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SLOVENIA

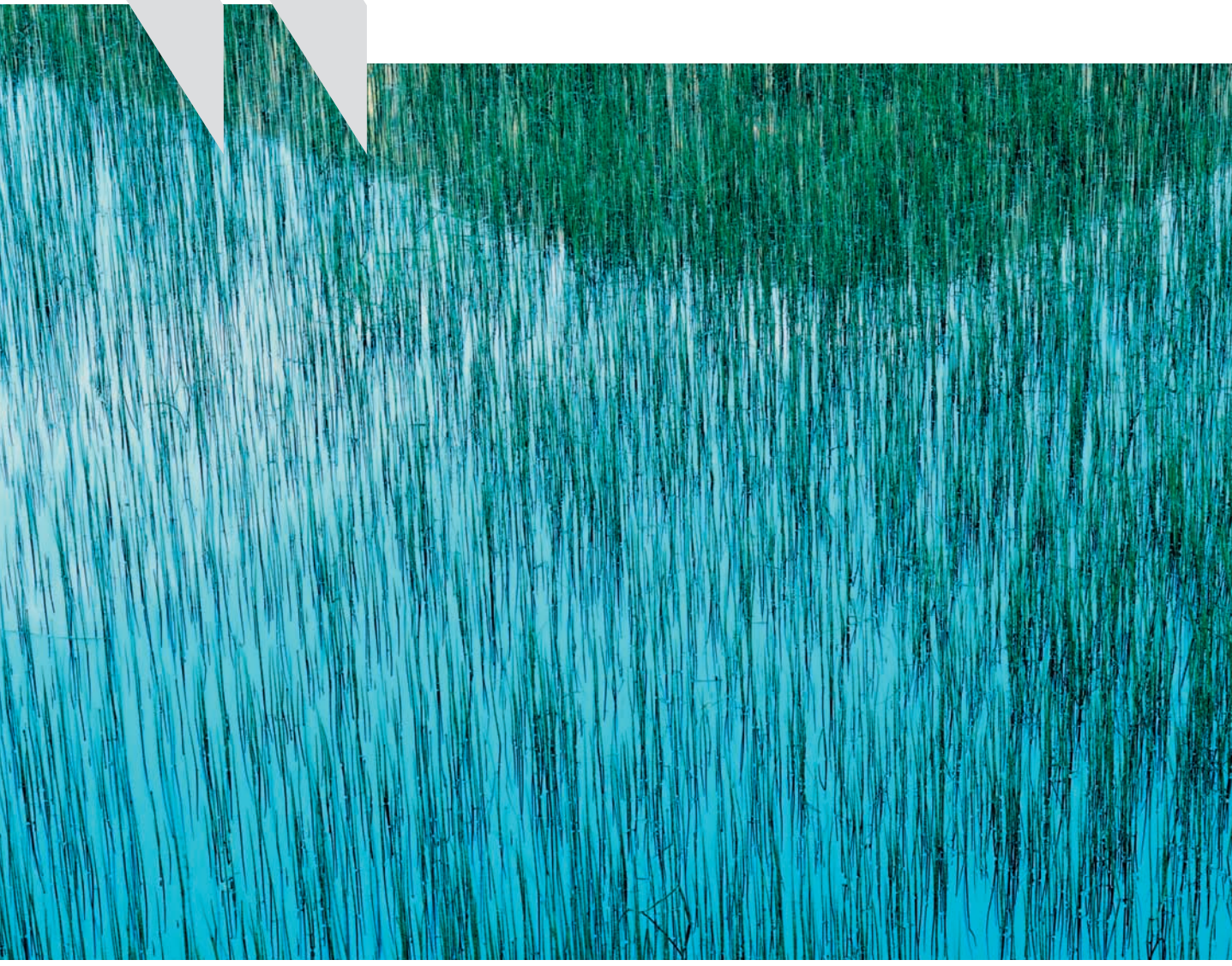

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Table of contents

Executive summary 9

Assessment and recommendations 11

Chapter 1. **Restoring a sustainable growth path within the Monetary Union** 17

The global economic crisis poses new challenges to economic policy 18
Beyond the crisis, maintain a steady economic catch-up without macroeconomic imbalances 26
To achieve sustainable growth within the euro area, well-directed policies are needed 34
Notes 43
Bibliography 44
Annex 1.A1. Growth accounting framework 45
Annex 1.A2. Shift-share analysis of labour productivity growth 47
Annex 1.A3. Main structural reforms in Slovenia 49

Chapter 2. **Keeping public finances on a sustainable path and improving efficiency** . . . 51

Fiscal consolidation has paid off... 52
... but is exposed to several risks 53
A new pension reform is needed to ensure long-term fiscal sustainability 56
Restraining public spending... 65
... and improving its efficiency 67
Making the tax system less distorting for growth 70
Notes 77
Bibliography 78
Annex 2.A1. The Convergence and Stability Programmes of Slovenia and actual fiscal developments 80
Annex 2.A2. Generational accounting: An illustrative simulation of the wealth impact of ageing pre-funding on younger and older generations 84
Annex 2.A3. Main tax reforms 88

Chapter 3. **Improving the functioning of the labour market** 89

Labour market performance has been improving... 90
... but challenges remain 94
Boosting the labour force participation of the elderly 96
Raising the employment rates of youth 105
Coping with rising labour market dualism 111
Notes 116

Bibliography 116
Annex 3.A1. Estimating a time-varying NAIRU by means of the Kalman filter 118
Annex 3.A2. Investigating the impact of Slovenian labour market reforms. 121

Chapter 4. **Enhancing the business environment to foster productivity growth** 125
Changing ownership and enterprise structure 126
Good business environment and adequate entrepreneurial dynamism 130
Recent initiatives to improve the business environment 139
Strong market concentration in key service sectors. 144
Notes 153
Bibliography 153
Annex 4.A1. Estimation of mark-ups for Slovenian industries. 154

Glossary 157

Boxes

1.1. Short-term outlook for Slovenia. 20
1.2. Measures adopted to help banks resume lending. 25
1.3. Accounting for growth in Slovenia 29
1.4. Policy recommendations for restoring a sustainable growth path within the Monetary Union 43
2.1. The impact of favourable tax elasticity in recent fiscal improvement. 54
2.2. Fiscal stimulus package. 56
2.3. The state pension system 58
2.4. The design of expenditure ceilings in some OECD countries 67
2.5. Policy recommendations for keeping public finances on a sustainable path and improving efficiency. 76
2.A1.1. Underlying factors explaining the gap between the forecasted and actual balance 81
3.1. Recent labour market reforms 92
3.2. The German subsidy scheme for shorter working hours 95
3.3. Project Learning for Young Adults 105
3.4. Study support 108
3.5. The Austrian severance pay reform. 114
3.6. Main recommendations to improve the functioning of the labour market. 115
4.1. Dissolution of social ownership (1992-2004) 127
4.2. Recent changes in public procurement. 136
4.3. Initiative of innovation policy. 143
4.4. Policy recommendations for enhancing the business environment to foster productivity growth 152

Tables

1.1. Short-term projections 20
1.2. Real GDP growth per capita compared to other Central and East European countries 28

1.3. Real GDP growth compared to other Central and East European countries 29
1.4. Factor contribution to growth. 30
1.5. Shift-share analysis of labour productivity growth per person. 31
1.6. Within-sector contributions to labour productivity growth. 32
2.1. Health care resources in international comparison: practicing physicians and hospital beds 69
2.2. Implicit tax rates on consumption 72
2.3. Development of labour tax wedges for single earners at different wage levels 74
2.4. Labour tax wedges for single earners in international comparison 74
2.5. Implicit tax rates on labour. 75
2.A2.1. Ageing projection assumptions 85
3.1. Employment protection legislation index. 112
3.A1.1. Phillips curve estimates. 119
3.A2.1. Parameter values of the matching model. 122
3.A2.2. Observed labour market outcomes and benchmark equilibrium of the model 123
4.1. Basic enterprise indicators 129
4.2. Slovenia's ranking in Doing Business 2009 138
4.3. Proceedings before the Competition Protection Office 140

