0	1	. .	0.0	0.0
Textiles	122	188	54.3	3.1	1.8
Wearing apparel, dressing and dyeing of fur	259	418	61.3	6.6	3.9
Leather, leather products and footwear	76	189	148.9	1.9	1.8
Wood and products of wood and cork	190	305	60.9	4.8	2.9
Paper and paper products, publishing and printing	87	271	210.6	2.2	2.5
Coke, refined petroleum products and nuclear fuel	301	1 263	319.7	7.6	11.8
Chemicals and chemical products	225	435	93.7	5.7	4.1
Rubber and plastics products	127	339	166.3	3.2	3.2
Other non-metallic mineral products	127	210	65.5	3.2	2.0
Basic metals and fabricated metal products	512	1 375	168.4	13.0	12.8
Machinery and equipment, n.e.c.	312	1 008	223.1	7.9	9.4
Office, accounting and computing machinery	12	228	1 791.0	0.3	2.1
Electrical machinery and apparatus, n.e.c	279	1 016	263.7	7.1	9.5
Radio, television and communication equipment	263	239	–9.1	6.7	2.2
Medical, precision and optical instruments, watches and clocks	23	88	278.3	0.6	0.8
Motor vehicles and transport equipment	186	1 120	501.0	4.7	10.5
Furniture; manufacturing n.e.c.	181	545	201.0	4.6	5.1
Total imports	3 944	10 708	171.5	100.0	100.0

1. Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovak Republic, Slovenia.
Source: Austrian National Authorities.

Figure 2.5. **Austria trade and FDI with Central and Eastern Europe (CEEC19[1])**

As per cent of GDP



1. CEEC19 is for Czech Republic, Hungary, Poland, Slovak Republic, Slovenia, Albania, Belarus, Bosnia, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Serbia-Montenegro and Ukraine.

Source: Statistics Austria, Austrian National Bank (OeNB).

StatLink http://dx.doi.org/10.1787/070034615443

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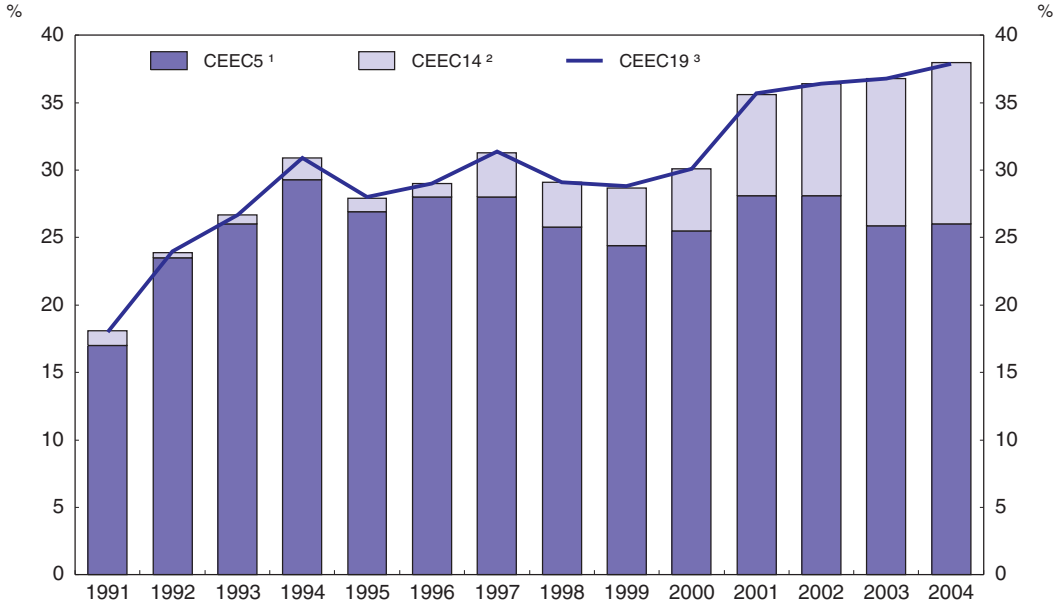
Figure 2.6. **Austria-stock of outward FDI in Central and Eastern Europe**

As per cent of total Austrian FDI stock



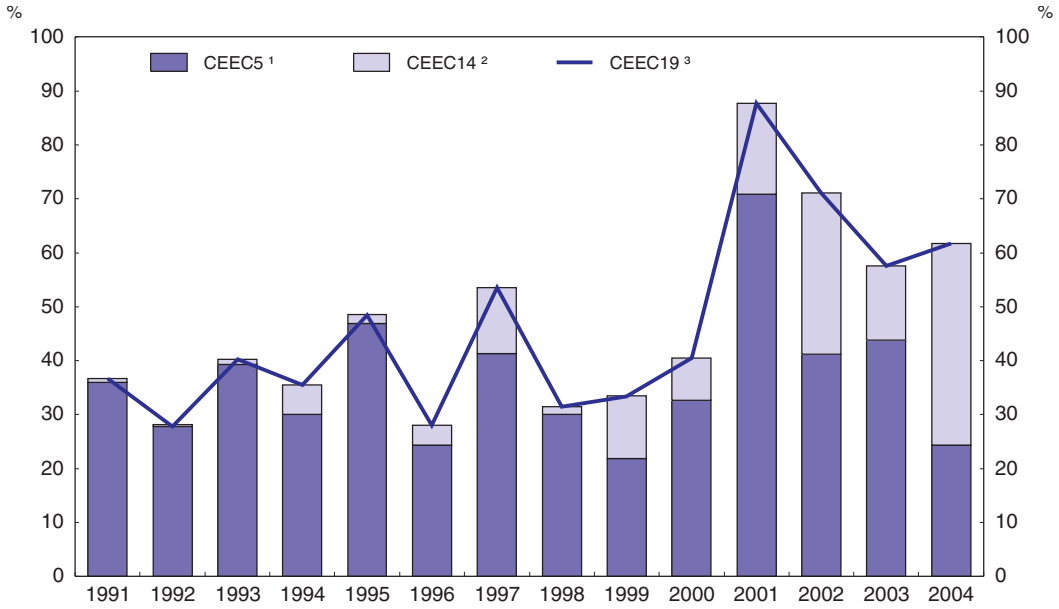
1. CEEC5 is for Czech Republic, Hungary, Poland, Slovak Republic and Slovenia.
2. CEEC14 is for Albania, Belarus, Bosnia, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Serbia-Montenegro and Ukraine.
3. CEEC19 = CEEC5 plus CEEC14.

Source: Statistics Austria, Austrian National Bank (OeNB).

StatLink http://dx.doi.org/10.1787/070078207243

Figure 2.7. **Net FDI flows to Central and Eastern Europe**

As per cent of total net FDI flows



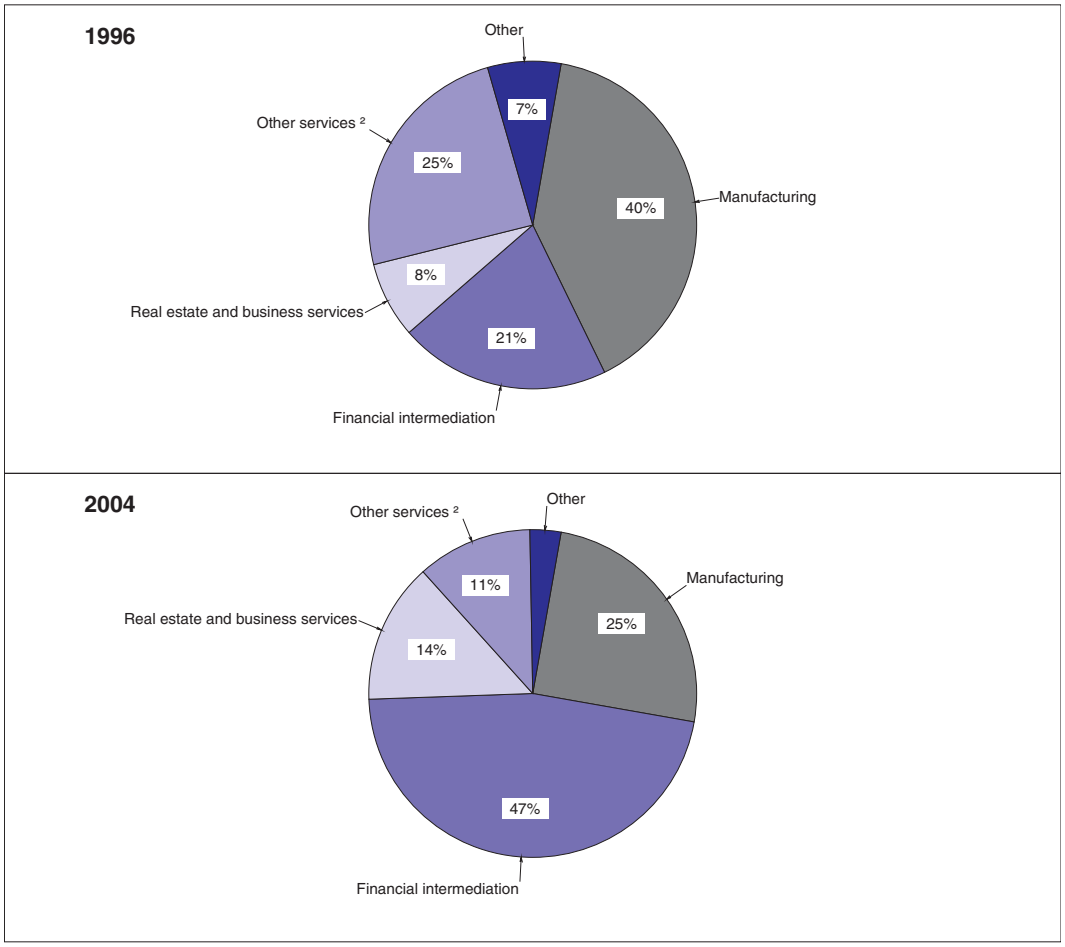
1. CEEC5 is for Czech Republic, Hungary, Poland, Slovak Republic and Slovenia.
2. CEEC14 is for Albania, Belarus, Bosnia, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Serbia-Montenegro and Ukraine.
3. CEEC19 = CEEC5 plus CEEC14.

Source: Statistics Austria, Austrian National Bank (OeNB).

StatLink http://dx.doi.org/10.1787/070084252166

Figure 2.8. **Sectoral composition of Austria's stock of FDI in Central and Eastern Europe**[1]

As per cent



1. Czech Republic, Hungary, Poland, Slovak Republic and Slovenia.
2. Wholesale and retail trade, repairs; hotels and restaurants; transport and communication; public administration, other services.

Source: Austrian National Bank, OeNB.

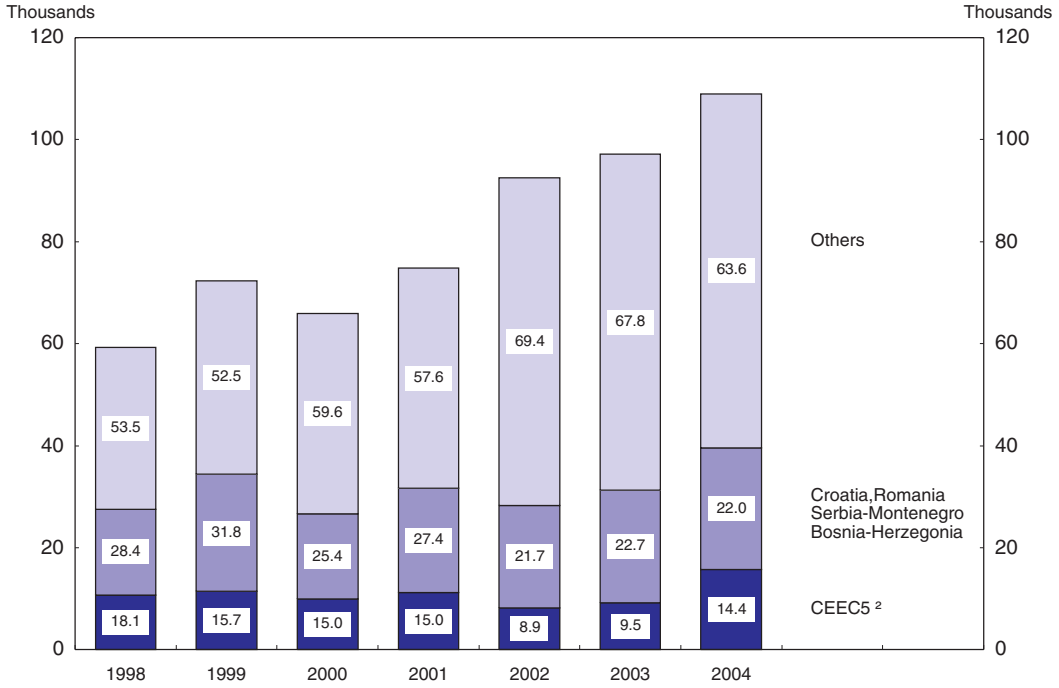
StatLink http://dx.doi.org/10.1787/070146736627

shift in the main motivation for Austrian FDI in the CEECs from cost minimisation and outsourcing to exploitation of new market opportunities.

… while immigration flows from CEECs have fluctuated considerably from year to year

One of the most politically sensitive issues associated with Austria's increasing economic integration with the CEECs relates to immigration. The absolute number of registered migrants from Central and Eastern Europe has fluctuated considerably from year to year, with only Romania and the Slovak Republic showing a steady increase in the number of legal migrants entering Austria (Figure 2.9 and Table 2.4). Between 1998 and 2003 the number of new migrants from the CEEC5 fluctuated at around 10 000 per annum, while the share of the CEEC5 in the total inflow of new migrants showed a more-or-less steady downward trend. However, in 2004 there was a sharp rise in the number of

Figure 2.9. **Immigration flows to Austria from Central and Eastern Europe**[1]



1. Data in the bars refer to per cent of total immigration.
2. CEEC5 is for Czech Republic, Hungary, Poland, Slovak Republic and Slovenia.

Source: Statistics Austria based on data of the Central Registration Register.

StatLink http://dx.doi.org/10.1787/070160567463

Table 2.4. **Austria: inflows of foreign population by country of origin**

	1998	1999	2000	2001	2002	2003	2004
Europe	**49 062**	**59 364**	**51 740**	**61 379**	**59 448**	**67 766**	**80 216**
Of which:							
Germany	6 561	7 459	7 674	10 409	8 303	10 870	13 346
Turkey	5 857	7 208	7 019	7 667	10 360	9 687	7 811
Croatia	2 615	3 887	4 136	6 523	3 110	2 860	2 869
Serbia and Montenegro	9 378	13 483	6 354	6 222	8 754	9 342	10 782
Bosnia-Herzegovina	3 287	3 792	4 355	5 360	4 029	4 757	5 019
Poland	4 951	5 120	3 499	3 511	2 454	2 899	7 111
Hungary	2 061	2 328	2 534	3 139	2 237	2 517	3 079
Slovak Republic	1 711	1 812	1 919	2 444	2 216	2 318	3 452
Romania	1 528	1 834	1 876	2 357	4 158	5 132	5 293
Italy	1 239	1 419	1 359	1 710	1 287	1 346	1 399
Czech Republic	1 388	1 505	1 425	1 466	956	1 144	1 429
Former Yug. Rep. of Macedonia	768	1 025	898	1 392	1 650	1 468	1 502
Slovenia	636	622	540	650	368	357	589
Africa	2 485	2 803	2 838	2 872	3 709	3 930	5 057
America	2 334	2 271	2 312	2 389	2 628	2 901	3 241
Asia	4 969	7 535	8 599	7 729	9 914	10 119	10 430
Other countries	379	406	465	417	671	278	303
Unknown	0	0	0	0	16 197	12 170	9 700
Total	**59 229**	**72 379**	**65 954**	**74 786**	**92 567**	**97 164**	**108 947**
of which: CEEC5	**10 747**	**11 387**	**9 917**	**11 210**	**8 231**	**9 235**	**15 660**
In percent	18.1	15.7	15.0	15.0	8.9	9.5	14.4

Note: CEEC5: Czech Republic, Hungary, Poland, Slovak Republic, Slovenia.
Source: Statistics Austria based on data of the Central Registration Register.

registered migrants from the CEEC5 to over 15 600.[2] On top of immigration there are many commuting workers from neighbouring countries, coming even from as far as southern parts of Poland.

The share of Central and Eastern Europe in the total inflow of migrants has increased between 2003 and 2006 by 25%, but is still surprisingly low. This may partly be due to the transitional measures of the EU Accession Treaty with regard to immigration from the ten new EU member states. These measures will be reviewed in 2009 and can be extended for a further two years, but from 2011 onwards at the latest Austria will have to open its borders to migrant workers from all EU member states. In this context it is also important to note that these official figures may be somewhat misleading since there are a significant number of illegal migrants from the CEECs working in the informal Austrian economy, the size of which Schneider (2006) has estimated at around 11% of official GDP in 2002-03. A large share of these unregistered workers from the CEEC work in the "care" sectors, looking after the elderly for example.[3]

The majority of migrants entering Austria are in the medium to low-skill groups. Indeed, among OECD member countries Austria has the lowest share of highly skilled (university graduates) among foreign born residents (OECD, 2004). Biffl (2006) argues that this is partly because the immigration system in Austria has given precedence to family reunification and immigration on humanitarian grounds, while highly skilled people from outside the EU15 are discouraged from joining the workforce. The law provides a special quota regulation for so-called "key workers" (workers who are important for running a company and who earn at least € 2 300 per month). This quota, however, is not applied to nationals from the new EU member states and their spouses and children. Nor is it applied to temporary stays of third country nationals, which can often last many years. Given these rather lax entry barriers for skilled migrant workers, their low presence in Austria could be due to: *i)* other perceived or real bureaucratic hurdles; *ii)* difficulties in getting foreign qualifications accredited in Austria; and *iii)* limited career opportunities for high-skilled workers once they enter the Austrian labour market. Moreover, there has been underinvestment in higher and upper secondary education on the part of second- and third-generation migrants born in Austria. It thus seems that immigration, including from the CEECs, has played a rather limited role in enabling Austria to upgrade the skills of its population and workforce to meet the needs of a dynamic and evolving economy.

Positive overall impact on aggregate output and employment

Growing regional integration has affected Austria's economy through a multiple of channels

The rapid expansion of trade with the CEECs is likely to have affected the domestic economy in a number of ways. On the one hand the opening up of new markets provided a stimulus to aggregate domestic demand and employment while opening up new opportunities for profitable investment (*trade creation* and *market expansion* effects). On the other hand greater exposure to competition from lower-cost countries may have adversely affected domestic output and employment (competition-induced *substitution* effect). The relative importance of these two effects for the Austrian economy can only be determined through empirical analysis.

The output and employment effects of rapidly growing FDI by Austria in the CEECs manifested themselves through very similar channels (Falk and Wolfmayr, 2005). On the

one hand, FDI by Austrian companies generated additional exports and employment for the parent company (for instance of inputs for foreign production of the affiliates, or due to investments in distribution networks, service functions or marketing). More indirectly, relocation of production processes from Austria to CEECs (outsourcing) increased the competitiveness of the end product and thereby secured existing jobs or created additional jobs. On the other hand, the relocation of production to lower cost locations may have substituted for exports, thereby putting downward pressure on wages and employment. It may also have led to higher unemployment by changing the structure of labour demand (skilled *vs.* unskilled labour). On this issue as well empirical analysis is needed to determine the aggregate output and employment effects on the domestic economy.

Most empirical studies show a positive overall impact on output and employment.

Indeed, there are a number of empirical studies (Breuss-Schebeck, 1996, Breuss-Schebeck, 1998a) looking into the output and employment effects on Austria of increasing economic integration with the CEECs, most of them using the macroeconomic model of the Austrian Institute of Economic Research *WIFO* (Table 2.5). These studies estimate the cumulative positive effect on real GDP growth at around 3.6% over the period 1989-1997, with employment increasing by 2.6% or 77 000 persons. Simulations using the *WIFO* model also suggest that the opening up of Eastern Europe and Austria's EU membership in 1995 added about 0.5% to 1.0% to average annual economic growth, and that around 100 000 to 150 000 new jobs could have been created, taking both integration events together, over the period 1989-2004 (Breuss (2006)).

Table 2.5. **Macroeconomic studies of the effects on Austria of Eastern European integration and Eastern enlargement**

	Simulation horizon	Real GDP	Employment	
		%	%	In thousands
Eastern opening:				
Breuss-Schebeck (1998a)	1989/1997			
	cumulative	3.6	2.6	76.9
	(per year)	(0.5)	(0.3)	(9.6)
Eastern opening and EU membership:				
Breuss (2006)	1989/2004			
	cumulative			100–150
	(per year)	0.5-1.0		
Eastern enlargement:				
Breuss-Schebeck (1998b)	2002/2010			
	cumulative	1.3	0.8	27.5
	(per year)	(0.14)	(0.1)	(3.0)
Breuss	2001/2010			
(2001, 2002, 2005)	cumulative	0.9	0.1	3.0
	(per year)	(0.15)	(0.0)	(0.5)
Breuss (2006)	2004/2014			
	per year	0.2		

Regarding specifically the Eastern enlargement that took place in 2004, econometric studies using the *WIFO* model (Breuss-Schebeck, 1998b) and Oxford Economic Forecasting *OEF* model (Breuss, 2001, 2002, 2005) estimate that, as a consequence, Austria's real GDP

could increase by a cumulative 0.9 percentage points over the period until 2010 (roughly 0.15 percentage points per year).[4] The estimated impact on employment, however, varies widely. Simulations using the *OEF* model suggest a cumulative net addition of 3 000 jobs, or an employment increase of 0.1%, over the period 2001-10. By contrast simulations based on the *WIFO* model estimate a cumulative net increase of 28 000 jobs, or an employment increase of 0.8%, over the period 2002-10.

Some segments of the population and workforce have been adversely affected

The effects of foreign direct investment have varied across sectors and skill levels.

Turning now to the output and employment effects of FDI by Austria in the CEECs, the initial empirical studies provided somewhat conflicting results.[5] More recent empirical analysis, covering the manufacturing sectors in seven EU countries over the period 1995-2000, indicate that imports of intermediate goods from the same industry originating from low-wage countries have a significant and negative impact on employment in the importing countries (Falk and Wolfmayr, 2005). More specifically, rising intermediate imports from low-wage countries may have accounted for an approximate reduction of 0.25 percentage points in employment per year in the seven EU countries. For Austria this would imply a loss of around 2 700 jobs per year *in the affected manufacturing sectors*. Another interesting empirical finding is that the impact on employment of imported materials from low-wage countries is statistically significant in industries with low skill intensity but not in skill-intensive industries such as machinery, electrical, optical and transport equipment.

More strikingly, the impact on employment and wages of FDI and outsourcing is estimated to vary considerably across sectors. Employment in the manufacturing sector in Austria has been shrinking, in contrast to the dynamic growth of jobs at foreign affiliates. During 1993-2003 there was a reduction of 73 000 manufacturing jobs in the domestic economy at the same time that employment in affiliates of Austrian firms located in the CEEC5 increased by some 60 000. Thus it is not surprising that the results of another recent empirical study point to a substitutive relationship between employment in foreign affiliates and home-based employment in manufacturing, with an estimated elasticity of substitution of 0.5 – implying that a 1% increase in wages of home-based workers relative to the wages of workers based abroad results in a 0.5% decrease in domestic employment (Falk and Wolfmayr, 2006).

By contrast, the empirical results for the services sectors show a long-run complementary relationship between domestic employment and employment in foreign affiliates of Austrian firms in the CEEC5. More precisely, the results suggest that ten newly created jobs in the CEEC5 are associated with the creation of half a new job in Austria, and the indirect employment effects are likely to be much higher (Falk and Wolfmayr, 2006). In short, the empirical analysis implies that foreign direct investment activities in the services sectors have an overall positive impact on domestic employment in Austria in the long-run. In the short-run however there is a substitutive relationship, with domestic employment to some extent being substituted by employment in foreign affiliates.

Regional integration has given a boost to productivity, competitiveness and profitability

Increasing economic integration with the economies of CEECs could have affected labour productivity in Austria through two main channels. More intensive competition from these economies may have stimulated innovation and productivity growth in those sectors directly and/or indirectly affected by it – an "*intra-industry" productivity effect*. It could also have given rise to shifts in labour allocation across sectors with varying levels of labour productivity, with consequences for labour productivity at the aggregate level – a "*resource reallocation*" or "*shift" effect*. Empirical studies on Austrian outsourcing (relocation of parts of production processes) to the CEECs suggest that it significantly increased total factor productivity, thereby improving the competitiveness of Austrian firms. These studies also indicate that outsourcing changed relative employment demand in favour of the highly skilled (Egger *et al.* 2001, Kratena and Wüger, 2001).

To provide some further insight into the issue Box 2.2 presents a sectoral shift-share analysis of labour productivity over the period 1995-2004. The results indicate that three sectors have made a particularly significant contribution to aggregate labour productivity growth – the manufacturing sector; wholesale and retail trade, hotels and restaurants, transport and communications; and financial and business services and real estate activities. However, the transmission channels were very different, with intra-industry productivity growth being predominant in manufacturing, and the "resource reallocation" effect being the key channel in financial and business services and real estate activities. Also, within manufacturing three sub-sectors – coke and refined petroleum products; electrical and optical equipment; and transport equipment – showed particularly strong performance in terms of labour productivity growth.

Manufacturing

It is difficult to determine the extent to which growing competition from lower-cost CEECs acted as a catalyst and incentive for productivity growth in Austrian manufacturing, and/or facilitated a resource reallocation towards more productive sectors. Nevertheless, the strong growth of both trade and FDI in manufacturing, and the change in the commodity composition of both exports and imports described above, is at least consistent with growing intra-industry trade and FDI with CEECs having enabled the manufacturing sector in Austria to rapidly increase productivity over the past decade.

Within this sector it is interesting to note that manufacture of transport equipment, which saw a significantly above-average labour productivity growth rate over the period 1991-2004, also experienced a substantially higher than average growth in imports from the CEECs during 1996-2005. Over the same time periods estimated labour productivity growth in the manufacture of coke and refined petroleum products was also exceptionally high and simultaneously enjoyed significantly higher than average growth in both exports to, and imports from, the CEECs. It would thus not be surprising if expansion of trade with the CEECs had a significant positive effect on productivity growth, at least in these two sub-sectors.[6]

Financial and business services and real estate activities

The past decade has witnessed a shift in employment share away from lower-productivity sectors towards financial and business services and real estate activities in

Box 2.2. **Austria: Labour productivity developments by sector, 1995-2004**

A shift-share analysis of labour productivity developments in Austria over the period 1995-2004, using data by sector on numbers of hours worked, provides some interesting insights into the evolution of the Austrian economy over the past decade and a half (Table 2.6).

Table 2.6. **Austria: Shift-share analysis of average labour productivity growth, 1995-2004**

Average percentage change *per annum*

	Average labour productivity growth	Contribution to total labour productivity growth		
		"Intra-industry"	"Shift"	Total
Agriculture, hunting and forestry	1.0%	0.0%	0.0%	0.0%
Mining, electricity, gas, and water supply	6.6%	0.2%	–0.1%	0.1%
Manufacturing	4.7%	1.0%	–0.4%	0.5%
Construction	2.7%	0.2%	–0.2%	0.1%
Trade, hotels and restaurants, transport and communications	1.9%	0.5%	0.0%	0.5%
Financial and business services and real estate	–2.9%	–1.1%	1.7%	0.5%
Total	1.7%	0.8%	1.1%	1.7%

Source: Organisation for Economic Cooperation and Development (OECD) STAN database and staff calculations.

Overall labour productivity growth over this period averaged 1.7% per annum. Manufacturing, and financial and business services and real estate activities, were the sectors that contributed the most to this productivity growth, each contributing about 30% (0.5 percentage points) to the total. The broad category of wholesale and retail trade, hotels and restaurants, and transport and communications made a similar contribution to overall productivity growth. This overall contribution is a combination of an "*intra-industry*" effect (reflecting labour productivity developments within each individual sector) and a "*shift*" *effect* (reflecting the impact on total labour productivity growth of shifts in labour allocation across sectors with varying levels of labour productivity).

In absolute terms, our estimates suggest that labour productivity growth averaged –2.9% in financial and business services and real estate activities over the period 1995-2004. However, the sector made a positive contribution to overall productivity growth because of a shift of labour away from lower-productivity sectors towards this sector. More specifically, labour productivity growth within this sector (the "intra-industry"effect) contributed –1.1 percentage points to total productivity growth, but this was more than offset by a positive "shift" effect through which financial and business services and real estate activities contributed 1.7 percentage points to total labour productivity growth.

The story in the manufacturing sector is the complete opposite. Labour productivity growth in this sector averaged 4.7% per annum and contributed 1.0 percentage point to the economy's overall labour productivity growth. However, the period 1995-2004 witnessed a shift in labour away from manufacturing towards other lower-productivity sectors, resulting in a labour productivity loss that contributed –0.4 percentage points to overall labour productivity growth. Nevertheless, Austria lost a smaller share of its manufacturing jobs compared to most other OECD countries.

Disaggregated data for the manufacturing sector on hours worked is not available. However, a similar analysis using total employment by manufacturing sub-sector over the period 1991-2004 show that three sub-sectors enjoyed particularly strong intra-sectoral productivity growth:

1. coke and refined petroleum products;
2. electrical and optical equipment; and
3. transport equipment.

At the same time a shift of labour away from the manufacture of textile and textile products, and of electrical and optical equipment, towards lower-productivity sectors outside of manufacturing resulted in a loss of labour productivity growth for the overall economy. Disaggregated data for the services sectors is not available to do a similar analysis for real estate, renting and business activities.

Austria (even if their share in total employment is still below that in other comparable economically advanced countries, as discussed in Chapter 1). There is no hard evidence or analysis on what factors were behind this. A large part of it probably reflects domestic outsourcing (leasing and contracting out) of services previously carried out in-house by manufacturing firms in Austria. Nevertheless it is plausible to speculate that expansion abroad by Austrian firms may have provided a significant boost to domestic demand in this sector, especially for legal and information technology services and possibly also real estate services – especially given the empirical evidence discussed above of a long-run complementary relationship between domestic employment and employment in foreign affiliates in the services sectors, and the increase in the share of these sectors in the total stock of Austria's FDI in the CEECs.

When Austrian firms first started investing in CEECs following the fall of the iron curtain in 1989 they faced a large number of start-up troubles, and the profitability of Austrian affiliates based in the region was rather modest. However, most of these problems have been overcome and current investments are quite profitable, notably the most recent investments in Croatia and Romania. Altzinger (2005) calculates that, in 2003, total annual profits from Austrian affiliates translated into an average rate of return on equity of 4% for investments in the EU15, 8% for the CEEC5 and 9½ per cent for the CEEC14. At the same time he points out that Austrian affiliates in the CEECs re-invested much larger shares of their profits than Austrian affiliates in the EU15, partly because these investments were urgently needed for the tasks of re organisation and restructuring of existing companies. The remarkable profitability of Austrian affiliates in CEECs provides empirical support for the widely held view that the opening up of these economies helped to significantly improve the overall competitiveness and profitability of Austrian firms.

This has particularly been the case in financial services. Indeed, as early as 2002 and 2003, steady expansion in the CEECs had a positive impact on the profitability of Austria's consolidated banking sector, as reflected in the far higher profitability of the CEEC operations of Austrian banks in comparison with their domestic business activities. For example, although the CEECs accounted for only some 12% of the consolidated total assets of Austrian banks at the end of 2003, 23% of their pretax profits was generated in the region (Breyer, 2004). This higher profitability was primarily due to wider margins, lower credit risk costs and cost savings following extensive restructuring measures. Breyer thus argues that significant business exposure in the CEECs is likely to have greatly helped Austrian banks weather the economically difficult years between 2001 and 2003 better than German banks. Given that the pioneer period for banks in these countries is coming to a close and more and more competitors are entering the market, the extraordinarily high profit margins of Austrian banks will be almost certain to decline in the future. Nevertheless, the first mover advantage puts Austrian financial institutions in a very good competitive position.

To sum up: general equilibrium studies show that the Austrian economy as a whole has benefited substantially from the expansion of economic ties with Central and Eastern Europe. Indeed, among the older EU member states Austria has benefited the most from the transition of the CEECs from planned economies to market economies, and the subsequent entry into the EU of the ten new member states (mostly from Central and Eastern Europe) in 2004. In particular, the expansion of economic ties with Central and Eastern Europe has provided a significant boost to growth, productivity, competitiveness, profits – and, more controversially, aggregate employment. More disaggregated partial equilibrium studies, however, indicate that some segments of the population and

workforce have been adversely affected by Austria's growing economic integration with the CEECs, and in particular low-skilled and semi-skilled workers in the manufacturing sector.

Austria's attractiveness as a regional base for multinationals needs to be maintained

Regarding inward investment into Austria, there is some evidence to suggest that although Vienna was an obvious base for international companies starting operations in Eastern Europe, certain policy shortcomings and the emergence of new rival locations has weakened its position in recent years. This hypothesis is supported in a recent study by Delia Meth-Cohn (2006) which reports the findings of in-depth interviews conducted during June to October 2005 with ten senior regional executives of large multinationals either currently or formerly based in Vienna. The interviews indicated that Vienna still has a number of important strengths, including: *i)* availability of senior management with experience in the region and personal ties to Austria; *ii)* its attractiveness as a location for expatriates to live in; and *iii)* proximity by air and road.

However, expatriate managers are also somewhat discouraged by various constraints in Vienna which require the attention of policymakers if Austria desires to maintain, or develop further, its position as a central hub for multinationals operating in Central and Eastern Europe. These constraints include bureaucratic delays in getting work permits for non-EU expatriate managers and workers and those from the new EU member states, and lack of rapid road and rail connections (and significant delays in developing them). This is consistent with the findings of an OECD study which argues the case for better transport policy coordination between Austria and the Slovak Republic (OECD, 2003). It is important in this context to note that the Austrian government has been trying to tackle this problem. In June 2004 it announced plans for expanding the motorway network around Vienna, including a connection to the Czech Republic border (not due to be completed before 2013). A motorway link between Vienna and the Slovak capital of Bratislava is due to be completed by the end of 2007. More recently, the government has announced heavy infrastructure investment of € 4.6 billion in roads and € 6.4 billion in railways over the period 2007 to 2010.

It also appears to be the case that some rival locations such as Geneva and Bratislava offer more favourable personal income tax regimes and more favourable tax treatment of expatriate perks such as housing, schools and cars. However, this does not seem to be a major factor affecting the locational decisions of multinationals. Furthermore, given the highly favourable corporate tax rate and the recent introduction of corporate group taxation, it would not be advisable at this stage for Austria to offer further tax advantages to expatriate managers and workers of multinational companies.

Policies can help maximise the benefits, and lower the adjustment costs, of regional integration

As discussed above, although general equilibrium (aggregate) effects have been clearly positive, there are important segments of the population that have been adversely affected by these developments. In particular, several empirical studies have shown that low-skilled and semi-skilled workers in manufacturing have had difficulty coping with the growing competition from the CEECs. A key challenge for policy-makers in Austria is to help them re-integrate into the domestic labour market, notably through active labour market policies and vocational training and re-training programmes (Chapter 4). The immigration system in Austria also needs to be reformed in a way that encourages the entry of highly

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skilled and well-qualified workers that meet the requirements of the domestic labour market. Investing in transport (road and rail) connections with key Central and Eastern European locations – consistent with the new government's plans, as outlined in its 2007 and 2008 budgets – and reducing bureaucratic hurdles and red tape for multinational companies seeking to operate out of Vienna will also be important if Vienna is to maintain its position as a central hub for companies operating in the region.

Supportive government policies can also help to enhance the positive productivity, competitiveness and profitability effects of Austria's growing economic integration with the CEECs. As discussed in the other chapters of this survey, government policies to promote education and training, R&D and innovation, plus active labour market policies can all help the Austrian economy to shift to higher value-added activities. In this way the government has a role to play in helping Austrian firms to cope successfully with intensifying competition from the CEECs (and other countries), and to facilitate the development of a complementary specialisation of the Austrian economy with the CEECs.

Box 2.3. **Policy recommendations for enhancing regional integration**

- Reduce to a minimum bureaucratic hurdles and red tape for multinational companies seeking to operate out of Vienna.
- Invest in road and rail connections with key Central and Eastern European commercial locations, as the new government is already intending to do.
- Reform the immigration system to encourage the entry of highly skilled and well-qualified workers that meet the requirements of the domestic labour market.
- Adopt active labour market policies, including vocational training and re-training programmes, to reintegrate into the labour market workers who have been displaced as a result of globalization.

Notes

1. The CEEC19 include the CEEC5 (the Czech Republic, Hungary, Poland, the Slovak Republic and Slovenia) and the CEEC14 (Albania, Belarus, Bosnia, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Serbia-Montenegro and Ukraine).
2. A broader discussion of immigration flows into Austria and their impact on the Austrian labour market is provided in Chapter 3.
3. It is estimated that there are between 30 000 to 40 000 women from Slovakia working illegally in the "care" sector in Austria.
4. Indeed, Breuss (2006) estimates that Austria can expect to gain more than any of the other older EU states from the EU enlargement of 2004, with annual growth of real GDP higher by around 0.2 percentage points over the next ten years.
5. Somewhat surprisingly, the first empirical study by Pfaffermayr (2001), covering the period 1990-96, found that job creation by Austrian affiliates in the CEECs is complementary to domestic employment. Using firm-level panel data for a number of European countries Konings and Murphy (2001) found no evidence that FDI in the CEECs caused job losses in the home economy. By contrast, and covering a longer and more recent period, Marin (2004) calculated that 24 000 jobs were lost in Austria as a consequence of FDI by Austria in the CEECs since the fall of the iron curtain in 1989.
6. Nevertheless, within sub-categories of manufacturing an additional complication is the lack of data on hours worked and on export and import price deflators, making it even trickier to reach any definite conclusions on how growing economic integration with the CEECs may be linked with the productivity developments reported in Box 2.2.

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ANNEX 2.A1

Table 2.A1.1. **Austria's trade**

	1991	1997	1998	1999	2000	2001	2002	2003	2004	2005	1991-2005	1991-97	1998-2005
	EUR million										% change p.a.		
Exports													
Total	34 812	51 962	56 302	60 266	69 692	74 252	77 400	78 903	89 848	94 705	7.6	7.1	7.9
CEEC5	2 265	6 566	6 898	7 341	8 572	8 911	9 348	9 655	11 084	11 390	12.6	19.8	7.2
CEEC14	1 559	2 527	2 378	2 238	2 857	3 757	4 238	4 850	5 704	6 698	12.7	11.5	13.7
CEEC19	3 824	9 093	9 276	9 579	11 429	12 669	13 587	14 505	16 788	18 088	12.0	15.9	9.1
In % of total exports:													
CEEC5	6.5	12.6	12.3	12.2	12.3	12.0	12.1	12.2	12.3	12.0			
CEEC14	4.5	4.9	4.2	3.7	4.1	5.1	5.5	6.1	6.3	7.1			
CEEC19	11.0	17.5	16.5	15.9	16.4	17.1	17.6	18.4	18.7	19.1			
Imports													
Total	43 015	57 430	61 200	65 316	74 935	78 692	77 104	80 993	91 094	96 499	6.1	5.1	6.8
CEEC5	1 786	4 644	5 244	5 740	7 043	7 627	7 702	8 535	9 571	9 737	13.2	17.6	9.9
CEEC14	1 238	1 617	1 688	1 610	2 341	2 467	2 489	3 010	3 586	4 535	11.1	6.3	14.7
CEEC19	3 024	6 261	6 932	7 350	9 384	10 094	10 191	11 545	13 157	14 272	12.0	13.3	11.1
In % of total imports:													
CEEC5	4.2	8.1	8.6	8.8	9.4	9.7	10.0	10.5	10.5	10.1			
CEEC14	2.9	2.8	2.8	2.5	3.1	3.1	3.2	3.7	3.9	4.7			
CEEC19	7.0	10.9	11.3	11.3	12.5	12.8	13.2	14.3	14.4	14.8			
	In per cent of GDP												
Total exports	23.7	28.0	29.3	30.1	33.1	34.4	35.0	34.9	38.2	38.6			
Total imports	29.3	31.0	31.8	32.7	35.6	36.4	34.9	35.8	38.7	39.4			
Total exports and imports	53.1	59.0	61.1	62.8	68.7	70.8	69.9	70.7	76.9	78.0			
of which:													
CEEC5	2.8	6.0	6.3	6.5	7.4	7.7	7.7	8.0	8.8	8.6			
CEEC14	1.9	2.2	2.1	1.9	2.5	2.9	3.0	3.5	3.9	4.6			
CEEC19	4.7	8.3	8.4	8.5	9.9	10.5	10.8	11.5	12.7	13.2			
Memorandum item:													
Nominal GDP (EUR mn)	146 588	185 476	192 266	19 982	210 616	216 123	220 906	226 175	235 258	245 056			

1. CEEC5: Czech Republic, Hungary, Poland, Slovak Republic, Slovenia.
2. CEEC14: Albania, Belarus, Bosnia, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Serbia-Montenegro, Ukraine.
3. CEEC19: CEEC5 plus CEEC14.

Source: Statistics Austria.