Figures

1.1. Key economic indicators 19
1.2. Production indices 21
1.3. Currency breakdown of housing loans 22
1.4. Domestic lending and overseas borrowing by commercial banks 22
1.5. Five-year credit default swap rates 23
1.6. Sources of real income differences 27
1.7. Convergence of real per capita income 27
1.8. Labour productivity 29
1.9. Employment growth by sector 32
1.10. Labour productivity growth by sector 33
1.11. Decomposition of labour utilisation 34
1.12. Government expenditure and GDP 36
1.13. Fiscal-monetary policy mix. 37
1.14. Slovenia's export performance in selected commodities. 38
1.15. Export performance 39
1.16. Real effective exchange rate trends in Slovenia 40
1.17. Wages and labour productivity growth 41
1.18. Reform achievement 42
2.1. Development of the fiscal balance. 52
2.2. Actual fiscal balance and fiscal projections laid out in the Pre-accession, Convergence and Stability Programmes 53
2.3. Deviation between the actual and the projected change of the fiscal balance and the main causes of the deviation 55
2.4. Periods relevant for determining pension eligibility and benefits 58
2.5. Calculation of pension benefits 59

2.6. Age-related public spending is projected to rise sharply in most EU member states ... 61
2.7. Development of the fiscal balance and the debt level with and without adjustment to ensure fiscal sustainability ... 62
2.8. Sensitivity scenarios on change in old-age expenditure ... 63
2.9. Life expectancy and retirement age in selected OECD countries ... 64
2.10. The relationship between the ratio of government expenditure to GDP and per capita incomes: an international comparison ... 66
2.11. Public expenditure in selected new EU member countries ... 66
2.12. International comparison of public expenditure by type of spending ... 68
2.13. The relationship between the ratio of tax to GDP and per capita incomes: an international comparison ... 71
2.14. Structure of tax revenue ... 72
2.15. Effectiveness of value added taxes as measured by the VAT revenue ratio ... 73
2.A1.1. Deviation between the actual and the projected change of the fiscal balance and the main causes of the deviation ... 82
2.A2.1. Impact on generation's net wealth of maintaining fiscal sustainability ... 85
3.1. The Slovenian labour market ... 91
3.2. The unemployment rate and the NAIRU ... 92
3.3. Employment rate of the elderly ... 96
3.4. Average effective age of retirement versus the official age ... 97
3.5. Old-age dependency ratio ... 97
3.6. Part-time employment ... 100
3.7. Training ... 103
3.8. Participation in lifelong learning ... 104
3.9. The labour market situation of young adults ... 106
3.10. The structure of higher education in Slovenia ... 107
3.11. Public subsidies for tertiary education ... 108
3.12. Tertiary education resources ... 109
3.13. Minimum wage ... 111
3.14. Regulation of regular and temporary employment ... 112
3.15. Incidence of temporary employment ... 113
3.A2.1. Impact of variations in labour market institutions ... 123
4.1. Private sector share in GDP ... 128
4.2. Enterprise density ... 128
4.3. Market integration ... 131
4.4. Foreign direct investment flows ... 131
4.5. Estimated mark-ups ... 132
4.6. Relative price levels ... 133
4.7. Price levels by sector relative to the European Union ... 134
4.8. Total factor productivity ... 135
4.9. Product market regulation indicator ... 135
4.10. Firm creation and firm closure ... 137
4.11. Ease of doing business ... 137
4.12. Obstacles to entrepreneurship ... 139
4.13. Telecommunications indicators ... 142
4.14. Research and development expenditure ... 142
4.15. Return on average equity and net interest margins ... 147

4.16. Telecommunications prices 149
4.17. Electricity prices 151
4.18. Food prices 152

On 16 May 2007, the OECD Council decided to open discussions with Slovenia on accession to the Organisation and, on 30 November 2007, an Accession Roadmap, setting out the terms, conditions and process for accession was adopted [C(2007)104/FINAL].

In the Roadmap, the OECD Council requested a number of OECD Committees to provide it with a formal opinion. The Economic and Development Review Committee was requested to review Slovenia's overall economic policies in order to provide a formal opinion on the degree of coherence of Slovenia's policies with those of OECD member countries. In light of the formal opinions received from OECD Committees and other relevant information, the OECD Council will decide whether to invite Slovenia to become a member of the Organisation.

The present Economic Survey of Slovenia was prepared for the purposes of the accession review of Slovenia and was discussed by the Economic and Development Review Committee on 16 April 2009. 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 6 May 2009.

The Secretariat's draft report was prepared for the Committee by Colin Forthun, Isabell Koske, Willi Leibfritz, Axel Mittelstadt and Margit Molnar under the supervision of Pierre Beynet. Research assistance was provided by Desney Erb.

The previous Survey of Slovenia was issued in May 1997. This Survey is published on the responsibility of the Secretary-General of the OECD.

BASIC STATISTICS OF SLOVENIA, 2008

THE LAND

Area (1 000 km^2)	
Total (2005)	20.3
Agricultural (2007)	5.0

Major municipalities (thousand inhabitants, 2007)	
Ljubljana	265.9
Maribor	110.7
Kranj	52.3

THE PEOPLE

Population	
Thousands	2 040
Increase 2003-08 (annual rate, %)	0.4
Number of inhabitants per km^2	101

Total labour force (thousands)	1 042
Employment (% of total, 2007)	
Agriculture, forestry and fishing	9.0
Industry and construction	34.7
Services	56.3

PRODUCTION

Gross domestic product	
In billion EUR	37.2
Per head (thousand USD)	26.8

Gross fixed capital investment	
In % of GDP	28.2
Per head (thousand USD)	7.5

GENERAL GOVERNMENT

Public consumption (% of GDP)	17.9
General government (% of GDP)	
Current expenditure	39.9
Current revenue	43.6
Gross debt, Maastricht definition	21.7

Composition of National Assembly (seats)	
Social Democrats	29
Slovenian Democratic Party	28
Party For Real	9
Democratic Party of Slovenian Pensioners	7
Other parties	17

Last general elections: September 2008

FOREIGN TRADE

Exports of goods and services (% of GDP)	68.6
Main commodity exports (% of total)	
Manufactured goods	23.8
Machinery and equipment	24.2
Road vehicles and transport equipment	15.6
Chemical products	14.3

Imports of goods and services (% of GDP)	71.4
Main commodity imports (% of total)	
Manufactured goods	20.4
Machinery and equipment	20.2
Road vehicles and transport equipment	13.3
Chemical products	11.7

THE CURRENCY

Monetary unit: euro

Currency unit per USD, average of daily figures	
Year 2008	0.684
April 2009	0.757

Executive summary

Slovenia has achieved a significant economic catch-up toward the OECD average GDP per capita without creating any major imbalances. This catch-up has been set back by the financial turmoil, which poses immediate challenges to economic policy to support the financial sector and economic activity in general. Beyond the crisis, the main goal for policymakers must be to restore sustainable growth within the euro area. Regarding these issues, this Survey *makes the following recommendations:*

Policy measures to support economic activity in the short term should not put fiscal sustainability and real convergence at risk. *Measures taken to support the banking sector, while slow to produce results, have been appropriate, and the 2009 sizeable fiscal stimulus is justified as there is room for discretionary fiscal policy. However, being a small open economy, Slovenia should prioritise those discretionary fiscal measures that help foster its potential growth. Measures to support short-term activity should be removed as soon as activity picks up. The timing of the planned public wage increase should be reconsidered and a social agreement ensuring that real wage growth does not exceed that of productivity renewed. Looking ahead, to the recovery and beyond, it is important that the stance of fiscal policy should take into account the actual monetary conditions in Slovenia so as not to repeat what happened after euro adoption, when fiscal policy was not sufficiently restrictive to provide an appropriate policy-mix* vis-à-vis *the euro area monetary stance, which was relatively loose for Slovenia. Most importantly, structural reforms are key to ensure real convergence and resiliency to shocks.*

Achieving fiscal sustainability requires pursuing structural reforms even during bad times. *Upcoming ageing costs are daunting for Slovenia as the last pension reform has not been sufficient to ensure long-run sustainability. Consequently, a new pension reform should aim at lowering the replacement rate and raising the effective retirement age, with an automatic adjustment of the retirement age to life expectancy. As soon as the crisis subsides, the strategy of pre-funding part of ageing costs should be resumed by running a balanced budget over the medium term. To achieve this goal, a public expenditure rule should be designed to ensure a gradual decline in expenditure as a percentage of GDP.*

Pension reform is also one of the key measures to increase labour participation. *Slovenia has a high employment rate compared to the OECD average, but the labour force participation rate of the elderly is still very low by international comparison. Beyond increasing the retirement age, the design of the pension reform needs to remove incentives for early retirement and facilitate gradual exits from the labour force. To increase the employment rate of younger age cohorts, the length of tertiary studies needs to be reduced by strengthening incentives for rapid graduation. Also, the ratio of the minimum wage to the average one is still very high by international comparison and should be reduced further.*

The business environment needs to be enhanced to foster productivity growth. *The OECD's product market regulation indicator confirms the overall business friendly environment, despite a slightly less liberal stance than the OECD average. In order to strengthen competition, the*

Competition Protection Office should be made a fully independent agency with its own budget. Also, a list of state-owned companies to be privatised once the economy recovers should be published. In the meantime, the government should explore ways to improve the management of state companies, such as appointing managers solely based on expertise, and more generally by following the OECD guidelines.

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OECD Economic Surveys: Slovenia

Assessment and recommendations

A successful economic catch-up over the last decade

Since 1997, Slovenia has enjoyed dynamic growth, steadily moving toward the OECD average gross domestic product (GDP) per capita. Strong growth reflected a favourable business environment and significant structural reforms that paved the way to European Union (EU) accession in 2004. Prudent macroeconomic policies also helped to maintain growth without creating any major imbalances, until recently. In particular, the social agreement of 2002 to keep wage growth below that of productivity helped to reduce inflation toward the level in the euro area within a couple of years. The agreement also contributed to improved competitiveness while preventing a significant deterioration in the current account balance, in contrast to the experience of many other transition economies. A strict agreement on public wage restraint since 2004 and cautious implementation of the two-year budgeting rule helped bring the fiscal balance back to surplus in 2007. These positive developments suggest a sustainable catch-up during this period. However, some signs of overheating emerged after euro area entry in 2007, which coincided with strong food and energy price shocks, with inflation peaking mid-2008 at the highest level within the euro area and unemployment falling significantly below its estimated natural rate.

Economic convergence is now challenged by the global crisis

The main channel through which the global crisis has affected Slovenia is trade, as foreign demand, especially from Germany, has fallen sharply. The worst-affected sectors have been those producing cyclically-sensitive goods, such as the automobile sector (1.1% of Slovenian value-added). Slovenia's banking sector has not been spared by the financial crisis either, despite not being directly exposed to the toxic assets. The banking sector has been facing refinancing difficulties since the last quarter of 2008. Both foreign and domestic banks had been borrowing abroad in recent years to finance a credit boom that outstripped the growth of domestic deposits. As a consequence, the total amount of short-term debt to be refinanced within a year has reached EUR 5.5 billion, about a sixth of Slovenian GDP, forcing banks to hold cash and limit credit to households and firms. The economy of Slovenia is expected to enter into recession in 2009 and slowly pick up in 2010. This outlook remains fragile as it relies on a recovery in exports and on the effectiveness of recent policies to support growth.

Measures to support the financial sector and avoid credit rationing have not yet resulted in a pickup in bank lending

The government, with the help of the Bank of Slovenia, is actively supporting the banking system, but with mixed results so far. A state guarantee scheme (allowing up to EUR 12 billion of bank refinancing to be guaranteed by the state until end-2010) was put in place last year but only one bank has applied. The government took new measures at the beginning of 2009 to support bank refinancing and to help banks resume lending. To support bank liquidity, the government used its higher credit rating to borrow EUR 1 billion and deposited most of the proceeds in bank accounts. The government has also used three instruments to give incentives for banks to resume or keep lending to the domestic firms: a state guarantee (up to EUR 1 billion in total) for which banks can apply when they lend; credit lines from the state-owned export and development bank (SID), whose recapitalisation decision has been approved; and direct state guarantees when firms borrow in financial markets. Having started in 2009, the positive impact of these measures on bank lending has not yet been clearly felt. Should they fail, the government has also been contemplating direct lending to firms, or even more radical options to support the banking system, such as purchasing assets directly from banks, recapitalising them or creating a "bad" bank. Despite the difficulties in the financial sector, household confidence in bank deposits has not been affected thanks to the removal of the ceiling on the state guarantee for deposits.

In this context, there is room for discretionary fiscal policy

The favourable fiscal position built up before the crisis hit has provided room for fiscal stimulus. The revised 2009 budget goes beyond automatic stabilisation and incorporates a discretionary stimulus amounting to 1.2% of GDP. Including measures to increase public wages decided in July 2008 raises the discretionary fiscal impulse to about 2% of GDP in 2009. With an expected strong impact of automatic fiscal stabilisers, the general government deficit is expected to be close to 6% of GDP in 2009.

But policy measures that put long-term fiscal sustainability at risk should be avoided

Slovenia should prioritise discretionary fiscal measures that help foster its potential growth, including public investment, spending on human capital or research and development. Measures whose only purpose is to support short-term activity should clearly be made temporary and removed as soon as activity picks up. In this respect, composition of the stimulus package is mixed. On the positive side, it contains a recapitalisation (EUR 160 million) of the state-owned export and development bank to support lending to firms as well as diverse tax measures to support investment (about EUR 100 million). On the other hand, the main government fiscal measure (EUR 230 million), which subsidises firms for reduced working hours to maintain employment, may prove difficult to reverse and lead to a reduction in potential output if kept in place too long. The government should also reconsider its planned increase in public wages, since this will permanently raise public spending by roughly 1% of GDP at the expense of long-term fiscal sustainability.

And fiscal policy needs to pay attention to the appropriate policy mix

Taking into account the usual time lag for fiscal measures to kick in, the Slovenian government will need to progressively withdraw the fiscal impulse as soon as the economic prospects start improving, probably from 2010 or 2011 onwards. For this purpose, a strong political commitment is needed to restore a balanced fiscal position over the medium term in the context of the Stability and Growth Pact. Ways to foster this commitment would be to introduce *performance budgeting* and consideration can be given to *put in place an independent Fiscal Council that regularly assesses the appropriateness of the fiscal stance and long-term sustainability.* As a catching-up economy with monetary conditions which may be easier than in other euro area countries, it is important that *the fiscal stance takes into account the actual monetary conditions in Slovenia* so as not to repeat what happened after euro area entry, when fiscal policy was *de facto* not sufficiently restrictive to provide an appropriate policy mix *vis-à-vis* the euro area monetary stance, which was relatively loose for a booming economy. This would help to keep inflation at a level closer to the objectives for the euro area as a whole.