Table 2.A1.2. **Austria's foreign direct investment (FDI)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	EUR million													
FDI stock														
Total	4 656	5 433	7 037	7 671	8 674	10 396	12 863	14 912	19 039	26 674	32 351	40 512	44 308	49 765
CEEC5	790	1 279	1 833	2 247	2 335	2 912	3 604	3 846	4 655	6 797	9 106	11 372	11 474	12 918
CEEC14	50	24	48	122	90	105	429	487	828	1 229	2 442	3 373	4 821	5 960
CEEC19	840	1 303	1 881	2 369	2 425	3 017	4 033	4 333	5 483	8 026	11 548	14 745	16 295	18 878
In % of total FDI stock:														
CEEC5	17.0	23.5	26.0	29.3	26.9	28.0	28.0	25.8	24.4	25.5	28.1	28.1	25.9	26.0
CEEC14	1.1	0.4	0.7	1.6	1.0	1.0	3.3	3.3	4.3	4.6	7.5	8.3	10.9	12.0
CEEC19	18.0	24.0	26.7	30.9	28.0	29.0	31.4	29.1	28.8	30.1	35.7	36.4	36.8	37.9
Net FDI flows														
Total	1 090	1 356	1 006	1 043	828	1 488	1 762	2 469	3 098	6 230	3 506	6 170	6 323	6 685
CEEC5	392	382	395	313	388	363	727	740	674	2 035	2 485	2 542	2 770	1 631
CEEC14	7	–5	10	57	13	53	215	37	361	487	590	1 846	872	2 493
CEEC19	400	377	405	370	401	416	942	777	1 035	2 522	3 075	4 388	3 642	4 124
In % of total net FDI flows:														
CEEC5	36.0	28.2	39.3	30.0	46.9	24.4	41.3	30.0	21.8	32.7	70.9	41.2	43.8	24.4
CEEC14	0.7	–0.4	1.0	5.5	1.6	3.6	12.2	1.5	11.7	7.8	16.8	29.9	13.8	37.3
CEEC19	36.7	27.8	40.3	35.5	48.4	28.0	53.5	31.5	33.4	40.5	87.7	71.1	57.6	61.7
	In per cent of GDP													
Total FDI stock	3.2	3.5	4.4	4.6	4.9	5.7	6.9	7.8	9.5	12.7	15.0	18.3	19.6	21.2
of which:														
CEEC5	0.5	0.8	1.1	1.3	1.3	1.6	1.9	2.0	2.3	3.2	4.2	5.1	5.1	5.5
CEEC14	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.4	0.6	1.1	1.5	2.1	2.5
CEEC19	0.6	0.8	1.2	1.4	1.4	1.7	2.2	2.3	2.7	3.8	5.3	6.7	7.2	8.0
Total net FDI flow	0.7	0.9	0.6	0.6	0.5	0.8	0.9	1.3	1.5	3.0	1.6	2.8	2.8	2.8
of which:														
CEEC5	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	1.0	1.1	1.2	1.2	0.7
CEEC14	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.3	0.8	0.4	1.1
CEEC19	0.3	0.2	0.3	0.2	0.2	0.2	0.5	0.4	0.5	1.2	1.4	2.0	1.6	1.8
Memorandum item:														
Nominal GDP (EUR mn)	146 588	155 166	160 318	168 070	175 688	181 676	185 476	192 266	199 982	210 616	216 123	220 906	226 175	235 258

Note: CEEC5: Czech Republic, Hungary, Poland, Slovak Republic, Slovenia.
CEEC14: Albania, Belarus, Bosnia, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Serbia-Montenegro, Ukraine.
CEEC19: CEEC5 plus CEEC14.
Source: Statistics Austria.

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Table 2.A1.3. **Austria: structure of stock of foreign direct investment in Central and Eastern Europe**[1]

	Structure in per cent		
	1996	2004	Change
Mining and quarrying, electricity	1.3	0.8	–0.5
Food products, agriculture, fishing	6.5	3.0	–3.4
Textiles, textile products, leather	0.5	0.5	0.0
Wood, products of wood and cork	1.1	1.4	0.3
Pulp, paper products, printing and publishing	4.2	3.4	–0.9
Chemical, rubber, plastics, fuel products	8.1	6.6	–1.5
Other non-metallic mineral products	8.5	3.5	–5.0
Basic metals, fabricated metal products	2.8	1.2	–1.6
Machinery and equipment, nes	1.2	0.8	–0.4
Electrical and optical equipment	5.7	3.5	–2.2
Transport equipment	0.6	0.6	0.0
Manufacturing nes	0.7	0.5	–0.2
Construction	5.8	2.3	–3.5
Wholesale and retail trade; repairs	18.1	9.8	–8.3
Hotels and restaurants	4.4	0.3	–4.1
Transport, communication	0.8	0.5	–0.3
Financial intermediation	20.8	46.8	26.1
Real estate, business activities	7.7	13.8	6.1
Public admin., other services	1.2	0.8	–0.4
Total	100.0	100.0	0.0
of which: Manufacturing	39.9	24.9	–15.0

1. Czech Republic, Hungary, Poland, Slovak Republic, Slovenia.
Source: Austrian National Bank, OeNB.

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Chapter 3

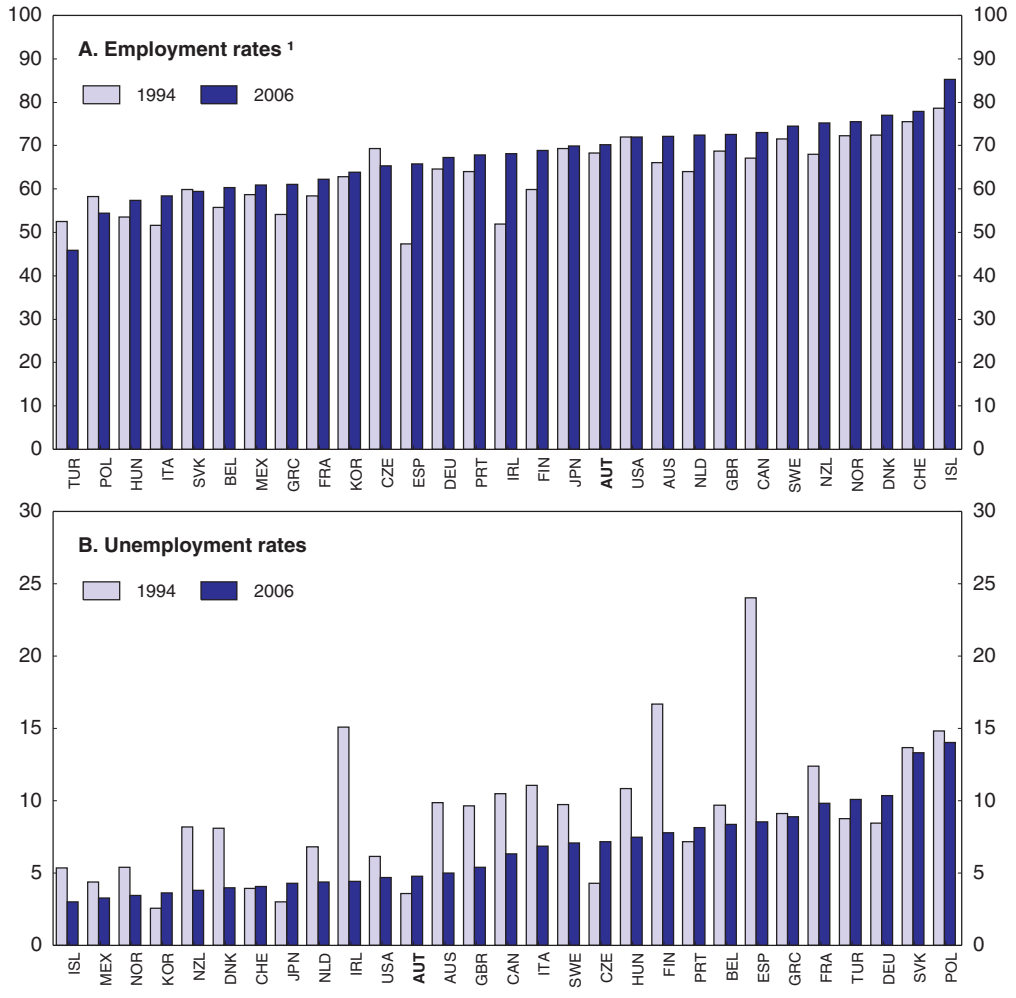
Overcoming labour market segmentation

Austria has an inclusive and well-performing labour market which has traditionally secured high aggregate employment rates and well-balanced and competitive wage levels. Success is also due to strong human capital formation in the education system, with a high share of graduates in the labour force with at least upper secondary education, notably through high quality vocational training, even if enrollment in tertiary education is lower than in other high-income OECD countries. This system continues to deliver good outcomes in the core labour market of prime-age skilled workers, but has recently shown growing weaknesses in more marginal segments involving older, less-skilled, and less-well educated young and immigrant workers. Employment of mothers with small children is also traditionally low. This chapter describes the new challenges raised by the emerging segmentation in the labour market and authorities' efforts to strengthen both labour supply and demand in the vulnerable segments. Against these policy objectives, measures which may lead to strong increases in minimum wages, in minimum social incomes, and in incentives for early retirement could prove counterproductive. The chapter offers further policy recommendations, including in the education system, in order to overcome any entrenchment in labour market segmentation.

Austria has a strong labour market performance with comparatively high employment and low unemployment. The employment rate of the working age population is almost 70%, against EU15 and OECD averages of 65%. The unemployment rate is about 5½ per cent, against 8% in the EU15 and 7% in the OECD as a whole.[1] Labour mobilization is therefore an area of strength of the Austrian economy and contributes to its high GDP *per capita* performance.[2]

However, labour market performance has not improved over the last decade (Figure 3.1). Unemployment has worsened slightly, while it declined in the rest of the OECD. There are signs that this relatively subdued performance of the recent period may reflect

Figure 3.1. **The strong labour market performance has not improved over the past decade**

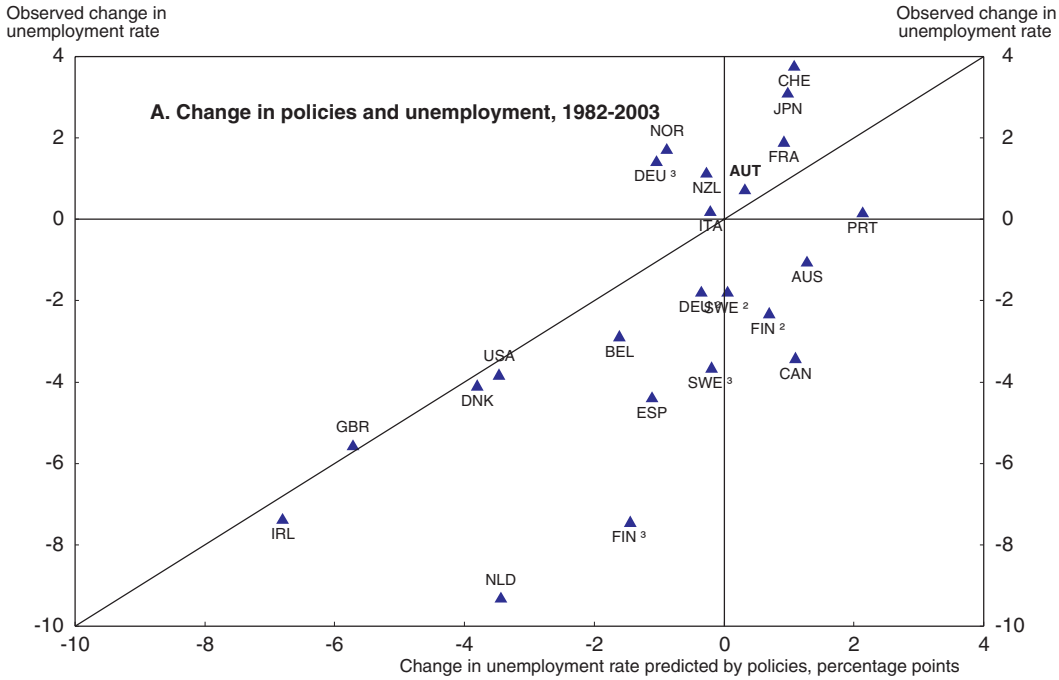


1. Persons employed aged 15 and over divided by the population aged 15-64.

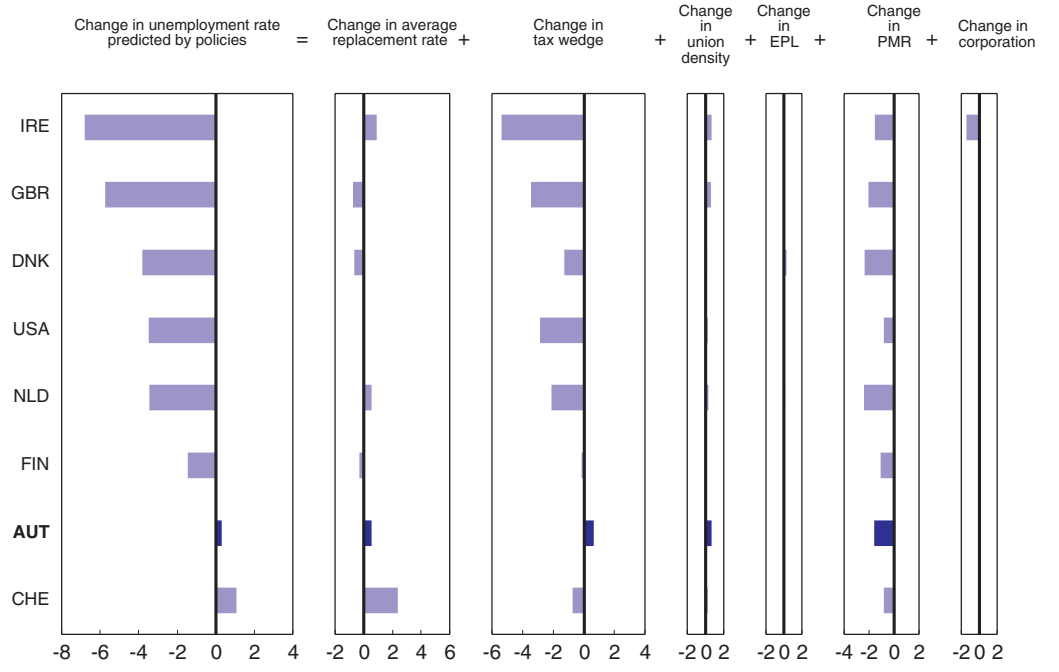
Source: OECD, ELS database.

StatLink http://dx.doi.org/10.1787/070166736812

Figure 3.2. **Institutions and policies have predicted the recent outcomes**[1]



B. The impact of policies on the change in unemployment



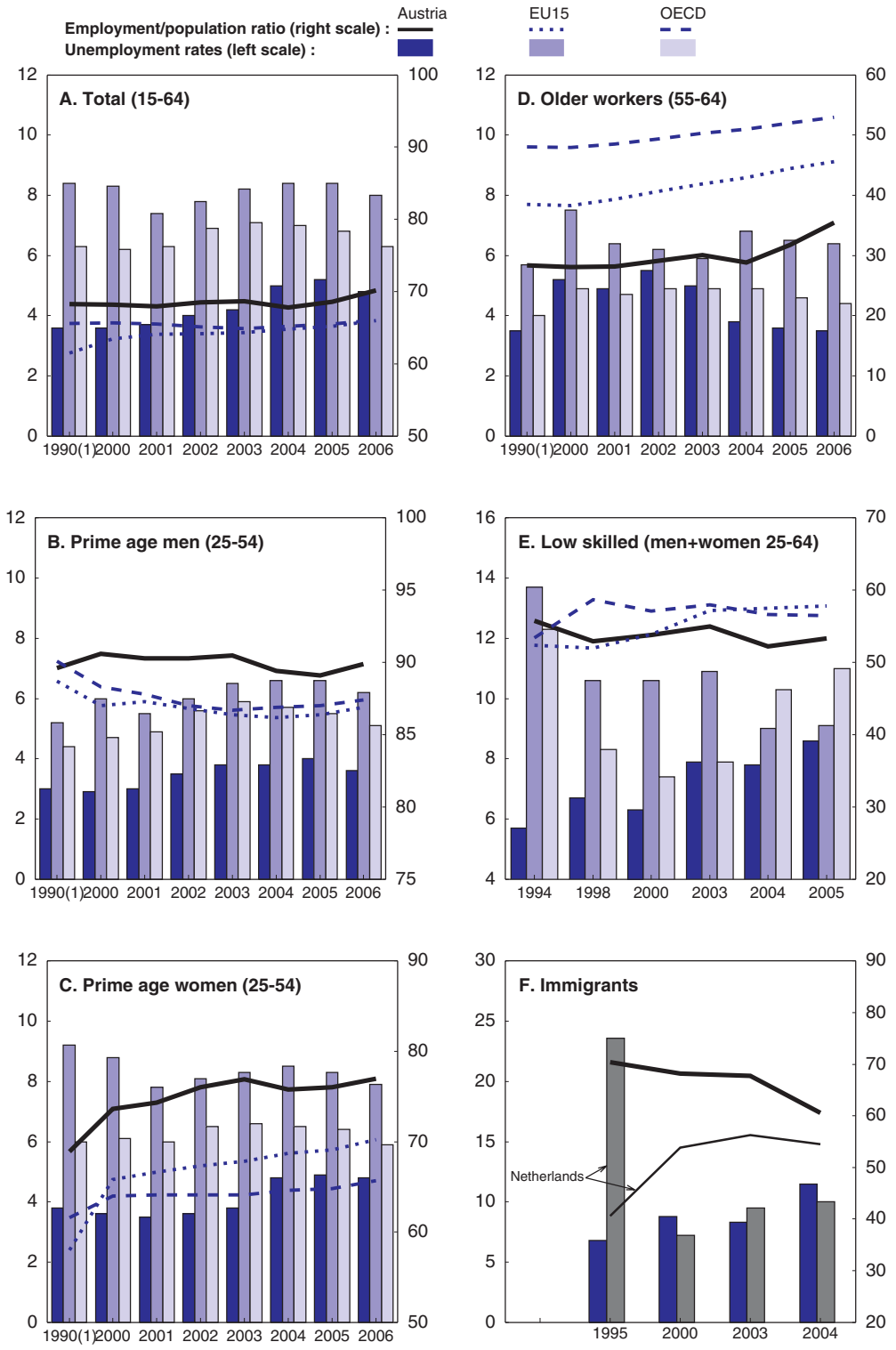
1. The estimation methodology of the impact of changes in policies and institutions on unemployment is summarised in Bassanini and Duval (2006).
2. 1982-1990.
3. 1993-2003.

Source: OECD, Economics Department, Working Paper No. 486.

StatLink http://dx.doi.org/10.1787/070173522506

Figure 3.3. **Labour market performance**

Percentages



1. For Austria: 1994.

Source: OECD, ELS database and *International Migration Outlook*.

StatLink http://dx.doi.org/10.1787/070187130564

shortcomings in the policy environment. A recent re-assessment of the OECD's "Job Strategy" identified Austria among Member countries where the relative stagnation of labour market performance was predictable in the light of prevailing policies and institutions. According to this study the policy framework has fallen short of more reform-minded countries in two main areas: *i*) persistingly high labour tax wedges, which were substantially reduced in other high wedge countries; and *ii*) slow product market reforms which hindered output growth and labour demand in highly regulated sectors. According to econometric estimates by the OECD, these two factors explain a large part of the relative stagnation of Austria's employment performance (Figure 3.2).

Austria's high average employment rate is in fact the result of distinctly superior performance in a large core segment of prime age male and female workers. The majority of these workers are well-educated, with at least upper secondary education. In contrast, the older workers, the less-well skilled, the immigrants and the new entrants to the labour force clearly do less well. This divide between a well-performing core and weaker segments in the labour market periphery is common in all OECD countries, but seems to have become deeper in Austria than in the more reform-minded countries (Figure 3.3).

The following sections review the employment performance of different groups of workers and discuss the key factors contributing to outcomes in the core and more peripheral areas. The chapter then reviews recent government policies to upgrade the weaker segments by enhancing work incentives and workforce skills in order to increase *labour supply*, and by reducing employment costs and enhance job creation in order to increase *labour demand*. The latent potential for further job creation in the service sectors is also discussed. The chapter concludes with a number of policy recommendations.

Employment of skilled prime-age workers remains vigorous

The employment rate of prime age male and female workers between 25-54 is clearly above OECD and EU averages, at remarkably high rates of 90% and 80% respectively, and they have remained at these high levels throughout the past decade. Correspondingly, their unemployment rate remained well below OECD and EU averages, with the unemployment rate of male workers between 25-54 at 4% and of female workers at 5%, after a slight increase through the past decade. This small increase in the unemployment of prime age women arose partly from a substantial acceleration (of 10 percentage points) in their labour force participation between 1995 and 2005, while for male workers it mainly reflects job losses in the relatively narrow group of less-skilled workers. Few OECD countries have succeeded in consistently preserving such a high rate of average labour mobilization of their prime-age population and three key factors seem to account for this performance:[3]

- *Skill level*. Among OECD countries, Austria has the *highest* proportion of workers who have completed upper secondary education.[4] Most of them have graduated from well-resourced vocational schools and the majority (80% of all vocational school graduates and 50% of all workers) completed formal education with lengthy practical apprenticeship programmes. Only a limited share of vocational school graduates proceed to tertiary education[5] but the skills acquired in the upper secondary level have generally been highly responsive to labour market needs as of now.[6] Prime age workers also receive significant adult training support.[7] Due to these robust basic and updated skills, they are easily re-employable when they lose their job. Only one jobless person among five remains unemployed after a year of search, as against one among two on average in other EU15 countries – a remarkable difference.

- *Effective wage bargaining*. Austria has genuinely non-confrontational wage bargaining institutions centered on "social partnership".[8] These have proven particularly effective to date in clearing the prime labour market. Employment protection legislation (EPL) is not rigid,[9] and yearly negotiations between employer and worker representatives provide inclusive procedures for minimizing conflicts and adjusting wage and employment conditions to domestic and international economic circumstances.[10] Statutory wage agreements at branch level help settle wages according to each individual sector's international competitive position. These procedures have helped to avoid employment-unfriendly wage drift to date and have reduced the detrimental effect of high labour taxes on employment costs as workers appeared to bear a good share of the labour tax burden by accepting lower net wages. The system also provides for generous unemployment insurance for seasonal activities such as tourism, at low (and publicly subsidized) costs for employers and employees. A minimum wage is agreed in yearly branch negotiations for different occupations, implying hundreds of negotiated minimum wages, traditionally at affordable rates.

  The new government established in January 2007 has in its programme the objective of raising all monthly minimum wages to at least € 1 000. By early 2007, about 50 occupations had minimum wages below € 1 000 a month, and 20 occupations had minimum wages below € 900 (the lowest minimum wages are for newspaper deliverers at € 670 and pedicurists at € 705). About 2% of full-time working men, 7% of full-time working women and 3% of all wage earners were earning less than the proposed new minimum wage.[11] Nonetheless this initiative creates concerns because it will likely make the employment of the presently unemployed low-skilled even more difficult, and may put minimum wages on a more rapidly increasing path in the future. This may happen in particular if the ongoing shift to a national minimum wage puts it *de facto* on a centralised path. The authorities consider that the implications of the planned increase in the minimum wage will be very limited because: *i*) the small share of workers which will be directly affected are mostly located in service sectors, which are not exposed to international competition; *ii*) the wage-elasticity of demand is low for low-skilled workers, hence employment demand for them will not be significantly affected; and *iii*) there is no intention to politicise the minimum wage by excluding it from the social partnership process. Nonetheless, the government should pay attention to the risks. According to other OECD countries' experiences, concerns about poverty at work are best addressed with in-work benefits. The reduction of the very high tax wedge for low-skilled workers should also be a priority, in order to increase their prospects of employment. However, such wedge cuts should not be used as a relief (a sweetener) for minimum wage increases, because this would have only a temporary and one-off effect and the permanent fiscal cost of the measure would generate only short-term and temporary benefits.

- *Stable employment relationships and flexible employment forms*. Austrian workers have one of the highest average tenure rates in OECD economies (Figure 3.4). Wage flexibility has facilitated these stable employment relationships, while seniority has also gained more influence on wage determination than in other countries. Stable employment reflects flexible contracting between employers and employees (wage adjustments playing a more important role than quantitative adjustments in the labour market), notably in the many family-owned medium-sized enterprises, rather than regulatory constraints. Long tenures contribute to the accumulation of enterprise-specific human capital; however, as needs evolve, more flexible employment forms could also be introduced without social tensions (Figure 3.4, Panel D).

- As employment protection legislation is lighter than in many other OECD countries, and is determined by decentralized branch collective agreements as much as by law, issues of *legal duality* in employment contracts have until recently been less controversial in Austria than in many other OECD countries. However, as the new contract forms spread to more mainstream economic activities and tend to circumvent a number of standard provisions of labour law, collective agreements, pay schedules, and certain aspects of the social security system, they are giving rise to more concerns and even legal litigation[12] (Box 3.1).

Box 3.1. **Challenges of new employment forms**

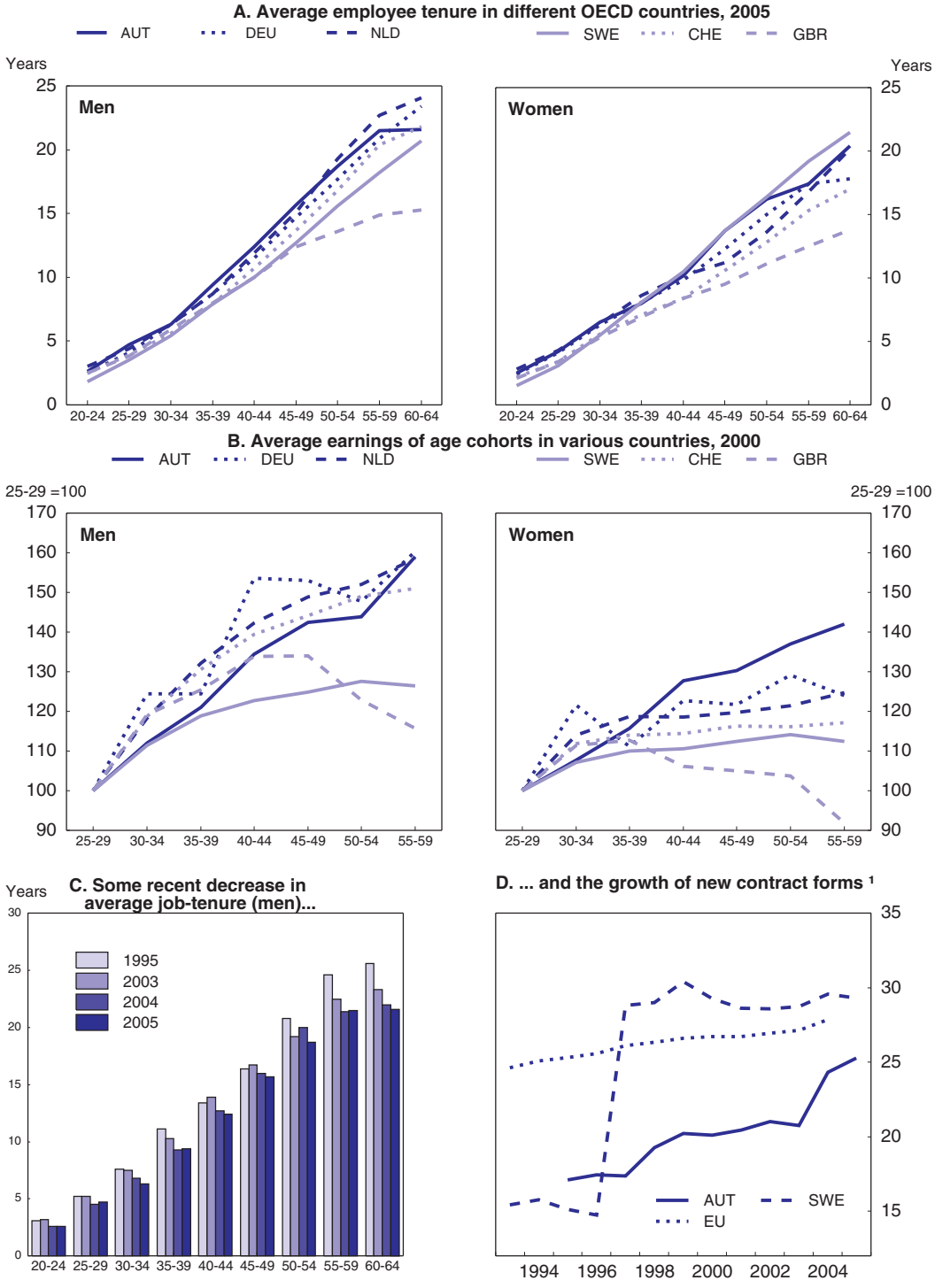
So-called "atypical" forms of employment concern labour contracts other than standard full-time wage earning agreements. They are not governed by the standard provisions of labour law, are not subject to compulsory branch collective agreements, and are not covered by the full set of social security benefits. Participation in pension and health systems is compulsory but not all new employment forms are covered by unemployment and bankruptcy insurance and by individual severance accounts (*i.e.* the new system of "portable" severance benefits).

These forms of employment diffused more slowly and at a more limited scale in Austria in the past than in other OECD countries. However, their adoption has accelerated in the 2000s. According to certain estimates, more than 30% of all newly created *net* job positions may have involved this type of contracts in the most recent period. The first two types of contracts concerned are common in OECD countries with flexible labour markets, while the latter two categories seem to find a particularly supportive market in Austria:

1. *Fixed-term work*: Temporary employment contracts are common internationally but have been atypical in Austria until very recently. Even seasonal activities such as tourism and construction had limited recourse to them (as they have sector-specific employment and unemployment coverage arrangements). While less than 10% of all wage earning contracts were temporary in Austria in early 2000s, they have diffused more rapidly in the most recent years.
2. *Part-time work*: Less than 5% of male workers were employed part-time in 2005, much less than in other OECD countries.* However, the rate is on the increase, notably after the liberalisation of the retail trade sector. About 33% of all employees in retail trade now work part-time.
3. "Manpower leasing": Workers are employed by manpower agencies which "lease" them to customers. Customer enterprises manage the leased labour force more flexibly, while supplier agencies run their workforce across a portfolio of customers. This form of employment represented less than 1% of the labour force in 2002, but has expanded more recently. As an extreme example, one of the major car firms raised the proportion of its "leased" workforce from 5% to 18% between 2001 and 2006 (Biffl, 2006).
4. "Dependant self-employment (*Scheinselbstandigkeit* – paper self-employment)": Firms hire legally "self-employed" workers for specific tasks, on contracts which may be regularly renewed. The latter have only one customer and are in the position of a dependant employee in practice, without a durable contract. As self-employed, they are exempt from employment protection and are not covered by bankruptcy, unemployment and severance insurance. This type of employment represented less than 1% of total employment in 2002 but seems to have expanded strongly through the 2000s.

* Part-time workers represent 7.2% of total employment of men in EU15 in 2005, 15.3% in Netherlands and 12% in Denmark. Differences are smaller for female workers except in Netherlands: 29.6% in Austria, 32.3% in EU15, 24.9% in Denmark and 60.9% in Netherlands.

Figure 3.4. **Employment relationships stay stable but more flexible contracts also gain pace**



1. Percentage share of part-time and fixed-term contracts in total dependent employment.

Source: OECD, ELS database.

StatLink http://dx.doi.org/10.1787/070208681706

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The new government declared its objective to "eliminate the current fragmentation of Labour Law and promote a *single employment contract*, on the basis of proposals by social partners".[13] This objective, sound and legitimate as an ultimate target, should however not undermine the job creation capacity of the economy in a new environment, by excessively reducing the flexibilities currently available to employers and employees.

Groups at the margin of the labour market do less well

Contrasting with the strong employment performance of generally highly skilled prime-age workers, more peripheral groups in the labour market have been doing less well. These divergences in performances appear to have deepened through the past decade. They affect mainly the older workers, the less-skilled and the new entrants to the labour force, including immigrants.

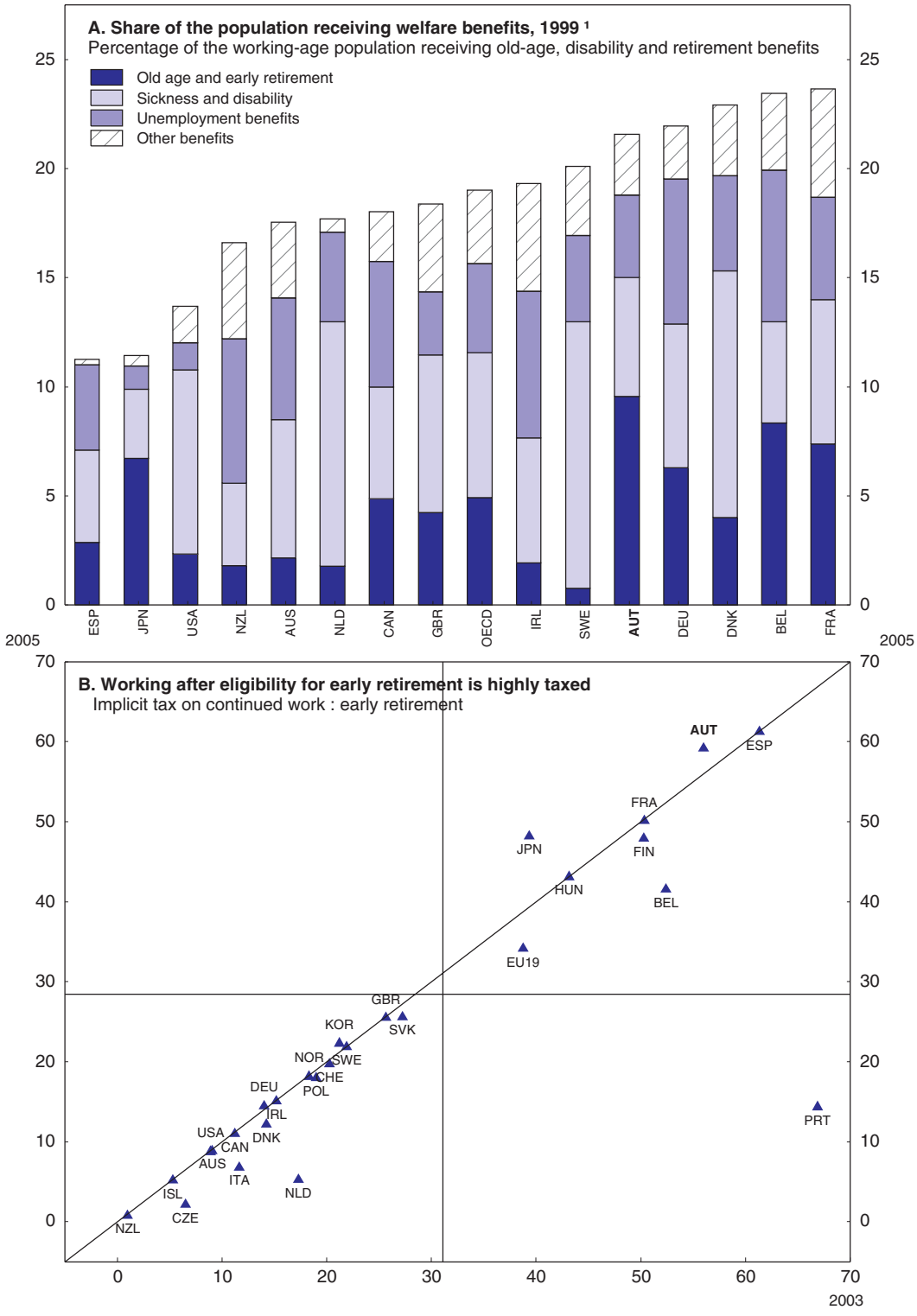
Older workers have weak work incentives

Austria has one of the *lowest* mobilization rates among all OECD countries of workers aged between 55 and 64. The employment rate of this group has remained below one third throughout the last decade[14] while the OECD area average is 52% and the EU15 average is 44%. Austria's rate is only about one half of that in Sweden, Switzerland and Denmark, where it varies between 60 and 70%.

The low degree of employment of older workers is primarily caused by their massive withdrawal from the labour force: The labour force participation rate for men between 55-64 is only 40% and for women 20%. Generous early exit avenues from the labour force, and weakened incentives for active work due to pension, early retirement and disability benefit schemes underpin these withdrawals: 10% of the *working age* population receives either old-age, early retirement or disability transfers – the highest rate observed among OECD countries – and over one-third of those retiring in 2005 did so on "disability" grounds (Figure 3.5). Although benefit conditions for these schemes were tightened in the 2000s, notably with the important pension reform,[15] the impact will materialize with long lags as the stock of early retirees will not be affected by these recent changes. Early retirement loopholes also persist in the "heavy work" and disability schemes,[16] with the new government announcing in early 2007 a more comprehensive definition of "heavy work" giving access to early retirement.[17] The implicit rate of taxation on continuing to work after eligibility for retirement also remains high by international standards, even after the latest reform. Moreover, the new government intents to reduce the penalty on early retirement, by lowering the applicable discount rates on benefits.[18] Furthermore, a recent econometric assessment found that the rate of withdrawal from the labour force by age cohorts 55-59 and 60-64 goes beyond the "predicted" withdrawal rates (estimated econometrically on the basis of international data), revealing an additional social preference for early retirement in Austria.[19]

The higher long term unemployment rates observed in the labour force between 55-64 – against lower average long-term unemployment rates in the economy[20] – reveal that the few job seekers above 55 also face limited demand for their services. Nevertheless the unemployment rate for older workers has decreased since 2001, and the "exit rate from unemployment to work" increased, mainly due to a package of targeted measures (reduction of non-wage labour costs, intensified activation). However the reintegration of older job seekers remains a challenge. Half of job seekers between 50-64 have been out of employment for more than one year. This results from a combination of high, seniority-

Figure 3.5. **Incentives to work remain weak for certain categories of older workers**



1. This data is not available for more recent years.

Source: OECD, ELS database.

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based wages – which may exceed the productivity level of the older workers – and their human capital shortages. Further training opportunities are limited for the older workers, and early withdrawals from the labour market reduce incentives for adult training.[21] In these circumstances, a worker becoming unemployed after 50 has low prospects of returning to work, and only half of unemployed men and women above 50 exit unemployment through work. For workers between 55-59 the rate declines to 30% for men and 20% for women, and for those between 60-64 to 17% for men and 10% for women.[22] These figures confirm the very low prospects of becoming employed for the small minority remaining in the labour force after 55.

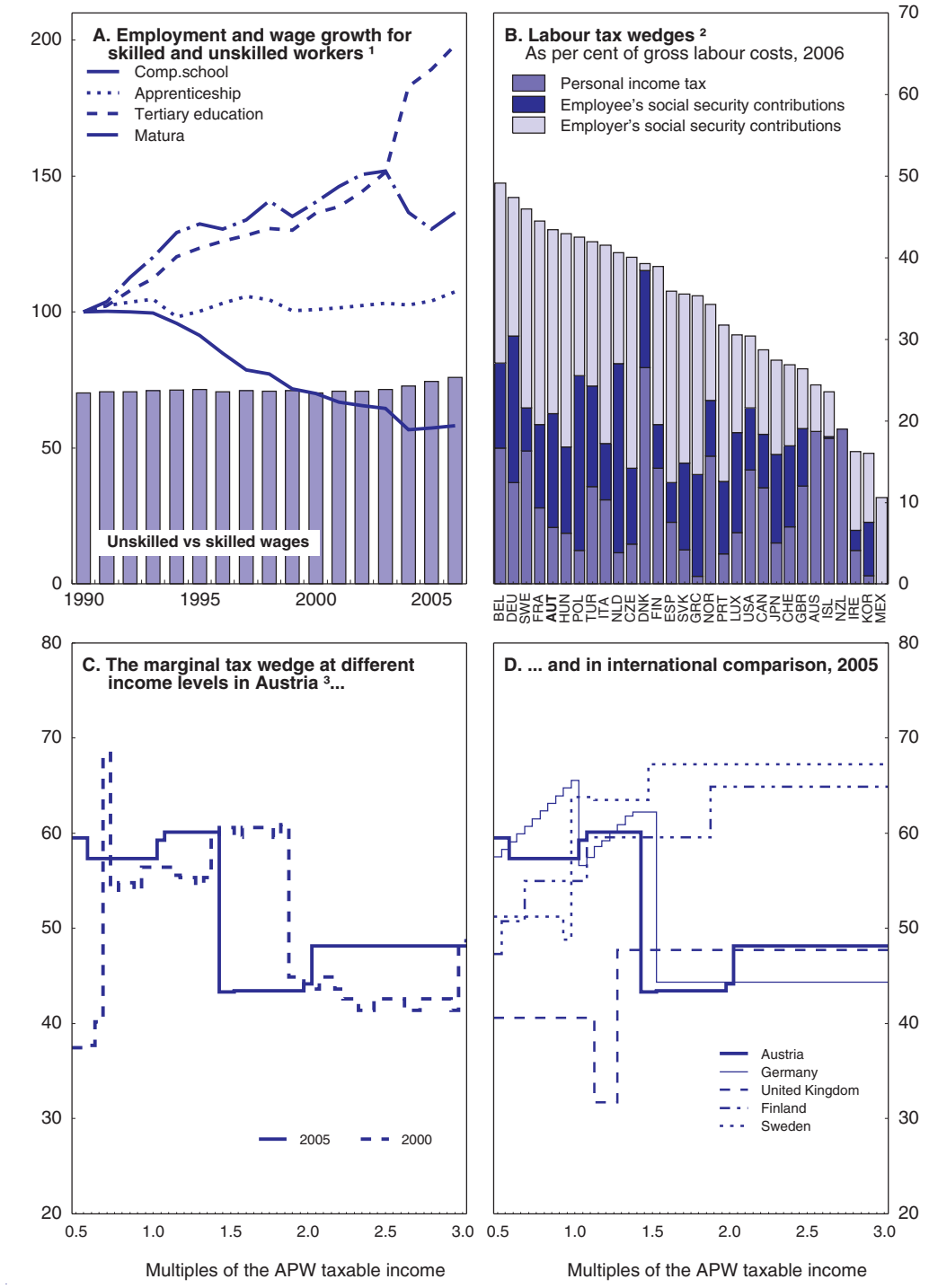
Demand for low-skilled workers is low

The unemployment rate of less skilled workers is on the increase in Austria, while several countries have succeeded in reducing it. The unemployment rate of workers with less than upper secondary education increased from 5% in 1994 to 8% in 2004, while in Denmark it decreased from 15% in 1995 to 8% in 2004, in Finland from 22% to 12%, and in Sweden from 10% to 7%. As discussed in Chapter 2, the recent regional integration with Central and Eastern Europe has accelerated the outsourcing and the relocation of many low-skilled jobs to these countries. Disadvantages in terms of employment costs and human capital shortages seem to accumulate in this labour market segment:

- *Employment costs are high*. The high labour tax wedges – mainly social security contributions and payroll taxes – bear particularly heavily on the employment costs of low-skilled workers. Despite decentralized settlement of sectoral and occupational minimum wages there are signs of downward wage rigidity at the low end of the labour market, which appears to put a floor on effective employment costs and may hinder market clearing. Austrian workers earning 67% of the average wage face one of the highest tax wedges in the OECD at about 42%, whereas for those in the lowest income bracket the wedge declines to about 36% but no international comparisons are available for this group (Figure 3.6, Panel B).
- *Skill shortages may be becoming further entrenched*. The skills mismatch at the low end of the labour market may be worsening. The divergence of unemployment rates for workers with different educational backgrounds is an indicator.[23] Prime-age, young and older workers with only compulsory or low level secondary education such as *polytechnics* and *special schools* appear to face more difficulties in finding jobs. Also, on-the-job learning does not help dissipate these skill divergences: a worker with less than upper secondary education receives less than 200 hours of formal adult education in a typical working life, against more than 800 hours for a tertiary graduate. This gap is larger in Austria than in comparable countries such as Netherlands, Denmark and Finland.

  The Beveridge Curve, the standard indicator of supply-demand mismatch in the labour market – even if its construction raises some technical difficulties in Austria[24] – appears to confirm this gap. Its recent shift hints at a higher structural rate of unemployment, reflecting most likely the decreased employability of low-skilled workers (Figure 3.7). Another indicator is the higher number of applications by employers for the immigration of "key personnel", while the unemployment rate and the average length of job search by new entrants to the labour market are on the increase.[25]

Figure 3.6. **Employment costs are high for the low-skilled**



1. According to educational background. Employment is an index (1990 = 100) and wages are shown as the percentage share of hourly wages of "*hilfsarbeiter*" to "*facharbeiter*".
2. For a single individual without children at the income level of 67% of the average worker (APW).
3. Tax wedges, between labour costs to the employer and the corresponding net take-home pay of the employee, are calculated by expressing the sum of personal income tax, employee plus employer social security contributions together with any payroll tax, as a percentage of labour costs.

Source: WIFO; OECD, *Taxing Wages*, 2006.

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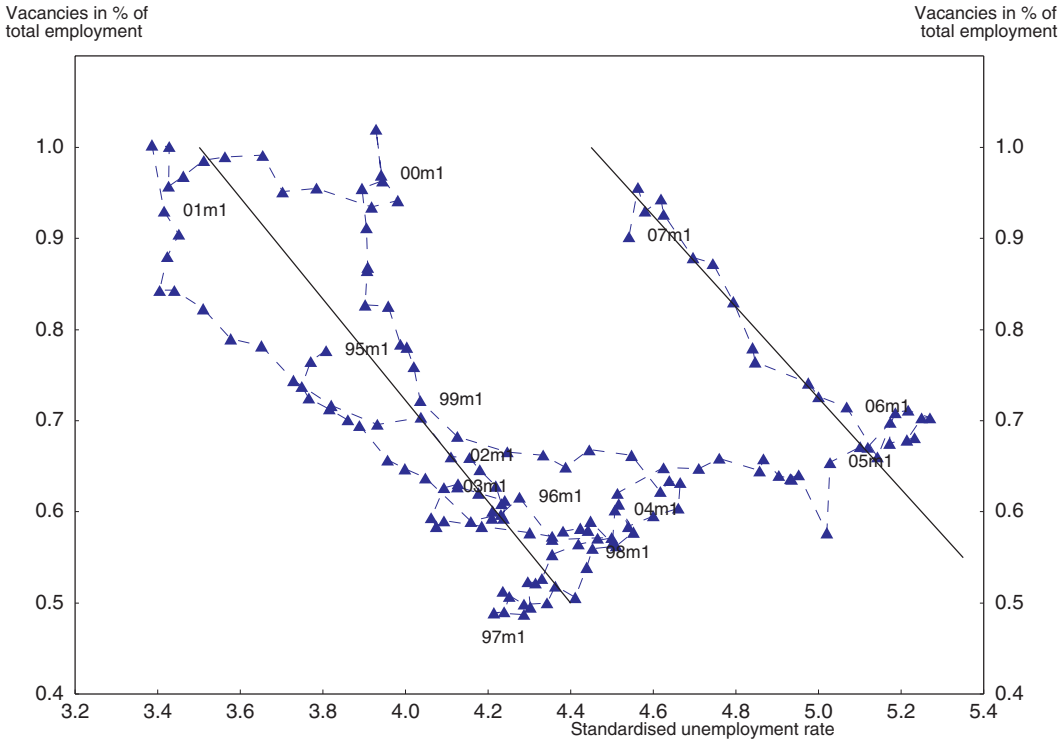
Figure 3.7. **The shift in the Beveridge Curve confirms the labour market mismatch**[1]



1. Regression lines for late-1990s and mid-2000s.

Source: OECD, *Main Economic Indicators*.

New entrants to the labour force face more employment difficulties

Only 10% of lower secondary education graduates can find a job in the year following graduation, against 80% of upper secondary graduates and 70% of tertiary graduates. In aggregate, the employment rate of the youth (between 15-24) decreased from 60% in 1994 to 53% in 2005. During the same period it also decreased in the OECD on average, starting from a lower base but also falling at a slower pace, from 46% in 1994 to 43% in 2005. It stagnated for the EU15 as a whole at 40%.

Young Austrians' higher enrolment in upper secondary and tertiary education played only a marginal role in this decline of activity, even if the relatively long duration of university studies is a traditional factor delaying students' entry age to the labour force in Austria. Indeed, the labour force participation rate of cohorts at education age decreased only slightly, from 63% in 1994 to 59% in 2005. In contrast, there has been a troubling increase in unemployment. Austria is one of the OECD countries where the youth unemployment rate increased rapidly over the past decade, from 5% in 1994 to 10% in 2005, while it declined in comparable countries such Denmark and Finland where total unemployment was also falling.[26]

As in the labour market as a whole, educational records bear more and more on the employment performance of the youth. The labour market relevance of education streams vary strongly, not only *between* but also *within* different streams. Within *tertiary education*, demand for the graduates of the Universities of Applied Sciences is for instance very

strong, while the graduates of certain social science departments of universities have clearly weaker prospects. There is also a deep difference in the market relevance of different types of *vocational education*, which vary highly in length and standards. The *Berufsbildende Höhere Schulen* (BHS) and the *Berufsbildende Mittlere Schulen* (BMS) graduates are highly rewarded in the labour market, while demand is more limited for the graduates of *Polytechnische Schule*. Graduates from secondary schools for children with special difficulties (*Sonderschule*) face very severe difficulties in the labour market.[27] These qualitative differences within both general and technical secondary education reflect on Austrian secondary students' performances in international academic tests (Box 3.2).

There is wide evidence that pupils' *social and primary school* backgrounds bear on their academic performances and their capacity to join premium education streams. Austria is one of the OECD countries where the mobility of students away from their parents' social and school background is particularly low. These factors underpin a distinctly low upward mobility across generations and may entrench the handicaps of the disadvantaged groups. Among these, immigrant families experience a disturbingly persisting underperformance in educational achievements.

Few immigrants with weak backgrounds overcome labour market handicaps

Austria has a particularly large immigrant population, which has further increased in recent years.[28] Dependently employed workers of foreign origin increased by 12 000 in 2005 (+3.3% over 2004) and by 15 200 (+4%) in the first five months of 2006. The share of foreign-born workers in the labour force, at 13%, and that of workers with foreign nationality, at 9½ per cent, are the second highest in the EU after Luxembourg. Immigrants from former Yugoslavia (30% of all immigrants) and Turkey (15%) are the two largest migrant groups and include mainly people with low skills. More recently, waves of immigration from Germany and Central and Eastern Europe raised the share of these regions in the total labour force.[29] These groups have stronger educational backgrounds and are generally employed in more skilled activities.

Despite their having migrated initially for productive activity, the employment rate of immigrants as a whole has become lower than that of the native Austrian population. Indeed immigrant groups face increased labour market pressures in all OECD countries, reflecting growing international competition from low wage competitors and off-shoring (which threatens primarily low-skilled manufacturing workers). Low-skilled immigrants remain employable in services but these prospects depend on the rate of growth of service sectors and a minimum degree of skills, such as language knowledge.

There are important differences in the human capital endowment of immigrants from earlier waves (from former Yugoslavia and Turkey) and the recent inflows from Germany and Central Europe. Differences in the educational and cultural legacy of these different groups are perpetuated across generations, as a result of the pre-school and school systems' limited capacity to promote human capital convergence. Immigrant families' children attend generally lower quality primary and secondary education streams and the PISA results of secondary school students of immigrant origin remain obstinately low across generations, and to a greater extent than in comparable countries[30] (Figure 3.9).

As a result of these educational gaps, the unemployment rate of foreign born workers between 15-24 was 16% in 2004 against 8% for the native population. The divide between the immigrant and native youth in Austria appears to be the highest among all OECD

Box 3.2. **Austrian secondary students' PISA performances**

Austrian pupils' recent performances in international PISA tests have somewhat undermined the public's perception of possessing an excellent school system. Throughout the pedagogical community in particular, these results appear to have caused a "small shock".[1]

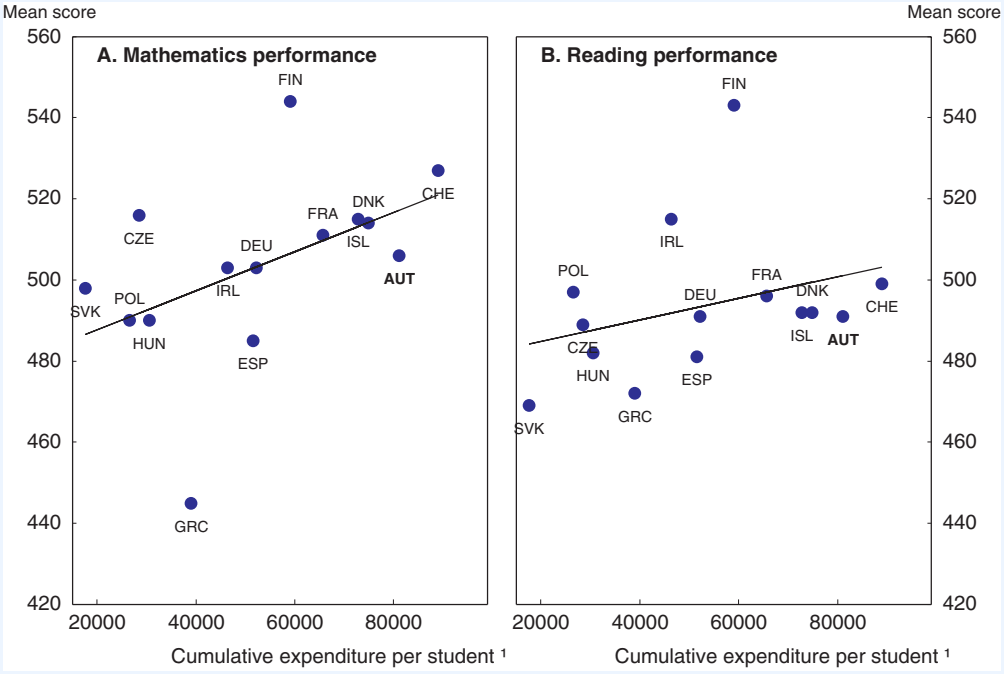
Average performances are close to OECD averages but remain below the (statistically) expected levels, after adjusting for the GDP per capita level and per student spending on public education. They are clearly below benchmark countries such as Denmark and Switzerland (Figure 3.8).

Scores were highly dispersed among pupils and schools, with a larger variation than in benchmark countries. One fifth of the pupils could not reach beyond the so-called "Level 1" (the lowest level in PISA tests). This disturbing underperformance was more concentrated among boys.

Socio-economic factors such as parents' profession and income level bore more on pupils' performances than in other countries.

Authorities stress that PISA tests gauge only parts of student skills, hence of educational outcomes. They nonetheless recognize that these results reveal a quality and efficiency problem in the school system. Higher scoring countries' performances made them aware in particular that "efficiency and equity do not necessarily conflict in the school system".[2]

Figure 3.8. **Public expenditure in education and Austrian pupils' comparative performance in PISA tests**



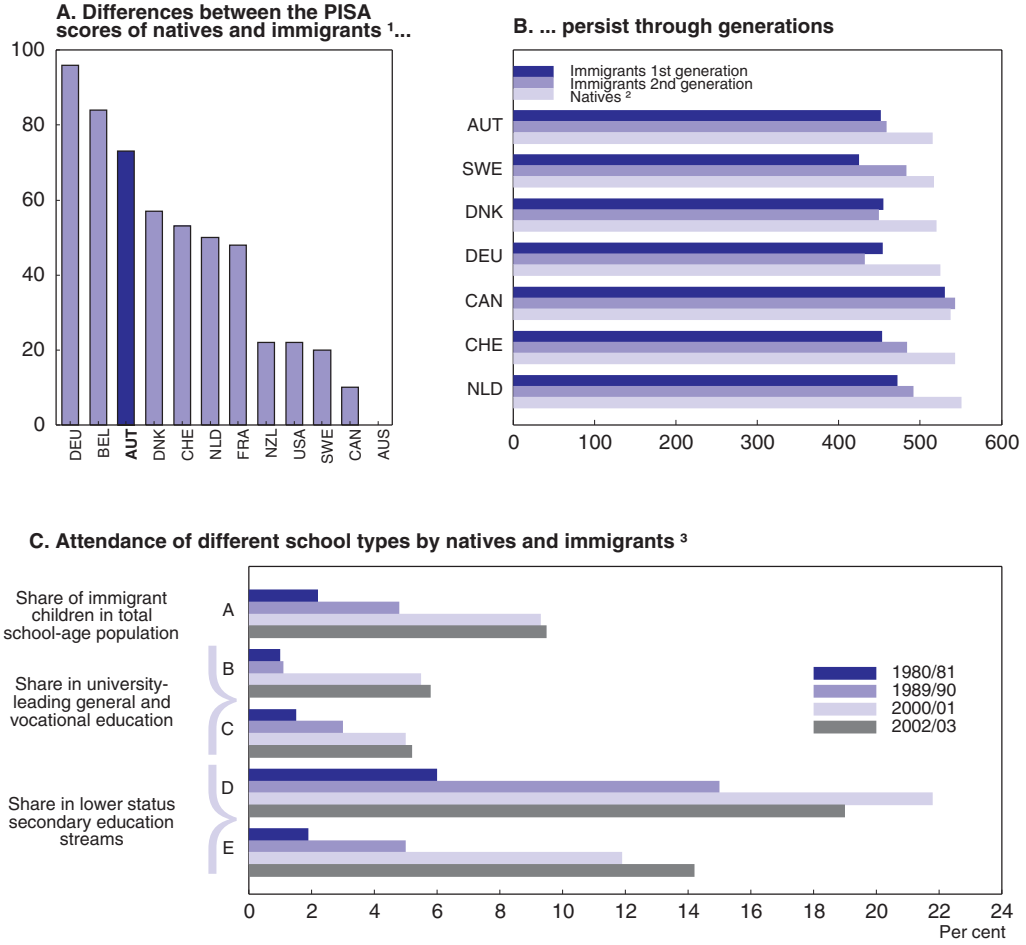
1. Between 6 and 15 years in US$ PPPs, 2002.

Source: OECD, *Learning for Tomorrow's World: First Results from PISA 2003*; OECD, *Education at a Glance* (2005).

StatLink http://dx.doi.org/10.1787/070302401235

1. Austria is the PISA-participating country where the discrepancy between actual and test sample populations is, however, the largest. The sample is biased toward public school students (who nonetheless represent the majority of the student population).
2. Austrian Ministry of Education comments to the OECD Secretariat, December 2007.

Figure 3.9. **Educational handicaps of immigrants**



1. The mean score across all OECD countries was set at 500 points, with a standard deviation of 100 points.
2. Youth aged 15 years, 2003. Native refers to children with native-born parents.
3. A = All schools; B = *AHS*; C = *BHS*; D = *Sonderschule*; E = *Polytechnische Schule*.

Source: Statistics Austria; WIFO; OECD, *Employment Outlook 2006* and *Where Immigrant Students Succeed*.

StatLink http://dx.doi.org/10.1787/070308336544

countries – even if countries such as Sweden, Denmark and the Netherlands also have high differentials. Moreover, the average school drop-out rate reaches 30% for the children of immigrant families, while it is only 8% for the native population.

One impact is the particularly high rate of "teenagers neither in education nor in employment" (the NEET rate). At 10% in 2003, this is significantly higher in Austria than in comparable countries, and has worsened since 1997.[31] It may be an early warning for the future employability prospects of the 15-19 cohort. Although NEET rates are not published separately for natives and immigrants, the latters' educational and employment achievements hint at their likely over-representation in Austria's high NEET rates.

At the other end of the immigrant labour force, top-skilled foreign workers – researchers, engineers, managers, etc. – form a group growing in size in Austria but, due to less liberal immigration policies than in other countries, appears to fall short of the more rapidly growing demand in the business sector. This is reflected in the number of applications for

immigration permits in certain "key professions" exceeding available quotas. This restriction may restrain economic performance below its full potential.

The *female labour force*, which faces various labour market handicaps in most OECD countries, has a good aggregate performance in Austria. Female participation and employment rates are above EU averages, and female unemployment rates below them. Yet, the income gap between genders is intriguingly large, with a difference of 27% between the average annual income of men and women working full time. This difference probably reflects long interruptions in the careers of women rearing children and foregoing career development. Indeed, the gap between employment rates of women *with* and *without* children is larger than the EU average, as a result of an extensive maternity leave system, shortcomings in childcare facilities[32] and employment-discouraging features of the tax-benefit system for this group.

The particularly small inter-regional differences in labour market performance should also be noted. No region is marginalized in Austria in terms of employment performance. There was some recent acceleration of territorial divergences at the lower NUTS 3 level,[33] but the authorities reacted energetically with a new "Regional Growth and Employment Initiative". Austria wants to preserve the regional balance as a traditional strength.

The government has responded to performance gaps

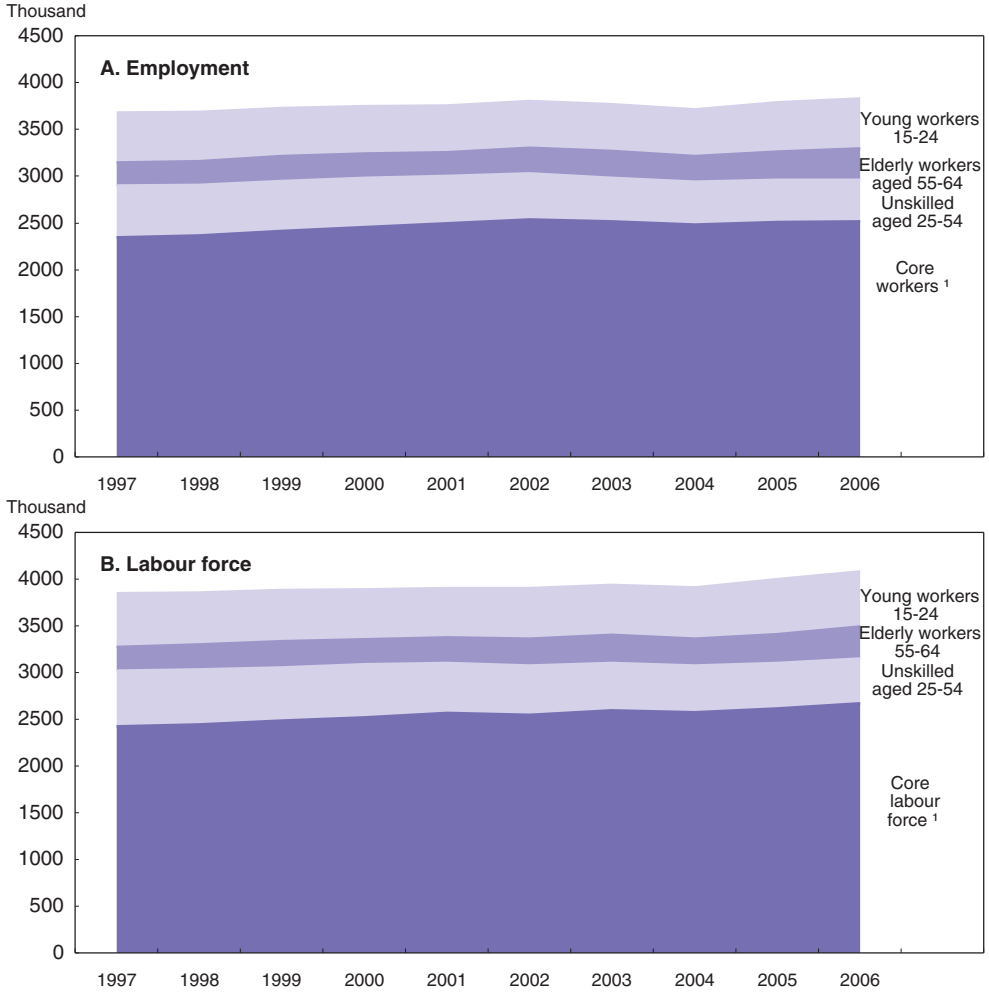
The respective weights of labour market segments have evolved through the last decade. The share of skilled prime-age workers increased from 51% to 54% of the working age population from 1997 to 2004, while the share of prime age workers with less than upper secondary education fell from 15% to 11%. The share of older workers between 55-64 and that of young workers between 15-24 remained constant and comparable at around 18% each. Immigrant workers of first and second generation appear to account for a non-negligible share of less skilled and young workers. Overall, what can be termed "core" and "vulnerable" (non-core) labour market segments accounted for 66.3% and 33.7% of total employment in 2004, and for 65.5% and 34.5% of the labour force (Figure 3.10).

Government authorities acknowledge that in order to improve Austria's aggregate labour market performance and converge with the best performing OECD economies, significant progress is needed with regard to the weaker segments at the margin of the labour force. In the 2000s, they have introduced a range of policy measures to strengthen *labour supply* by enhancing work incentives and skills, and *labour demand* by reducing employment costs and improving the job creation incentives of potential employers.

Policies to strengthen labour supply

Policy initiatives aimed at strengthening labour supply are being pursued through two channels: *i*) reinforcing work incentives of older workers, but also of other less active groups; and *ii*) upgrading the labour-market skills and the employability of the less well educated. The full range of recent measures devoted to strengthening labour supply and additional initiatives announced in the new government's programme are comprehensive. They are summarized in Annex 3.A1. This section provides a discussion of the broad lines of this new policy orientation.

Figure 3.10. **"Core" and "vulnerable" segments of the labour market**



1. Skilled workers aged 25-54 with at least upper secondary education.

Source: OECD, ELS database and estimates.

StatLink http://dx.doi.org/10.1787/070326640022

Reinforcing work incentives

Important measures were taken to strengthen the work incentives of less active groups of working age. These concern chiefly, but not exclusively, the older workers of working age, *i.e.* those aged between 54 and 65. Other targets of the initiatives were second-income earners in households, and the long-term unemployed:

- *Reforms in the old-age pension, early retirement and disability benefit schemes* aimed at reducing the large numbers of working age beneficiaries of these schemes. The pension reforms 2003-2004 raised benefit deductions for early retirement to 4.2% per year, and the bonus for working beyond the statutory retirement age to 4.2% per year. The minimum age for early retirement was raised from 60 to 62 for men and from 55 to 60 for women in the short-term, and the statutory retirement age was raised to a uniform 65 for both genders. A subsidized old-age part-time employment programme was implemented to keep old workers in employment.[34] This scheme was reformed in 2004 in order to tighten access and inflows as well as stocks have decreased

since then. These measures are all in line with earlier OECD policy recommendations.[35] Nonetheless, work incentives for older workers still remain weaker than in many OECD countries and additional reforms inspired by OECD best practices should help achieve further progress in the mobilization of the elderly (Box 3.3). In this respect recent decision by the Parliament to cut the discount rate for early retirement by half (from 4.2% to 2.1% per year of early retirement) will decrease work incentives.

Box 3.3. **OECD recommendations for the further activation of the elderly**

An in-depth OECD report in 2005 investigated the principal challenges faced in relation to population ageing and the employment of older workers in Austria.* As a result of declining mortality, and persistently low fertility, the share of the population over age 65 is projected to double by 2050 and the working-age population could decline from 2018 onwards. The decline in labour supply will lower economic growth while public social expenditures will continue to grow. The report stresses that the authorities have become more aware of these challenges since the mid-1990s, and the 2000 pension reform is the most important sign of change in the policy stance. Other measures have also been taken to improve employment opportunities for older workers, including incentives for employers to retain and hire older workers and efforts by the Labour Market Service to improve the employability of older workers. Despite these reforms, attitudes of employers and employees are changing very slowly and existing pathways into early retirement are still used extensively. Many Austrians continue to withdraw from the labour force well before reaching the statutory or even the early retirement age.

Recommendations for further reform

A comprehensive approach is needed to encourage older workers to continue working longer. The pension reform needs to be complemented by a re-design of the disability pension scheme. This is particularly important as one in two older men and one in three older women leave the labour force on grounds of disability. New active labour market policies are also required to enhance the employability of older workers. OECD puts forward the following policy recommendations:

- *Adjust the retirement age in line with demographic developments*. As large increases in life expectancy are likely, the statutory and minimum age of retirement should be automatically adjusted.
- *Ensure that disability pensions are only used for people unable to work*. Currently, workers over 57 can receive a disability pension if they are unable to perform their former job – though they may actually be able to perform other jobs. As in most other OECD countries, such "own-occupation" restrictions in determining disability should be abolished.
- *Decouple medical and vocational rehabilitation from disability benefit application* and vest vocational rehabilitation with the public employment service, to facilitate return to the labour market. This can help reduce the increasing number of rejected disability benefit claims and therefore reduce the problem of shifting unsuccessful benefit recipients from unemployment to pension insurance.
- *Target the payroll tax cuts*. Social security contribution cuts for older workers should be targeted on groups with low chances of reintegration, *i.e.* those with low or obsolete skills. More significant tax cuts can thus be granted and employment costs can be further reduced.
- *Improve the coherence of adult education and training*. Training programmes offered from a variety of sources should be made more coherent. Better co-operation between different training layers is needed and joint provision of information and guidance should be a first step.
- *Strengthen financial incentives for employers to invest in better quality workplaces*. Safe workplaces should pay lower work injury premiums than more dangerous ones.

* OECD (2005), *Austria: Ageing and Employment Policies*.

- *Active Labour Market Policies (ALMP)* introduced in the 2000s aim at motivating and empowering the beneficiaries of social transfers for productive employment. Budget resources available for these schemes were further increased after the adoption of the Employment Promotion Act in 2005. As described in detail in Annex 3.A1, a large variety of measures using a wide range of support instruments and serving specific groups (such as the young, female, older, low-skilled or general job seekers), aim at stimulating either the supply or demand of labour in vulnerable labour market segments. Across the large diversity of schemes one of the top priorities appears to be the employment of less-skilled youth, in particular very young workers starting to claim benefits before obtaining their first job. ALMP measures are planned to enhance gradually the Public Employment Service's counseling and support capacity for all potential beneficiaries.

  An assessment of the Austrian active labour market policy is difficult as many measures have been implemented only very recently, and schemes are extremely varied. According to the Public Employment Service's hands-on experience, programmes co-funding the probatory hiring of programme participants by private employers have often been effective in catalyzing their more durable employment. Fully subsidised apprenticeships are often important for motivating young school leavers by providing them with a starting job and preempting a premature exclusion from the labour market, even if their actual contribution to market-relevant human capital building can be improved. A few studies recently reviewed by IHS[36] tend to indicate that, despite their multiplicity, the schemes may not yet be fully fine-tuned to the circumstances of specific groups.[37] There is also some indication that certain programmes which succeed in triggering a first entry into employment (for 50 to 80% of participants according to schemes) may also have a somewhat temporary effect, as some beneficiaries go back to unemployment after a relatively short period.

  A recent international overview by the OECD revealed that Austrian ALMP initiatives are relatively sophisticated in certain key areas but not yet in others. Further progress could be made through wider recourse to competition between private organisations in various labour market-related services,[38] and in the field of an overall systematic evaluation procedure for all programmes.[39] International experience indicates that there is no "one size fits all" model of successful ALMPs. These programmes can easily become too costly relative to their benefits. On the other hand, if properly designed, they may offer durable employment and income gains.[40] In these circumstances, impact assessments of highest quality are needed at regular intervals, in order to shift resources from less effective to more effective schemes. Since Austria has made considerable progress in the area of e-government, information technologies can help with impact assessments through individual tracking of programme participants and their short and long-term labour market achievements.[41] Box 3.4 summarises the most recent research bearing out the case for an evidence-based re-focusing of ALMP schemes.

- The new government established in January 2007 also plans to introduce a new measure which may have an unintended negative impact on work incentives at the low end of the labour market. It intents to increase the "means-tested minimum social income" to € 726 per month, which represents the official line of poverty, *i.e.* 60% of the median level of income. Such a measure could reduce work incentives and generate an inactivity trap for low-income households. It may also reduce the incentives of part-time workers to shift to full-time work (depending on the withdrawal rate of social benefits). The authorities insist that stringent labour market participation requirements, which are

Box 3.4. **Recent research on the impact of ALMP programmes**

Two recent Austrian assessments of international and national experiences with ALMPs provided important insights:

- Rudolf Winter-Ebmer (Winter-Ebmer, 2006) reviewed the most recent international assessments of active labour market programmes, which have come to disillusioning conclusions. Most programmes are found to have only marginally positive impacts, which is disappointing given the large amounts of resources invested in them. The results are also somewhat surprising from a human capital theory point of view. As most ALMP programs are in fact manpower training programs, their returns should in principle be compared to formal education programs which, in many OECD countries, have rates of return between 7 and 10% per year of schooling completed. The question boils down to: why is it that manpower training programmes are not equally productivity enhancing? One reason could be the age structure of participants. The international literature shows that skill formation and retraining is more difficult for students beyond the prime learning age. Another reason may be the actual design of the programmes.

  This study then investigated the employment and earnings gains from an innovative re-training project: the Austrian Steel Foundation. The Steel Foundation was considered an important and successful ALMP in the late 1980s and the 1990s. Employment and earning records of more than 2 000 participants with different age and personal characteristics were tracked, over five years following their participation in this multi-monthly program. Performances were compared to a control group of more than 15 000 individuals. The research concludes that over five years trainees gain higher earnings and achieve longer employment spells. However, while employment impacts are observed principally among older workers, earning gains are found only for the young and low-wage workers. The programme seems to contribute principally to matching and job-search for the elderly, and additional human capital building for the young. The distinct features of the Steel Foundation are: it starts from a particularly thorough review of personal qualifications; it provides close interaction between training, occupational re-orientation, and job counselling; and its funding and governance structure improves the motivation of trainees and provides a more "self-determined" learning environment (participants and potential participants – workers in the steel industry – co-fund the scheme though monthly contributions). A full costing of the programme is however not available and the study cannot provide a cost-benefit analysis.

- Hedwig Lutz and Helmut Mahringer from the Austrian Institute of Economic Research WIFO (Lutz and Mahringer, 2007) examined also several types of ALMP programs on behalf of the Federal Ministry of Economics and Labour. They used extensive administrative data and applied microeconometric methods to analyse labour market outcomes from various ALMP programs during three years after programme participation. The results show that *all* ALMP schemes helped keep trainees in the labour force during the period of observation and had a positive impact on *labour force participation*. However, the effect on *employment rates* has been much more disappointing. *Placement support* (guidance, active job search) and *training programmes* had positive impacts, but only on the employment of women between 25 and 44, especially women *re-entering* the labour market. They hardly had any significant effects on the employment of men and older women. More encouragingly, *temporary wage subsidies* to firms hiring older and long-term unemployed increased their employment rates. Provisional job creation in "socioeconomic enterprises" directed to the most "hard to place" enhanced also employment prospects, notably for the older participants. The full costs of individual programmes were not separately documented in this study either, and conclusions are not available in cost-benefit terms.

  The authors comment nonetheless that there appears to be three avenues to improve the effectiveness of ALMP schemes: i) tailoring programs more closely to target groups; ii) downsizing the shortest and the less intensive measures; and iii) better setting out the professional objectives of the many training schemes, and more purposefully orienting the participants to individual programmes.

planned to be administrated by the national employment service rather than sub-central authorities as previously, will help avoid such inactivity traps. Nonetheless, they should very closely monitor the actual impact of this increase on labour force participation and closely monitor the actual effectiveness of work availability tests.

Upgrading employability through upstream education reforms

The authorities started to react to the skill mismatches in the labour market with fundamental education policy reforms in the 2000s. This more "upstream" approach (complementing the active labour market programmes) was again emphasized in the programme of the new government in February 2007. It concerns simultaneously the *university*, *vocational, secondary*, and *pre-school* education layers. Most of these reform efforts are at an early stage of policy design and discussion, and some initial steps of implementation proved controversial and have met with some opposition:

- *University reform*.[42] Recent steps include more autonomy for the universities, the introduction of "performance based funding", and the introduction of student fees on a limited scale. As discussed in the following chapter, the introduction of student fees met with strong opposition and the new government announced measures which will in practice limit its scope. More *Universities of Applied Sciences* were authorized, which can select students and offer shorter and more practically oriented courses (which can be completed within the so-called *Bologna structure*: three years' Bachelor + one or two years' Master studies). University reform should be pursued with close monitoring of outcomes from successive reform steps, with more student selection by all Universities and with economically significant tuition fees associated with income-contingent loans (see Chapter 4). Increasing the share of private funding would increase resources available for all tertiary education programmes, help increase quality, encourage more labour market relevant training and motivate students to optimize course choices and length of study.
- *Adjustments in vocational education*. While the performance of the main streams of vocational education continue to be very strong with excellent employment and earning outcomes for graduates, there are also areas of weakness which call for assertive action. The authorities recognize these shortcomings. There are challenges associated on the one hand with the difficulty of foreseeing the evolving labour market needs for technical professions, and on the other hand some inertia in the already existing vocational education capacity. As an illustration, the capacity of agricultural vocational colleges (without being excessive in level terms) remains above needs. In contrast, there are shortages in vocational areas involving information technologies. The less labour-market relevant vocational education streams should be identified and adjusted and resources should be shifted to areas more in demand.
- *Reducing segmentation in secondary education*. The general secondary education system, even if it has catered traditionally, and successfully, to selected students with good basic background and developed a reputation of good quality, also faces adjustment problems. More children than in the past, from more heterogeneous backgrounds, would prefer to engage in this stream which gives access to higher education but capacity is limited. Willing and successful students from lower ranked streams also claim bridges to shift upwards if they meet performance conditions. These demands are congruent with the government objective to increase tertiary enrolment. However, increasing the general secondary education system's capacity's to respond to these needs without jeopardising

the quality of education is challenging. In particular, the training, certification and remuneration of teachers, and the development of school facilities and equipment for general and vocational education, raise uneven operating and capital costs. Moreover, being managed under different federal and sub-central government responsibilities, they have been very difficult to rework to date. The new government's plan to reduce the number of pupils below 25 per class in the entire primary and secondary education system will also raise additional challenges, firstly because the pedagogical relevance of such a quantitative rule is questioned in the light of international experiences, and secondly costs will be very high if resources are not rationalized across the many schools and classes where the number of pupils per class is much lower than 25.

- *Upgrading pre-school education.*[43] The network of publicly-funded pre-school facilities – *Kindergarten* – is fairly extensive, but pedagogical quality is uneven and admittedly generally weak. Most kindergartens also fail to address the special language and cultural socialisation needs of immigrant children, a group especially in need of good pre-school education. Sub-central government layers, which are currently in charge of pre-school education, appear to have heterogeneous views and different priorities in resource allocation, as well as professional staffing ambitions concerning their kindergartens. In these circumstances, and on the basis of other OECD countries' experiences, the introduction of a *compulsory* pre-school year of education appears desirable, and a *second year of compulsory pre-school education* could be envisaged for children most in need of help in integrating into the wider society.

Austria's policy efforts to strengthen the entire formal education system could draw on ongoing OECD work on the institutional and policy determinants of educational performance.[44] Such international assessments are still exploratory and do not yet permit to reach firm normative conclusions, but they hint at specific areas where Austrian educational policies appear to diverge from the practices of the better performing OECD countries. Shortcomings identified tentatively include, in *primary and secondary education*, the limited recourse to: *i*) need-based resource allocation (funding of education institutions by taking into account the handicaps of their students); *ii*) performance benchmarks; *iii*) formal teacher qualifications; and *iv*) user (parental) choice in the selection of schools. In *tertiary education* the Austrian system is also characterized by a limited recourse to: *i*) student selection; *ii*) student fees and income-contingent loans; and *iii*) shorter labour market-relevant programmes. As also mentioned in Chapter 4 on innovation policies, the authorities should pay closer attention to these areas in their efforts to comprehensively strengthen the education system.

Policies to stimulate labour demand

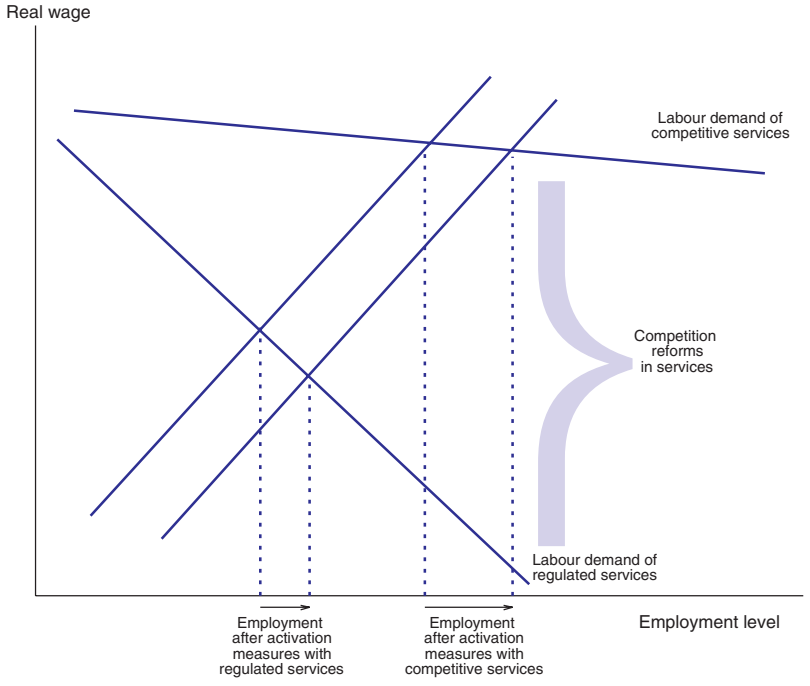
The already started but yet to be completed liberalization reforms are expected to increase labour demand in areas where price competition, output and employment were previously restricted. Two main directions of relevant policy initiatives are: *i*) changes in the effective employment costs of low-skilled workers; and *ii*) competition reforms triggering output and employment growth in service industries. Annex 3.A2 provides a summary of recent and announced policy measures in these areas. This section provides a broad discussion of this policy orientation.

- *Cutting actual employment costs.* Several initiatives were taken to reduce the actual employment costs and the tax wedges for disadvantaged groups, as described in Annex 3.A2. It is too early to assess their impacts, but similar schemes applied in other

OECD countries show that such measures generally help with the employment of target groups.[45] However, they may also induce deadweight costs which should be minimised (as for instance with the subsidy scheme for the older workers who take part time jobs). The fiscal costs of cuts in the tax wedge may become very large if beneficiary groups are not strictly limited. Narrow delineation of beneficiaries is desirable in Austria because the incidence of high tax wedges falls mainly on wage earners so that the overall flexibility of labour costs is not impaired. The key point is that efforts to improve the employment prospects of low-skilled people through reduced labour taxation are not neutralized by off-setting increases in their effective employment costs through minimum wage increases (see discussion above).

- *Freeing-up labour demand in services.* Market entry and competition reforms have a high potential to increase output growth and labour demand in service sectors. Liberalisation reforms in such areas have already started and should stimulate further price competition, output growth and job creation. The challenge in economic terms is to shift from predominantly monopolistic (price and margin maximizing, and output and employment rationing) to more competitive (price and margin minimizing, and output and employment maximizing) operation of these sectors, and of their labour markets (Figure 3.11). Such measures will stimulate labour demand if work incentives are also strengthened, and reservation wages remain subdued. As there are already some signs that reservation wages may have become already too high at the low end of the labour market,[46] wage expectations and developments should be carefully managed to harvest the benefits of competition.

Figure 3.11. **Competition reforms in services combined with activation measures should help increase labour demand (theoretical representation)**



Source: Adapted from OECD, Economics Department Working Paper No. 486.

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- Further job creation potential associated with product market liberalization may be seen as speculative at this stage, because it has not been quantified. Still, Austria's existing *employment deficit* in service sectors (when compared to other higher income countries, as discussed in Chapter 1 and as shown on Figure 1.10) hints at an obvious potential. The room remaining for additional liberalisation in service sectors is significant. While EU initiatives for further liberalization of these sectors are important, their ultimate impact may be limited unless supported by domestically driven initiatives (Table 3.1).

Table 3.1. **Remaining room for liberalisation in service industries**

Sectors	Remaining obstacles to competition and liberalisation tasks
Passenger transportation	Railway services for passengers remain closed to competition. In air passenger transportation, openness to competition should be closely monitored as the Vienna airport is congested and new market entries are difficult.
Freight transportation	The road freight sector remains highly regulated. Licences and other administrative requirements make new entries difficult.
Electricity	Electricity generation and distribution facilities remain largely government-owned and vertically integrated.
Retail trade	Market entry conditions in retail trade have recently been facilitated. Nonetheless, licensing rules and shopping hours remain one of the most strictly regulated in OECD. New entries and employment growth in the past decade have fallen short of OECD trends.
Food and catering	Licensing and facility opening rules are very strict.
Liberal professions (medical professions, lawyers, accountants, civil engineers, architects)	Austria continues to have high levels of entry regulations in most of these liberal professions. Certain price regulations, access requirements and advertising bans in liberal professions were recently abolished. However, the regulations destined to maintain the quality of services and the trust of customers remain very demanding and may hinder competition. The EU Commission stated recently that in liberal professions "there is no evidence that a substantial reform process is in progress".[1]

1. European Commission (2006).
Source: OECD Secretariat.

Policy recommendations

Box 3.5 summarises the policy recommendations of this chapter:

Box 3.5. **Policy recommendations for overcoming labour market segmentation**

Strengthening education

Pre-school education: Assess the quality of kindergarten education on offer through the country and set minimum pedagogical standards for all kindergarten. Introduce one *year of compulsory pre-school education*. Consider introducing a *second year* for children from families with difficult social background.