Beyond the crisis, efforts toward real convergence should be renewed

Beyond 2009 and as the economy recovers, efforts to achieve real convergence towards the euro area average need to be renewed. Entry to the euro area was supported by the 2002 social agreement of keeping wage growth below the growth of productivity. The implementation of the law reducing wage disparities in the public sector should be reviewed in light of its macroeconomic impact, since this law will result in a higher fiscal deficit and add to wage pressures once the economy recovers, potentially damaging employment and competitiveness if wage growth remains durably above productivity growth. *A new social agreement ensuring that real wage growth does not exceed that of trend productivity is necessary.*

The speed of real convergence will depend critically on the scope of structural reforms. Slovenia has achieved a broad modernisation of its economy since independence through the gradual implementation of structural reforms. This gradualism in reforms brought positive results, such as maintaining low inequality and consensus for market-oriented reforms. However, gradualism also entails costs. As some reforms were only partial, especially in the labour and product markets, Slovenia could not reap all the benefits from previous reforms in other sectors (trade, finance and tax policy). Moreover, in the long run, structural reforms are key to ensure resiliency to shocks within a common currency area. Looking ahead, the rapid ageing of the population will reduce potential output growth. To foster further convergence, structural reforms need to be accelerated, and bad times should not be used as an excuse for postponing the political discussion on the necessary reforms. Toward this end, policy makers need to shift attention to reforms to increase labour supply and foster productivity growth through enhancing the business environment, while restoring fiscal prudence to maintain a macroeconomic framework conducive to growth.

Fiscal sustainability requires improved expenditure efficiency and structural reforms, especially further pension reform

Since 2002, Slovenia has followed prudent fiscal policies, leading to a significant improvement in both the actual and structural deficits. But this success should not lead to complacency as the improvement in the underlying position is weaker than it appears. Volatile tax elasticities led to exceptionally high tax receipts that have been hiding part of the fiscal cost of recent tax reforms. Expenditure restraint was helped by an agreement to partially index public sector wage growth to inflation, which also contributed to ease qualification for euro adoption, a policy which has now resulted in large public wage increases. The improvement in the fiscal position also reflected a build-up of contingent liabilities in the area of highway construction; the public company in charge of highways may not be able to raise enough revenues from tolls to reimburse its debt while fulfilling its maintenance duty. On top of that, long-term liabilities related to ageing remain daunting. There is general agreement among the experts that the 1999 pension reform has not been adequate to ensure long-run sustainability. According to estimates by the European Commission, the degree of ageing in Slovenia will be the second most pronounced in the EU, and the total ageing costs will rise by about 13% of GDP by 2060.

To maintain fiscal sustainability, the strategy of pre-funding part of ageing costs should be resumed as soon as the crisis subsides, by running a balanced budget over the medium term. Consolidation achieved through expenditure restraint being more sustainable, the government should supplement the rules of the Maastricht Treaty and the Stability and Growth Pact by a public expenditure rule designed to ensure a gradual decline in expenditure as a share of GDP. Improving education and health efficiency, linking spending performance more tightly to budgeting and better targeting social transfers would also help control expenditure growth.

Pre-funding of ageing costs, however, cannot be the sole strategy to accommodate the upcoming expenditure arising from ageing, because the sizeable fiscal surplus implied is not likely to be politically feasible or economically desirable. *Accordingly, renewed efforts to contain ageing costs through pension reforms should not wait for the economic situation to improve. In particular, a reform of the pension system should aim at raising the effective retirement age and lowering the replacement rate* (e.g. *by shifting the indexation of pensions from wages to prices or extending the contribution period to receive a full pension*). *The government should therefore consider transforming the current defined benefit scheme into a notional defined contribution scheme, or if the defined benefit system is continued, introducing an automatic adjustment of the retirement age to life expectancy.*

Labour force participation should be increased while reducing labour market dualism

The labour market situation has improved markedly over the past years, with the unemployment rate falling below its estimated natural rate and the employment rate rising to a level above the OECD average before the financial crisis hit Slovenia. The improvement in the labour market is partly owed to the recent buoyant growth but also to important structural reforms: reductions in the labour tax wedge, a tightening of the

eligibility for unemployment benefits and the introduction of active labour market programmes. Nevertheless, several challenges remain which require further reform efforts.

- *The authorities should refrain from taking counter-cyclical measures during the crisis that have a long-lasting negative impact on labour market functioning*. As mentioned previously, *subsidising shorter working weeks should not continue beyond the crisis*. Also, the ratio of the minimum wage to the average wage is still high by international comparison and *should not increase and, preferably, be reduced further*.
- The labour force participation rate of the elderly is still very low by international comparison, despite some recent improvements. To raise participation rates, *the pension system needs to be reformed further by increasing the retirement age, removing incentives for early retirement and facilitating gradual exits from the labour force*. To ensure that those who wish to work longer also find appropriate jobs, a continuous upgrading of skills is essential and *an evaluation of adult education programmes should be conducted*.
- To increase employment rates of the younger age cohorts, the length of tertiary studies needs to be reduced by strengthening incentives for rapid graduation. Important steps in this direction could include *making the eligibility for student benefits contingent on an annual minimum study progress or introducing tuition fees together with student loans with repayments contingent on earnings after graduation*.
- *Hiring and firing costs should be eased for regular work contracts to ensure that workers do not get trapped in temporary forms of employment and hence avoid increasing labour market dualism*. This should be done once the economy recovers as easing employment protection during the crisis is not an appropriate option.

Further tax reforms should also help increase labour demand

Tax policies should focus on reducing employer contributions to social security. To compensate for revenue losses, the government should raise property taxation and, by broadening tax bases, indirect taxes as well. An increase in the value added tax rate could also be considered in the medium run. The government should also improve the design of environmental taxes by strengthening the link to pollution.

The overall business environment is good but could be improved by increasing the powers of the Competition Protection Office

Slovenia's rapid catch-up owes much to a favourable business environment. Slovenia's 2008 level of the OECD product market regulation index is much lower than those of neighbouring transition economies, being close to levels noted for more developed adjacent countries. Keener competition since EU accession has set the stage for the creation of large numbers of small and medium-sized enterprises. Nonetheless, foreign direct investment (FDI) inflows have remained low, pointing to a sub-optimal transfer of best-practice knowledge. In key service sectors (retail sector, financial services, energy and telecommunications), low contestability linked to state involvement and strong market concentration may have deterred inward FDI.

In order to strengthen competition, the Competition Protection Office (CPO) should be separated from the Ministry of Economy, becoming an independent agency with its own budget. For this measure to be effective, the government will need to grant sufficient resources to the CPO so that it can fully operate without the administrative support of the Ministry of Economy. Another measure to enhance competition is to strengthen public procurement to rule out potential collusion among tenders, given that the total amount of public procurement per year plays a significant role for the Slovenian economy (almost 10% of GDP).

There is a need to reduce barriers to entrepreneurship and improve innovation policies

The life profile of companies in Slovenia points to a general lack of entrepreneurial dynamism, which has limited overall efficiency gains. Options to strengthen entrepreneurship include *facilitating property registration and expanding the network of public/private business support centres*. The quality of Slovenia's future business environment depends, to a large extent, upon the introduction of an effective *innovation policy, which could be supported by multi-purpose centres*.