Primary and secondary education: Enhance the quality of all primary and secondary schools by applying national performance benchmarks. Shift from early to later streaming of pupils across different secondary education systems. Facilitate the shift of well-performing students between the different systems.

Vocational education: Identify and address pedagogical weaknesses in the lower ranked streams such as *Polytechnische Schule*, and schools for pupils with special difficulties (*Sonderschule*). Adjust vocational education capacity according to changing labour market demands. The less labour market relevant vocational education streams should be identified and adjusted and resources should be shifted to areas more in demand.

Box 3.5. **Policy recommendations for overcoming labour market segmentation** *(cont.)*

School funding and administration: Consider introducing "needs-based" funding by taking account of the special characteristics (and needs) of student populations in different schools. Provide school managements with adequate administrative and pedagogical autonomy to help them attain the assigned performance benchmarks in different social and cultural environments.

Class-size rules: Reconsider the rationale for capping the number of pupils by class to 25, taking account of international pedagogical experiences. If the objective is maintained make sure that costs remain reasonable. Mergers between the many classes and schools where the number of pupils by class is lower than 25 should be considered.

University education: University reform should be pursued with close monitoring of outcomes from successive reform steps, more student selection by all universities, and economically significant student fees associated with income-contingent loans.

Lifelong education: Monitor the quality of further training provided with the (large set of) publicly sponsored lifelong education and active labour market programmes (see also policy recommendations in Box 4.4). Make training programmes offered from a variety of sources more coherent. Keep the labour market outcomes of programme participants under close scrutiny (also using the detailed individual data available in the *i-Austria* information infrastructure) and conduct high quality impact assessments. Concentrate resources on well-performing programmes.

Strengthening work incentives of less active groups

Pension system and early retirement: Keep phasing in all provisions of the pension reform. Do not reduce the discount rates applicable before the legal retirement age. Administer "heavy work" criteria for early retirement purposes very parsimoniously. Automatically adjust the legal retirement age in line with demographic developments.

Disability pensions: Ensure that disability pensions are only used by people unable to work. Keep claimants of disability benefit who can perform other jobs than their initial profession in the labour force (by dismantling "own-occupation" restrictions in the disability scheme). Decouple applications for medical and vocational rehabilitation and vest vocational rehabilitation with the public employment service.

Family benefits: The implicit marginal taxation of mothers of young children returning to work should be minimised. Family support schemes should remain neutral and not discourage activity. The replacement of child care allowances by child care vouchers and kindergarten services, especially for children under three, would encourage activity.

Social income and inactivity trap: The authorities should closely monitor the impact of the planned increase of the "means-tested national minimum social income" on labour force participation. Part-time workers should not be discouraged from shifting to full-time work. The authorities should strictly enforce the planned work availability tests and monitor their efficiency.

Reducing employment costs

Minimum wages: The government should pay close attention to the risks raised by the planned increase of minimum wages. The settlement of the minimum wage should not be put on a centralised and politicised path. Concerns about poverty at work can be better addressed with in-work benefits.

Box 3.5. **Policy recommendations for overcoming labour market segmentation** *(cont.)*

Labour taxes: Social security contributions should be reduced for vulnerable groups in the labour market. Cuts should be targeted on groups with low chances of reintegration, *i.e.* those with low or obsolete skills. They should not be used as a one-off sweetener for minimum wage increases.

Enhancing job creation incentives

Start-ups and self-employment: The ongoing administrative reforms facilitating the start-ups and reducing their cost should continue. The convergence of the income tax regime for the self-employed and for corporations should be envisaged for their neutral tax treatment and in order to encourage entrepreneurial activities.

Liberalisation of services: Further job creation in services should be facilitated with competition reforms facilitating new entries and output and employment growth. There is room for additional competition reforms in government dominated services such as public utilities, transportation, health and social housing; and private market services such as retail trade and liberal professions.

Immigration: Ease restrictions on entry of highly-qualified immigrants to meet the needs and demands of domestic enterprises. This should help increase output and complementary demand for labour.

Notes

1. According to ILO standards and compiled by the OECD. The "national" measure of unemployment includes seasonally unemployed workers, particularly numerous in Austria in tourism, construction and agriculture. Their inclusion as well as of other groups like unemployed who work in mini jobs raises the average unemployment rate to 6.8% in 2006. According to Eurostat the unemployment rate in 2006 was 4.8%.
2. The number of hours worked per employee is however below OECD and euro area averages. In 2005, employed Austrians worked a total number of 1 636 hours in average, against 1 804 in the US, 1 775 in Japan, 1 645 in the euro area (except Finland) and 1 601 in Scandinavian countries.
3. The other top OECD countries, which have attained a similarly high prime age employment rate, are Sweden, Denmark, Finland, the United Kingdom and Switzerland.
4. 62% of the population in Austria against 58% in Germany, 54% in Switzerland, 49% in Denmark, 43% in Finland. The proportion for the 25-34 cohort in Austria is now 87%.
5. In standard measurements and according to the latest data available, only 18% of the Austrian population aged 15-64 has attained tertiary education, comparing with 25% for the OECD as a whole and 32-34% for Scandinavian countries. The so-called "tertiary education graduation rates", which measure the share of new tertiary education graduates per year in the total population aged 20-29, which reflect more recent developments, remain also low, at about 3% in Austria against 4-5% in Scandinavian countries. Yet, if graduates from vocational upper secondary schools - which in many respects provide professional education of undergraduate-level quality - are included, the tertiary enrolment rate of the population rises to 27%, slightly above the OECD average but still below Scandinavian countries. Such an adjustment may however overestimate the true academic background of these graduates. Chapter 4 provides a further discussion of university education.
6. This is why the majority of secondary education graduates do not proceed to tertiary education, even following the 1997 reform which facilitated transition from secondary vocational to tertiary education.
7. Austrian workers between 25-34 accumulate one the lengthiest on-the-job training time among OECD countries: about 190 hours of adult training for a typical 25-34 years old worker, against

180 hours in Germany, 150 hours in Sweden, 140 hours in the United States, 130 hours in Netherlands.

8. Box 1.1 in Chapter 1 provides a description of the social partnership system. Branch-level wage negotiations are held each year, mostly in autumn and winter, between branch Unions and sectoral branches of the Federal Economic Chamber. No formal centralization mechanism exists between 500 branch agreements but they are informally co-ordinated. Negotiations cover 98% of wage earners even though only 36% of them are unionized.

9. Austria ranks middle in the OECD index of employment protection legislation (EPL) (at rank 14 among 29 countries). The reform of the severance payment system in 2003 replaced lump-sum payments with portable individual severance accounts and facilitated flexibility of employment.

10. Austria has one of the lowest numbers of industrial disputes and numbers of working days lost because of strikes.

11. Secretariat calculations on basis of Statistics Austria data.

12. Labour law court cases did not arise in big numbers in Austria in the past and this was a strength of the system. The majority of collective redundancy cases used to be resolved in benefit of enterprises, but 85% of individual cases were resolved in favour of employee plaintiffs.

13. As announced in the new government programme made public in February 2007. See also Box 3.4.

14. The ratio was 28.8% in 2004 and increased to 31.8% in 2005, probably as a result of new measures tightening eligibility for early retirement and possibly of subsidies to the part-time employment of workers above 55. In 2005 it was 41.3% for men and 22.9% for women.

15. The disability pension scheme was not reformed. However, as early retirement conditions were tightened (with higher benefit deductions) and as the same deductions apply to early retirement and disability pensions, disability benefits were reduced. At the same time access to disability benefits became easier for some groups. The authorities are aware of the need to reform disability benefits and have established a reform commission. One objective of the reform will be to replace the eligibility criterion "remaining work capacity in the current job" (own-occupation based assessment) with "remaining capacity for any job" or "remaining income-generating capacity", like in other OECD countries.

16. Austria has one of the highest rates of incapacitation among older workers due to the "own occupation-based assessment of disability" (Berufsschutz). This implies that a worker can claim disability benefits after age 55 if the capacity to work *in one's normal occupation* is undermined. In contrast, most other OECD countries grant disability in case of *general* incapacitation. Austrian social partners remained committed to this provision while other countries which used to have similar rules such as Germany, Italy, Norway and Netherlands abolished them in the 1980s and 1990s (See Biffl, 2006).

17. The new definition of "heavy work" for early retirement purposes is provided in footnote 5 of Chapter 5.

18. See Chapter 5 for a detailed discussion of this intended measure.

19. See Duval and Bassanini, 2006.

20. The average long-term unemployment rate was 1.2% in Austria in 2005 against 3.3% for EU15.

21. Few elderly workers participate in adult training. In 2003, an average Austrian worker between 55-64 will have received less than 25 hours of adult training in his working life, *versus* nearly 150 hours for the 25-44 cohort. The gap between age groups is much smaller in Netherlands, Ireland and Sweden, but remains equally high in Finland and Denmark (although at higher absolute levels: Danish workers between 55-64 receive as many hours of adult training as Austrians between 35-44).

22. A recently-introduced subsidy scheme for part-time work by old workers (see below) may have helped increase the "exit rate from unemployment through work" from below 10% in 2000 to nearly 17% in 2003. On the other hand, the low *de facto* employability of older workers undermine their participation rates: the share of inactive persons who declare that they would indeed prefer to work is particularly high in Austria (8.4% in Austria against an EU25 average of 5.2% and an EU15 average of 5.1%).

23. In 1995, the unemployment rate of workers with less than upper secondary education was 5.7%, while the rate for upper secondary graduates was of 2.9%. In 2004, they increased respectively to 7.8% and 3.8%.

24. Underlying data is issued by the Public Employment Service (AMS), which publishes monthly job seeker and job vacancy numbers. However, only part of actual vacancies are advertised through AMS and there is some evidence that the gap between AMS-registered and actual job vacancies may have increased (according to a recent estimate more than 20% of Austrian firms have unfilled vacancies and many do not advertise through the public employment service). This divergence between actual and registered vacancies hints at a sharper shift in the true underlying Beveridge Curve.

25. Only 10% of lower secondary education graduates can find a job in the year following graduation, against 80% for upper secondary graduates and 70% for tertiary graduates.

26. The youth unemployment rate declined from 14% to 13% in the OECD area as a whole and from 21% to 17% in the EU15 accompanied by a decrease of total unemployment – remaining at a higher absolute level than in Austria. The ratio between youth and average unemployment rates is 1.98 in Austria against an average of 2.25 in the OECD and 2.12 in the EU15.

27. This is also reflected in the increased mismatch between apprenticeship positions on offer and on demand. By mid-2006, more than 7 000 school graduates failed to find apprenticeships, while 4 000 new apprenticeship positions created by enterprises remained vacant.

28. Family reunifications increased substantially in the second half of 1990s as a consequence of naturalization of refugees inflows from the regions of former Yugoslavia of the early 1990s, before a new Immigration Act tightened conditions in 2006. Having acquired an Austrian passport used to enable immigrants to bring their family into the country irrespective of any immigration quota. The new Immigration Act of 2006 introduced a minimum salary threshold of immigrants to ensure that their family members would not have to depend on social assistance when coming to Austria. "Non-economic" immigration is estimated to have accounted for 60 to 70% of all new immigrants between 2000 and 2005, having sharply declined since the beginning of 2006.

29. Workers from Germany and Central and Eastern Europe (CEEC) represented respectively 9% and nearly 15% of the total immigrant labour force in 2004. Immigration from new EU Member States has accelerated since the enlargement in May 2004, and the number of workers from these countries has increased by more than 8% in 2005 alone. The law was changed again in 2005 with the introduction of a new "Foreign Nationals Law Package", which affected only the status of family members of Austrian nationals, of EU nationals, and of nationals from the new Member States.

30. Comparison is made here with immigration-absorbing countries in Continental Europe (such as Germany, Switzerland, Netherlands, Sweden, Denmark). Educational and labour market achievements of immigrants in non-European OECD countries such as Canada, Australia, New Zealand are higher and is not a benchmark for Austria as their immigrants have stronger human capital and a higher socio-economic status. In Austria, too, detailed PISA results indicate that immigrant children's academic performances depend highly on their parents' educational background (see OECD 2006f, Annex B 3.5).

31. The NEET rate remains at about 5% in Germany, Sweden and Denmark and has decreased since 1997. The only OECD countries where it is higher than in Austria are Turkey, Mexico, Slovakia and Italy.

32. The share of children in *out-of-home care facilities* was 13% for the 0-2 years old in 2005, 85% for the 3-5 years old, and 20% for the 6-9 group (outside school hours). According to recent survey by Statistics Austria, 18 000 new child care places are needed outside of Vienna alone, and opening hours should be adapted to the needs of working parents.

33. There are 35 NUTS 3 regions in Austria with in average 230 000 inhabitants (ranging from 20 000 to 1.6 million). The coefficient of variation of regional unemployment rates at NUTS 3 level slightly increased from 30.9 to 40.8 between 1999 and 2005, but remains much lower than EU averages, where the dispersion of regional unemployment rates decreased (from 60.7 to 55.4).

34. This scheme was criticised as subsidising the stepping-down of older workers from full-time to part-time work. Supporters emphasize that in the absence of these subsidies, these job positions would simply disappear, given their relatively high costs due notably to the seniority of workers. No assessment is yet available on the detailed observed outcomes of this scheme.

35. See OECD (2005), *Austria's Ageing and Employment Policies*; OECD (2005), *Economic Survey of Austria*; and OECD (2006, 2007), *Going for Growth*.

36. See IHS (2007). The available impact studies are generally effected on the basis of descriptive information on short-term labour market outcomes of programme participants provided by the agencies administering the programmes.

37. This feature of Austrian programmes was notably stressed in European Commission (2006).

38. In particular, the need to diversify providers of training services beyond the entities run by social partners, and in a way to fully include commercial competitors, has been stressed in policy discussions.

39. An international peer-review-based evaluation of the Austrian active labour market programmes was launched at the end of 2006.

40. According to a recent evaluation by the European Economist Advisory Group (EEAG, 2007), many active labour market programmes do not raise regular employment opportunities for participants, as locking-in effects during programme duration seem to dominate the small increases in transitions to regular employment that occurred after their completion. Instead, ALMPs may have significant *ex ante* threat effects, by changing the behaviour of the unemployed prior to programme participation. There is also evidence that the "training-centered" ALMPs may durably improve the employability of participants. According to a still earlier assessment by the OECD (Martin and Grubb, 2001), the effects of training and re-training programmes may be positive, depending on target groups. The strongest effects have been recorded for prime age females, while results have been more mitigated for prime-age males and young workers. This assessment identified four design features which enhance the effectiveness of the programmes: *i)* narrow targeting of participant groups, *ii)* keeping programmes' scale small, *iii)* leading to a recognised qualification certificate, and iv) preserving a practical on-the-job component.

41. The extensive "i-Austria" programme which encompasses all citizens and residents and provide them with interconnected electronic files (under privacy protection), lending itself to a large variety of e-government applications, was recently elected Europe's leading e-government programme (See Cap Gemini, 2006).

42. The University reform is also discussed in Chapter 4, and in more detail in the *OECD Economic Survey of Austria,* 2005.

43. OECD has reviewed Austria's pre-school education system in OECD, *Starting Strong*, 2005.

44. Most recently the OECD Economic Policy Committee has also undertaken internationally comparative research on institutions and efficiency in primary, secondary and university education.

45. OECD (2006a) provides a review of these policies.

46. Around 10 000 job positions around Austria remained unfilled as of early 2007, because of the low level of the proposed wages (information from the national employment service).

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ANNEX 3.A1

Recent and planned measures to foster labour supply

Recent measures

Work incentives

Labour supply by older workers was enhanced by a set of measures reducing early withdrawals. First, the pension reform, introduced in several steps since 2000, raised the retirement age and increased the contribution period required for pension eligibility.[1] However, the "stock" of early retirees will of course be reduced only gradually. Second, conditions and benefits for disability were tightened, and this started to curb the many withdrawals under this scheme. Still, a number of loopholes for early exits remain, notably for "heavy workers" entitled to early retirement.

Labour supply by women was stimulated by the recent "Five Points Programme for Female Employment". This package aims at helping women to better reconcile family life and work. It offers women part-time training opportunities, tax deductibility of childcare expenses, demand-based opening hours of childcare facilities and affordable care during holidays. Women's work incentives were also enhanced by allowing parents to cumulate earned income and child benefits. In addition, an "Austrian Family Alliance" was founded in 2005 "to pool the interests of politics, enterprises, interest groups and scientific community" in promoting new instruments for a family-oriented work environment.

Employability and skills

The total budget for active labour market programmes (ALMPs) more than doubled from € 760 million in 1999 to € 1.6 billion in 2005 (more than 0.6% of GDP). Such programmes represent one third of the entire labour market policy budget. This places Austria in the midfield of EU countries in terms of fiscal resources dedicated to ALMPs but, given the relatively low unemployment rate, spending per unemployed person is already relatively high.[2] Several schemes fall under ALMPs, but their core (in Austria) is made up of a large set of training and further training programmes for the unemployed. These "qualification" schemes account for 60% of the total budget of the National Employment Service, and 80% of the individuals and cases that it supports.[3]

As an additional preventive measure, support to multi-employee training for persons *threatened* by unemployment is also offered by the National Employment Service (AMS), in co-operation with the European Social Fund. Two thirds of tuition fees are subsidized and only one third is paid by the employer. These programmes are offered to employees over 45, women and low-skilled people.

Lifelong training costs, such as fees for courses, for course material and travel expenses have been made tax-deductible for enterprises. Educational or re-training expenses related to an occupation *or for conversion to another profession* by self-employees and private individuals were also made tax-deductible in 2003.

Workers employed for more than three years can now agree with their employer to take from three months to one year of *unpaid training leave*. During this leave they are entitled to a lifelong training allowance (in the amount of the childcare benefit).

"Target group-specific training measures" were dedicated to immigrants in addition to general labour market programmes. These include language classes for persons whose mother tongue is not German, and certification of basic qualifications, as many immigrants possess lower secondary school leaving certificates which have limited labour market relevance. Additional courses are now offered to strengthen and document the qualification content of this diploma as well as special technical courses to improve immigrants' access to more qualified labour market segments. In 2005, nearly 40 000 non-nationals were granted such special support. Young workers with a mother tongue other than German and second-generation immigrants have also participated in large numbers in measures taken under a new Youth Training Consolidation Act (*Jugendausbildungssicherungsgesetz*).

The "Giving Young People A Chance" programme was launched jointly in 2005 by the Austrian Federal Economic Chamber and the National Employment Service to provide young job seekers with a personal coach and to advise and help them in their job search. In the first year of the programme 1 600 young people participated and 500 of them found a job within a few months – even if there are some recent signs that not all these jobs were long term.

The "Quality Initiative for Vocational Schools" programme aims at improving the quality and labour market relevance of vocational education. It will be based "on a systematic planning of objectives, regular evaluations and outcome-based reviews" involving all management levels in the education system. The explicit link with performance-based public spending management is a distinct and valuable feature of the programme.

A new "Employment Promotion Act" adopted in 2005 re-emphasized all these measures and provided a more comprehensive framework for their implementation. Both the "qualification" and "work incentive" driven measures reviewed in this Annex, and others devoted to strengthening labour demand and described in Annex 3.A2, are involved. The new Act also introduced new support instruments such as the so-called "Jobs for Youth" package, which provides additional apprenticeships and qualification courses to the youth, and the "Blum Bonus" which subsidises employers creating new apprenticeships with an additional € 150 million for more than 30 000 new positions.

A new *Strategy Paper* was announced for developing a "coherent lifelong learning policy". The authorities declared that "the traditional linear paradigm of thinking" in this area will be abandoned and "discrete stages in an individual's working life will be recognized and focused on". New teaching and learning methods (such as e-learning, self-controlled learning, etc.) will be emphasized. New "competence portfolio instruments compatible with the European Qualifications Framework (EQF)" will be promoted.[4]

Measures announced in the new government's programme in February 2007

Work incentives

The quality of active labour market policies (ALMPs) will be improved in order to better satisfy job seekers and employers.

Private service providers earning performance-related fees will also be called for in the implementation of ALMPs and closer links should be established between private and state labour exchange services.

Employability and skills

The quality of education will be boosted with additional public funding, by reducing the number of pupils per classroom to 25, and making *kindergarten* more like educational facilities.

A group of experts will propose a new pre-school education programme embracing all 5-year-olds. Children whose native language is not German will be better integrated.

The 9th school grade (the last year of compulsory education) will be reformed with strengthened courses of basic knowledge and career orientation.

The curricula of vocational schools will be re-assessed with a view to strengthening foreign languages, information technology and other key skills. "Industry-wide training workshops" will be expanded.

A new "lifelong education strategy" will be prepared in cooperation with social partners, and a new model of adult education will be created with more professional vocational advising, training and skill certification.

An "education monitoring system" will be set-up, to generate feedback on pedagogical outcomes, and the quality of education services.

Other measures

A minimum full-time wage of € 1 000 per month is planned to be implemented by social partners through a general collective agreement.

A new minimum social income of € 720 will be instituted, providing a floor for pension benefits and for social assistance.

Selective immigration of "key workers" and of "specialist workers in high demand" will be facilitated, and the labour market will be prepared to cope with full mobility of workers within the EU after the current period of transition.

Notes

1. For a detailed description of this reform see the *OECD Economic Survey of Austria*, July 2005, and Chapter 5 in this survey.
2. In 2005 Austria ranked 12th among 19 reporting EU Member States in terms of the share of ALMP spending in GDP, but ALMP spending *per unemployed personas a share of GDP per capita* was 5th at 20%, following Netherlands at 60%, Sweden at 55%, Norway at 45% and Denmark at 40%.
3. The European Commission stated recently that "the substantial increase in spending on active labour market measures has had a positive impact but the effectiveness of some measures could be enhanced even further" (European Commission, 2006).
4. This is a policy response to a recent European Commission criticism that in the area of lifelong learning "the dispersion of responsibilities in the government structure in Austria results in the lack of a coherent and effective approach." (European Commission, 2006).

ANNEX 3.A2

Recent and planned measures to stimulate labour demand

Main recent measures

Reducing employment costs

Several new measures, aimed at promoting "flexicurity", will provide more flexibility and hiring incentives to employers without excessively reducing the security and the guarantees of employees: *i)* a portable severance payment scheme (*Abfertigung Neu*) was put in place in 2003, with individual severance payment accounts held at staff provision funds; *ii)* the concept of "reasonability" was simplified and clarified in 2005 in employment protection and unemployment insurance regulations, facilitating a person's employment in a different occupation than the one for which he/she was trained; and *iii)* working hours were made more flexible in most of the collective agreements signed in 2005, with longer calculation periods in industries such as electrical machinery and electronics, metal products, graphic design, savings banks and freight carriers.

Cuts in non-wage labour costs of older workers: The hiring and firing of workers above 50 were excluded from bonus/malus calculations in unemployment insurance and unemployment insurance fees for women above 56 and men above 58 were entirely eliminated. As a follow-up to a recent administrative court decision, the threshold-age for men was reduced to 56.

Subsidies to part-time work of old workers: If enterprises reduce working hours of older workers by 40 to 60%, the total employment costs of remaining hours are now subsidized. The objective is to help keep older workers in employment (this is often threatened because older workers' employment costs are high due to seniority-based pay systems). Yet, the actual impact of this measure in terms of "keeping people at work"*vs.*"shortening the number of hours supplied" is still debated.

With the "Combined wage model", if a jobless person takes up employment at a lower wage than his/her previous job, he/she preserves the assessment basis of his/her future unemployment insurance allowance on the basis of this previous employment.[1] This measure aims at reducing disincentives against accepting employment at lower wages.

Cuts in non-wage labour costs of apprentices: From 2006, companies employing apprentices receive a bonus of € 1 000 per apprentice, and are totally exempted from accident insurance contributions during the entire period of apprenticeship.

A subsidized wage scheme was introduced in 2006 to stimulate employment in low-wage sectors by reducing the effective employment costs of targeted young and old unemployed workers. According to some early assessments few employers have made use of the scheme.[2]

Fostering activity and labour demand, notably in services

Since January 2006 "Service cheques" (*Dienstleistungscheck*) can be used to pay employees for simple tasks in private households. Assignments should be shorter than one month and fees paid below € 330. The cheque offers publicly subsidized accident insurance and the employee can top it up with voluntary health and pension insurance.

A "Regional Employment and Growth Initiative" was launched in 2005. It aims at "promoting investments that secure jobs in the long run", with a total budget of € 1.2 billion which will be distributed through Federal and Länder subsidies and guarantees, and European loans.[3] Some 70% of the funding will be directed to small and medium-sized enterprises and a total additional investment of € 3.3 billion is targeted. According to early estimates more than 100 000 jobs were already created under this scheme but it is difficult to assess the proportion of actual additional investments and jobs created (which would not have been created without these subsidies).

With the "Intensified Early Intervention Strategy" announced in 2004 the National Employment Service AMS was required by law to see that "unemployed persons under 25 and over 50 would be offered a reasonable job, a training, or a reintegration measure within three months of unemployment". The government reiterated in 2006 that by the end of 2007 "each unemployed school leaver will be offered a workplace, an apprenticeship, further training opportunity or some other job preparing measure within six months of unemployment".

In the "Labour foundations" scheme older workers are temporarily employed in subsidized non-profit projects and organisations. At its inception in the 1980s this measure was hailed as an important initiative and met with wide international interest. It continues to be an important instrument although on a moderate scale (average stock of participants around 5 000 since 2003).

Federal and Länder governments agreed on a national certification procedure for social care workers which will be applicable from July 2007 and should create a unified labour market for them as well as greater demand for their services.

The Social Partners and the Austrian Labour Inspectorate sponsor "Age-based working", projects helping companies adapt and design their working environment according to the special conditions of workers above 40 and job seekers above 50.

Measures announced in the new government's programme in February 2007

Reducing employment costs

The new government will study "the possibility of reducing non-wage labour costs as part of the next fiscal reform".

The law on working hours will be made more flexible and less rigid work-time models will be promoted in cooperation with social partners. A first agreement was already concluded between social partners in May 2007.

The current fragmentation of Labour Law will be eliminated and a "single employment contract" will be promoted on the basis of proposals by social partners.

Social partners are invited to negotiate a cross-sectoral minimum wage of € 1 000 (about 3% of full-time workers – 2% of men and 7% of women working full-time – earn less than this at present, with some lowest branch- and occupational minimum wages staying still at about € 640).

Fostering activity and labour demand

The restrictions presently placed on competition will be reduced, for example in liberal professions, "not only for promoting competition but also for boosting labour demand".

Shop opening hours will be extended on the basis of agreement by social partners.

Investment in less dynamic regions will be encouraged with additional measures, notably in the tourism sector.

It is considered to merge the competencies of the Federal Cartel Attorney and Federal Competition Authority in order to strengthen efforts to promote competition. Furthermore, the latest amendments and reforms of competition and cartel law will be evaluated.

Boundaries will be maintained between commercial and public services, and the government will oppose further liberalization in health, education, water, culture and local transportation services in the context of World Trade Organisation negotiations.

Notes

1. Allowances are available at 80% of the previous average earnings for 120 days, before falling to 75%.
2. See European Commission (2006).
3. European Recovery Programme (ERP) loans.

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Chapter 4

Improving innovation

Enhancing growth through more innovation has become a priority for Austrian policy makers in line with European policies as laid down in the Lisbon Agenda. The chapter discusses Austria's innovation performance, its innovation policies, and general framework conditions for innovation and growth. Austria has increased its R&D spending as a share of GDP over the last ten years, largely reflecting more business R&D, and aims at increasing it further to 3% of GDP by 2010. Innovation activity as measured by output indicators has also improved in various fields, including the number of innovating SMEs. Furthermore, policy instruments and institutions have been improved and a culture of policy evaluation is developing. However, the chapter identifies some weaknesses, particularly in general economic framework conditions, which may limit the creation and diffusion of innovation and productivity growth. It suggests focusing more on these framework conditions, notably by strengthening competition in non-manufacturing product markets, such as retail and professional services, reducing the cost of firm creation and improving human capital. It also argues that focusing on a numerical target for R&D spending as an end in itself is very unlikely to be cost effective. With its university reform in 2002, Austria has made a major step in improving the efficiency of tertiary education but more needs to be done.

As discussed in Chapter 1, Austria belongs to the group of highly advanced OECD countries. It has achieved this position by raising productivity while at the same time preserving a relatively high employment rate. Historically, Austria has achieved its catch-up with relatively low R&D spending. Its industrial structure is biased towards sectors which are classified as medium-tech while the share of manufactures which are classified as high-tech in total manufactures is below the EU and OECD averages. This has caused people to talk of an Austrian "growth puzzle" or a "structure-performance paradox" (Peneder, 2001). It is not clear, however, if there is such a puzzle (see also Tichy, 2001a). First, Austria succeeded in raising its productivity largely through capital accumulation and improving the skill level of the workforce (mainly through expansion of secondary schooling and vocational training) while keeping wage levels lower than in other developed countries, notably neighbouring Germany and Switzerland (see Chapter 1 and Aiginger *et al.,* 2006). Second, while R&D spending was low, Austrian firms adopted and modified new technologies which were often developed abroad, suggesting that Austria was relatively successful at technology diffusion from abroad. Third, Austria was successful in modernizing its industrial structure which was originally dominated by large state-owned enterprises in heavy industries. Fourth, the classification of Austrian industry as mainly medium-tech may not do full justice to the reality; many medium-sized Austrian firms are very successful in niche markets with products and processes which are at or close to the technological frontier, even if they belong statistically to sectors which are not classified as high-tech.

While this "growth model" has been successful during the catch-up period, it may need to be adjusted to preserve Austria's position as a high income (and high cost) economy. Indeed, during most of the 1990s and so far this decade, Austria's growth of GDP per capita fell behind that of a number of other advanced OECD countries, including the United States and the Nordic countries, not to speak of fast growing Ireland**.** Like many other countries, Austria also has to cope with an ageing population and a declining workforce, and thus faces the challenge to sustain growth in living standards by further raising productivity while, at the same time, ensuring high employment of its labour potential.

Enhancing growth through more innovation has become a priority for Austrian policy makers in line with European policies as laid down in the Lisbon Agenda. A major measure to achieving this is a proposed increase in R&D spending to 3% of GDP by 2010 which would also meet the Lisbon target. Increasing R&D spending can help boost total factor productivity (TFP) growth, which is one reason why the government has given high priority to such spending. However, setting numerical R&D spending targets also poses the risks of encouraging inefficient spending, in particular if these are to be reached in a relatively short time. Furthermore, providing more subsidies to business R&D may not be enough to raise growth as long as innovation and productivity are constrained by general framework conditions. Focusing too much on R&D spending may also overlook complementarities between R&D and framework conditions and may neglect innovation in areas which rely

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less on formal R&D, such as in some service sectors. Work by the OECD suggests that framework conditions and general policy settings that favour human capital formation, competition in product markets and efficient capital markets are essential for long-term growth and are as important, or sometimes more important, for innovation and productivity growth than science policies and specific R&D promotion (OECD, 2006a). *The government should therefore make sure that the objective of increasing R&D spending does not compromise the efficiency of government R&D support and it should also put more emphasis on improving framework conditions for the creation and diffusion of innovation in all areas of the economy.*

This chapter first provides an assessment of Austria's innovation performance by looking at the various input and output indicators in international comparison. The second section discusses some areas of framework conditions which appear to be particularly important for innovation, such as product market competition, the conditions for the creation of innovative firms and human capital. The last section examines government policies to boost innovation and discusses how policies could be further improved to facilitate innovation. The chapter concludes with a set of policy recommendations (Box 4.4).

Assessing Austria's innovation performance

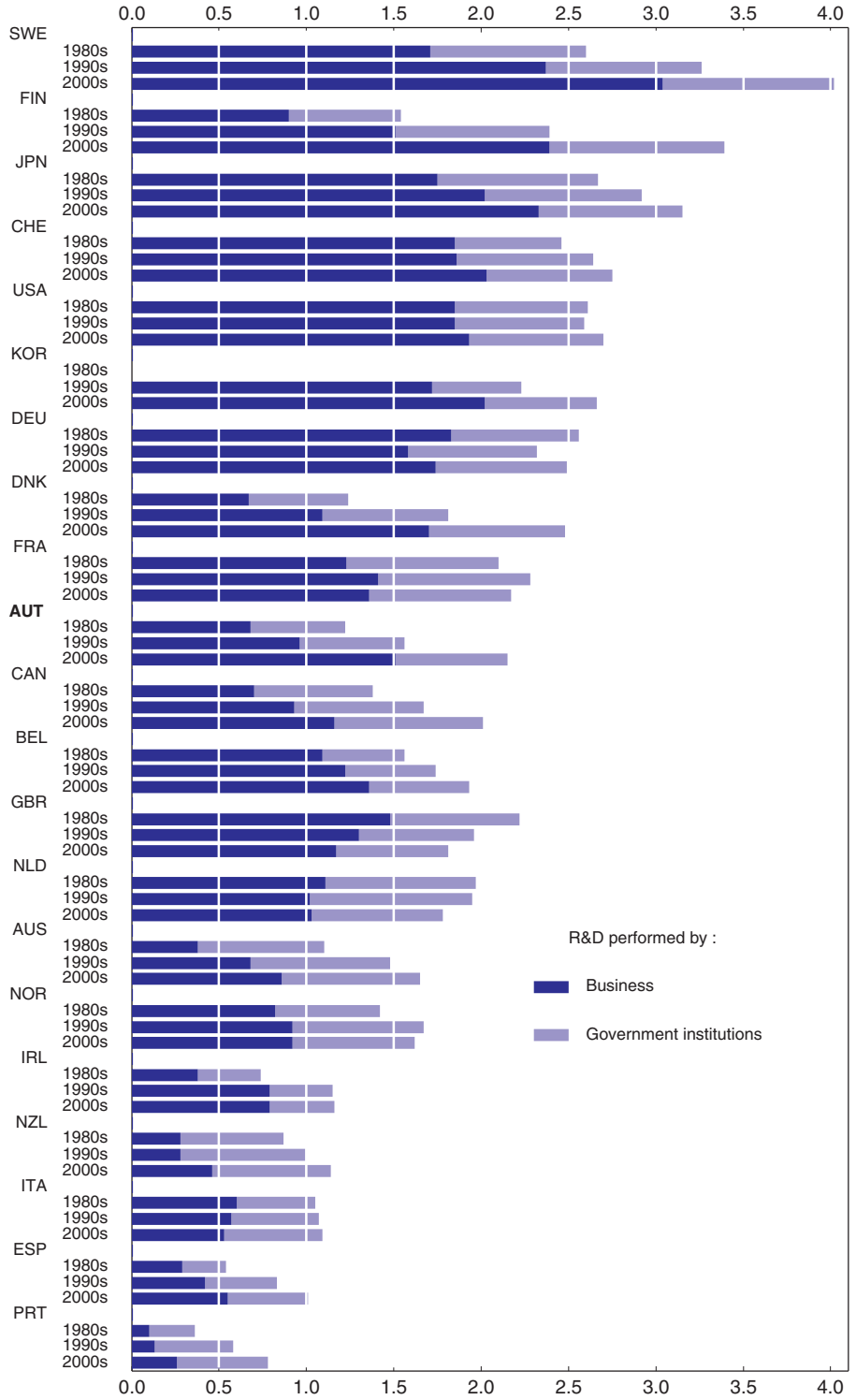
While innovation activity is increasing…

Austria has seen an impressive growth of its R&D spending over the last ten years from 1¼ per cent of GDP in the 1980s to 2¼ per cent in 2000-05, reaching 2.4% in 2006; even so, it remains considerably lower than in some other smaller European countries, notably Sweden and Finland, but also Denmark and Switzerland (Figure 4.1). The increase in Austria's R&D spending largely reflects greater spending by business while the share of government spending in total R&D spending has declined. This is a positive development as business R&D is generally thought to be more directly linked to economic performance (OECD, 2003). The breakdown of business R&D spending by sectors indicates that the share of the service sector in business R&D spending is in line with the OECD average of about a quarter. However, a good part of this spending is targeted at raising productivity in the manufacturing sector.[1]

While overall R&D spending has increased, innovation activity as measured by output indicators has also improved in a number of fields. For example in trademarks, industrial designs and the number of innovating SMEs, Austria's performance is much above EU15 average. The latest European Innovation Scoreboard (EIS) includes Austria in the group of countries classified as "innovation followers" with a level and improvement of innovation (measured by the level and change of a summary index of innovation input and output indicators) close to the average EU25 performance. By contrast, four of the other smaller European countries, Sweden, Finland, Switzerland and Denmark are classified by EIS as "innovation leaders" (together with Japan and Germany) (Figure 4.2) (*www.proinno-europe.eu/doc/EIS2006_final.pdf*). Overall, Austrian firms and science institutions seem to be well integrated with international R&D activities as illustrated by their participation in the EU framework programmes and international co-authorship of patents (Bundesministerien, 2006). The fact that a third of business R&D expenditure is financed by foreign firms also shows that Austria is able to draw on the innovation activities of multinationals.[2] Furthermore, industry is also gradually shifting its structure towards

Figure 4.1. **Austria's R&D spending in international comparison**[1]

As per cent of GDP



1. Ranked by the total expenditure on R&D in the 2000s (average 2000-05 or latest available data).

Source: OECD, *OECD Science and Technology Indicators*.

StatLink http://dx.doi.org/10.1787/070352805416

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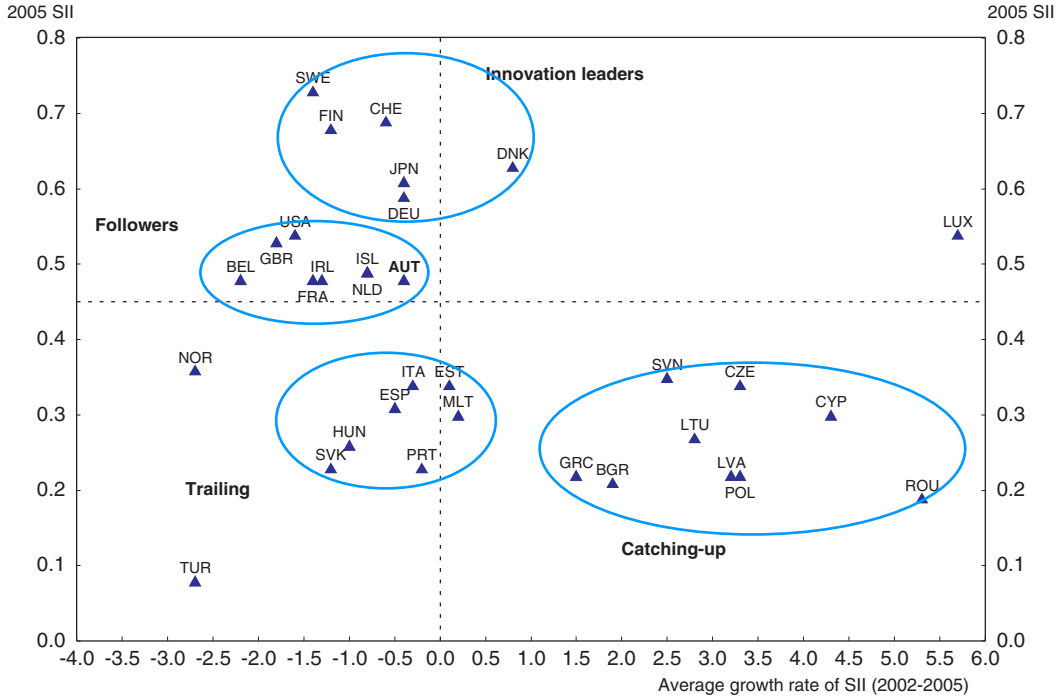
Figure 4.2. **Level and change in the Summary Innovation Index**



Source: Maastricht Economic Research on Innovation and Technology, and Joint Research Centre of the European Commission, European Innovation Scoreboard 2006, Comparative Analysis of Innovation Performance.

StatLink http://dx.doi.org/10.1787/070354341332

medium-high tech sectors and is adopting more science and frontier technologies (Peneder, 2001; Bundesministerien, 2006).[3] In addition, small and medium-sized Austrian firms in niche markets have succeeded in upgrading their products and processes by enhancing their technological content, while remaining in their main area of activity.[4]

However, the international comparisons of framework conditions reveal a number of weaknesses which may limit the creation and diffusion of innovation and productivity growth in general. Three areas stand out where Austria's performance deviates most from best-performing OECD countries: *i)* lack of exposure to trade and restrictions to competition in parts of product markets, notably in several services, thus reducing productivity growth; *ii)* obstacles to the creation and growth of innovative firms including administrative barriers for firm creation and the underdeveloped venture capital market; *iii)* weaknesses in human capital at the lower and the higher levels. This is illustrated by large differences in the quality of education according to the social origin of pupils and types of schools, which creates pockets of low productivity,[5] and a low share of tertiary education of the population and relatively few graduates in science and engineering which may restrain innovation.

... productivity growth has continued its moderate decline

Growth of total factor productivity (TFP) is generally used as a proxy for the growth effect of innovation (*i.e.* technical progress) although it has to be borne in mind that it is estimated as a residual in growth accounting frameworks by eliminating the growth contributions of changes in factor inputs and may therefore also include other effects that are not related to innovation. There is evidence that R&D investment has a positive impact

on TFP growth although it takes time for the full effects to become visible (Guellec and Van Pottelsberghe de la Potterie, 2004; Griliches, 1992; OECD, 2003; Wieser, 2005).