Enhanced business efficiency also demands improved governance of state-owned enterprises before eventual privatisation

As the efficiency of state-owned enterprises is low, privatisation should be resumed once the economic situation improves. In the meantime, *the government should publish a list of state-owned companies and prepare a privatisation plan. The government should also explore ways to improve the management and governance of state companies*. Involvement of the State or state-managed funds in company management, for example to use state-owned companies to support some sectors of the economy, should be avoided. *In underperforming state-controlled companies, the government should implement strategic plans to raise productivity to levels observed in other EU countries. To this end, the government should ensure that competent supervisory boards appoint managers based only on expertise*. The government has established an independent Council for Accreditation of Staff of public companies which is a step in the right direction.

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Chapter 1

Restoring a sustainable growth path within the Monetary Union

Slovenia achieved strong economic growth leading to a marked catch-up with the EU15 during the last decade. This dynamic growth has been interrupted by the global recession, adversely affecting Slovenian exports and banks' refinancing possibilities. Government policies to counter the downturn have been appropriate: most measures to support banks are well-designed and, given the relatively favourable fiscal position, there was room for the discretionary fiscal stimulus adopted by the government. However, the government should ensure that the fiscal stimulus remains temporary and pro-growth oriented. Looking forward, fiscal policy needs to pay greater attention to the monetary conditions (now set at the euro area level) to avoid overheating. As the economy recovers, efforts to achieve real convergence need to be renewed. Labour productivity gains that had been driving growth per capita need to be sustained through higher total factor productivity growth and better labour utilisation. Competitiveness within the euro area should be maintained by ensuring that wage growth does not exceed that of productivity. Overall, the speed of real convergence will largely depend upon implementation of structural policies to promote fiscal sustainability, make employment more attractive and enhance the business environment.

The global economic crisis poses new challenges to economic policy

Slovenia's dynamic growth of the recent years has been abruptly interrupted by the global recession, adversely affecting Slovenian exports and banks' refinancing possibilities. Prior to the economic crisis, Slovenia had achieved steady gross domestic product (GDP) growth, lifting living standards, and adopting the euro as the first of the new member states. Over the period 1997-2007, real GDP grew at 4.4% on average, expanding employment and shrinking unemployment (Figure 1.1). Favourable developments were also seen in the four OECD transition economies of the Czech Republic, Hungary, Poland and the Slovak Republic with rapid GDP growth amid receding inflationary pressures.

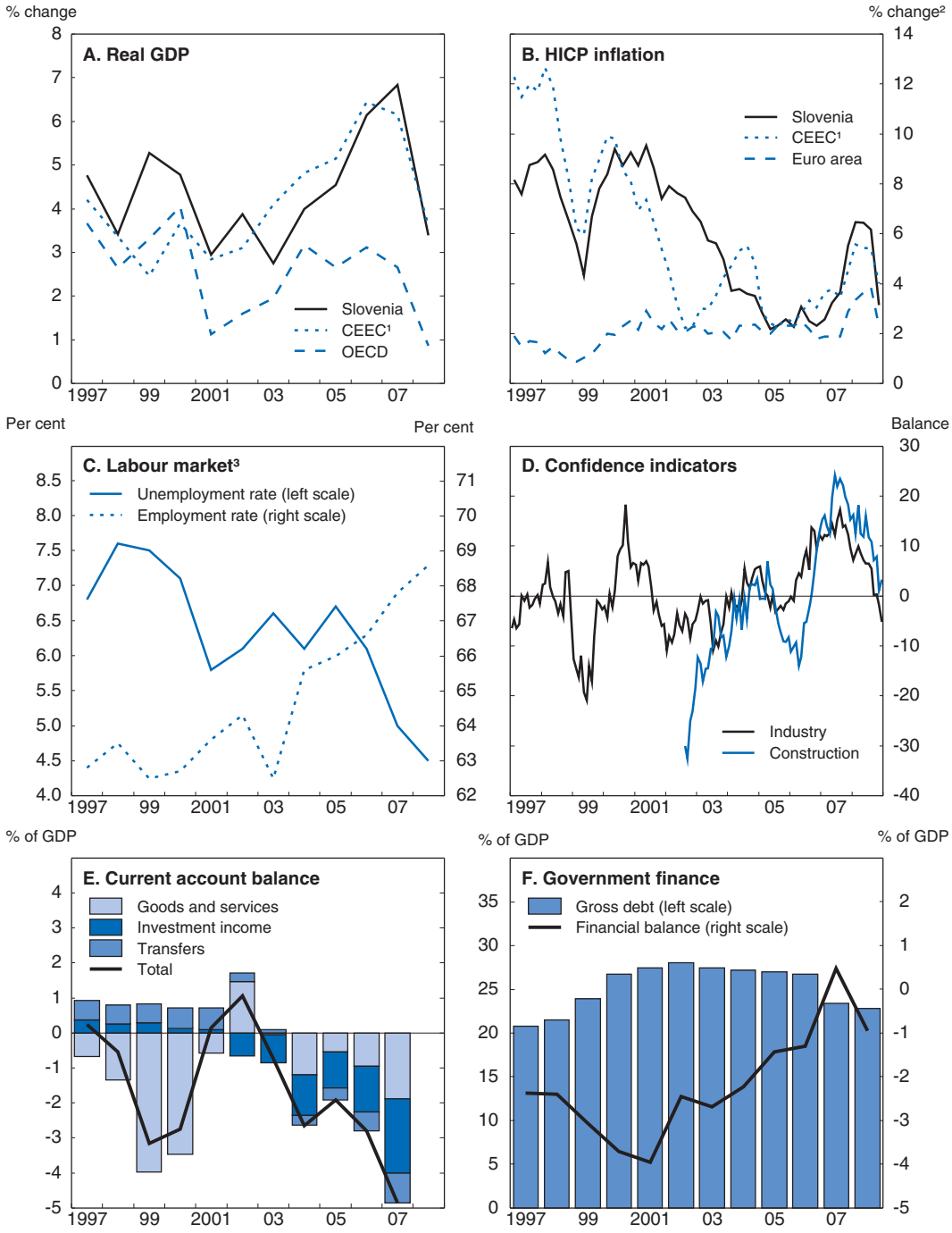
Slovenia had been spared by the financial crisis until the last quarter of 2008 owing to its stable growth, overall prudent macroeconomic policies and the cautious behaviour of its financial institutions towards innovative financial products. Once the crisis became global, however, Slovenia was affected through trade and financial linkages. The impact of the crisis on Slovenia is likely to be severe because of its dependence on foreign financing and exports. Slovenia is heading for recession in 2009 and sluggish growth in 2010 (Box 1.1). As the crisis unfolded, it became clear that the depth and expected length of the slowdown warrant fiscal easing to combat the downturn. To mitigate the impacts of the crisis but at the same time not jeopardise long-term sustainability, the structure of the fiscal stimulus should be carefully designed.

The economy has been severely hit by the global recession

The fall in foreign demand is the main channel through which the economic crisis has affected Slovenia

Collapsing foreign demand triggered a fall in Slovenia's industrial output at end-2008, one of the largest monthly falls of production in the euro area (Figure 1.2). Construction output has also fallen sharply, in contrast to the euro area average, suggesting that this sector was overheated during the past year. The Slovenian economy is not only dependent on exports (over 60% of manufacturing sales) but also on cyclically sensitive industries, such as automobiles, electronics and steel. The car industry was first hit by slackening export demand in late 2008. Revoz (a unit of Renault), the largest exporter in Slovenia with around an 8% share, slashed daily production by almost 17% and its workforce by almost 7% in November 2008, inducing a chain-reaction on companies supplying parts and components. However, subsidies across Europe for scrapping old cars for more environment-friendly new ones have temporarily revived demand for Slovenian car exports and recently prompted Revoz to increase production and employment.[1] Export market diversification has so far provided some cushion against the global downturn, even those markets that had initially been less affected, such as Russia or the Balkan countries, are now also heading for recession. Only the pharmaceutical sector appears to be holding out relatively well, owing partly to the non-cyclical nature of demand.

Figure 1.1. **Key economic indicators**



1. Unweighted average of data for the Central and East European countries that are OECD members: Czech Republic, Hungary, Poland and Slovak Republic.
2. Year-on-year percentage change.
3. Age group 15-64.

Source: OECD (2009), *National Accounts of OECD Countries – online database*, April and *OECD Economic Outlook: Interim Forecast*, March; *Eurostat database* (2009), Economy and Finance, and *Labour Force Survey*, April; IMF (2009), *Balance of Payments and International Investment Statistics*, CDROM, International Monetary Fund, February; and European Commission (2009), Economic and Financial Affairs, *AMECO database*, April.

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Box 1.1. **Short-term outlook for Slovenia**

Slovenia is experiencing the worst crisis since independence, as GDP is expected to contract by about 6% in 2009. The severe contraction began at the end of 2008 when the collapse of exports triggered a sharp decline in manufacturing production. Construction output has also fallen sharply. Sentiment indicators still deteriorated in May, particularly in the construction sector, suggesting that the economy has not bottomed out yet. The number of unemployed has started increasing. The economic contraction combined with the decline in commodity prices has lowered inflation, which was high before the crisis. A significant decline in investment, particularly in civil engineering projects and housing, due to dearer and scarcer sources of funds and uncertainty about the timing of a global recovery, will drag the economy. Private consumption will be adversely affected by increasing unemployment, further compounded by a potential negative wealth effect related to falling housing prices. Slovenia is an export dependent country with around two-thirds of its manufacturing output destined for foreign markets. With the euro area in deep recession, foreign demand for Slovenian products has collapsed and will not pick up before recovery abroad. In 2010, the economy should gradually recover, driven by stronger exports and a pickup in investment spending.

The government adopted two fiscal packages in December 2008 and in February 2009, and is contemplating a third round of fiscal measures, whose details were not known at the time of publication. The total amount of discretionary measures should reach around 2.2% of 2009 GDP, although some funds will not be disbursed before 2010. The fiscal packages comprise measures to subsidise reduced working hours, provide guarantees for banks to borrow from abroad, recapitalise the state owned export and development bank and mitigate credit risk (state guarantees). The falling output and the crisis-related packages have interrupted the on-going fiscal consolidation process. It is crucial to ensure that the budget is brought back to a sustainable trajectory once the economy picks up; a new pension reform should play a substantial role in achieving this goal (see Chapter 2).

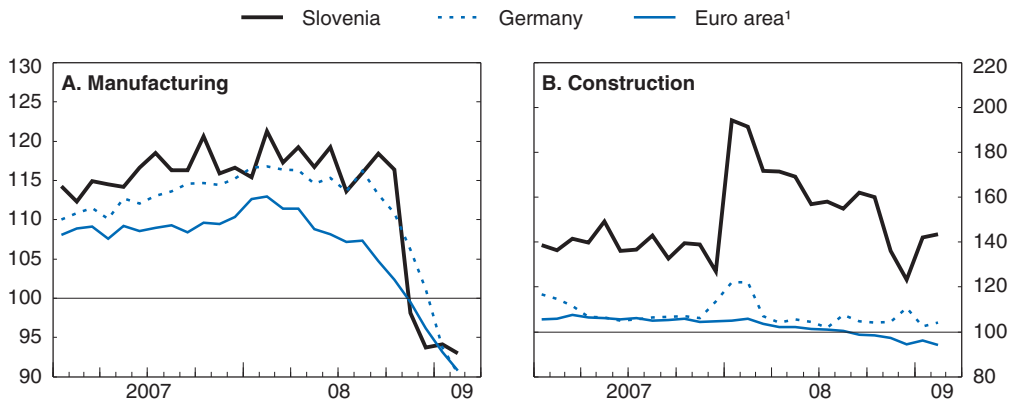
Real GDP is expected to contract sharply in 2009 (–5.8%) and barely return to positive territory in 2010. Inflation (measured by the harmonised index of consumer prices, HICP) will moderate to 0.8% in 2009 and slightly increase in 2010 (see Table 1.1). Risks to this forecast are tilted to the downside, as a prolonged global recession could adversely affect output and unemployment. A sharp increase in non-performing loans, in the wake of excessive credit growth in the recent past, could severely constrain banks' lending ability and hence could constitute a drag on the recovery. Earlier than expected global recovery, on the contrary, could lead to a faster recovery of exports and output.

Table 1.1. **Short-term projections**

	2008	2009	2010
Real GDP growth (%)	3.4	–5.8	0.7
HICP growth (%)	5.5	0.8	1.6
General government financial balance (% of GDP)	–0.9	–5.7	–5.3

Source: OECD (2009), *OECD Economic Outlook*, No. 85.

Figure 1.2. **Production indices**
Seasonally adjusted, 2005 = 100



1. Euro area 15 member countries.

Source: Eurostat database (2009), *Industry, Trade and Services*, April.

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The second round of economic contraction is on the way as companies slash jobs and hours while the laid off cut consumption. The unemployment rate had fallen below the natural rate in recent years (see Chapter 3), but the crisis has led to the termination of thousands of mainly fixed-term contracts. Uncertainty regarding unemployment will have an adverse impact on consumption, which could be compounded by a potential negative wealth effect related to housing prices, although it is difficult to assess to what extent the housing market has bubbled in recent years. On the other hand, Slovenian households are much less indebted than those in many OECD countries (outstanding household loans equal less than a quarter of GDP compared to over half of GDP in many OECD countries), and they hold a very small share of their assets in securities.[2] Therefore, the wealth effect related to falling securities prices is expected to be limited and the increase in precautionary savings may be less pronounced than in other countries.

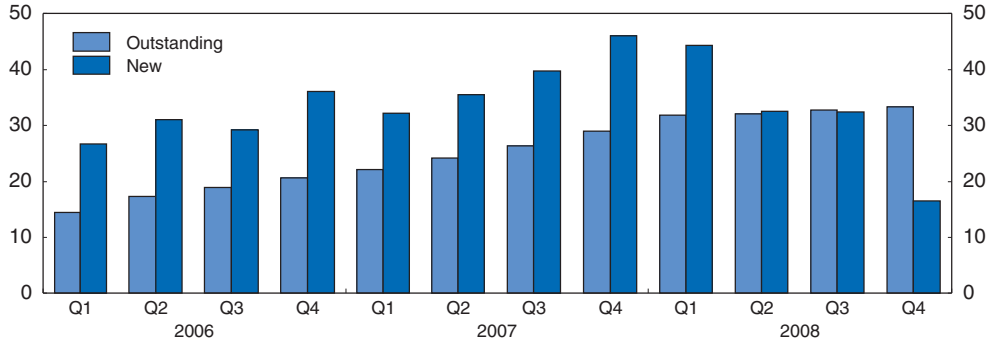
Households have low debt levels, but those with housing or consumption loans are exposed to exchange rate and interest rate risks. The share of housing loans in Swiss francs has reached one-third of total outstanding housing loans (or equivalent to slightly over 3% of GDP) though the share of new housing loans in Swiss francs dropped to below 17% by end-2008 (Figure 1.3). The appreciation of the Swiss franc *vis-à-vis* the euro of over 10% in 2008 has imposed an additional burden on households' debt financing and has reduced the demand for new loans in that currency. Households are also increasingly exposed to interest rate risk. In 2008, 61% of new housing loans were approved with a variable interest rate, down from 87% in 2007. With monetary easing underway in the euro area, the debt financing burden should ease, bringing support to consumption.