As shown in Chapter 1, Austria's TFP growth has remained lower than in a number of other high-income OECD countries and has continued its moderate downward trend over the past 15-20 years, while some other OECD countries including the Nordic countries have seen an acceleration of TFP in the mid-1990s. It is unclear to what extent exogenous factors have affected Austria's overall growth and its TFP growth. For example, the prolonged period of low growth of the German economy (which only ended recently) could have restrained Austria's output and TFP growth since the mid-1990s. On the other hand, Austria's EU accession and the opening up of central and eastern European countries appears to have increased its output and TFP growth in the 1990s, although these integration effects may have weakened in recent years (see Chapter 2). Nonetheless, the fact that Austria's trend TFP growth has remained flat while it accelerated in other benchmark countries points to possible weaknesses in Austria's innovation system, and/or in its general framework conditions for productivity growth (see Figure 1.8 in Chapter 1). It is noteworthy that the weakening of trend TFP growth in Austria has been going hand in hand with low or even negative TFP growth in some service sectors (Chapter 1 and Peneder *et al.*, 2006).

Improving framework conditions for innovation

The analysis so far suggests that Austria's innovation performance is mixed, with some indicators showing clear improvements while others, including TFP growth, are pointing to weaknesses. This suggests that there is room for improving growth by raising productivity. For Austria as a small country with a number of large firms, including foreign multinationals and many small and medium-sized firms, it is of particular importance to facilitate innovation diffusion, *i.e.* the widespread and effective use of new technologies, being created either domestically or abroad. This section discusses some areas where innovation creation and diffusion may currently or in the future be restrained by unfavourable framework conditions.

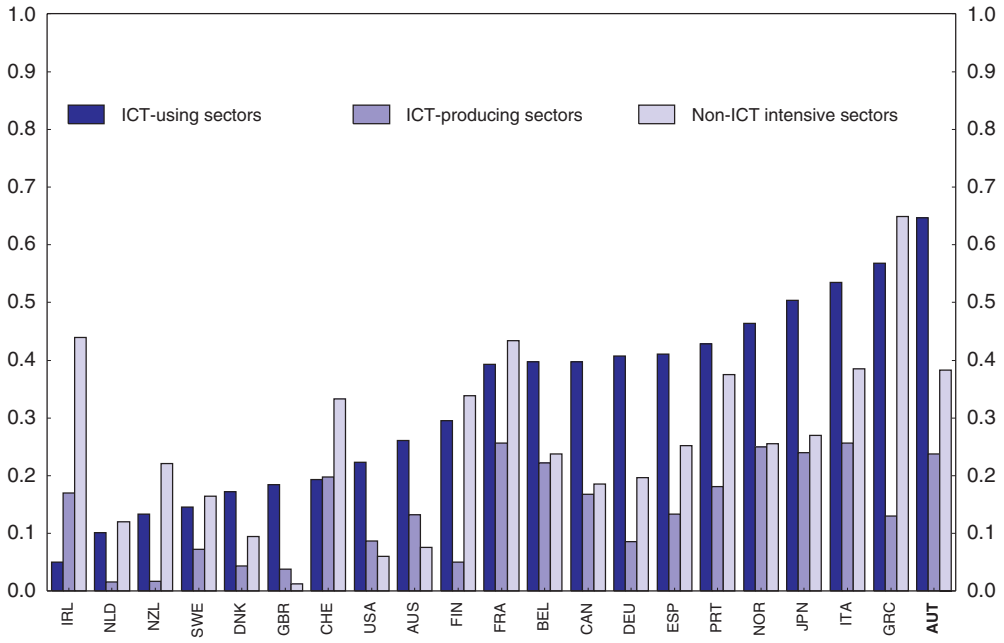
Reducing product market restrictions

Competition is an important driver for innovation.[6] Restrictive product market regulations can slow innovation through restraining the diffusion of new products and best practice production techniques within the country and across borders. In times of rapid technological change, as since the 1990s, the detrimental effect of restrictive product market regulations on the diffusion of innovation, including Information and Communication Technologies (ICT), is particularly large.[7]

Austria has broadly followed the OECD-wide trend toward more liberal product market regulations, in line with EC Directives and the opening up of network industries, such as telecommunications which reduced prices and increased productivity. Overall, the OECD economy-wide product market regulation indicator suggests a middle of the road position. However, regulations in service sectors remain restrictive, in particular in retail (large outlet regulation, licenses and permits, opening hours), liberal professions and railways (see the 2003 and 2005 OECD *Economic Surveys of Austria*). These regulations reduce productivity not only in the respective sectors, but also in sectors which are economically linked with the regulated sectors (see Chapter 1). Recent OECD work suggests that in Austria the impact of restrictive regulations on ICT-using sectors has been particularly large (Figure 4.3).[8] Austria has made welcome steps to reduce entry barriers in service sectors, but much more remains still to be done, also keeping in mind that many other

Figure 4.3. **The impact of non-manufacturing regulation**[1]

2003



1. Scale normalised to 0-1 from least to most restrictive of competition. These data are the simple averages of the regulation impact indicators for the individual industries including in ICT-producing, ICT-using and non-ICT intensive sectors in 2003. In order to ensure comparability of data in some cases – including Austria – data from the 1998 questionnaire responses were used.

Source: OECD, Economics Department, Working Papers No. 530.

StatLink http://dx.doi.org/10.1787/070413886304

countries are moving ahead quickly in this area. As a result, Austria may still benefit much less from general purpose technologies than countries with less restrictive regulations.

These findings may help to explain why Austria's ICT investment has been relatively low. Regulations also restrain complementary innovation which is necessary for reaping the full benefits of ICT investments in terms of productivity growth. This is confirmed by the analysis of the KLEMS database[9] which points to lacking complementary organisational changes in Austria to maximise the productivity impact of ICT investment (Peneder *et al.*, 2006). General competition law and policy have lagged, as shown by the new synthesis indicator that places Austria at the bottom end of the OECD (See Chapter 1, Figure 1.11). To improve the overall competition framework, it is considered to simplify the institutional set-up by merging the competencies of the Federal Cartel Attorney with those of the Federal Competition Authority. With respect to the Authority's resources, an increase of staff is intended for the years 2007 and 2008. The possibilities how the Authority's investigating capacities could be strengthened are evaluated. These intentions go in the right direction. *As argued also in Chapter 3, Austria should improve its overall competition framework by simplifying the institutional set-up, giving more powers to the Federal Competition Authority to strengthen enforcement* (OECD, 2007). *Austria should ensure timely transposition of EU directives relating to postal services and services in general.*

Reducing barriers to FDI inflows

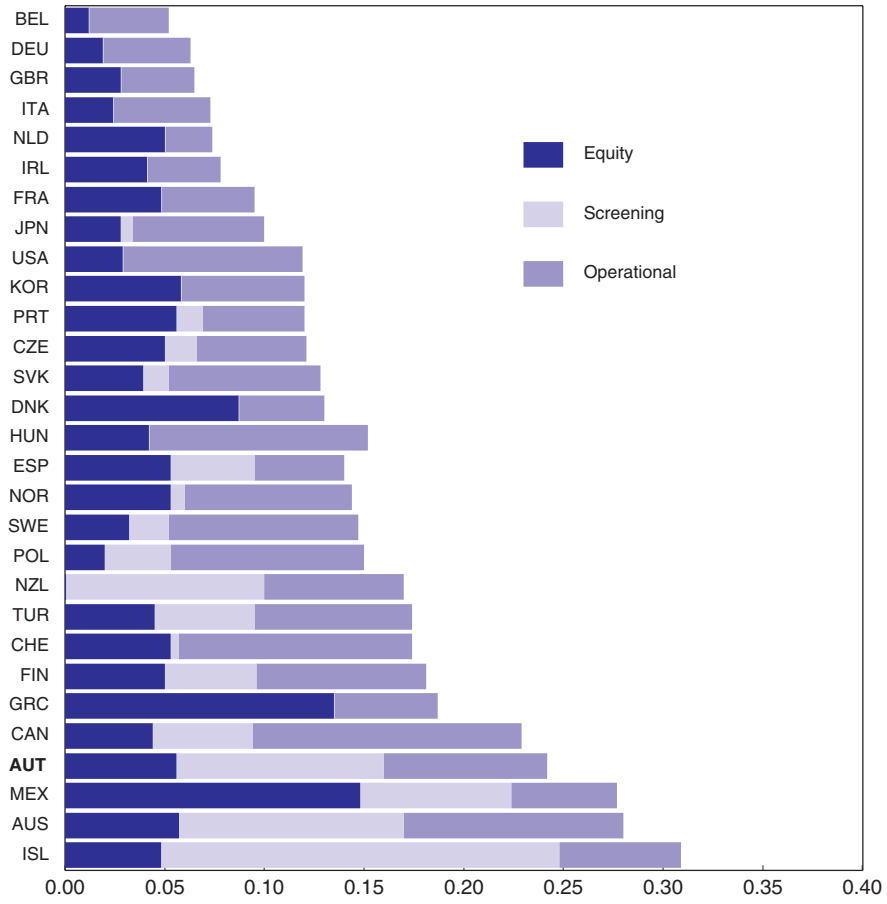
The establishment of foreign affiliates is generally considered to be beneficial for domestic productivity growth. Apart from direct productivity effects, foreign affiliates may also contribute indirectly to domestic productivity growth by generating positive spillovers

for local firms. For example, foreign affiliates may speed the diffusion of new technology and management practices across borders or train labour that is subsequently employed by local firms. For services, in particular, FDI is also an important channel for exposure of domestic firms to foreign competition, when cross-border trade is physically impossible or limited. Regulatory policies that restrict market access or reduce the potential returns to foreign investment reduce inward FDI in OECD countries (Nicoletti *et al.*, 2003).

In Austria, both inward FDI flows and stocks have been increasing but continue to be below the EU average and also below countries of similar size and level of development such as Finland, Sweden or Denmark.[10] One reason could be that until the early 1990s Austria was at the border of the "Iron Curtain" and thus a less interesting location for investors from Western countries while, after the opening, low-wage central and eastern European countries attracted most FDI from western European countries. However, Austria's relatively restrictive FDI regulations, especially limits to foreign ownership in professional services and other restrictions, may also have restrained FDI inflows. In a

Figure 4.4. **Nine-sector FDI regulatory restrictiveness by type of restriction**[1]

2006



1. Scale 0-1 from open to closed sector. This aggregated index covers the following sectors and sub-sectors: Business (legal, accounting, architecture and engineering services); Telecommunications (fixed line and mobile); Construction; Distribution; Finance (insurance and banking); Tourism; Transport (air, maritime and road); Electricity and Manufacturing.

Source: OECD, International Regulation database.

StatLink http://dx.doi.org/10.1787/070428341754

welcome move, the government has recently dropped a screening requirement, which however is not yet reflected in the current FDI regulatory restrictiveness index (which will be updated in 2007) (Figure 4.4). *Likewise other, overly restrictive FDI regulations should be dropped, in particular limits to foreign ownership in the liberal professions and services more generally*.

Facilitating the creation and growth of innovative firms

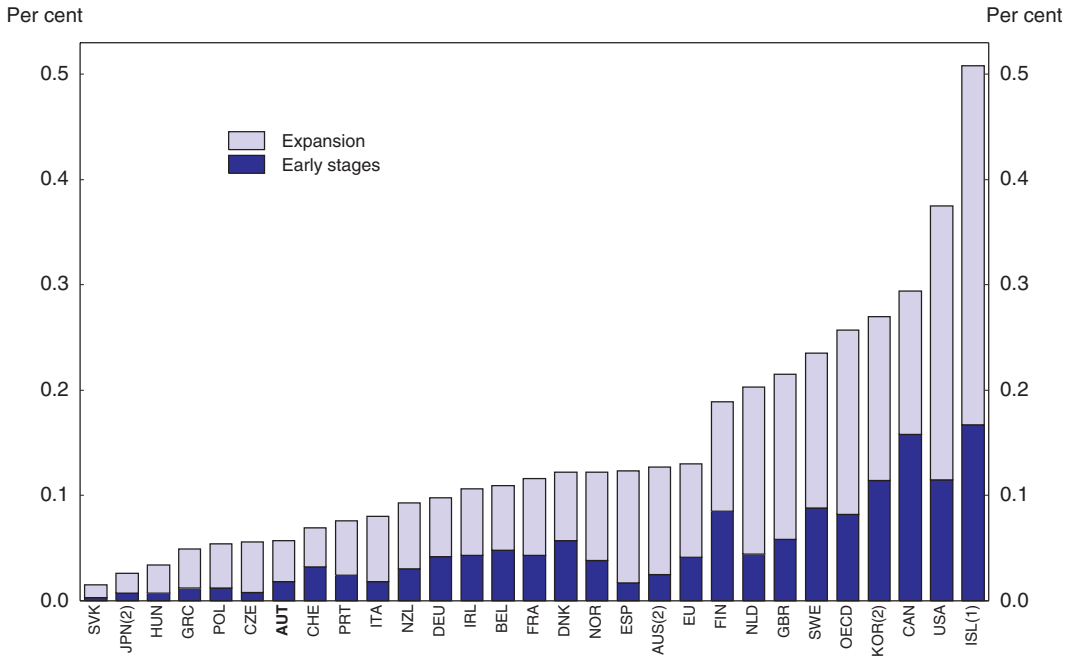
Firm dynamics are an important channel for the adoption and use of new technologies. If new innovative firms enter the market and grow together with existing innovative firms while less productive firms exit the market, productivity increases. In services, particularly those related to ICT, firm dynamics are generally higher than in manufacturing, implying that the service sector is particularly vulnerable to restrictive entry and exit regulations (OECD, 2005a; Brandt, 2004).

The government is fostering the entry of innovative and technology-oriented firms through a host of different policies. Besides the general promotion of SMEs and firm creation by granting reduced social security contributions and offering coaching programmes and other support, there is a relatively dense network of technology centres which provides cheap infrastructure and pooled services for new firms (see below). But the effectiveness of these policies is likely to be diminished due to various obstacles to the creation of innovative firms. Although overall firm creation in Austria is average in international comparison (Hölzl *et al.,* 2006), there is some evidence that most of the new firms are not very innovative. In 2005, over 80% of all market entries have been one person firms which may have only limited innovative capacity. A major reason could be that entry regulations for limited companies are burdensome, in terms of administrative cost, minimum capital requirement and duration of procedures (see Chapter 1 and OECD, 2007). The legal form chosen for a start-up may also impact on its growth prospects. Furthermore, post-entry performance of new firms is disappointing, although Austria shares this feature with many European countries – in contrast to the US.

The fact that venture capital investment in Austria is much below average also suggests a relative lack of innovative activity of newly created firms (Figure 4.5).[11] The underdevelopment of the venture capital market can be seen as a result of lack of finance for risky activities, structural inefficiencies in the market and/or lack of profitable innovative projects. According to the third Community Innovation Survey, more small firms in Austria are reporting financing shortcomings than in other countries, which points to the relevance of the first two factors. While rules governing the amount which pension funds and insurance funds can invest in venture capital funds are now sufficiently flexible, banks continue to dominate as the main source of funds and are often the mother companies of venture capital funds. As traditional banks may be relatively risk averse, their venture capital funds may also have a bias towards funding less risky firms and projects.

Austria created its own legal form for venture capital funds in the mid 1990s which prevents double taxation of dividends. However, as this form is not compatible with EU state aid rules, it has been changed. *The government should thus create new fund structures which are compatible with EU rules and in line with international best practice so as to facilitate the operation of venture capital funds* (see *e.g. Brandner et al. 2007*). In addition to fund structures, skills of national venture capital fund managers are very important. Although the Austrian venture capital industry is still relatively young, there is some evidence that its efficiency is improving. More openness to international venture capital investors may contribute to the further diffusion of this very special "know how".

Figure 4.5. **Venture capital investment, 2000-03**
Per cent of GDP



1. Data from 2000-02.
2. Data from 1998-2001.

Source: OECD (2005), *OECD Science, Technology and Industry Scoreboard*.

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At the downstream level, liquid exit markets are important to enable the selling of the stake in the firm. The Austrian stock market is gradually catching up to the more developed markets in some neighbouring countries which should facilitate such selling of stakes. Nevertheless, the fact that family-owned SMEs are often reluctant to accept private equity investment and then initial public offerings (IPOs), which are often tantamount to some loss of control of the firm, remains as a major hindrance for a more dynamic venture capital market.

Deepening of the capital market by further developing the stock market would generally facilitate equity financing, which is of particular importance for the financing of more fundamental innovation and the development of young innovative firms (Müller and Zimmermann, 2006). Although stock market capitalisation has grown impressively over recent years from 15% of GDP in 2002 to 57% in 2006, Austria still shows lower levels than the EU25 (90%) or other small open economies such as Sweden at 100% or the Netherlands at 111%. Austrian firms continue to raise relatively limited funds by issuing new shares and have a relatively high share of debt financing (ECB, 2007). Low equity ratios, in particular of small firms in Austria, are most probably explained by the nature of creditor protection and not different taxation rules for loan and equity financing (Dirschmid and Waschiczek, 2005). *The government should thus strengthen legal protection of minority equity holders and creditors.* Further development of the Austrian stock market would be facilitated through further privatisations, *e.g.* of the former state monopolies in post and telecommunications. A survey among Austrian firms concludes that, overall, the number

of firms using the stock exchange as a financing instrument could significantly increase (Schneider *et al.*, 2005).

Improving human capital formation

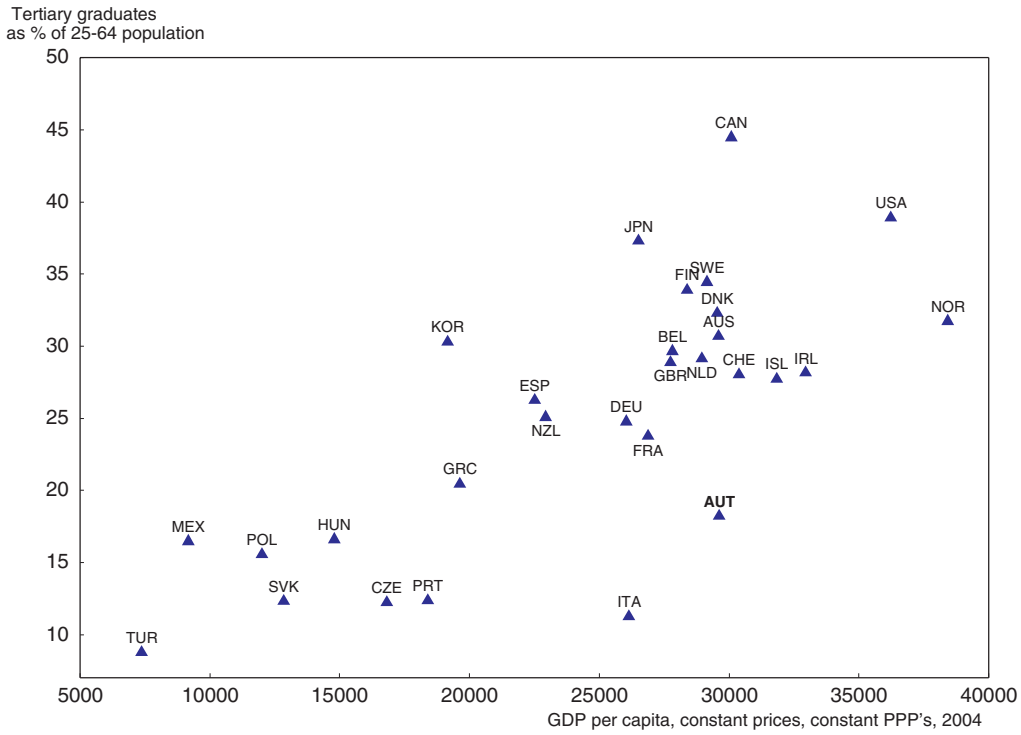
There is much evidence that human capital plays a key role for growth. During the period of catch-up, Austria's education system obviously made a major contribution to growth by providing the labour force with appropriate skills. Traditionally, Austria's education has put much emphasis on primary/secondary and vocational education, which was obviously sufficient at the time when a good part of productivity growth was achieved by capital deepening and the adoption and modification of existing technologies, notably in manufacturing sectors. However, as more firms approach the technological frontier and have to adopt highly advanced technologies, more workers and researchers with tertiary education may be needed. A more highly skilled workforce also helps to improve innovation in services and encourages the adoption of new general purpose technologies such as ICT (Krueger and Kumar, 2003; Wölfl, 2005). Austrian firm level studies also find that tertiary graduates are complementary with ICT investment (Falk, 2004).

Measuring the impact of human capital on growth is a difficult task (see Vandenbussche *et al.*, 2006; Krueger and Kumar, 2004; Ciccone and Papaioannou, 2005) and caution is needed when using such estimates, but they may at least provide a rough idea. For Austria, it has been estimated that the contribution of the increase in the quality of human capital to annual growth amounted to only 0.2 percentage points over the period 1990-2004 (Peneder *et al.*, 2006), which is lower than for many other developed countries but may also reflect that there was only a small change in human capital parameters during this period.

As to the level of human capital, it is interesting to note that Austria has achieved its relatively high GDP per capita level with a relatively low share of tertiary education, both in terms of a relatively low share of tertiary graduates in the working-age population (Figure 4.6) and relatively low spending on tertiary education (Figure 4.7). The number of business researchers is also low (Figure 4.8) as is the share of the highly skilled workers in services.[12] Austria is also the only country in a range of OECD countries examined by Wölfl (2005) where the manufacturing sector shows higher employment intensity of tertiary graduates than the services sector. *Looking forward, and considering the prospective further shifts in labour demand towards high-skilled workers as well as the higher investment in tertiary education abroad, Austria is well advised to invest more in tertiary education. Increasing the share of workers with tertiary education would facilitate the creation and diffusion of new technologies and raise Austria's growth potential.*

Austrian authorities have often argued that Austrian pupils leave upper secondary vocational schools (*e.g.* HTL for technical fields, HAK for commercial fields) at the age of 19 with skills similar to tertiary graduates in other countries[13] and that the share of students in longer duration studies is well above the OECD average.[14] As discussed in Chapter 3, it is true that the skill mix of Austria's workers is largely oriented toward vocational skills, both at the apprenticeship and at the upper secondary vocational school level. If one includes upper secondary vocational schools in tertiary education, the share of tertiary graduates as a percentage of the 25-64 population would increase from 18% (as shown in Figure 4.6) to 27%, which is slightly above the OECD average; and in the 25-34 age group, tertiary education attainment would increase from 20% to 30%, which is slightly below the OECD average. This would still be much lower than in some other OECD

Figure 4.6. **Human capital with tertiary education in international comparison**



Source: OECD (2006), *EAG* database and *National Accounts*.

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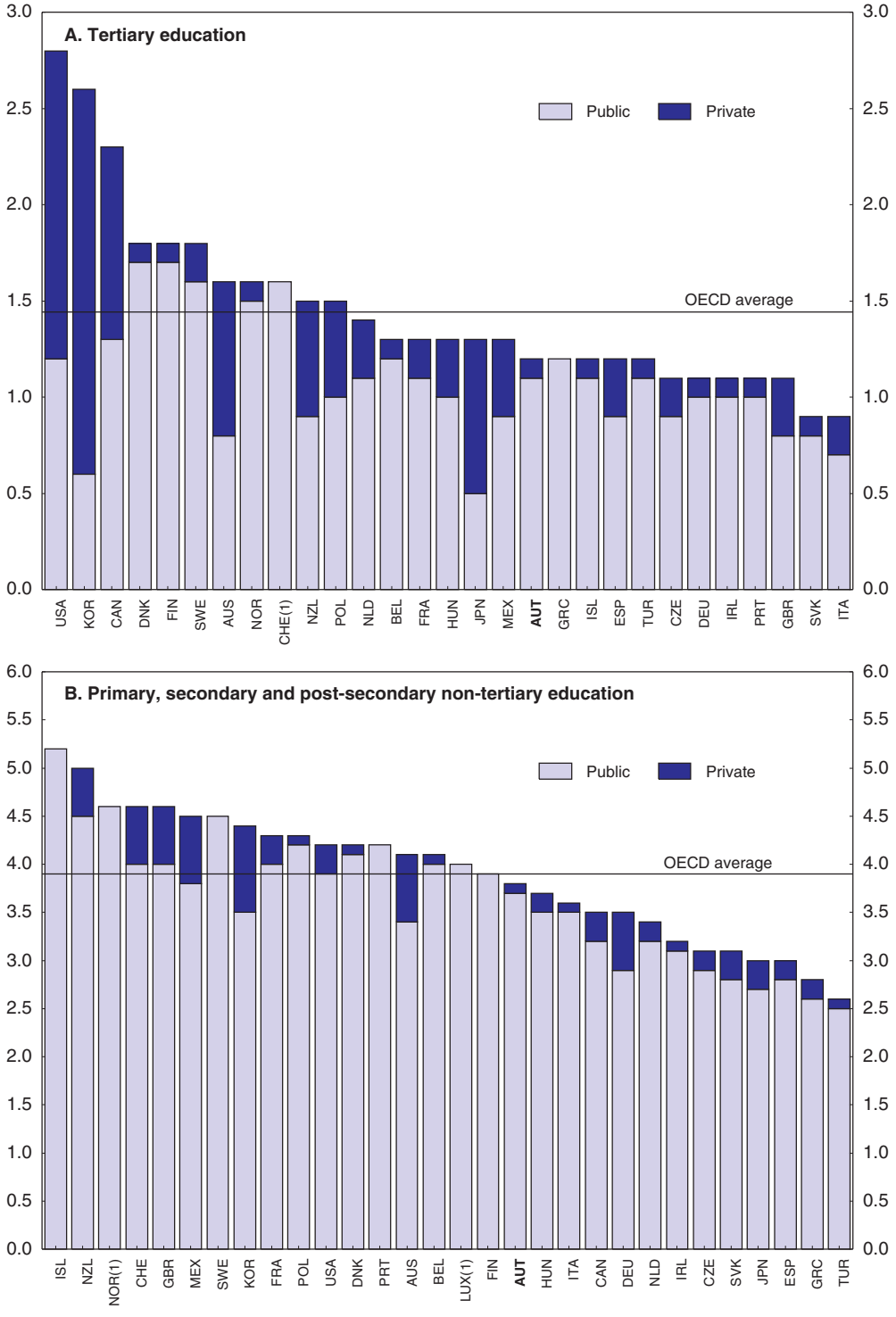
countries, notably Canada, Japan, Korea, Sweden, Finland, Norway, Ireland, Belgium and Spain where, in the same age group, tertiary education attainment is between almost 40% and above 50%. Furthermore, with this wider definition of tertiary education the numbers for some other countries would also increase. Finally, treating all graduates from upper secondary vocational schools as highly skilled and similar to university graduates may overestimate their qualifications, as their focus of training is on vocational, and not on general, skills. As discussed above, for the diffusion and adoption of general purpose technologies such as ICT or advanced technologies, it may be important to have a relatively broad distribution of high general skills as gained in universities, even with shorter duration studies, rather than having relatively few people who receive university degrees often after many years of study. In this respect, the introduction of Bachelor studies following the Bologna Process appears to be an improvement.

Training is another lever for boosting the skill level of workers and for adjusting it to the needs of firms. In Austria, business investment in human capital through training is promoted by a tax credit of 20% or alternatively a premium of 6%. Nonetheless, firms and workers appear not to give a high priority to training for certain disadvantaged groups of workers such as older and less-skilled workers (See Chapter 3 and Bock-Schappelwein *et al.*, 2006). Participation in lifelong learning in terms of expected hours in non-formal job-related training over a typical working life is at the EU average, but far below levels in Switzerland, Finland, Sweden or Denmark. Particularly important would be efforts to strengthen participation in training for non-tertiary graduates including inter-company training to foster general skills. However, there are limits for governments to

Figure 4.7. **Education expenditures**
As a percentage of GDP, 2003



1. Public expenditure only.

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

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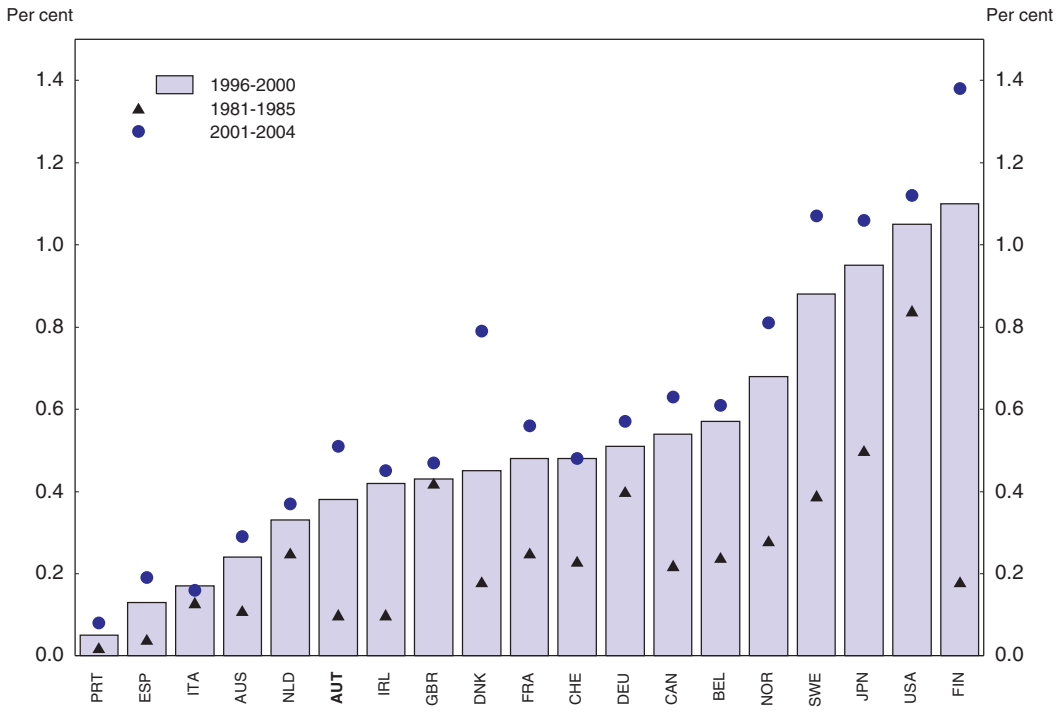
Figure 4.8. **Business sector researchers**
Per cent of total industrial employment, average *per annum*



Source: OECD (2006), Main Science and Technology Indicators database.

StatLink http://dx.doi.org/10.1787/070602466533

influence training activities directly. Simply providing employers with subsidies may be ineffective as long as other barriers remain. For example, reducing the length of working life through early retirement reduces the rate of return of such training and thus firms' and workers' incentives in offering and participating in such programmes.

Conclusions

The discussion so far suggests that there are potential complementarities between general framework conditions for growth and R&D support policies. While Austria's overall framework conditions for growth are quite favourable and have contributed to Austria's good economic performance, in a few areas which are particularly relevant for innovation, some weaknesses remain. In particular, restrictive product market regulations (including barriers to FDI and entry barriers) and financing constraints for new innovative firms may restrain the creation and diffusion of innovation in Austria, in particular in services. This may, perhaps, explain why Austria benefited less than some other countries from the ICT productivity boom of the 1990s. As the use of ICT has become more universal, Austria's disadvantage should fade away. However, unless the above mentioned framework conditions are improved, barriers to innovation and diffusion, in particular for services, will persist.

A highly skilled labour force is another important framework condition for innovation and growth. It appears that in the past, Austria's relatively low level of tertiary education was probably not a major constraint on its growth performance. However, looking forward and also considering the education performance in some other highly developed countries,

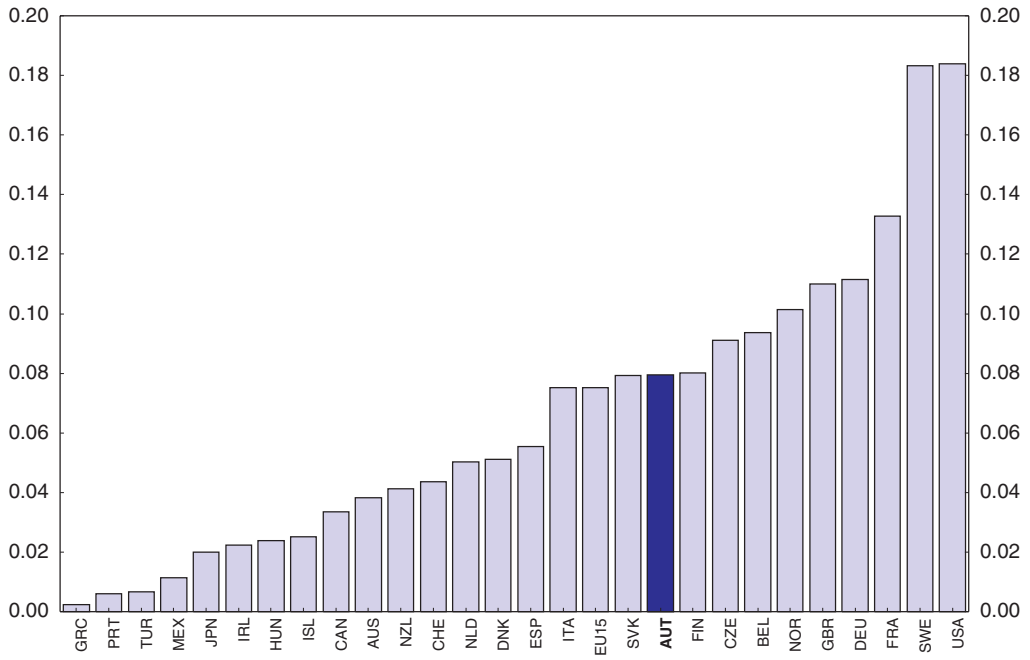
Austria would be well advised to expand its tertiary education and also improve its efficiency. The recent university reform is a step in the right direction but there is room for further improvements as discussed below.

Recent innovation policy initiatives and suggestions for further reform

R&D promotion has been strengthened

As discussed above, Austria has significantly increased its total R&D spending in recent years, and the government aims to further raise it to 3% of GDP by 2010. To raise innovative activity, a variety of policies is used, such as direct subsidies and tax incentives. Direct government funding to business R&D is about EU 15 average (Figure 4.9). It is planned that in the coming years, the annual increase of Federal Government R&D expenditure will amount to about 10% and that in the end about two thirds of total R&D will be funded by the private sector (up from currently 62%) and one third by the public sector (down from currently 38%).

Figure 4.9. **Direct government funding of business R&D**
Average 2001-03, as a percentage of GDP



Source: OECD (2006), *Going for Growth*.

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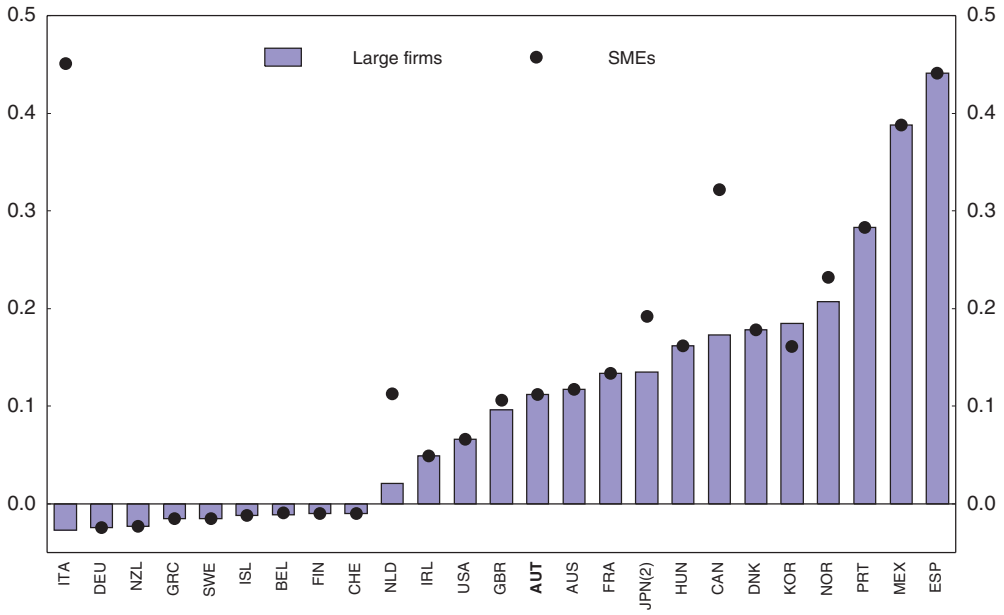
Among the direct subsidies, there has been a long tradition of providing grants and loans to individual firms that apply for R&D subsidies to support their planned research and innovation projects (project-based firm level funding). Since the 1990s, more emphasis has been put on linkages between academics and industry and science-based industrial research which led to new innovation support programmes. Examples include the science-industry linkage programme K-centres[15] and initiatives to foster generic technologies such

as biotechnology, nanotechnology and ICT. Since 2002 the company sector has raised its R&D expenditures by 33%.

The tax treatment of business R&D spending is relatively generous although lower than in a number of other OECD countries (Figure 4.10).

Figure 4.10. **Tax treatment of R&D in OECD countries**[1]

Rate of tax subsidy for one unit of R&D in 2004



1. Tax subsidies are calculated as 1 minus the B index, which is defined as the present value of before-tax income necessary to cover the initial cost of R&D investment and to pay corporate tax.
2. The 2004 B index for large firms in Japan applies to firms with a ratio of R&D to sales of less than 10%. The B index for large firms with an R&D to sales ratio above 10% is 0.831. The B index for research conducted in collaboration with universities is 0.782.

Source: OECD (2005), *OECD Science, Technology and Industry Scoreboard*.

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For R&D expenditures which are assessed to be "leading to an economically valuable invention", a tax credit of 25% can be deducted from pre-tax profits, and it increases to 35% for additional R&D expenditures (as compared with the average of the last three years). The Ministry of Economics and Labour (BMWA) has to certify the economic value of the invention unless it has been patented already. Furthermore, since 2002 the 25% tax credit is also granted for R&D expenditures as defined by the OECD Frascati Manual.[16] Alternatively, since 2004, an 8% R&D grant (research premium) can be obtained, intended for firms which are not yet profitable, notably start-ups. In 2005, this regulation was extended to subcontracted research. After the reduction of the corporate tax rate from 34 to 25% in 2005, which has reduced the subsidy value of the tax credit, more and more profit-making firms also prefer the research premium to the tax credit. This implies that direct government funding of business R&D will rise considerably as R&D cash grants are counted as direct funding of firms.

There are different views on how successful direct and indirect R&D promotions are. In general, the rationale for subsidising research activities is that these are thought to have positive spillover effects which raise the social above the private rate of return so that,

without government intervention, there would be under-investment in R&D. Both direct firm subsidies and tax incentives support a broader and more market-driven range of research activities. By providing direct funding, the government can gain valuable knowledge about firms' innovation activities which can feed back into innovation policy design. However, applying for R&D support and going through the evaluation process may be burdensome and costly for small firms (although there currently exists no empirical study on the size of such costs). By contrast, tax incentives or R&D grants are relatively easily accessible also to smaller firms. They also require less administrative work for the government. Both direct firm funding and tax incentives can, however, involve considerable deadweight losses, *i.e.* investment is supported which would have been carried out anyway.

Direct subsidies other than "demand-driven" firm subsidies to individual firms, such as science-industry linkage programmes or generic technology development programmes, can improve access to external knowledge for firms, enhancing their innovative capacity. They also allow tailoring the allocation of funds towards projects or areas that are thought to offer the highest social return such as anti-pollution technologies, and they can also enhance the diffusion role of general purpose technologies.

One criticism of the Austrian R&D support system is that it is based on "demand driven" subsidies focusing too much on projects which arise out of firms' routine innovation activity and does not really speed up structural change. Indeed, most of public direct and indirect R&D support is allocated to individual firms – in 2003, almost 80% – with the remainder allocated to specific research fields, personal grants and international networks (Schibany and Jörg, 2005). By contrast, neighbouring Switzerland achieved its strong innovation performance without subsidising research activities of individual firms but supported R&D through innovation networks (OECD, 2006b; OECD, 2006c). Some re-balancing of public support thus seems reasonable, in particular towards fostering networks between SMEs and research centres. However, the success of this policy depends on how it is pursued in practice, while giving undue emphasis to specific sectors or areas could also lead to government failure to choose the right ones, which is a systemic risk of winner-picking strategies.

According to various evaluations, the "direct firm programme" administered by the former business research fund (FFF) and the K-centres have been successful and have induced additional private spending, increased innovation and output of firms, as well as increasing the number of firms engaged in R&D (Arnold *et al.*, 2004; Falk, 2006; Steyer, 2006; Bundesministerien, 2006).[17] Direct funding through traditional FFF grants has, however, focused on "good projects in good firms" which suggests a large element of deadweight loss and also focused on incremental innovation projects with relatively few risks involved, implying that such spending could be cut without loss of innovation. By contrast, establishing K-centres and their K-plus programme was a step forward with R&D funding being reallocated more towards fundamental research; the new COMET programme is continuing this approach (Hutschenreiter, 2005).

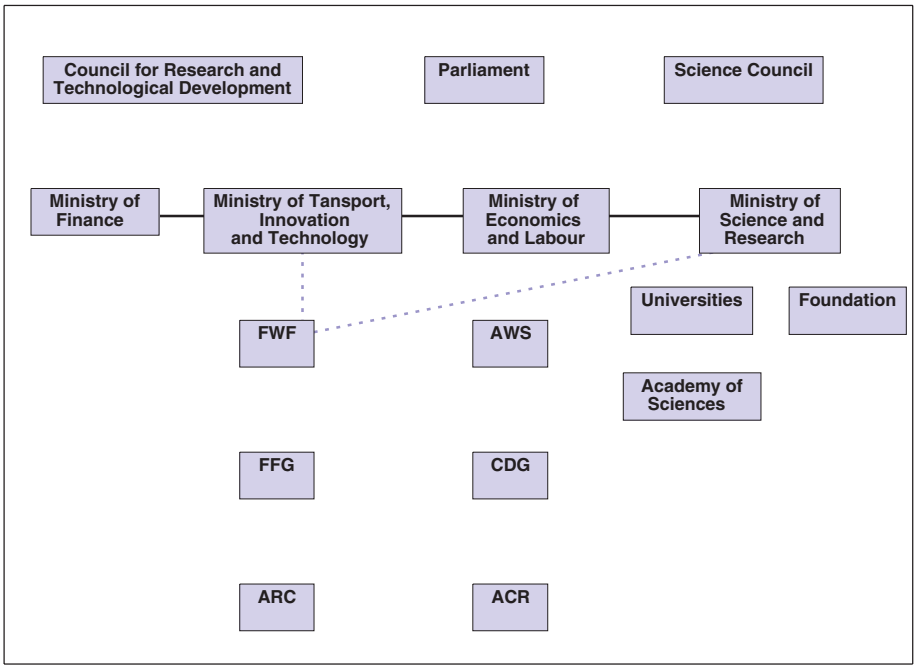
The system of tax incentives and R&D cash grants has not been evaluated up to now. It seems that in the past, tax incentives given for so-called "economically valuable inventions" have mainly benefited larger firms.[18] This tax credit also requires administrative screening by the BMWA, reducing one of the advantages of this instrument as mentioned above. The reduction of the corporate tax rate has reduced the subsidy value of the tax credit, and many firms are now shifting towards applying for direct subsidies. Ministry of Finance data show a

sharp increase in R&D cash grants, leading to an increase of direct government funding of business research. *An evaluation of this system is thus necessary with a view to cutting back expenditure to the point where its efficiency can be demonstrated.*

The institutional framework for innovation policies has been rationalized but further reform is needed

Austria's first innovation support policies which were introduced with the Research and Promotion Act of 1967, reflected a concept of innovation emerging from research laboratories of firms and generating positive externalities for the economy, which justified subsidizing firms' R&D activities. Innovation policies were later broadened to other types of support, including for specific research fields and networks. Over the years, a highly fragmented research promotion system has emerged with a multitude of support agencies and overlapping programmes. After an in-depth review of the structure of agencies and programmes (Arnold *et al.*, 2004,), the system was rationalized in 2004 by merging some promotion agencies and programmes, although the system still appears to be complex (see Figure 4.11 and Box 4.1). Considerations *should thus be given to reducing the number of promotion agencies and clarifying the roles of those remaining.*

Figure 4.11. **The organisation of innovation policy in Austria**



At the government level, three ministries (Ministry of Transport, Innovation and Technology (BMVIT), Ministry of Economics and Labour (BMWA) and Ministry of Science and Research (BMWF) have been in charge of formulating, supervising and coordinating innovation support schemes while the Finance Ministry also monitors the allocation of public spending and participates in designing any new programmes. The division of

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Box 4.1. **R&D promoting agencies**

There are three key R&D promotion agencies: *i)* the Austrian Science Fund FWF (*Fonds zur Förderung der Wissenschaftlichen Forschung*) which is funding basic research; *ii)* the FFG (*Forschungsförderungsgesellschaft*), which has been newly created by merging a number of formerly separate agencies and which deals with most support programmes for business R&D; and *iii)* the AWS (*austria wirtschaftsservice*), which provides special loans to innovating firms to adopt new technologies and seed capital for start-ups. Furthermore, the National Foundation for Research, Technology and Development (*Nationalstiftung für Forschung, Technologie und Entwicklung*) has been set up by using funds from the Austrian National Bank and the ERP fund to ensure a steady financing of the existing programmes of the various agencies. There exist also a number of partly publicly funded research organisations such as: the Austrian Research Centres (ARC) which carry out research that is linked to business demands; the Christian Doppler Research Association (CDG) which focuses on science-industry cooperation (both CDG and ARC cover 50% of costs with business receipts); and the Austrian Cooperative Research (ACR), which promotes R&D of SMEs. Since mid-2006, the FWF, the FFG, the CDG and the ACR are located in the same building in Vienna which also should facilitate their cooperation.

While some progress has been made in better defining responsibilities and streamlining programmes, there are still programmes that overlap but are run by different agencies. For example, programmes to improve links between science and business are run both by FFG and CDG.

Given the multitude of agencies and programmes, efficiency could be increased by further rationalization. Furthermore, programmes should be regularly evaluated so as to prevent deadweight losses and the crowding out of private seed capital.

responsibilities between ministries has led to some competition about the "best policies" but has also reduced cost-efficiency (high administrative cost in relation to the support volumes), as well as cutting down the sometimes unclear relations with the funding agencies (Arnold *et al*., 2004; Jörg, 2005). It has therefore been suggested by the Council for Research and Technology (RTD) to reduce the number of ministries which are directly responsible for innovation policies from three to two. The new government has, however, not followed this advice. There has been some re-organisation of responsibilities between ministries: the Science Ministry (BMWF) now shares responsibility for the basic research fund FWF with the Ministry of Transport and Infrastructure (BMVIT) while the Ministry of Economics and Labour (BMWA) shares responsibility for the AWS with the BMVIT.[19] Overall, it appears that at the government level innovation policy is much too fragmented. It has also been suggested that ministries should basically only deal with designing innovation policies but not interfere in the operation and staffing of the various agencies (Arnold *et al*., 2004) although it appears that this recommendation has not been implemented so far (European Commission, 2005). *Hence, the division of tasks between ministries and agencies should be better clarified such that ministries focus on strategies and agencies on implementation.*

There are two advisory bodies helping the government in developing science and innovation strategies and coordinating of policies: the Austrian Council for Research and Technology Development (*Rat für Forschungs und Technologieentwicklung, RTD*) and the Austrian Science Board (*Wissenschaftsrat*). Both provide advice on general R&D policies but the RTD is more active in advising on the allocation of funds while the Science Board is mainly an

advisory body to the Science Ministry (BMWF). It has been suggested that these two advisory bodies should be merged or at least cooperate closely since both develop strategies and make recommendations in overlapping areas (Arnold *et al*., 2004). This has been confirmed by their recent recommendations with respect to human capital formation and the promotion of research excellence (Austrian Science Board, 2006; Austrian Council for Research and Technology Development, 2005). Furthermore, it has been recommended that the role of the RTD be strengthened by extending its mandate. Currently it is an independent advisory body, not formally under the control of government or parliament, and its proposals are not binding (OECD, 2005c). Nonetheless, the RTD appears to have some influence on the distribution of funds across programmes. There are currently two innovation strategies: one by the Council (2006) and the other elaborated by the ministries and agencies in the framework of Austria's National Reform Programme for the European Union (2005). It is clear that the second strategy is more binding as it has been discussed and voted by Parliament. In some other OECD countries, innovation councils include government ministers or are even headed by the Prime Minister, such as the powerful Finnish Council for Science and Technology Policies (OECD, 2005b) or the Japanese Council for Science and Technology Policy (CSTP) (OECD, 2006d). However, this is not the case in Austria. *Therefore, the effectiveness of the two existing Councils should be increased by better clarifying their role to avoid overlap and by giving their reports more weight as independent advice to increase spending efficiency.*

The R&D policy advisory body should also broaden its approach by considering the interactions between science and technology policies and general economic policies and framework conditions which – as discussed above – have been found to be as important, or even more important for R&D development than specific science and technology policies. In particular, removing barriers to competition can be an important driver for innovation and growth. This also means that the Federal Competition Authority (FCA) has an important role to play in improving framework conditions for innovation and growth and should take a pro-active role in improving competition through enforcement.

Initiatives to improve university research

The Austrian government plans to increase the quality of scientific research and its linkage with business via three main policies: *i)* the establishment of a new top research centre, called the Institute of Science and Technology – Austria (IST-A), which will focus on excellent basic research; *ii*) the Graduate Schools for improved research training; and *iii)* clusters of excellence, which will establish centres of excellence at existing universities. These initiatives are supposed to be coordinated with other programmes, such as the new business-science bridging programme COMET. They will be mainly funded by the Austrian Science Fund (FWF), although IST-A will also receive contributions from industry. In addition, existing programmes targeted at fostering research excellence are the programme START which provides funding for excellent young scientists and programmes to bring back Austrian scientists who have emigrated abroad (Brainpower Austria). The overall goal of these policies is not only excellence in science, but also economic, in that they should foster Austria's structural change towards high-tech sectors (Austrian Council, 2006; Austrian Government, 2007).

While aiming for research excellence is important in itself, some caution is needed when it comes to government funding. According to public universities' development plans, nearly all of them want to increase their research (Bundesministerien, 2006). Next to IST-A and the traditional public universities, there is also the Austrian Academy of Sciences with several well known research institutes such as the biotech institute IMBA.

There is thus a clear risk of fragmentation with projects and research centres failing to achieve a critical mass as well as an appropriate balance between basic and applied research. *It is therefore important to enhance competition between research centres for public funds which could also lead to some rationalisation as the least efficient may not survive. For competition to be able to work, the Science Fund should be allowed to finance not only direct project costs, but also administrative overheads, as mentioned in the recent Government Programme.*

Facilitating immigration of highly-skilled workers and researchers

Excellence in research also depends on access to worldwide scientific talent which is becoming increasingly mobile. There are no legal restrictions for university professors and researchers, even from outside the European Union, to work in Austria provided that they have a contract with an Austrian university or research institution. However, they need a residence permit which appears to be easy to get for temporary residence but more difficult for permanent residence. Their family members can, however, only get temporary stay permits and they also face restrictions if they want to work in Austria. The granting of work permits is, however, eased for family members (or support staff) of high level researchers (and managers) earning more than € 4 500 per month while spouses of other researchers are allowed to work only if they qualify as "key workers". They must earn at least € 2 300 per month and must apply for a place within the so-called "key workers quota" which currently stands at 1 250 per year, distributed across Austrian regions according to fixed shares. The same restrictions currently apply to foreign researchers from outside the EU if they want to switch from their Austrian research institution to work for an Austrian firm, but are scheduled to be dropped. This inhibits potential technology transfer from universities to firms and may harm innovative capacity of firms. The quotas for "key workers" are also a barrier to the immigration of highly skilled workers from outside the EU (Miljkovic, 2006). *Authorities should simplify administrative procedures for researchers' immigration and should facilitate their entry into firms. Barriers to work for spouses of researchers should also be removed as these barriers are an increasingly important obstacle to researcher mobility. Furthermore, immigration of highly skilled workers should generally be eased.*

Improving higher education

Given Austria's relatively low share of workers with tertiary education (as mentioned above), the government intends to increase the number of tertiary graduates. According to official long-term projections graduates from universities of applied sciences (*Fachhochschule*) are projected to more than double between 2003 and 2020 from below 3 000 to almost 7 000 while general university graduates are projected to rise from 14 500 to 15 500 (BMBWK, 2005). However, the decisions of individuals to invest in tertiary education are voluntary and also depend on factors outside the sphere of government influence, such as socio-economic behaviour, insufficient wage dispersion between different skill levels or relatively low demand for university graduates as compared with other workers; the latter, however, also depends on how responsive universities are to business-specific needs for higher skills. Government intervention outside the education sector also affects the decision to go to university, such as a highly progressive income tax which reduces the net return from higher education. Within the education sector, the size of tertiary education depends not only on the efficiency of universities but also on how well basic and secondary education are in equipping students of all groups of the population with the necessary skills to successfully participate in tertiary education if they so wish. All this implies that a broad

approach is needed to raise the share of highly skilled labour, including addressing the problems with very early selection/tracking of students into academic/vocational streams.

With its university reform in 2002, Austria has made a major step in improving the efficiency of the university system (Box 4.2). However, it is still too early to fully assess the impact of this reform as some measures have only been implemented very recently. Nonetheless, OECD work on tertiary education which includes Austria, and has been carried out after the university reform, suggests that Austria's education system needs further upgrading (OECD, 2007, forthcoming)[20]. According to this analysis, Austria's

Box 4.2. **Austria's university reform**

Following the 2002 University Organisation and Studies Act (UG or University Act) and the European Bologna Process, Austrian public universities are in the middle of implementing wide-ranging reforms. The Bologna three-tier degree structure Bachelor-Master-PhD is in the process of being introduced: in the winter semester 2005 nearly 50% of the regular first-degree programmes provided by universities and universities of applied sciences (*Fachhochschule*) were offered as Bachelor/Master courses. This change is expected to significantly shorten study duration and also facilitate students' mobility in Europe.

With the University Act, Austria has moved away from a system where government tightly controlled input and output of universities to a more flexible system, where universities have more autonomy but at the same time are held more accountable for what they are doing. Universities became legal entities under public law, having full legal capacity which allowed a consolidation and registration of all resources and costs. Universities are autonomous in setting course content and in using the funds provided by the state. They are the employers of their personnel, and new staff are no longer hired as civil servants but on the basis of private contracts which are negotiated between the umbrella association of universities and the trade union.

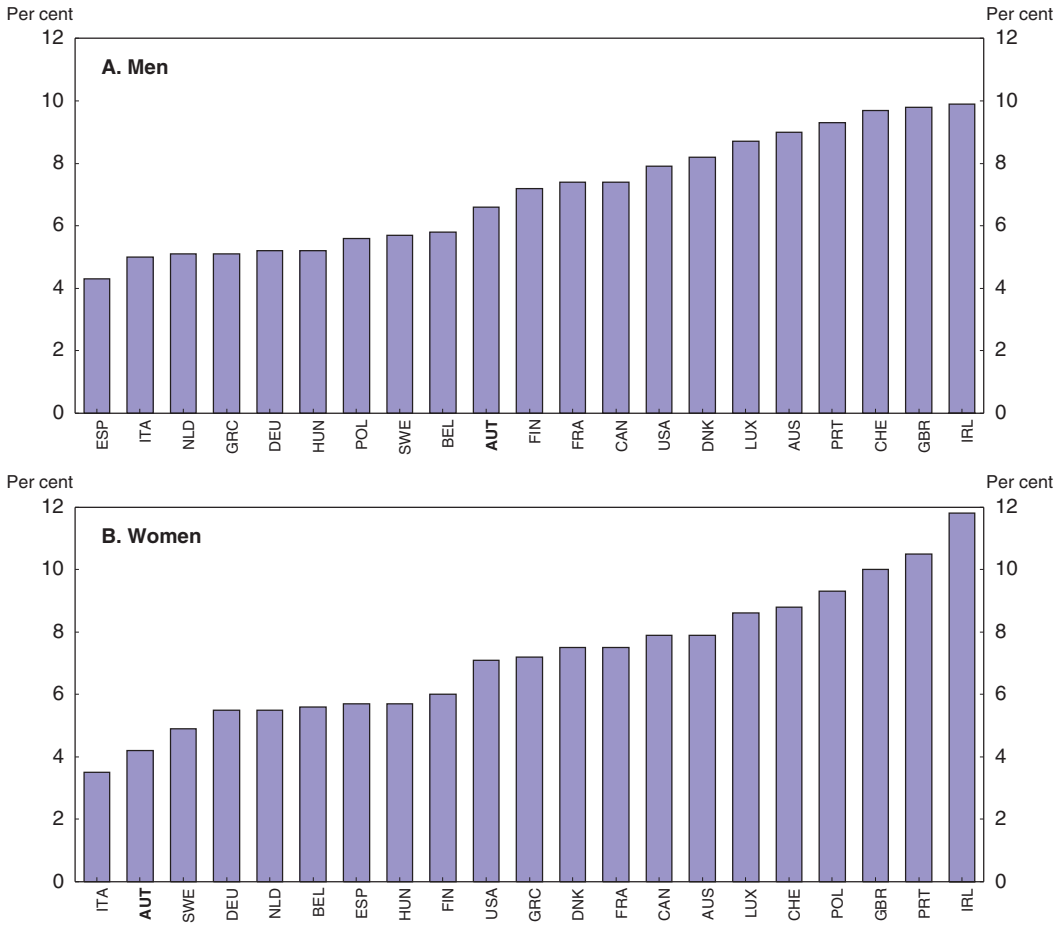
The University Act also introduced a new system of funding that fully entered into force with the budget for the year 2007. Under the new system, universities get funds from three sources: *i)* from the federal government in the form of three-year global budgets; 80% of the total government funds are distributed according to three-year forward-looking performance agreements between the ministry and the individual university and 20% are distributed according to performance, as measured by a set of backward-looking indicators; *ii)* from student fees which are retained by the universities in which students enrol. These fees were introduced in 2001 but until 2004 their revenues accrued to the federal government budget. Student fees account for roughly 5% of total university funds and universities are autonomous in the use of these revenues. However, they cannot decide on the size of tuition fees as this is set uniformly by the Parliament; students have to currently pay € 363 per semester; *iii)* The final source of funds for universities are receipts from commercial activities such as from property, investment of their assets and conducting research on a commission basis, national and international research funding.

Universities' accountability has also improved. While the government continues supervising core educational services, universities have to establish quality management systems and all have now regular evaluations by students; some institutions also have evaluations by independent or government-funded agencies or outside observers. They must also deliver to the government the so-called intellectual capital report and a development plan, in which they define their particular strengths and competences and long-term resource requirements for building a specific profile.

universities continue to have less autonomy and flexibility to decide on inputs and outputs than in a number of other OECD countries, such as Japan, Finland, the United Kingdom and most states of Canada. This reduces the efficiency of universities and their possibilities to adjust their supply to student's needs. The OECD study also found that in Austria the economic incentives to go to university (as measured by the rate of return of tertiary education) are not particularly high for males and very low for females (Figure 4.12).

Figure 4.12. **Estimates of the internal rates of return to tertiary education**

2001



1. Uniform labour productivity growth across countries assumed to be 1.75% per year.
2. Poland and Switzerland in 2000 and Hungary in 1997.

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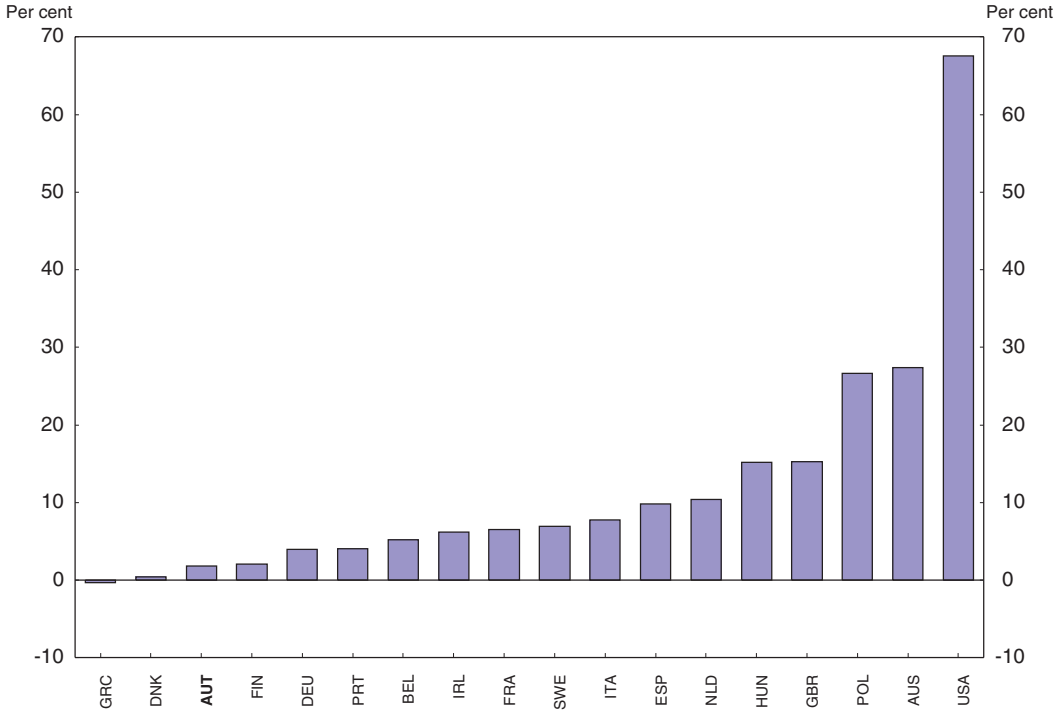
This is not because of the recently introduced student fees, which are relatively low compared to many other countries (Figure 4.13), but rather because of a relatively long duration of studies, a high top marginal income tax rate (compared with the average tax rate) and the relatively small positive effect of tertiary education on employment probability, in particular for females (Figure 4.14). The relatively low rate of return could be an explanation (among others) of why Austria's tertiary education has remained smaller than in most other highly advanced countries.

Figure 4.13. **Tuition fee costs in international comparison**[1]



1. Tuition fees of tertiary education as a percentage of gross annual wages of an upper secondary degree holder.
Source: OECD.

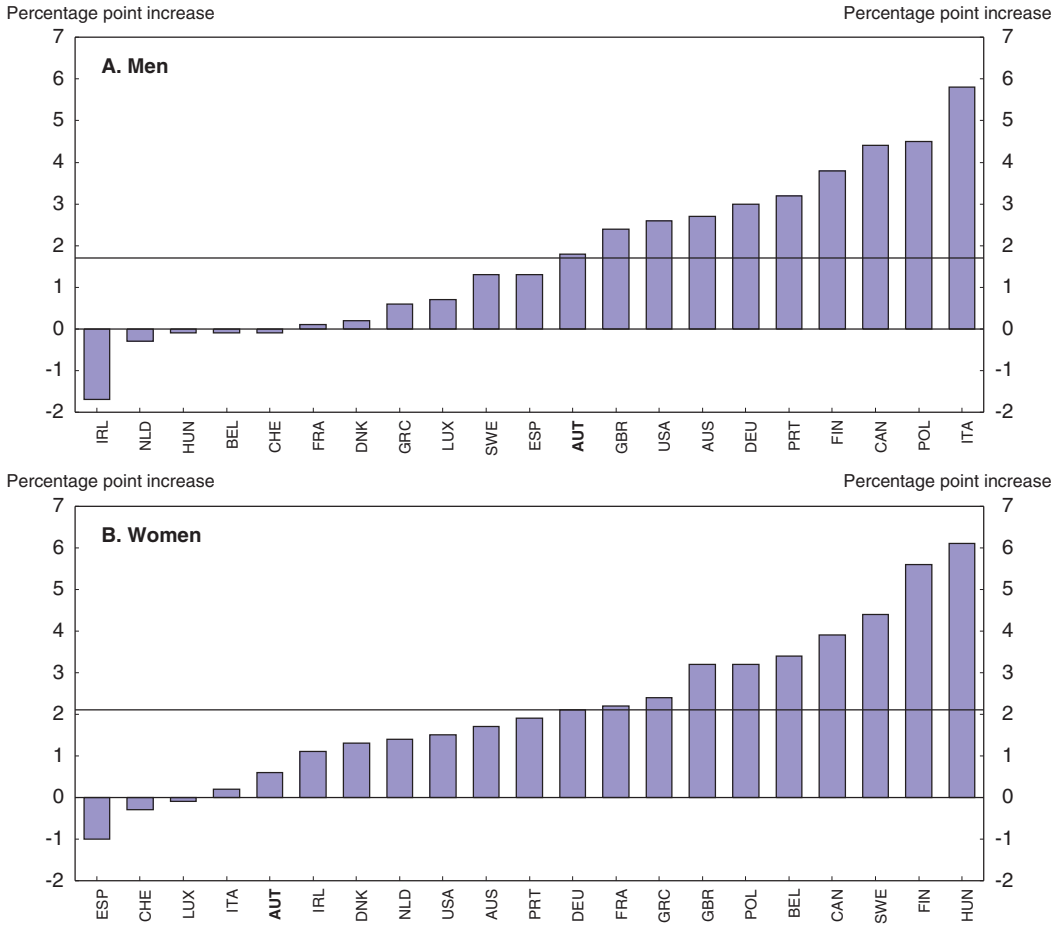
StatLink http://dx.doi.org/10.1787/070783364011

The following subsections briefly discuss two policies which may further improve the ability of Austria's universities to offer high quality education, but which are both highly sensitive in the current political discussion. These are: *i*) allowing universities to select students; and *ii*) giving them autonomy to set the level of student fees.

Allowing universities to select students

Austria has universal free access to public universities for all students who finish upper secondary school with a diploma (the "*Matura*"); the exceptions are medicine, where there are entry tests and quotas for holders of secondary school leaving certificates which have been issued in Austria or in the EU, and the University of Applied Sciences; both have the right to select students for the limited amount of places they offer in their courses. The generally free access contributes to overcrowded courses in some fields of study and high dropout rates of about 40%, among the highest in the OECD (Figure 4.15). Many students leave the chosen course voluntarily after being frustrated by overcrowded courses, having found out that they prefer jobs which don't require a university degree or take up another course. Many others are, however, also forced to leave after one year as they don't pass the exams which appear to be particularly difficult as these are also used by universities to reduce student numbers to more manageable levels. This causes high opportunity costs for individuals and the society in terms of foregone earnings, frustrations and wasteful spending. It would therefore be better to allow universities to select students at entry, as is the case in many OECD countries. This would require finding an efficient and fair selection mechanism; experiences in other countries may be helpful in this respect.[21] However,

Figure 4.14. **Marginal effect of higher education on employment probability**[1]
2001[2]



1. Increase in probability of employment: tertiary degree holders relative to upper secondary degrees.
2. Hungary in 1997, Poland and Switzerland in 2000.

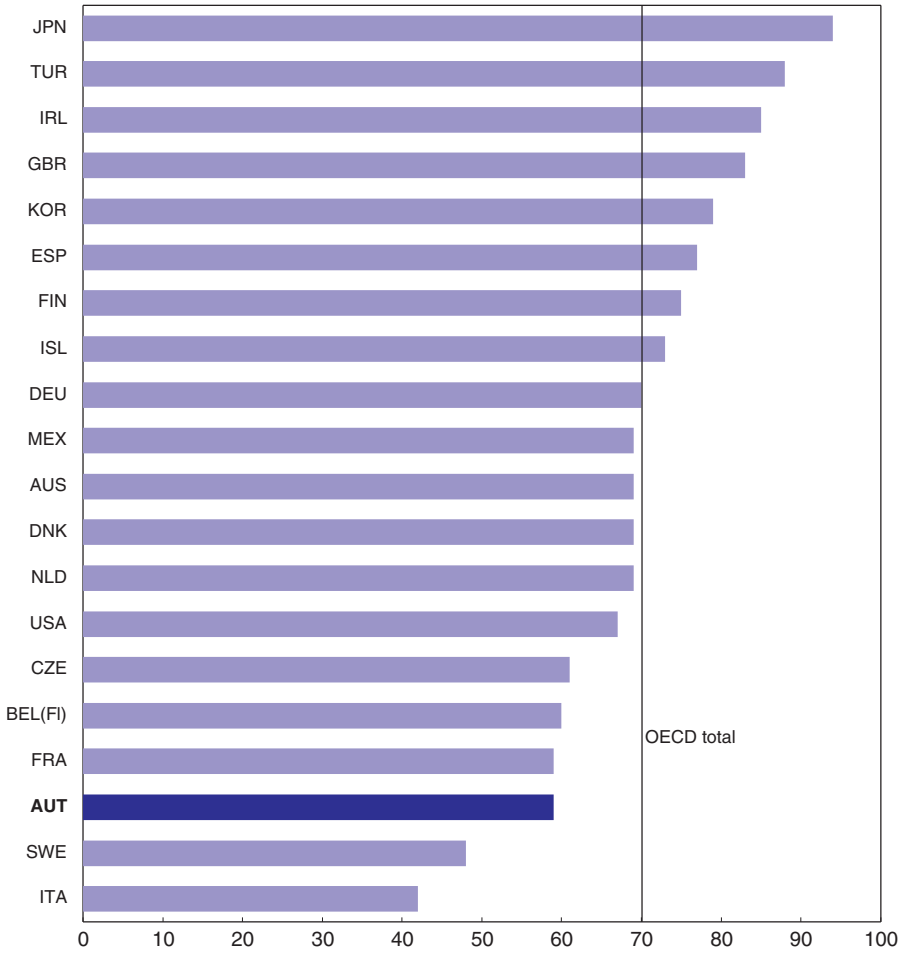
StatLink http://dx.doi.org/10.1787/070831154673

raising completion rates will not be achieved by selection alone, but will also have to be accompanied by improvement of governance and quality of teaching and learning.

Allowing universities to set the level of tuition fees

As mentioned above, Austria has introduced tuition fees which are set by the federal government at a uniform rate per semester for all universities (currently € 363 per semester). Some OECD countries which have introduced tuition fees for public universities give them autonomy to setting the levels, sometimes up to government-defined ceilings. This has the advantage of further developing competition, improving efficiency and making the system more responsive to student preferences: a likely outcome is increased diversity and differentiation of the system, as universities have more direct control over funds and can design their courses more closely in accordance with students and labour market needs. An important condition for this to work is transparency and accountability of universities.

Figure 4.15. **Survival rates in university level education, 2000**[1]



1. Percentage of graduates in relation to the number of new entrants in the typical year of entrance to the specified programme.

Source: OECD (2005), *Education at a Glance*.

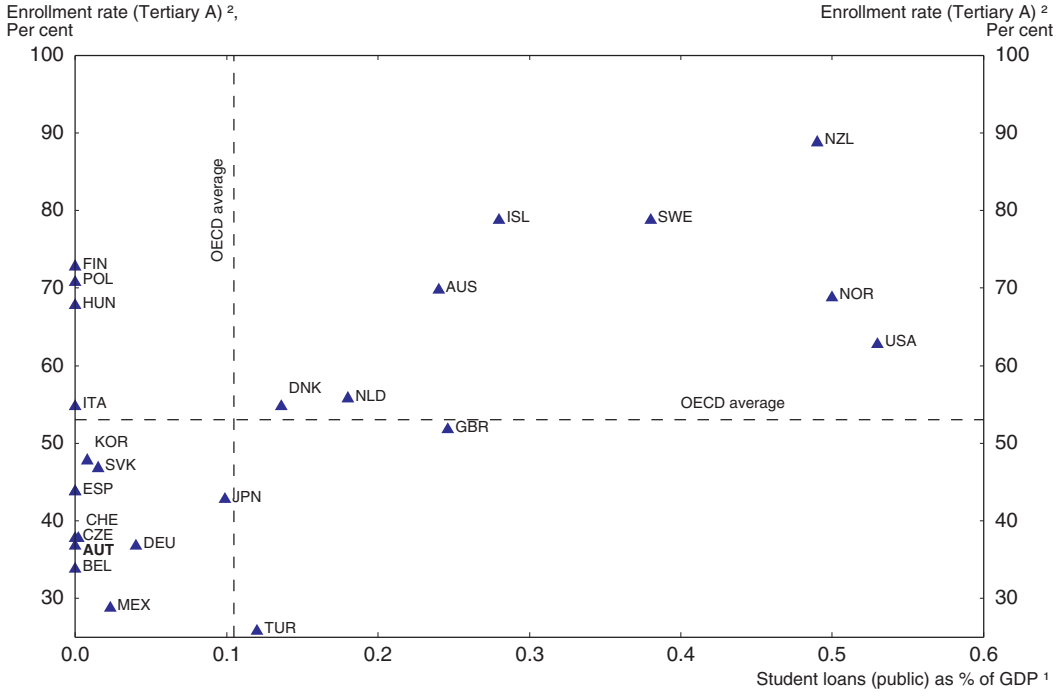
StatLink http://dx.doi.org/10.1787/070872213831

In Austria (as in some other OECD countries) there are different views about the pros and cons of having tuition fees at all or allowing universities to fix them, which would in the case of Austria likely imply an increase in fees. Opponents of having tuition fees (or of increasing fees) argue that it reduces tertiary education in general which runs counter to the objective of improving the skill level of the workforce. It also raises concerns as poorer students are most affected and may be *de facto* excluded from university education. Both arguments are valid if tuition fees are not accompanied by properly designed policies. Indeed, by increasing costs of studying, tuition fees tend to reduce the rate of return of tertiary education and incentives to study. Furthermore, the share of students from families with lower incomes and lower educational background is already rather low in Austria posing the risk of perpetuating the educational divide across generations. On the other hand, a strong argument in favour of tuition fees is that private returns of tertiary education are higher than social returns as tertiary graduates benefit from higher salaries while the costs of universities are borne by society and thus to a large degree by workers with lower education and incomes. Furthermore, for a number of reasons free or low fee

systems have generally not been able to significantly raise the share of students from poorer families and also ended up with equity problems. In Austria, the early streaming of students according to the various types of schools may also contribute to such problems.[22] Considering the various arguments, some countries where tuition fees exist (and at much higher levels than in Austria) have introduced student loan schemes, which enable all students, independent of their economic background, to go to universities if they wish.

There are concerns that student loans may lead to excessive debt leading to high default rates and fiscal costs or – the other extreme – that this measure is inefficient in increasing access to university as students are risk-averse. However, in countries with loan programmes, default rates have been very low and countries with student fees and large loan programmes tend to have relatively high enrolment rates (Figure 4.16). While the causation of this relationship can run in both directions, it is consistent with the view that student loans facilitate access to university and that concern about equity problems caused by student fees are not founded. Nonetheless, the overall efficiency of student loan programmes also depends on their design. A number of countries have introduced loans with loan repayments varying with income (see Box 4.3). With such income-contingent loans, students who don't succeed in getting a well paid job will not be stuck with high debt servicing costs and do not have to repay the full loan. Such schemes should also facilitate university access for students who are particularly risk-averse, including those from poorer backgrounds and appears to be more efficient than providing subsidies to poorer students (for a further discussion see Chapter 6 of *OECD Economic Surveys: United States*, 2007).

Figure 4.16. **Student loans and enrolment rates, 2003**



1. Loans are valued at principal.
2. US enrolment is for both tertiary type A and type B institutions.

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

StatLink http://dx.doi.org/10.1787/070874466173

Box 4.3. **Income contingent loans**

Income contingent loans (ICLs) help students to finance higher education including tuition fees and at the same time protect them against excessive risks as there is built-in insurance against inability to repay (Barr, 2004). ICLs are a relatively new instrument and only a few OECD countries have implemented them, such as Australia, New Zealand and the United Kingdom (only recently). In the first two countries, entry into universities has increased after its introduction (OECD, 2007, forthcoming).

ICLs work as following: The repayment of the loan only starts once the person enters employment and only above a certain income level. Debt service costs are calculated as a per cent of monthly income so that a larger loan or higher interest rate do not increase monthly repayments but only lengthen the duration of the repayment. People with low lifetime earnings may therefore not fully repay their debt. ICL are a consumption smoothing tool: just as pension contributions are paid now to finance pension later, income-contingent graduate contributions are paid later to finance education now (Barr, 2004). The system is progressive: individuals who derive greater private benefits from a tertiary degree see the level of their public subsidy reduced. Ceilings on annual and overall borrowing can protect against improvidence (Barr, 2004). Stipulations can be made in the loan to ensure repayment if the graduate has gone abroad.

Experience from the countries which introduced such loan systems show that thorough public information is vital to explain the system and to avoid people being worried about large nominal debt. Repayments can be collected together with personal income tax (OECD, 2007, forthcoming).

Given these considerations the government should consider giving the universities autonomy to set tuition fees and at the same time introduce universal and income-contingent student loan schemes along the lines existing in some other countries (OECD, 2007, forthcoming). The same regime should be applied to the Universities of Applied Sciences. This could help making tertiary education more efficient and more attractive to students and also shorten the duration of studying. Reducing the progressivity of the income tax system would also increase the return on higher education but could only be dealt with in the context of a future tax reform which would also have to consider other aspects.

Box 4.4. **Policy recommendations for making innovation policies more effective**

Simplify the institutional framework for innovation policy

- Merge the Science Council and the Council for Research and Technology (CRT) or enhance cooperation between them, to achieve more coherent policy advice, and strengthen its influence on policies in order to increase spending efficiency. .
- The policy advising bodies and the ministries involved in innovation policies should broaden their perspective by also considering the impact of general framework conditions on innovation, such as the availability of human capital, financial constraints and product market competition.
- The responsibility for specific innovation policies should lie with a single Ministry. Task sharing between agencies and ministries should terminate, with the operational running of innovation support programmes confined to agencies.

Box 4.4. **Policy recommendations for making innovation policies more effective** *(cont.)*

- Pooling of programmes of the various agencies (such as AWS, FFG and CDG) should be considered.

Ensure efficiency of innovation subsidies

- Ensure efficiency of R&D subsidies including tax incentives by regular independent evaluations.
- Further strengthen links between public research centres and the business sector to ensure diffusion of innovation generated in public research.
- Enable competition between universities to prevent lack of critical mass in fostering excellence of research.
- Enhance generic technology development programmes and university-industry cooperation at the expense of direct bottom-up firm support while avoiding giving undue emphasis to specific areas or sectors.

Improve product market competition

- Proceed with reforms to simplify the system of competition policy, in particular merging the Federal Cartel Attorney with the Federal Competition Authority and to strengthen enforcement.
- Further foster competition in particular in professional services and distribution. Also implement EU directives relating to postal services, and services in general.
- Reduce FDI regulations regarding foreign ownership in the liberal professions and other areas.

Improve conditions for start-ups

- Simplify and reduce the cost of firm creation, including minimum capital requirements.
- Strengthen legal protection of minority equity holders and creditors. Further develop the stock market and the venture capital market.
- Create new structures for venture capital funds which conform to international best practice, including even treatment and full openness to international venture capital investors.
- Monitor regularly policies which distribute seed capital to young firms and prevent crowding out of private capital.

Ease immigration of skilled workers and researchers

- Simplify and reduce administrative procedures for immigration of highly skilled workers and researchers, the barriers to their occupational and institutional mobility and the barriers to work for their spouses of researchers, including the quotas for so-called key workers.

Improve human capital development

- Allow universities to select students by appropriate selection mechanisms.
- Allow universities to decide on the level of tuition fees but at the same time introduce a universal and income-contingent student loan system and other policies which offset the potential negative effect of tuition fees on incentives to invest in tertiary education.

Notes

1. Austria has a relatively large "cooperative sector" which includes the so-called "competence centres", which are research organisations that are sponsored by both the government and business and aim to link science institutions and firms. This sector also includes public research organisations which carry out research commissioned by firms (Austrian Research Centres, ARC). The cooperative sector is fully included in the business service sector, all of its R&D spending is recorded there. Many competence centres and also ARC carry out manufacturing-oriented research in fields like electronics, metals, cars or wood. Out of 17 K-plus centres, more than three-quarters work in manufacturing related research fields (*www.ffg.at*).
2. It has, however, been argued that this makes innovation activity in Austria more vulnerable to external influences than in countries where the share of domestic firms in innovation activity is larger. But the fact remains that Austria is an attractive location for innovative multinationals.
3. It has been argued, that innovation of Austrian firms tends to be incremental and modifying rather than radical (Tichy 2001b), a view which is also supported by the relatively low share of new products in overall Austrian firm sales. However, there is also some evidence that such innovation characteristics vary more between sectors than between countries (Breschi *et al.*, 2000), implying that sectoral specialisation determines to a large extent country results.
4. Examples for such niche firms include the manufacture of snow cannons, very low energy consumption housing, car parts for racing cars, airplane components and innovative use of wood for housing. Recently, a growing biotech sector based on spin-offs from excellent basic research institutes is emerging.
5. See Chapter 3 for a more detailed discussion.
6. As is well known, the most famous Austrian economist, Josef Schumpeter, not only emphasized radical innovation and its effect of "creative destruction" as the main driver of growth, but also initiated a controversial discussion about the relationship between competition and innovation. He argued that large firms in monopolistic markets drive innovation as they have the financing means and are also able to reap the return of their invention which would not be possible in competitive markets. This view was rejected by later theoretical and empirical studies including work by the OECD (Jaumotte and Pain, 2005) which found a positive relationship between competition and innovation. The relation between firm size, market structure and R&D activity depends, however, on a number of factors including the degree of property rights. For a recent survey of the literature see Gilbert (2006).
7. Conclusions in this sub-section are based on recent OECD work as presented in Conway *et al.*, 2006; Conway and Nicoletti, 2006a; and Conway and Nicoletti, 2006b.
8. The regulation impact indicators as shown in this figure have been estimated for 21 OECD countries over the period 1975-2003 and reflect the "knock-on" effects of regulation in the following non-manufacturing sectors over this period: Airlines, Telecom, Electricity, Gas, Post, Rail, and Road. In addition, static indicators of regulation in the following sectors in 1998 have also been used in the construction of the regulation impact indicators: retail trade, financial markets (2005), and the professional services (accountancy, legal services, engineering, and architecture). The relatively high value of the regulation impact indicators in ICT-using sectors in Austria *in part* reflects restrictive regulation in the professional services. Full details are given in OECD Economics Department Working Paper 530.
9. This EU database attempts to include the maximum number of factors of production that will be possible to take into account by integrating quantity and "price" data from the national accounts with other detailed information on outputs and inputs of capital (K), labour (L), energy (E), intermediate inputs (M), and services (S) (hence the acronym KLEMS). The analysis of these data will allow the assessment of the national policies aiming to the goals concerning competitiveness and economic growth as established by the Lisbon (2000) and Barcelona (2003) summits.
10. Three-quarters of the total inward FDI stock is in services, particularly in trade, banking and insurance as well as business services, up from two-thirds ten years ago.
11. Venture capital and equity financing matter more for risky innovative start-ups in the service sector because they generally have little collateral for bank loans (OECD, 2001).
12. In several individual service sectors such as retail and banking Austria has fewer highly skilled workers than in benchmark countries (see Wölfl, 2005).

13. Austria would reach the European average of graduates in Science and Engineering (S&E) fields if HTL graduates which are counted as upper secondary graduates were counted as tertiary S&E graduates.

14. In Austria, there is also a discussion on the appropriate classificiation of teachers for primary and lower secondary schools, who in Austria are not trained at university but in specialized academies. However, these academies are included in tertiary education institutions as they are classified as ISCED 5B (shorter and more vocational oriented tertiary education) (OECD, 2004a).

15. See OECD, 2004b.

16. This definition covers activities leading to the acquisition of new knowledge through basic and applied research as well as the development of new or substantially improved production processes or products. See OECD, 2002.