The crisis is compounded by the refinancing difficulties from the banking sector

Slovenian banks have been hit particularly hard by the drying up of international refinancing given their increasing reliance on short-term foreign borrowing (Figure 1.4). Foreign funds have financed the savings-investment gap, fuelling the investment boom over the past years. With the financial crisis becoming global, however, foreign financing has become dear and Slovenian banks' low ratings further limited access to and the price of liquidity in international financial markets.

Figure 1.3. **Currency breakdown of housing loans**

Per cent of loans in Swiss francs



Source: Bank of Slovenia.

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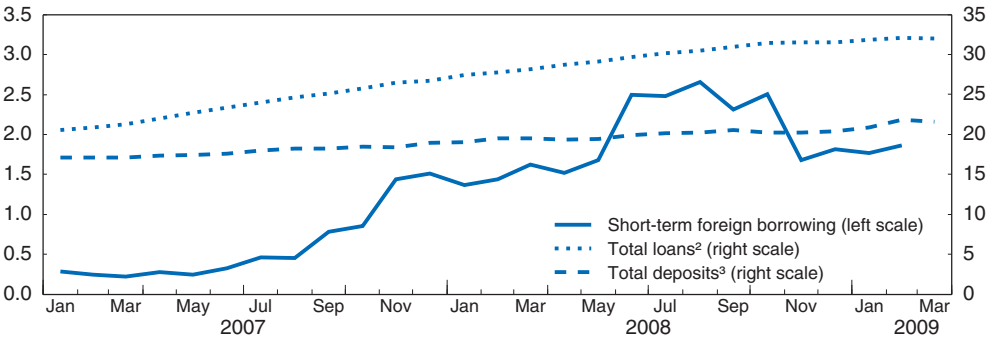
Figure 1.4. **Domestic lending and overseas borrowing by commercial banks**

Billion euros[1]



1. For comparison purposes, the level of GDP in 2007 was EUR 34.7 billion.
2. Claims on non-financial institutions in the balance sheet of other monetary financial institutions.
3. Sum of deposits in domestic and foreign currencies in the balance sheet of other monetary financial institutions.

Source: Bank of Slovenia (2009), *Monthly Bulletin*, Vol. 18, No. 4, April.

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Slovenia's banking sector is also vulnerable to the financial crisis because the strong and probably excessive credit growth in the past (*e.g.* 40% bank lending growth in 2007 only) is likely to create an increased amount of non-performing loans (NPLs), aggravated by weakening firm balance sheets as a result of slackening demand. Therefore, the build up of NPLs needs to be addressed to allow banks to resume lending.

Slovenian banks also need to cope with a growing maturity mismatch between their assets and liabilities and, to a lesser extent, with a currency mismatch. While banks provide both short-term and long-term financing, most of their liabilities, deposits in particular, are short term. With moderate growth of deposits, the credit boom was mainly financed by short-term foreign borrowing, thereby exacerbating the maturity mismatch. Maturities of foreign loans have further shortened with the unfolding of the global financial crisis in 2008. Issuing bonds and therefore reducing the maturity mismatch had been hampered by the 15% withholding tax on interest from bond issues, until it was abolished in mid-2008, prompting the largest bank to tap international markets for fresh funds.[3]

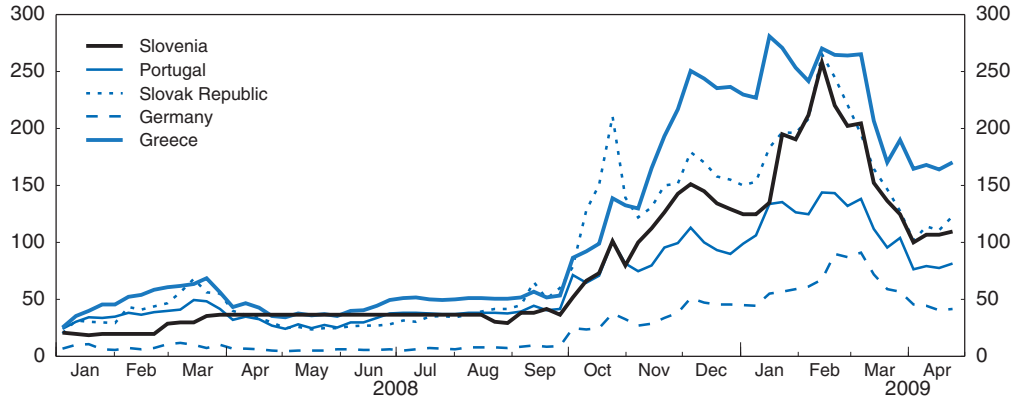
The deterioration of asset portfolios as a result of plummeting global asset prices is expected to be limited for the banking sector as a whole, but is likely to affect some banks more severely, in particular smaller ones that switched to holding equities once the sterilisation bonds were bought back by the central bank in 2007. A low degree of exposure of bank portfolios to structured financial instruments turned out to be an advantage, as they are now less exposed to toxic assets than banks in many other countries.[4]

In addition to these challenges, Slovenian banks appear to be less cost-efficient than their regional peers. Slovenian banks lag behind euro area counterparts and even some Central European OECD countries, based on either accounting ratios or X-efficiency scores (Bems and Sorsa, 2008; Holló and Nagy, 2006).[5] This may be due to the concentrated market structure and widespread state ownership in the banking sector. While there are over 20 banks operating in Slovenia, the largest one commands a market share of over 30% in terms of assets and the second one nearly 10%. Both are state-owned, directly and indirectly through public funds and financial and non-financial state-owned enterprises. There is also non-negligible cross-shareholding among banks. Market concentration and government ownership, in particular of the largest players, may imply less competitive pressure in the Slovenian banking market. Strengthening competition is therefore crucial to reduce X-inefficiency through, for instance, stimulating managerial efforts by providing more firms to serve as a reference for comparison (Nickell, 1996). New entry may not be the most likely source of stronger competition in this small market, which already has a large number of players; thus, it will be important to encourage competition among the incumbents, particularly among the major players, to boost efficiency and enhance the sector's ability to cope with future crises. Once financial market conditions return to normal, a possible way to boost competition could be through the privatisation of the second largest bank, which is sufficiently large to eventually challenge the dominant position of the largest one.

Refinancing difficulties of Slovenian banks imply harsh credit conditions for companies. Spreads for five-year Slovenian credit default swaps (CDS) have widened since the third quarter of 2008, following a gradual increase starting at the outbreak of the subprime crisis in the United States in mid-2007 (Figure 1.5). These spreads have widened markedly since late 2008 – peaking in February 2009 and receding toward end-2008 levels

Figure 1.5. **Five-year credit default swap rates**[1]

Basis points



1. Mid-rate spread between the entity and the relevant benchmark curve.

Source: Datastream.

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thereafter – *vis-à-vis* those for German CDS as a result of higher *premia* attached to emerging markets. Domestic credit supply is unlikely to recover before international liquidity conditions ease. A more cautious approach to lending by global banks – to a large extent attributable to risk assessment difficulties – contributes to a vicious cycle, where even companies with healthy balance sheets have seen access to credit limited.