17. The public subsidies distributed as direct grants or loans to firms were shown to cause a crowding-in effect of about 40%, *i.e.* one additional euro of funding induces firms to contribute an additional 40 cents of their own money (Streicher *et al.*, 2004). Output effects in terms of additional cash flow (Klement, 2005) or additional innovative sales from new products (Mohnen and Garcia, 2004) were also found to be positive.

18. It has been estimated that 75% of revenue losses through R&D tax incentives were granted to approximately 20 firms.

19. The new government has split tertiary education from secondary education, thus adding a fourth Ministry – the Ministry of Education – to relevant innovation policy actors, as the Ministry of Education is in charge of the HTL upper secondary vocational schools, important providers of advanced technical skills. Furthermore, the Ministry of Agriculture is also responsible for some research projects in this field.

20. Further information on the autonomy, flexibility, and accountability in this sector is also provided by OECD (2006e).

21. The Universities of Applied Sciences can already select their students. Furthermore, the University of Linz runs a formal information programme on its courses for prospective students. These "information tests" have succeeded in lowering the drop-out ratio by a third.

22. In principle, the financing of higher education costs including tuition fees should be possible also for poorer students simply by using bank loans. However, there are various factors (such as asymmetric information about students' abilities and uncertainty about future income) which contribute to financial market imperfections so that using this source of finance to a larger degree is only possible with adequate government intervention.

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Chapter 5

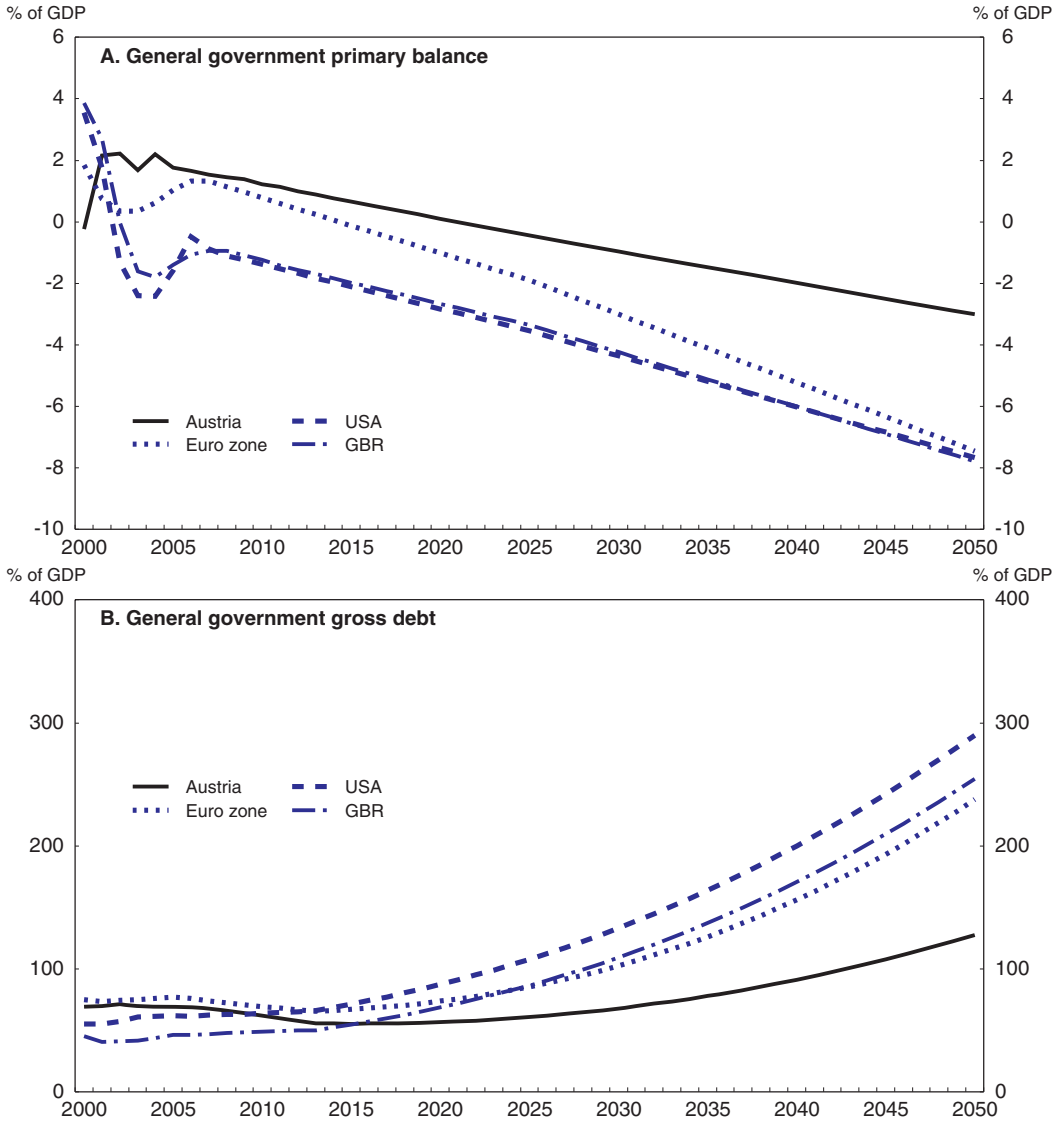
Rationalizing fiscal policy and strengthening public expenditure management

On unchanged policies, and taking into account population ageing, Austria's debt is projected to rise as a share of GDP in the period to 2050, according to OECD projections. Although this increase is less sharp than in most other OECD countries, it implies a need for additional measures aiming at fiscal consolidation. The government has made commendable efforts to contain pension costs and to improve cost-efficiency in public administration, has taken an important first step on health care reform, and aims at achieving a balanced budget over the economic cycle. This requires further fiscal consolidation efforts. The structure of taxation should also be improved to further promote growth and employment and to distribute the fruits of economic growth more equitably. The quality and cost-efficiency of public spending can be strengthened through budgetary reforms (including adoption of a medium-term budgetary framework and of output-based budgeting). Reforming fiscal federal relations, in a manner that gives more responsibility and accountability to all public sector spending agencies and better harmonizes financing and spending responsibilities across all levels of government, can also promote better governance and sound public administration.

On unchanged policies Austria's debt is projected to rise significantly over the long-term

Austria has made considerable progress in fiscal consolidation in recent years, especially with its recent pension reforms. However, OECD projections suggest that, without further efforts at fiscal consolidation, Austria's public debt will rise as a share of GDP in the period to 2050, although less sharply than in most other OECD countries (Figure 5.1). This is

Figure 5.1. **Impact of population ageing on public finances**[1]



1. Based on EO81 database.
Source: OECD calculations.

StatLink http://dx.doi.org/10.1787/070881488843

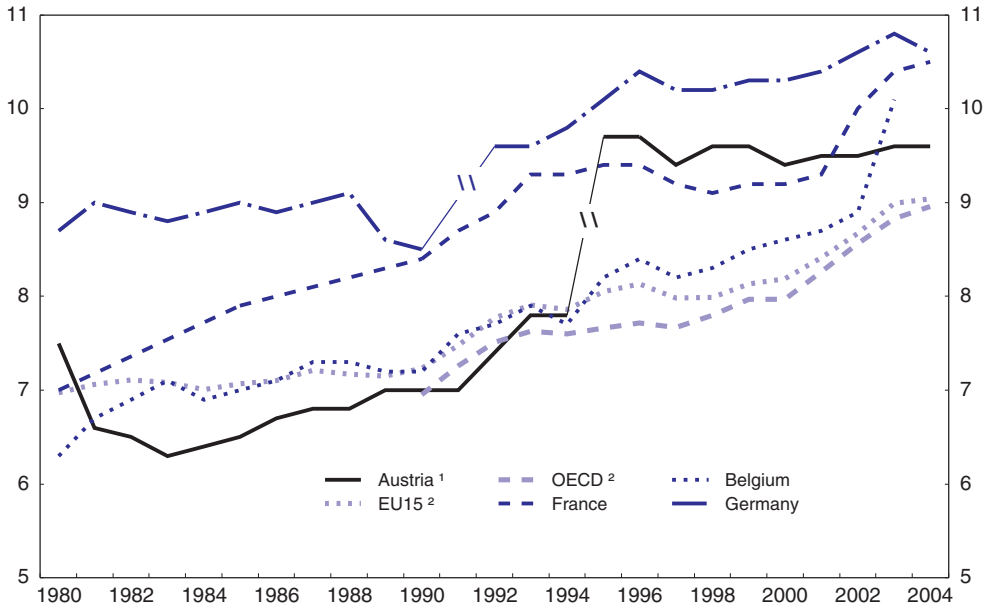
mostly the consequence of population ageing resulting in a significant projected rise in public spending on health and long-term care in the absence of structural reforms (see below). Recent analysis by the OECD indicates that structural primary surpluses – estimated at around 2.7% of GDP over 2006-15, and at 1.6% of GDP over 2016-25 – are required to bring Austria's public debt level down to, and maintain it at, the Maastricht target of 60% of GDP (or less) by 2050 (OECD, 2007).[1] At the same time the Austrian government has an objective of achieving a balanced budget over the economic cycle and lowering the overall tax burden over the long-term (see below). However, given the overall macroeconomic context described above, and in particular the projected increases in spending on health care and long-term care on unchanged policies, any sustainable reduction in the tax burden will most likely require significant cuts in government spending. There is also considerable scope for further rationalizing tax and expenditure policies and strengthening public expenditure management, with a structure of taxes and composition of public spending that is more conducive to growth and employment creation.

A key fiscal challenge is to contain public spending on health care and pensions

Health care costs are projected to rise sharply over the long-run

The share of GDP devoted to health care spending – both public and private – has increased sharply in Austria in the period since 1970, as in most other OECD countries. However, since 1995 total health spending has been fairly constant at around 9.6% of GDP, while it has been rising in most other OECD countries (Figure 5.2). Nevertheless, a key challenge facing

Figure 5.2. **Health spending**
As per cent of GDP



1. Break in 1995 reflecting a shift from ESA95 accounting standards to the SHA satellite accounting system, which provides for a more accurate and comprehensive coverage of tax-financed spending on public hospitals.
2. Simple averages.

Source: OECD, *Health Data 2006*.

StatLink http://dx.doi.org/10.1787/071003145862

policymakers in almost all OECD countries is how to contain the growth in the cost of health care and long-term care arising from a rapidly ageing population, and Austria is no exception. OECD estimates suggest that, without reforms, public spending on health care and long-term care in Austria will rise by 3.8 and 2.0 percentage points of GDP respectively over the period 2005-50 (OECD, 2007).[2] The 2005 Health Reform Plan is a first step in addressing this important issue, but the cost-cutting measures outlined there have yet to be fully specified and it is difficult at this point in time to estimate what impact they will have on the budget (Box 5.1).

Box 5.1. **Health care spending and reform in Austria**

The World Health Organisation estimates that, in 2004, Austria spent a slightly higher share of GDP (9.6%) on health care than the average for the EU15 (9.3%) and the OECD (8.9%). Austria also spends more on health care on a per capita basis, with spending of over $3 100 per capita in 2004 (adjusted for purchasing power parity) compared to an average of $2 800 for the EU15 and $2 550 for the OECD. As in almost all OECD countries, the largest part of overall health spending is publicly funded in Austria, accounting for over 70% of the total in 2004. The past four decades have witnessed both a sharp rise in health spending in per cent of GDP, and an increase in the share of this spending financed by the state. However, between 1999 and 2004 health care spending per capita increased, in real terms, by only 1.9% a year on average, the smallest increase among all OECD countries during that period.[1]

There have been serious attempts at cost-cutting in the health sector over the past two decades. In comparison to 1990, there were 48 fewer hospitals in 2003, constituting a decrease of 15%. The reduction of hospitals in the public and non profit-making hospital sectors was particularly marked. There was also a 7.7% decline in the number of hospital beds over the same period, again mostly in the public and non profit-making hospital sectors.

Despite these attempts at containing costs, the OECD estimates that, in the absence of reforms, health care spending will increase sharply in Austria – as in almost all other OECD countries – due mainly to *i)* demographic factors, *ii)* technological developments in the health sector resulting in a widening of the range of medical ailments that can be treated, and *iii)* the rising relative price of health and long-term care. On unchanged fiscal policies, the share of GDP devoted to public spending on health care and long-term care is projected to increase by 5.8 percentage points over the period 2005 and 2050 (OECD, 2006).[2] Although this is significantly higher than the projected fiscal savings from the recent pension reforms, this may not necessarily pose a threat to fiscal sustainability over the long-run. However, given the other pressing demands on public resources discussed in this *Economic Survey*, containing public health care spending should be given a high priority in order to provide additional public resources to other high priority areas such as education and infrastructure.

The 2005 *Health Reform Act* represents the most recent attempt at reforming the health sector in Austria. The envisaged reforms seek to raise an additional € 300 million of funding for the health sector over the period 2005/08, part of this coming from the federal government (*e.g.* through an earmarked increase in the tobacco tax of € 0.18 per packet of cigarettes) and the rest from the 21 health insurance funds (financed through an increase in health insurance contributions of 0.15%, an increase by € 90 of the maximum contribution base, higher prescription fees, a reduction in social security refunds for optical devices, and other measures). At the same time the Health Reform Act envisages a decline in health care costs of € 300 million as a result of several measures, notably: *i)* a reduction in administrative costs; *ii)* introduction of new forms of organisations in hospitals and better coordination between hospitals and practitioners in the public and private sectors to avoid duplication; and *iii)* a regionally more equitable provision of medical care.

Box 5.1. **Health care spending and reform in Austria** *(cont.)*

A key feature of the proposed reforms is the reaching of an agreement by the federal and state governments on integrated regional health service planning, in line with the forward-looking framework for the planning of supply of health services laid out in the *Austrian Structural Plan for Health*. The objective is to enable the states and the health insurance funds to coordinate service provision and to enhance the integration of service delivery. For this purpose nine *Health Platforms* were created at the State (*Lander*) level as well as a *Federal Health Agency*. The latter is to make provisions for needs-based health service planning and for quality control in service provision, and is to develop guidelines for the use of funds within a newly created "reform pool". This "reform pool" is designed to promote efficient resource allocation by providing stakeholders that gain financially from specific reform measures with a mechanism to financially compensate those stakeholders that lose out, for example as a consequence of shifts in services which arise due to a reduction in inpatient capacities.

These reforms certainly represent important steps in the right direction and have the potential to address resource misallocations and to contain growth in costs (Hofmarcher and Rack, 2006). However, by their very nature it is difficult to appraise the extent to which growth in health care costs may be contained as a result of these organisational changes and other reforms. This is particularly the case since many of these measures remain controversial and it remains to be seen whether the states, the health insurance funds and the federal government succeed, not just in reaching agreement on, but also in implementing needs-based comprehensive health services planning at the regional level. Given these uncertainties, *it is crucial that biannual evaluation of these reforms – as envisaged in the 2005 Health Reform Act – be carried out in a timely, independent and comprehensive fashion, and that the results of these evaluations are fully taken into account in future public health care policy.* The first evaluation is due in 2007.

The new government's programme for the 23rd Legislative Period includes an increase in health spending in a number of areas, particularly on preventive health care and health promotion programmes. It reaffirms the objective of cutting health care costs by € 300 million in the period to 2008, and envisages an additional € 100 million in cost savings over the following two years, mostly through further organisational changes and improved governance in the health sector, and an extension of the reforms already envisaged under the 2005 *Health Reform Act*.

1. The average real growth rate in health spending in OECD countries was 5.2% per year between 1999 and 2004.
2. These projections do not take account of the projected impact of the 2005 Health Reform Act on public health care expenditures.

Recent pension reforms, although commendable, need to go further

The Austrian government has made commendable efforts to contain public pension costs over the long-term. Several studies have concluded that the 2003 and 2004 pension reforms in Austria have not only made substantial progress in securing fiscal sustainability, but have also improved the incentives for longer working careers and later retirement.[3] The 2006 OECD *Economic Survey of the Euro Area* estimates that, as a result of these reforms, public spending on pensions will decline by 1.0 percentage point of GDP over the period 2005-50, sufficient to ensure the financial sustainability of the public pension system.[4] The two main factors behind the expected decrease in Austrian pension expenditures are the projected increase in the average retirement age and the projected

decline in the benefit ratio. Knell, Köhler-Töglhofer and Prammer (2006) and Part *et al.* (2006) similarly conclude that the pension reforms were successful in ensuring the financial sustainability of the Austrian pension system over the long run.

Nevertheless, the current pension system remains generous. The OECD pension models project estimates that the net replacement rate – that is, pension payments divided by earnings, both net of taxes and contributions – for an average earner is around 90%, the fifth highest of the OECD countries and well above the OECD average net replacement rate of 70% (see OECD, 2007b). As a consequence of the dominance of the first pillar (the public pension system), public spending on pensions in Austria – at 13.2% of GDP – is higher than in any other OECD country bar Italy.

Thus further reforms are desirable. The pension reforms resulted in a harmonisation of pension system rules and regulations for private sector workers with those for civil servants working for the federal government. At the same time separate pension schemes continue to exist for civil servants of the states (Länder) and municipalities, for which legislative responsibilities lie with the states. A key policy priority should be the complete harmonisation of public sector pensions, with the pension schemes for civil servants of the states and municipalities being harmonised with the rules of the general pension scheme. Moreover, special early retirement schemes have been repeatedly introduced over the years for civil servants at all levels of government and in public enterprises with the purpose of reducing the public sector workforce or changing its composition. This practice of *ad hoc* special early retirement programmes for public sector workers should be discontinued.

The pension reforms also introduced a new channel into early retirement for "heavy workers", allowing a decline by three months per year in the minimum retirement age for persons doing "heavy work". "Heavy work" has been defined by the government to include a fairly wide range of work.[5] The danger, however, is that over time this definition may be applied very broadly and/or expanded to include an increasing share of the workforce. Moreover, this provision may act as a disincentive for improving working conditions. For these reasons it is recommended that this channel into early retirement be revised. At the very least employers of "heavy workers" should be requested to make a financial contribution to the scheme that fully covers the anticipated additional pension costs. This would introduce an incentive to avoid "heavy work" conditions and help to limit abuse of this channel into early retirement.

The number of disability benefit recipients in Austria is relatively high, albeit declining after a peak in 2004, suggesting a need to modify the design of the prevailing disability pension scheme. Indeed, early retirement and disability pensions constitute around one-third of all pension benefits (Part *et al.*, 2006), and new claimants of invalidity pensions currently account for about 37% of all new pension recipients. Steps should be taken to ensure that disability pensions are only used for people unable to work and to oblige candidate claimants to accept work in another occupation that is feasible on health grounds, with support from the Public Employment Service. The current system is based on own-occupation assessment, which has a number of implications. First, it produces significant inequities across groups of workers, with unskilled workers having lesser access to disability pensions; second, it provides for very easy access to disability pensions for all workers over age 57; and third, it acts as a major financial disincentive for occupational mobility and retraining, because eligibility for a disability pension is lost if the

worker accepts a job in another field, even for a short period. In this regard, decoupling medical and vocational rehabilitation from disability benefit application and, instead, linking rehabilitation with employment services could help to contain growth in pension costs.

Another weakness of the current pension system is that the demographic adjustment or "sustainability" factor that was incorporated as part of the pension reforms is specified only in broad terms and is also non-binding. This adjustment mechanism is supposed to come under consideration if demographic developments deviate significantly from current baseline projections in a manner that adversely affects the public finances. The new pension scheme provides only broad guidelines on how any necessary adjustments are to take place, stating only that such adjustments are to be spread "evenly" among five key parameters, namely the contribution and accrual rates, the eligible retirement age, pension adjustment and the level of federal subsidies. While there is no automatic adjustment mechanism, an expert pension committee has to put forward proposals on adjusting these parameters. Given the considerable uncertainties associated with long-term demographic projections – for example, the baseline projections for public pension expenditures presented in Part *et al.* (2006) are shown to be highly sensitive to assumptions on immigration – it would be wise to specify more narrowly, precisely and simply how the present pension formula would be modified in the face of unanticipated demographic developments with adverse fiscal consequences. There is also a case for making fully automatic the operation of the "sustainability" factor, as is the case in Germany and a number of other countries (Knell, 2005).

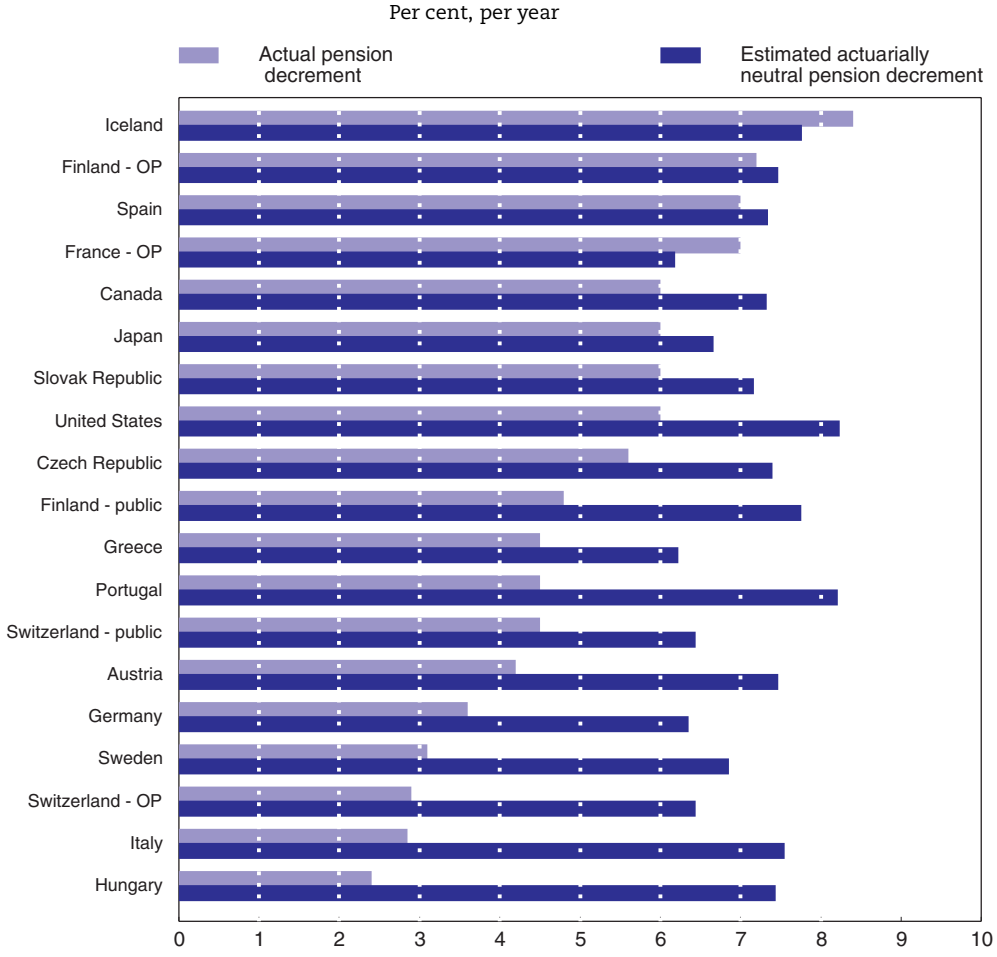
The new government's programme for the 23rd Legislative Period proposes to address a number of these issues. In particular, negotiations are to be undertaken with the states and municipalities to harmonise the pension system in the public sector on the basis of the federal model. The option of early retirement for "heavy workers" will also be re-evaluated, and a study group is to draw up and submit proposals for reform of the disability pension law by 1 January 2008. Finally, automatic adjustment of pensions to changes in life expectancy – that is, automatic activation of the "sustainability" factor – is to be introduced, although it is not clear whether the range of policy options to be considered will be narrowed and made more specific.

At the same time the new government introduced changes to the pension system that halved the reduction in accrued benefits for each year of early retirement before the statutory retirement age of 65 from 4.2% to 2.1%. The objective was to avoid social hardship since, under the pension reforms of 2003 and 2004, early retirees could incur a pension loss of up to 22.6%. This amendment is to apply for a transition period lasting until 2050, and covers persons that are part of both the old and the new pension system: for persons whose first pension contributions start after 1st January 2005, and for disability pensioners, the reduction for each year of early retirement remains at 4.2%. The authorities claim that, even with the halving of the pension deduction for each year of early retirement, there remains a pension loss of up to 16.3% for early retirees.

Apart from the fiscal cost, this amendment raises concern because it reduces the incentive for older workers to participate in the labour force and is a move away from *actuarial neutrality*. The latter is defined as a marginal concept which requires that the present value of accrued pension benefits for working an additional year is the same as in the year before, while retiring a year earlier reduces the pension benefit both by the

entitlement that would have been earned during the year and by an amount to reflect the longer duration for which the pension must be paid (Queisser and Whitehouse, 2006). This concept in turn is distinct from the concept of *fiscal sustainability*. Apart from further discouraging older workers from continuing to work, reducing the pension decrement for early retirement so soon after the start of the implementation of the 2004 pension reform could send a wrong signal about the commitment of the government to ensuring the fiscal sustainability of the pension system. It is also relevant to note that the pension decrement for early retirement in Austria is already significantly lower than the average for most other OECD countries (Figure 5.3).[6]

Figure 5.3. **Pension decrements for early retirement**[1]



1. Actuarially neutral adjustments calculated using unisex tables, country-specific mortality data for 2002, and national pension ages and indexation practices. OP = occupational pension. Assumes a discount rate of 2%.

Source: Queisser and Whitehouse (2006).

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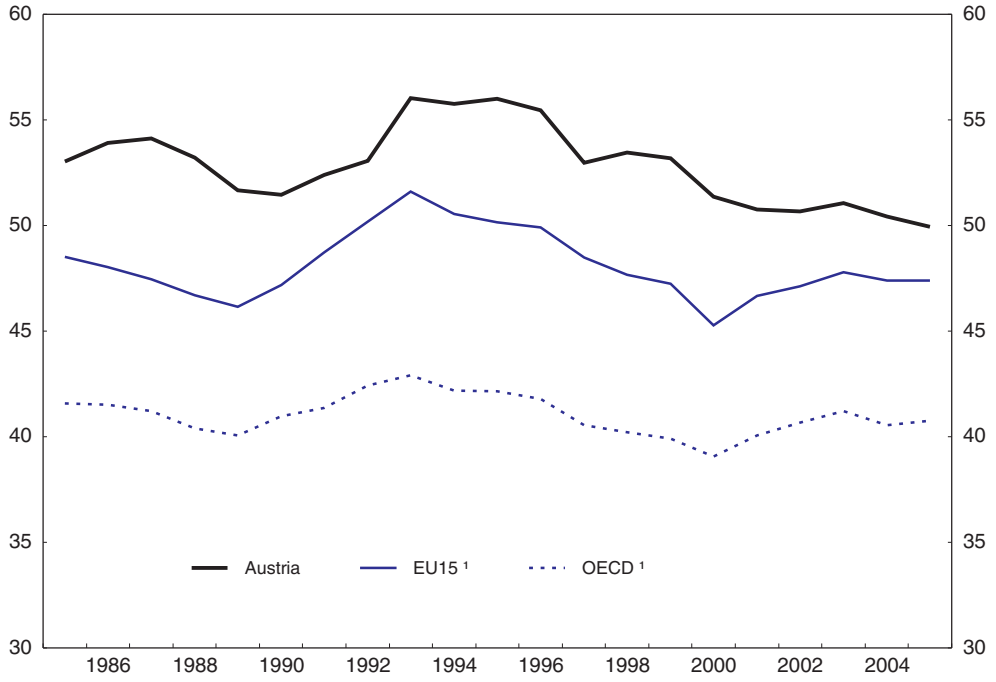
The 2007-08 Budget identifies areas for higher public spending

Total government spending in Austria takes up almost 50% of the nation's gross domestic product – significantly higher than the averages for EU15 and OECD member countries (Figure 5.4), though more than 5 percentage points lower than in 1995. This in

Figure 5.4. **Total government spending in international comparison**
As per cent of GDP



1. Weighted averages.
Source: OECD, *National Accounts*.

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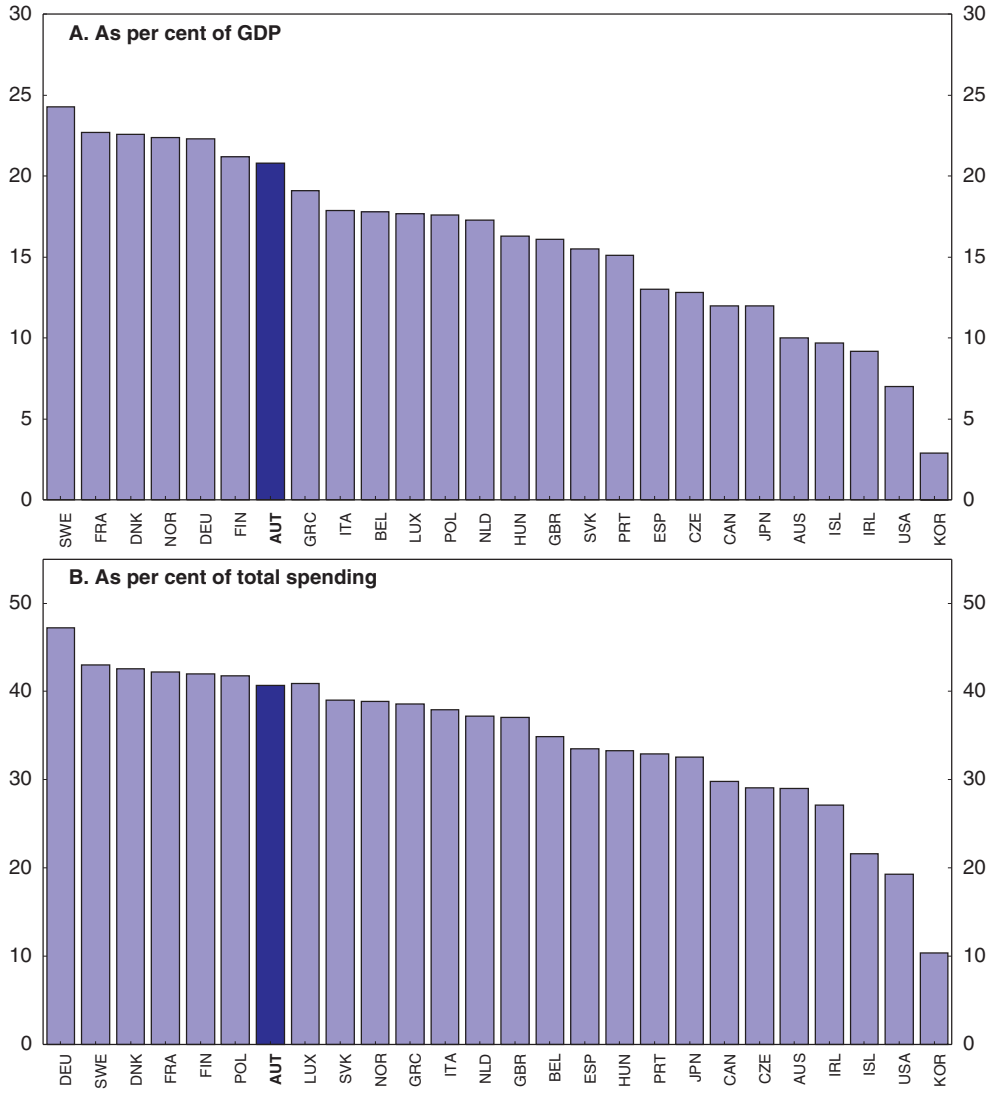
part reflects relatively higher government outlays on education and health (Table 5.1). But what is most striking is the high level of public spending on social security and welfare; only France, Germany and the Scandinavian countries devote a higher share of their GDP to this component of government spending (Table 5.1, Figure 5.5).[7] Moreover, its share in total government spending has increased noticeably over the past two decades (Figure 5.6).

Table 5.1. **Government spending by functional classification, 2005 (or latest year available)**

	In per cent of GDP			In per cent of total government spending		
	Austria	EU15 average[1]	OECD average[1, 2]	Austria	EU15 average[1]	OECD average[1, 2]
General Public Services	6.9	6.8	6.3	13.8	14.3	14.0
Public Order and Safety	1.4	1.6	1.6	2.9	3.4	3.8
Education	6.0	5.6	5.6	12.0	11.8	12.6
Health	6.9	6.4	6.3	13.9	13.6	14.3
Social Security and Welfare	20.8	18.5	16.0	41.7	38.6	34.8
Housing and Community Amenities	0.6	0.9	0.9	1.1	2.0	2.2
Economic Services	5.0	4.5	4.7	10.1	9.7	10.9
Other	2.2	3.2	3.3	4.5	6.7	7.4
Total	49.9	47.4	44.8	100.0	100.0	100.0

1. Non-weighted average.
2. Excluding Mexico, New Zealand, Switzerland and Turkey.
Source: OECD (2006) *National Accounts* and IMF *Government Financial Statistics* (2004) for Australia and Canada.

Figure 5.5. **Social security and welfare spending in international comparison**
2005 or latest year available



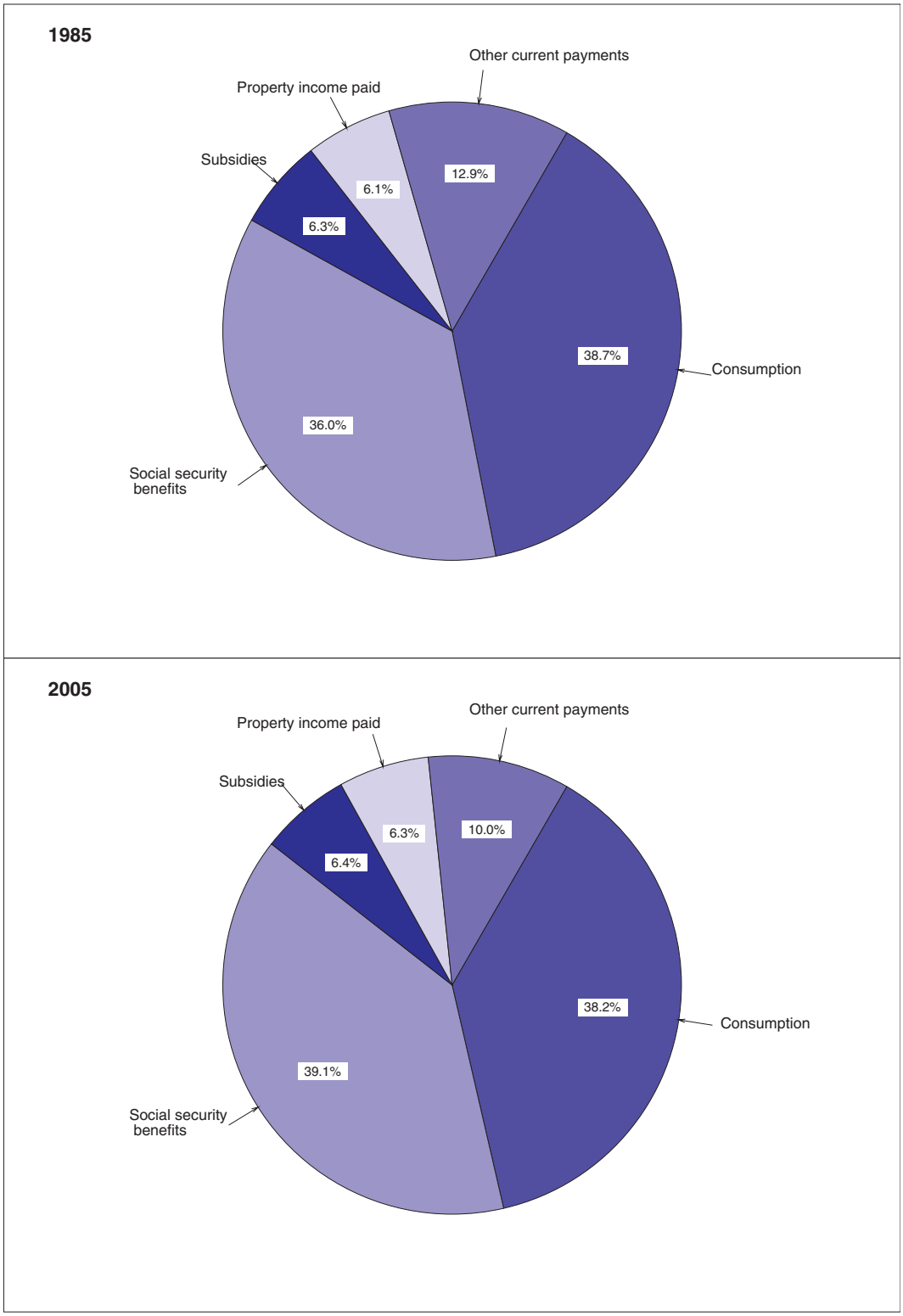
Source: OECD, *National Accounts*.

StatLink http://dx.doi.org/10.1787/071041835638

The 2007-08 federal budget proposes significant increases in spending on education, R&D and innovation, transport infrastructure (including off-budget spending), social affairs and the environment. There is also an increase in defence spending in 2007 and 2008, reflecting the purchase of military aircraft. The government has also decided to continue to spend more on active labour market programmes. These increases are to be partly offset by cuts in spending on public administration (see below).

Given the projected increases in public spending, it is important to note that, in many of these areas, what may be needed is not so much a higher level of public spending but higher quality spending, with measures to improve its effectiveness and cost-efficiency. The introduction and implementation of output-based budgeting should help to shed light on this important issue (Box 5.2).

Figure 5.6. **Structure of government spending in Austria**
As per cent of total current spending



Source: OECD, *National Accounts*.

StatLink http://dx.doi.org/10.1787/071042848011

Box 5.2. **Country experiences with output-based budgeting**

As discussed in the text, the new coalition government in Austria plans to significantly increase public spending in a number of key growth-enhancing areas, including education and training, R&D/innovation support, active labour market policies and transport infrastructure. However, this is being done without there being a proper mechanism in place to comprehensively and regularly evaluate the quality, effectiveness and cost-efficiency of key components of public spending. Given the need for fiscal consolidation over the long-term, and the government's stated objective to bring down the tax burden, it is important that efforts be made to secure a high social rate of return on public spending by improving the information base for carrying out cost-benefit analyses of individual spending programmes. In this context the government intends to adopt output-based budgeting as part of an overall budgetary reform package, but not before 2013 at the earliest.

Output-based budgeting is being adopted by an increasing number of OECD countries, with New Zealand and the United Kingdom being pioneers in this area. A review of the experiences of countries that have adopted output-based budgeting suggests the following key conclusions and policy lessons:

- Introduction of output-based budgeting usually gives rise to more informed budget discussions on competing budget priorities, and is an unambiguous improvement on input-oriented budgeting. It forces spending agencies to specify and measure what they produce, and to distinguish clearly between production and transfers. In this way it promotes political transparency in the budget process.
- Output-based budgeting brings management skills to the fore and forces public sector spending agencies to put more emphasis on, and devote more attention to, management of their budget resources. An essential complement to output-based budgeting is thus decentralisation of financial management responsibilities to individual spending agencies. In this way it promotes political accountability in the budget process.

A 2003 UK House of Commons Select Committee report on public sector performance targets concluded that the resulting increase in accountability and transparency was indeed valuable, while calling for greater local autonomy in the setting of performance targets and widening the target consultation process to involve all key stakeholders.

At the same time output-based budgeting raises a number of challenges for policy makers:

- Developing output indicators for the public sector often turns out to be more complicated than is anticipated at the start of the process. In particular, designing output indicators in a manner that does not create adverse incentives can be difficult. For example, measuring the output of the police service by the number of successfully solved cases could encourage the police to focus on relatively minor easy-to-solve crimes rather than on more serious crimes that are more difficult and time-consuming to solve. *A key challenge of output-based budgeting is how to design incentives for service providers to ensure key performance targets are met without excessive reliance on detailed national targets and measurements of performance*. Nevertheless, as the 2004 OECD *Economic Survey of the United Kingdom* concludes, if used cautiously output targets can be useful in replicating the constant pressure on service providers to pursue efficiency that in other sectors of the economy arise from competition.

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Box 5.2. **Country experiences with output-based budgeting** *(cont.)*

- In a number of important cases, for example in New Zealand, implementation of output-based budgeting ran up against major human capital bottlenecks in public administration. In this particular case finding enough people with the skills needed for its implementation ended up requiring the recruitment of qualified professionals from abroad. Moreover, everyone in the New Zealand Treasury had to be put through a crash course in basic accounting to ensure its smooth implementation. This was a bigger supply bottleneck than had been anticipated.
- Output-based budgeting tends to be relatively successful in terms of facilitating a better allocation of public resources across competing uses. It is usually less successful in ensuring that the money allocated to various uses is actually spent in the most cost-efficient manner. This is partly because of technical reasons – it is sometimes hard to come up with competing alternatives for producing the same outputs, and to realistically cost these alternatives.
- For output-based budgeting to yield improvements in cost efficiency it is important that incentive structures be put in place in all public sector spending agencies that encourage managers to question regularly and systematically whether a particular output can be produced more cost-efficiently (perhaps by considering new alternatives that can help to produce a given output at lower cost).
- From the start, considerable emphasis should be given to determining who are the key interested stakeholders in the process and to ensuring that all relevant information is collected and presented in a manner that they find user-friendly and easily accessible. The availability of information and data does not ensure that they will be used in decision-making. *If the aim of output-based budgeting is to influence the quality and composition of public spending, it is important to think through carefully beforehand how new data on performance measures are to be used in allocating public resources through the budgetary process*. Schick (2007) argues that output-based budgeting is likely to be more successful when some old informational requirements are purged to make room for new ones than when new layers of data and information are added onto existing ones. For example, when New Zealand adopted output-based budgeting it removed almost all mention of inputs from the budget appropriations act and supporting documents.

In light of the Austrian government's plans for higher public spending in several key areas over the next few years, international experience highlights the desirability of accelerating the availability of performance information on new government programmes, as a key analytical tool in the budgetary process in the short-term and as a basis for output-based budgeting in the medium-term. There is a similar need for assessing long-established programmes involving large fiscal costs that are backed by powerful constituencies but which have a relatively low social rate of return. Housing subsidies and various tax expenditures may belong to this group. A serious challenge in this context will be to overcome the objections and concerns of sub-central levels of government, and to convince the Länder and municipalities of the merits of output-based budgeting.

Moreover, the additional budgetary spending outlined above, including less fiscal consolidation by lower levels of government, contributes to a projected delay of two years, from 2008 to 2010, in balancing the government budget relative to what was anticipated in the November 2005 *Austrian Stability Programme*. Since this is in the context of a relatively rapidly growing economy and buoyant tax revenues, there is cause for concern that the new additional spending projected in the new government's programme puts at risk its'

stated objective of balancing the budget over the economic cycle – a view shared by the European Council (2007). This is particularly so since some of the policy measures to achieve the expenditure savings outlined in the 2007-08 budget have yet to be fully specified. This reinforces the case for setting medium-term expenditure targets.

A fiscally sustainable reduction in tax rates will likely require further expenditure cuts

Austria has a high tax burden by international standards

Austria's overall tax burden is high by the standards of advanced industrialised countries; at 43% of GDP, it was about 3.0 percentage points higher than the EU15 average, and almost 7.0 percentage points higher than the OECD average, in 2004. In the period from 1970 to 2002 there was a more or less steady rise in the total tax to GDP ratio, reflecting in particular rising social security contributions and payroll taxes. Far-reaching tax reforms in 2004 and 2005 reduced the overall tax burden somewhat to 42% of GDP in 2005, following a reduction of the income and wage tax on low and middle-income earners in 2004, and of the corporate tax rate from 34% to 25% in 2005 (Box 5.3). Despite this reduction in the tax burden, preliminary estimates suggest that, apart from the Scandinavian countries (Denmark, Finland, Norway and Sweden), only France, Belgium and Iceland among OECD member countries have a higher overall tax burden (Figure 5.7). Even though the 2004 and 2005 income tax reforms attempted to break the long-term trend of a steadily increasing tax burden on labour incomes, the average tax burden currently exceeds the level prevailing at the beginning of the 1990s (Figure 5.8).

Apart from balancing the budget over the economic cycle, the *Austrian Stability Programme* for 2005-08 that was presented to the European Commission in November 2005 highlighted two other key objectives: lowering the tax burden, and raising potential growth via fostering investment in research, education and infrastructure. In particular, the previous government had set itself a target of reducing the overall tax burden to 40% or less of GDP by 2010. The new government established in January 2007 has confirmed these broad policy objectives. It has also, in its recent *Stability Programme for the period 2006 to 2010*, stated its intention to implement structural reforms in the fields of public administration, competition policy and the labour market in order to achieve budgetary savings which can be used to finance a future tax reform. The new coalition government still intends to reduce the overall tax burden, but specific policy measures to achieve this are unlikely to be discussed and implemented before the next major tax reform initiative, currently scheduled for 2010.

Sustainable tax cuts will most likely require significant expenditure savings

A fiscally sustainable reduction in the overall tax burden will require strict control over public spending at all levels of government, and significant cuts in government spending may well be needed over the medium – to long-term –particularly given the pressures on public finances arising from the ageing of the population and its implications for public spending on health care and long-term care.

Several steps have been taken recently by the Austrian government to improve the efficiency of public administration. These include the budgetary reforms discussed in more detail later in this chapter. The November 2005 *Austrian Stability Programme* states that, when fully implemented, these reforms could bring down federal expenditures by as much

Box 5.3. **Recent changes in tax policy in Austria**

The Austrian tax system underwent a series of reforms and changes since the late 1980s, notably in 1988, 1993, 2000, 2001, 2002, 2004, 2005 and 2006. A key feature of the Austrian tax structure in the late 1980s was an income tax system that, having a narrow base and despite high marginal rates, raised relatively little revenue. Consumption taxes on the other hand were relatively heavy. Subsequent reforms have tried to move to a more balanced system. In particular, between 1988 and 2000 personal income tax rates were slashed and the base was broadened.

In 2004 and 2005 there were further comprehensive and far-reaching tax reforms implemented in two stages, and estimated to lead to an annual tax relief of approximately € 3 billion. The aims of these reforms were to increase the attractiveness of Austria as a business location by reforming corporate taxation and easing the tax burden on labour, and to promote environmentally sustainable development.

The first stage of the tax reform package became effective on 1 January 2004 and focused on reduction of the income and wage tax on low and middle income workers, on strengthening the own capital of commercial sole traders and business partnerships, and on raising energy and other environmental taxes. For example, taxes on mineral oil were increased up to 42% and on natural gas by 51%, and a new coal tax (€ 0.05 per kg) was implemented.

The second stage of the tax reform package included a wider range of measures, most of them entering into force as from 2005.

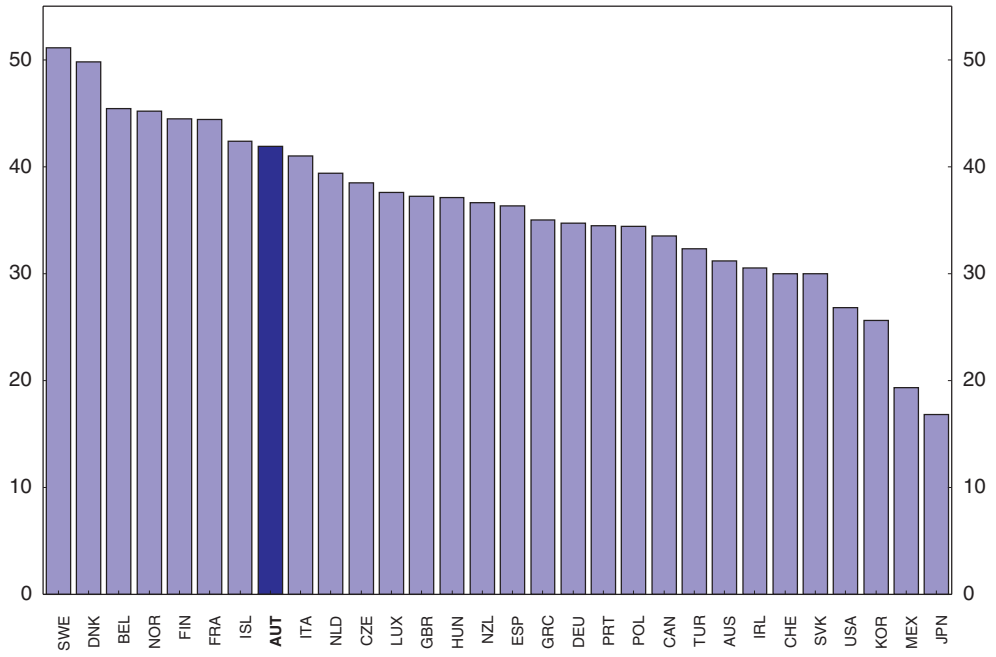
With respect to personal income tax: *i)* The number of tax brackets was reduced from five to four, with statutory marginal rates of 0%, 38.33%, 43.6%, and 50%, and an average tax rate system introduced. Yearly gross incomes of € 15 770 for employees, of € 10 000 for self-employed and of € 13 500 for pensioners are tax exempt. Capital gains are also in most cases not taxed. *ii)* The standard tax credit was increased and integrated into the regular income tax schedule. This got rid of the erratic pattern of effective marginal tax rates that had resulted from the interaction of statutory tax rates with the phasing-in-and-out rules for the standard tax credit under the previous system. *iii)* A new tax credit was granted for children in single earner households. *iv)* The amount that spouses can earn before their partners lose the tax credit for sole earners was increased.

On corporate taxation: *i)* the statutory corporate tax rate was reduced from 34% to 25%, partly financed by broadening the tax base (including the abolition of the interest deduction on the increase of equity capital), and *ii)* Corporate group taxation was introduced, allowing a group with headquarters in Austria to deduct losses incurred elsewhere from domestic profits while foreign profits are not taxable in Austria. However, the group is required to repay earlier tax savings once the foreign losses can be carried forward abroad. Similarly, if a group breaks up within three years there is a repayment obligation of past tax savings to the Austrian government (see the 2005 *Economic Survey* for further details on the new group taxation arrangements).

In 2006 an Act to promote SMEs (small- and medium-sized enterprises) was passed and became effective as of 2007. One important element of this Act was the tax exemption for invested profits in eligible assets. This measure will reduce the tax burden of SMEs which use cash-based accounting.

as 5% in the long-run. However, the October 2006 elections has led to a delay in the implementation of these budgetary reforms and so far there is no clear government timetable for their implementation, although the new coalition government intends to proceed with these reforms as soon as practicable.

Figure 5.7. **OECD: International comparisons of the overall tax burden**
Tax revenue in per cent of GDP, 2005[1]

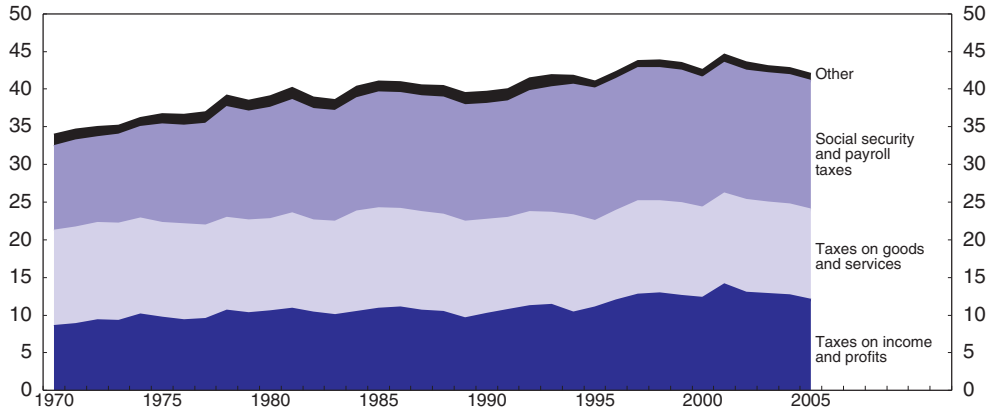


1. 2004 for Greece, Portugal, Poland and Australia.

Source: OECD, *Revenue Statistics*.

StatLink http://dx.doi.org/10.1787/071050270356

Figure 5.8. **Austria: Total tax revenues**
As per cent of GDP



Source: OECD, *Revenue Statistics*.

StatLink http://dx.doi.org/10.1787/071130386367

In November 2005 a high level working group including representatives from federal, regional and local governments signed an agreement "Administrative Reform II" on public administrative reforms designed to increase efficiency at all levels of government. These reforms are projected to achieve expenditure savings of € 1.9 billion (approximately 0.8% of GDP) over the years 2006-10, mainly through a proposed reduction of public employment of

more than 15 000 full time equivalents across all levels of government. The first progress report is to be submitted in mid-2007. The government also launched in April 2006 an initiative for reducing the administrative burdens for enterprises incurred as a result of information and reporting obligations. The aim is to reduce administrative costs by 25% by 2010, with projected savings of approximately € 2 billion (see Box 5.4 for further details on these policy measures).

Box 5.4. **Administrative reforms in Austria**

Administrative Reform II is the latest significant effort to reduce government spending on public administration and follows *Administrative Reform I*, which covered the period 2000/06 and is estimated to have yielded cost savings of around € 7.4 billion. The measures agreed on in the context of this reform package include:

- A decrease in personnel costs amounting to about € 1.9 billion by 2010 through a reduction of personnel of 15 000-16 000 full equivalents by 2010 (6 000 at the federal level, 9 000-10 000 at the state and municipal levels).
- Reform of school administration: more flexibility through re-organisation of school parishes and consolidation of the administration of small schools.
- Reform on health and hospital administration; benchmarking of health organisation and administration, implementation of shared purchasing centers, promotion of standardized IT solutions.
- Standardization of personnel data management in the public sector.
- Promotion of administrative cooperation between municipalities and federal states.
- Cooperation of public authorities with regard to less bureaucratic and citizen-friendly e-government.
- Exploiting synergies in public procurement by allowing public companies at the state and local levels to use the federal procurement agency.

Administrative Reform II was followed by the launching in April 2006 of an initiative for reducing the administrative burdens on enterprises resulting from information and reporting obligations to the government. The measures are to take place in several steps. The first stage, to take place between November 2006 and June 2007, involves the calculation of administrative costs using the Dutch Standard Cost Model method and is to be carried out by external consultants. It is to be based on 1 300 to 1 400 face-to-face interviews with firms conducted over the period February to May 2007. Thereafter, based on the findings, each ministry is to define quantitative reduction targets consistent with achievement of the overall target of a 25% reduction in administrative costs by 2010. This is to be followed by three to four months of planning of possible measures designed to attain these targets, which are to be implemented over the period 2008/10. Each individual Ministry is responsible for implementation of the initiatives pertaining to its specific domain, while the federal Ministry of Finance is in charge of overall coordination and guaranteeing coherence and comparability of the results. An inter-ministerial working group is responsible for the overall steering and execution of the project. Austria's acknowledged rapid pace of progress in e-government applications is also expected to create additional room for efficiency gains and cost savings in public administration.*

In 2007 administrative reform got a new impetus through the establishment of an expert group to prepare a proposal for a constitutional reform on the division of powers between the federal government and the provinces. Also, a decision of the Council of Ministers on 14th March, 2007 has started a comprehensive Quality Initiative, gathering modernization projects of all federal ministries under a common framework of targets, project management standards and continuous monitoring. The general goal of this programme is to raise the quality of public services and to achieve cost savings. Up till now nearly 50 projects in the fields of e-government, reorganisation and quality management have been nominated by the federal ministries and will be documented and monitored with the help of the project data base. Half-yearly evaluation reports to the government are foreseen.

* Austria was ranked as the EU's leading e-government innovator in a recent survey (Cap Gemini, 2006).

Other options that the government may wish to consider for reducing public spending include:

- Better targeting of housing subsidies, *e.g.* towards low-income families. The government may also consider replacing them over time with means-tested cash benefits, which are in general a more cost-effective instrument than housing subsidies for assisting low-income households.
- Reviewing the policy of subsidising energy-saving housing investment expenditures, especially in light of the findings of a recent OECD study on sustainable development (OECD, 2004). This study concluded that subsidies targeting specific means to save energy (such as investment in insulation) have proved to be a costly instrument for reducing carbon dioxide emissions in several OECD countries, including Austria.[8] It then goes on to recommend the use of fuel pricing instead of subsidies and regulations to promote energy efficiency in Austria as well as in a number of other countries (the Czech Republic, Finland, Hungary, Luxembourg and the Slovak Republic).
- To contain social spending the earmarking of revenues for the *Family Burden Equalisation Fund (FLAF)* should be abolished, with family benefits managed fully by the federal government and subject to standard budgetary control and review procedures – as argued in the previous OECD *Economic Survey*.

The structure of taxes can be made more conductive to growth and employment creation

Not only does Austria have a relatively high tax burden, but its structure is heavily geared towards taxation of labour income. In particular, social security contributions and payroll taxes pose a heavy tax burden on employment, and their share in total tax revenues has increased considerably in the period since 1970 (Figures 5.8 and 5.9). This large tax wedge between gross wages paid by employers and the take home pay of workers net of personal income taxes and social charges has a significant negative impact on the employment of low-productivity workers in particular (Chapter 3). By contrast, excise duties yield relatively little revenue for the Austrian government, reflecting the moderate rates imposed (particularly for alcohol), and the same is true for taxes on real estate/property (Table 5.2). While in the OECD government revenues from taxes on property and wealth amount to 5.6% of total revenues on average, the corresponding figure for Austria stands at only 1.3%.

Another important distortion in the Austrian tax system is the relatively high taxation of self-employment income. After the 2005 corporate tax cut the top tax rate on distributed profits (statutory corporate tax rate plus the dividend tax) now amounts to 43¾ per cent. This is about the same as the average tax rate for the self-employed with a taxable income of about € 100 000 (41.6%). However, while tax rates for the employed are the same as for the self-employed, the tax base is somewhat different: the former group earn 13th and 14th salaries that are taxed at a low rate of 6%. At the same time the self-employed can avail of various tax advantages. Self-employed with cash-based accounting can earn up to a 10% return tax free, if invested in eligible assets up to € 100 000 per tax payer per year (2006 Act to promote SMEs). Self-employed with double entry bookkeeping have lower tax rates for undistributed profits. These features of the tax system reduce the average and marginal tax rates for the self-employed.

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Table 5.2. **Tax revenue comparisons, OECD member countries, 2004**

	In per cent of GDP			In per cent of total tax revenues		
	Austria	EU15 average	OECD average	Austria	EU15 average	OECD average
Taxes on income and profits	12.5	13.4	12.5	29.4	33.1	34.4
Taxes on personal income	9.7	10.1	9.1	22.7	24.6	24.6
Taxes on corporate income	2.3	3.2	3.4	5.4	8.2	9.6
Social security contributions	14.4	11.3	9.4	33.9	28.7	25.9
Employers' social security contributions	6.7	6.6	5.5	15.8	16.6	14.9
Employees' social security contributions	5.9	3.6	3.0	13.8	9.4	8.5
Payroll taxes	2.6	0.4	0.3	6.1	1.0	0.8
Taxes on property and wealth	0.6	2.1	1.9	1.3	5.3	5.6
Taxes on goods and services	12.0	12.1	11.4	28.2	30.7	32.3
of which: Consumption taxes	11.3	11.4	10.8	26.6	29.0	30.5
of which: Taxes on specific goods and services	3.4	3.9	3.9	8.1	10.0	11.4
Other taxes	0.4	0.3	0.2	0.9	0.8	0.7
Total	42.6	39.7	35.9	. .	. .	. .

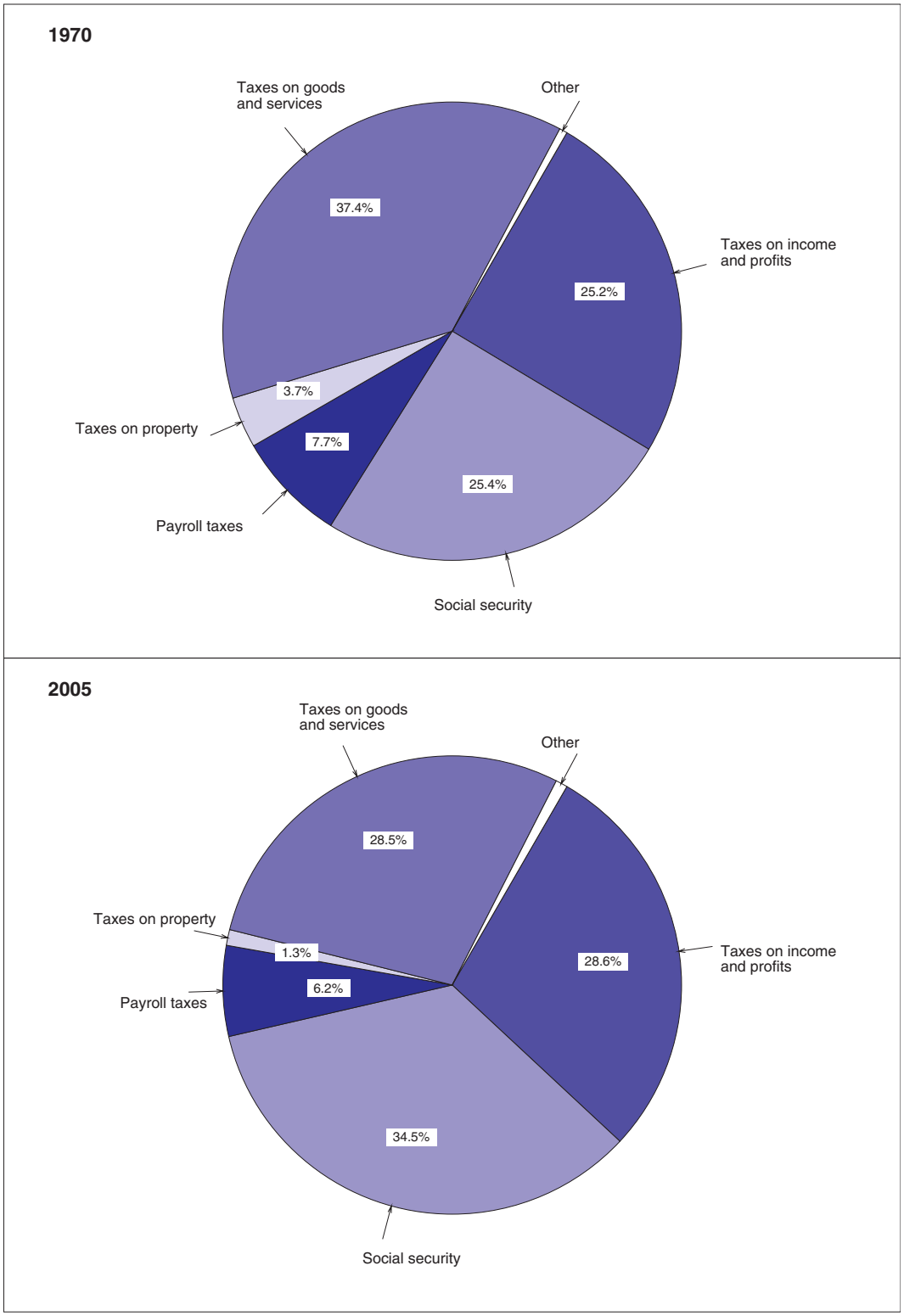
Source: OECD (2006), *Revenue Statistics*.

As discussed in Chapter 3, the high social security contributions and payroll taxes seem to have adversely affected in particular employment rates for those at the margin of the labour force, such as the elderly, the young, the less-skilled and immigrant workers. Thus the new government should consider reducing significantly over time the tax wedge on these vulnerable sections of the labour force. One option here would be to lower, or even eliminate, the portion of the payroll tax that is specifically earmarked for housing subsidies, in line with a steady reduction in government spending on these subsidies. Other options for offsetting the fiscal impact of lower tax rates on labour income and income from self-employment include the updating and revaluation of real estate/property for tax purposes, imposing higher excise duties and environmental taxes, and cutting tax expenditures.

Following a Supreme Court judgement in March 2007, criticizing the inappropriate valuation of the tax base, the inheritance tax will be allowed to expire by mid-2008, and the gift tax is also likely to be abolished soon. The new coalition government also seems to have decided to leave unchanged the real estate tax. These measures should be reconsidered, given that – in contrast with most other OECD countries – not only is the revenue yield from property taxes low, but it has been declining over time as a share of total tax revenues (Figure 5.9). Reducing the large tax wedge on labour on a sustainable basis is likely to require a reversal of this trend. It is relevant here to note that the tax base for the real estate tax has not been updated for several decades, and various exemptions exist. A revaluation of the tax base bringing it closer to actual market values is not only desirable from an equity and fairness point of view, but could also raise a modest amount of additional revenue for the government. The Austrian Institute of Economic Research *WIFO* estimates the current market value of all real estate (corporate, individual and agricultural) at around € 700 billion. If one assumes tax exemption on 50% of this potential tax base (tax exemptions for agriculture, for example), and a tax rate of 1%, this could raise an additional government revenue amounting to over 1% of GDP.

As mentioned earlier, there is scope for raising additional government revenue from excise duties. In 2004 the revenue yield from excise duties amounted to 2.7% of GDP, compared to an average revenue yield of 3.3% of GDP for the EU15 (Table 5.3).[9] Moreover, as

Figure 5.9. **Structure of taxes in Austria**
As per cent of total taxes



Source: OECD, *Revenue Statistics*.

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Table 5.3. **Revenue from excise duties and environmental taxes, EU25, 2004**

	Excise duties: Revenue to GDP	Environmental taxes: revenue to GDP			
		Energy	Transport	Pollution	Total
Austria	2.7	1.8	0.8	0.0	2.7
Belgium	2.4	1.6	0.7	0.2	2.4
Denmark	5.0	2.5	2.0	0.3	4.8
Finland	3.9	2.0	1.3	0.0	3.3
France	2.6	1.4	0.6	0.2	2.1
Germany	3.0	2.2	0.3	0.0	2.5
Greece	2.9	1.4	1.0	0.0	2.4
Ireland	3.4	1.3	1.1	0.0	2.5
Italy	2.3	2.3	0.5	0.0	2.8
Luxembourg	5.2	3.1	0.1	0.0	3.3
Netherlands	3.2	2.0	1.3	0.6	3.9
Portugal	. .	. .	. .	. .	. .
Spain	2.4	1.6	0.4	0.0	2.0
Sweden	3.1	2.5	0.3	0.1	2.9
United Kingdom	3.3	2.1	0.5	0.1	2.6
EU15 average	3.3	2.0	0.8	0.1	2.9
Cyprus	. .	. .	. .	. .	. .
Czech Republic	3.6	2.1	1.9	0.0	4.1
Estonia	. .	2.4	0.3	0.0	2.7
Hungary	3.7	1.9	0.0	0.3	2.2
Latvia	. .	. .	. .	. .	. .
Lithuania	. .	2.1	0.4	0.1	2.6
Malta	. .	1.8	0.1	0.1	2.0
Poland	4.2	1.3	1.9	0.0	3.2
Slovak Republic	3.3	2.1	0.2	0.0	2.3
Slovenia	. .	. .	. .	. .	. .
EU25 average	3.3	2.0	0.7	0.1	2.9

Source: OECD (2006) *Revenue Statistics* and European Commission (2006), *Structures Of The Taxation Systems In The European Union: 1995-2004*.

a step to simplify the tax system, the tax reform package of 2004 incorporated reductions and abolition of taxes for alcoholic beverages and sparkling wine, respectively. A reduction in the tax burden on labour can thus be partly financed through higher excise duties on, for example, alcohol, mineral oil, and tobacco and cigarettes.

Environmental taxes have gradually increased since 1995 and are now just below the EU15 average as a share of GDP (Table 5.3). However, it is important to note that although energy taxes were raised in 2004 and the EU minimum tax has to be paid, there is little incentive for energy-intensive industries to reduce greenhouse gas emissions because of the cap on tax payments above 0.5% of net production value (see the 2003 and 2005 OECD *Economic Surveys*). Thus a strong argument can be made for phasing out the caps on energy tax payments – especially given that a recent European Environment Agency (EEA) report concludes that Austria is among seven EU15 member states that are unlikely to meet their respective Kyoto targets of reducing greenhouse gas emissions by 2010 (European Environment Agency; 2006). It may also be sensible to use tax instruments to raise petrol prices to levels prevailing in neighbouring countries such as Germany to reduce the incentive for so-called "fuel" tourism (the practice of residents in neighbouring countries crossing the border into Austria to purchase cheaper fuel). In this context the new government's policy of financing public transport infrastructure through increases in

"green" taxes is welcome.[10] Another option the new government may wish to consider is to reverse, at least in part, the 2004 reduction in the tax on diesel used for agricultural purposes (which effectively acts as a subsidy to farmers). Auctioning of permits for the emission of carbon dioxide and other greenhouse gases is another recommendation that deserves consideration.

The impact on government revenue of the introduction of group corporate taxation in 2005 is difficult to determine *a priori* (Box 5.3). On the one hand, its introduction should encourage multinational firms with headquarters in Austria to take risks and venture into new potentially profitable markets, particularly in Central and Eastern Europe. On the other hand, the possibility of deducting subsidiary losses from profits taxable in Austria is likely to reduce the incentive to close down loss-making subsidiaries abroad or to restructure them, thereby reducing tax revenues in Austria as well as acting as a disincentive for major structural change. As discussed in the previous *Economic Survey*, the fiscal impact of the introduction of group corporate taxation should be monitored carefully. However, the buoyant tax revenues of 2006 suggest that the introduction of group corporate taxation has not had a negative impact on tax revenues, perhaps because most subsidiaries of Austrian firms operating in Central and Eastern Europe have run profits in recent years.

A complete list of all current exemptions from personal and corporate income tax, as well as VAT, should be compiled. A stock-taking exercise concerning exemptions from these taxes would enable a fruitful discussion of the scope for extending the tax base by reducing exemptions from VAT and income taxes. Extension of the tax base would help to finance cuts in tax rates on labour income and income from self-employment.

Finally, it may also be fruitful to look into the possibilities for cutting tax expenditures. The current structure of tax credits and exemptions provides preferential tax treatment for selected occupational groups. In this context it would be desirable to make the tax allowance for work-related expenditures (Werbungskosten) uniform across most professions, and to remove existing tax exemptions on wage supplements for certain types of work (see the 2005 OECD *Economic Survey*).[11] Along similar lines the government should reconsider the waiver of tuition fees for students who undertake at least 60 hours per semester of unpaid voluntary work.

Budgetary reforms can help to strengthen management of public finances

Budgetary reforms have been on the political agenda for quite a while. In May 2005 representatives of the four political parties that were represented in the National Parliament at that time reached a political agreement to implement budgetary reforms in line with international best practice. These reforms were to be implemented in two stages. The first stage, to have been implemented by 1 January 2007, would involve adoption and implementation of a four-year medium-term budgetary framework. The second stage, which the November 2005 *Austrian Stability Programme* (ASP) envisaged would enter into force by 1 January 2011, would incorporate a wider range of reforms, including output-based budgeting and implementation of new accounting rules. These draft reforms are broadly in line with OECD recommendations (OECD, 2006).

It was originally intended that these budgetary reforms would be discussed and approved by Parliament before the general elections in autumn 2006. Indeed, there appears to have been a broad consensus on budgetary reforms – relating to budget formulation,

execution, monitoring and reporting – among the key political parties during the planning phase. However, the upcoming elections made it impossible to reach agreement on a unanimous law among the already campaigning political parties. As of the time of preparation of this report, no legislative decisions have yet been taken on these reforms and their implementation will most likely be delayed (see below).

A key element of the draft budgetary reforms is adoption of a four-year rolling medium-term budgeting framework. These reforms are important for a number of reasons, including the observed pro-cyclicality of government spending and the limited operation of automatic stablizers.[12] Within-year expenditure increases which are financed with revenue windfalls undercut the normal prioritisation exercise of budget negotiations and introduce an *ad hoc* element in fiscal policy. The draft reform proposal provides for the amalgamation of government spending into five broad categories or "rubrics" for which there will be binding ceilings covering the entire period.[13] However, the expenditure ceilings for each ministry/appropriation are to be binding only for the follow-up year and merely indicative for the next three years. Some broad categories of spending are to include automatic stabilizers, with the expenditure ceilings adjusted to reflect developments in the business cycle. Ministries will also gain more flexibility for the use of unspent resources through establishment of a savings facility enabling them to carry forward appropriations unused at the end of a budget year. It is not clear at this point in time when implementation of such a framework will take place. If a law is passed through Parliament during the summer of 2007, its implementation – the first phase of budgetary reforms – could start with the 2009 budget.

The second phase of budgetary reform is to involve four main principles: *i)* introduction and implementation of output-based budgeting; *ii)* greater transparency of the budget process (including clear identification of budgetary goals and the allocation of responsibilities for their implementation, public access to timely information on the current state of execution of the budget, and timely and transparent documentation on the circumstances and results of the budgetary process); *iii)* greater efficiency of budget implementation through providing increased flexibility to the budgeting authorities in their implementation of policy objectives; and *iv)* more accurate representation of the financial situation of the federal government through adoption of new accounting rules. These envisaged budgetary reforms require a constitutional amendment and thus the support of a qualified Parliamentary majority. The second phase of budgetary reforms will most probably not start to be implemented at the federal level before 2013.

Reforming fiscal federal relations can promote better governance and public administration

Fiscal federal relations in Austria are currently governed by two major agreements. The *Fiscal Equalisation Law (FAG)* is a revenue sharing agreement negotiated between the federal government, the states and the municipalities for a period of four years. It determines the types of taxes to be shared across different levels of government and the proportions according to which the revenues are allocated. It also specifies major transfer flows between the levels of government. The most recent update of the FAG came into force in January 2005. In addition the *Domestic Stability Pact* establishes budget balance targets for the three levels of government as well as sanctions in case of non-compliance with these targets. The latest Domestic Stability Pact covers the period 2005-08. A six member Constitutional Working Group was recently established to look into the issue of inter-

governmental relations, and in particular at the division of responsibilities between the federal government, the Länder (States) and the municipalities. The Group is to come up with proposals to simplify and clarify areas of shared responsibility across layers of government by end-July 2007.

The 2005 OECD *Economic Survey* made a number of recommendations on reforming fiscal federal relations. In brief, these recommendations relate to: *i)* improving tax-sharing arrangements across different levels of government; *ii)* strengthening the tax-setting powers of sub-national governments; *iii)* improving the transparency and targeting of transfer flows between different levels of government; *iv)* exploiting returns to scale in services provided by municipalities; *v)* reforming the income replacement schemes run by sub-national governments; *vi)* overcoming fragmentation in decision-making, for example in the running and financing of hospitals and in the design, financing and delivery of social assistance benefits; and *vii)* revising the budgetary framework at all levels of government.

Little progress to date has been made in implementing these recommendations, mainly due to political and institutional constraints. In general, for example, the Länder are against the strengthening of their tax-setting powers, although there is some support by them for a state-level flat-rate surcharge on the personal income tax schedule. The Länder and municipalities also remain to be convinced that adoption of a medium-term budgeting framework at lower levels of government is a worthwhile and cost-efficient exercise. The municipalities, and particularly the Länder, are also opposed to full harmonization of the accounting framework across all government levels, as well as to the introduction of output-based budgeting and analyses of long-term fiscal sustainability at lower tiers of government.[14] Nevertheless, the key recommendations of the previous *Economic Survey* remain valid from the point of view of good governance and sound management of public finances. They should therefore be given serious consideration during the next round of negotiations on the Fiscal Equalization Law, due to start in 2008.

The education sector provides a clear example of the gains that could be achieved by reforming fiscal federal relations. Public spending on education – both on a per student basis and as a share of GDP – is relatively high by international standards. However, as mentioned in Chapter 3, the results of such spending do not seem to be commensurate with the resources allocated to the sector. In a recent OECD study on the efficiency of public spending on primary and secondary education, Austria ranked the lowest among a group of 26 OECD countries (Gonand, Joumard and Price, 2007). These rankings are undoubtedly to some extent tentative. Nevertheless, it is worth noting that Austria performed particularly poorly in terms of efficiency in resource allocation, and more specifically in matching the allocation of resources to specific needs.[15] The study suggests that one factor behind this may be the very high degree of centralization in the Austrian public education system relating to the division of responsibilities between the central government and sub-national public authorities.

Improving the quality and efficiency of public services will require overcoming fragmentation of decision-making in various spending programmes, such as hospital care and social assistance benefits, and concentrating financing and spending responsibilities on one government level. For example, the success of the 2005 *Health Reform Act* in containing the growth in health costs will rely on the states, the health insurance funds and the federal government reaching agreement on, and implementing, needs-based comprehensive health services planning at the regional level (Box 5.1). This in turn

requires effective decentralisation of responsibilities to the municipalities and the *Länder* for the provision of local and regional health services.

The policy conclusions are wide-ranging but straightforward

The policy implications of the above discussion can be summarized as follows. Although Austria's public debt is forecast to fall below the 60% Maastricht threshold already in 2008, long-term projections by the OECD indicate that, on unchanged policies, the public debt ratio will start to rise again from 2015 onwards and significantly exceed 60% by 2050. The projected increase in public indebtedness, although less sharp than in most other OECD countries, implies a need for continued efforts at fiscal consolidation. Within this overall macroeconomic context there is a case for lowering in particular the relatively high tax burden on labour and on the self-employed. For this to be fiscally sustainable there will have to be offsetting changes in other components of government revenue as well as strict control over public spending at all levels of government. Indeed, a significant and fiscally sustainable reduction in tax rates is also likely to require considerable cuts in government spending. At the same time the structure of taxes, as well as the quality and cost-efficiency of public spending, can be further improved to enhance economic growth and employment and to distribute the fruits of economic growth more equitably across Austrian society. This reform agenda for fiscal policy calls for key policy measures in a number of areas that are summarised in Box 5.5.

Box 5.5. **Policy recommendations for strengthening the fiscal framework**

Health care and pension reform should continue

- Biannual evaluations of the reforms outlined in the 2005 *Health Reform Act* should be carried out in a timely, independent and comprehensive fashion, and the results of the evaluations fully taken into account in future public health care policy.
- The pension schemes for civil servants of the states and municipalities should be harmonized with the general pension scheme, thereby bringing about complete harmonization of public sector pensions.
- Special early retirement programmes for public sector workers should be terminated.
- The "heavy workers" channel into early retirement should be restricted to well justified cases.
- Consideration should be given to make binding and more precise the envisaged demographic correction mechanism for pensions (the "sustainability" factor).
- With regard to invalidity pensions, persons who are not able to work in one field for medical reasons should be required to accept work in another occupation that is acceptable on health grounds.
- The reduction in accrued pension entitlements for each year of early retirement should not be cut further.

There should be more selective targeting of social spending by the government

- Housing subsidies should be scaled back and better targeted towards those who really need them, *e.g.* low-income families. The policy of subsidizing energy-saving housing investment expenditures should be reviewed.
- Earmarking of revenues for the *Family Burden Equalization Fund (FLAF)* should be abolished.

Box 5.5. **Policy recommendations for strengthening the fiscal framework** *(cont.)*

The tax structure should be made more conducive to promoting growth and employment

- Payroll taxes and social security contribution rates should be reduced for targeted groups of workers with weak employment prospects.
- Valuation of real estate and property for tax purposes should be updated regularly and brought to market levels. Abolition of the inheritance tax and other wealth-related taxes such as the gift tax should be reconsidered.
- Excise duties on alcohol, mineral oil, and tobacco and cigarettes should be raised.
- Caps on energy tax payments should be phased out and petrol prices at the pump raised to higher levels prevailing in neighbouring countries. Government permits for the emission of carbon dioxide and other greenhouse gases should be auctioned.
- A complete list of all current exemptions from personal and corporate income tax, as well as VAT, should be compiled, and tax expenditures cut wherever feasible.

Public expenditure management and budgetary reforms should be pursued

- Public expenditure management and budgetary reforms (relating in particular to budget formulation, execution, and monitoring and reporting) should be pursued with urgency. The focus of these reforms should be on: *i)* adoption of a medium-term budgetary framework; *ii)* introduction and implementation of output-based budgeting (at least in certain key areas such as education and training, R&D/ innovation support and active labour market policies); and *iii)* adoption of new accounting rules.
- The recommendations of the previous OECD *Economic Survey* relating to reform of fiscal federal relations should be given serious consideration during the next round of negotiations over the Fiscal Equalization Law. In particular, better harmonization of financing and spending responsibilities across all levels of government, and giving more responsibility and accountability to all public sector spending agencies, would help to promote good governance and better management of public finances.

Notes

1. The OECD's most recent estimate of Austria's structural primary balance in 2006 is a surplus of 1.8% of GDP, with a Maastricht debt ratio of just over 62% of GDP.
2. This is close to the average estimates by the OECD for the Euro area as a whole that spending on health care and long term care will, on unchanged policies, rise by 3.7 and 2.2 percentage points of GDP over the same period (OECD, 2007).
3. See the 2005 *Economic Survey* for further details of these reforms and an analysis of their anticipated effects.
4. These projections are, however, based on optimistic assumptions regarding increases in the participation rates of those in the 55-64 age group. The projected increases in participation rates are bigger than in any other country and are in contradiction with the proposed weakening of pension reform measures.
5. A decree by the Minister of Social Affairs defines 'heavy work' to include the following: *i)* nightshifts (at least six days per month, between 10.00 p.m. and 6.00 a.m.); *ii)* regular work under hot temperatures (*e.g.* steel furnaces); *iii)* regular work under cold temperatures (*e.g.* a large part of the workday spent in cold rooms below –21 degrees); *iv)* work under physically negative influences which lead to a loss of 10% of ability to work (*e.g.* jobs where one needs to wear gas masks longer than four hours per day, or where one inhales toxic substances which can lead to occupation-related illnesses or disease); *v)* heavy manual work (for men during 8 hours more than

8 734 kilojoules spent, for women more than 5 862 kilojoules spent); and *vi)* care of handicapped or sick people with particularly intensive need of care.

6. For early retirement, Queisser and Whitehouse (2006) estimate that the reduction in accrued benefits for each year of early retirement is an average of 5.08% across 19 schemes in 18 OECD member countries.

7. Social security and welfare spending includes unemployment benefits, pension payments and sickness/disability benefits, child support and family related benefits, and housing subsidies to individuals and families.

8. This lack of cost efficiency partly reflects the fact that energy efficiency is already high in many OECD countries, and specific subsidies are not needed for economic agents to identify least cost options to save energy. Moreover, and paradoxically, the use of subsidies to improve energy efficiency may translate into higher energy use as a consequence of the resulting lower unit costs of energy-based services (the so-called "rebound effect") – unless they are backed by higher fuel and electricity prices.

9. Only Belgium, France, Italy and Spain among the EU15 had a lower revenue yield from excise duties.

10. The new government plans a 4 cent per kilometer increase in tolls for lorries. A 3 cent per litre increase in the petrol tax and a 5 cent per litre increase in the diesel tax were recently approved by Parliament, effective as of July 2007. The rise in petrol and diesel taxes is expected to result in additional revenues amounting to € 140 million in 2007 and € 440 million annually thereafter.

11. The tax allowance for work-related expenses is higher for selected occupational groups, such as salesmen, caretakers and elected representatives at the local level. At the same time wage supplements for certain types of work are tax free, including for work at night, during weekends and public holidays, and work classified as "dirty, hard and dangerous".

12. Brandner, Diebalek and Koehler-Toeglhofer (2006), applying a unobserved component model specification and estimation approach, conclude that although the overall effect of fiscal policy in Austria has been slightly counter-cyclical over the period 1976-2004, *discretionary* fiscal policy in response to the business cycle has been pro-cyclical.

13. The five "rubrics" are: *i)* General government affairs, court and security; *ii)* Employment, social services, health and family; *iii)* Education, research, art and culture; *iv)* Economic affairs, infrastructure and environment; and *v)* Financial management and interest.

14. The states and municipalities are convinced that considerable progress has already been made in recent years regarding harmonization of the accounting framework across government levels, and they argue that further harmonization will not be useful due to the specific tasks that they fulfil and the specific characteristics of their activities.

15. Only Turkey among the 26 OECD countries performed worse in this respect.

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