Measures to support the financial sector have not yet resulted in a pick-up in bank lending

The Slovenian government acted promptly in the third quarter of 2008 to help restore banks' refinancing channels and to enhance stability of the banking system. As part of cross-European efforts to enhance stability of the financial system, the Slovenian government strengthened deposit guarantees in late 2008. The ceiling of the deposit guarantee at local banks was removed (from the earlier EUR 22 000) for private persons and small businesses. This improved cover, alongside an expected increase in savings due to economic uncertainty, should help the banks to expand their customer deposit base and hence ease the constraint of access to foreign funds.

The timely elimination of the capital buffer (an additional capital adequacy requirement of about 0.8 percentage point) also provided some relief for the banking sector in the last quarter of 2008. This buffer was introduced in 2006 to counteract the pro-cyclical effects of the newly introduced less stringent International Financial Reporting Standards (IFRS), but its effectiveness in restraining credit appears to have been limited, maybe because of its small size.

To ease credit constraints brought about by the EU-wide crisis, the European Central Bank (ECB) extended facilities in the form of maximum six-month renewable loans in autumn 2008. Since then, Slovenian banks, domestic and foreign, have been using it widely. This facility, however, falls short of the needs of Slovenian banks as it is confined to short-term refinancing. Furthermore, collateral requirements may be constraining a few banks, although the size of loans is not limited.

To supplement the ECB facility, in November 2008 the Slovenian government made state guarantees for refinancing operations available to the banking sector (see Box 1.2 for details of measures to support bank lending). This measure was made possible by the amendment of the public finance law to allow the government to extend guarantees up to EUR 12 billion. The largest bank, Nova Ljubljanska Banka has applied for the government guarantee, and two other banks are also considering doing so.

However, the measures adopted end-2008 fall short of the need to provide sufficient liquidity to the banking sector, as evidenced by the recently reported predatory bank competition for deposits. Amid dried up international funding, some banks started offering unsustainably high interest rates on deposits at end-2008. To avoid further destabilisation of the banking sector, the central bank considered a measure to penalise banks with large sight deposits.[6] This warning, alongside decreasing interbank interest rates (Euribor), has dampened predatory competition somewhat. Government guarantees help make foreign borrowing accessible, but given that their cost is linked to a bank's credit rating, they remain confined to larger banks. Government guarantees may also imply restrictions on executive pay or dividends. Measures taken end-2008 also fell short of channelling needed funds to the corporate sector.

Box 1.2. **Measures adopted to help banks resume lending**

In addition to enhancing financial stability by removing the ceiling on the insurance for private deposit holders and boosting liquidity by releasing the previously accumulated capital buffer, the Slovenian government has adopted several measures to encourage banks to resume lending. The unexpected severity of the crisis has made additional reform packages necessary after the first one in the last quarter of 2008.

The financial measures of the first crisis package aimed at ensuring access to foreign borrowing by Slovenian banks hard hit by the drying up of international liquidity. The most important measure in this respect is the government guarantee facility of bank borrowing up to EUR 12 billion. These guarantees have, however, been under-utilised as so far only one bank has applied and received approval. This will enable it to obtain guarantees and tap international bond markets for fresh funds. In addition, to assist other banks, the government adopted further measures in the second crisis package including an issue of EUR 1 billion to be deposited mainly at banks and the decision to recapitalise the export and development bank and use it as a vehicle to extend loans to the banking and corporate sectors. The government is also providing interest rate subsidies to small and medium-sized enterprises through the Public Entrepreneurship Fund, costing EUR 1.1 million. Further, to mitigate credit risk, the SID bank is providing guarantees to banks up to EUR 1 billion, where banks are required to assume at least 20% of the risk, and to firms borrowing directly in financial markets up to EUR 500 million.

As a consequence, the government put in place a second package at the beginning of 2009. In addition to encouraging banks to borrow with government guarantees, the government raised about EUR 1 billion directly through a bond issue and deposited most of it with the banks. As an alternative, a cheaper source of financing, mainly for smaller banks, was made available by recapitalising the state-owned export and development bank, the SID. The SID is now ready to extend loans to both the banking and the corporate sectors. As its bonds are eligible as ECB collateral, it also helps ease the collateral requirements by ECB. Finally, the government is ready to directly lend to the corporate sector in case the guarantee scheme or the depositing of the proceeds from government bond issues with banks appears insufficient to provide liquidity for the corporate sector. If this measure were to prove inadequate, the government could purchase assets from the banking sector or ultimately provide capital injections.

To ensure uninterrupted operation of enterprises, it is crucial that they obtain the necessary financing. Credit risk has made banks cautious in their lending decisions, and its reduction is therefore the major objective of the second package to combat the crisis. Guarantees are now provided in the amount of up to EUR 1 billion to banks through the SID bank. Under this scheme, firms can borrow from a single bank with amounts determined by their revenue and size of capital for a period between six months and five years. In addition to this scheme, guarantees for the maximum amount of EUR 500 million are provided directly to enterprises that borrow in financial markets. These measures should eventually ease firms' financing constraints, but bank lending to firms has not picked up yet. The government should, however, ensure that measures to encourage lending to firms (credit lines through SID, state guarantees) are transparent in order to mitigate banks' moral hazard.

In this context, there is room for a fiscal stimulus provided it remains temporary and pro-growth

Given the size of the downturn and the relative ineffectiveness of monetary policy, as long as banks face refinancing difficulties, discretionary fiscal measures are justified, in addition to the automatic stabilisers. In the case of Slovenia, fiscal stabilisers alone should be relatively strong (high share of tax and expenditure to GDP), but the low debt-level (around 24% of GDP in 2008) and the fact that the general government budget is broadly in balance give room for temporary discretionary fiscal policy along the lines of the EU coordinated strategy. But, Slovenia should prioritise measures that help foster its potential growth in the following years (*e.g.* public investment or expenditure on human capital; research and development, etc.). Also, the measures should be withdrawn as activity picks up to ensure a sound underlying fiscal position (Chapter 2).

To counter the downturn, the government's revised budget submitted to Parliament end-February 2009 incorporates a new fiscal stimulus amounting to 1.2% of GDP. Another measure that is not included in the fiscal package, but which may support consumption, is the planned increase in public wages over 2008-10 (about 1% of GDP). The revised budget encompasses both discretionary measures that will bring a positive impact on long-term growth and others that the government will need to remove as soon as possible (see Box 2.2 in Chapter 2).

On the positive side, the fiscal package includes a recapitalisation (EUR 160 million) of the state-owned export and development bank to support lending as well as diverse tax measures to support investment (about EUR 100 million) such as a reduction of tax obligations for the self-employed by 30% on investment in equipment and intangible fixed assets. The latter may make self-employment more attractive and absorb some of the laid-off. Finally, to speed up disbursement of EU funds, the government is giving priority to ministries whose projects are closer to implementation, which is a positive decision.

On the other hand, other measures need to be reconsidered. The main government fiscal measure (EUR 230 million) is subsidies for reduced working hours (from 40 to 36 or 32 hours per week) to maintain employment. This measure needs to be clearly time-limited. While it enables firms facing a strong fall in demand to retain human capital within the company and to help uphold private spending, there is a risk that a sustained implementation of this measure or a lack of strict criteria for its application (*e.g.* only companies facing economic difficulties) may lead to a permanent reduction in working hours. The government should also carefully consider its design. In other countries, such as Germany, such programmes are structured to be unattractive to firms unless they are in cyclical difficulty (Chapter 3). Another measure, although not crisis-related, to be reconsidered is the planned increase in public wages, which may support consumption, but at the expense of long-term fiscal sustainability as this measure has a permanent impact.

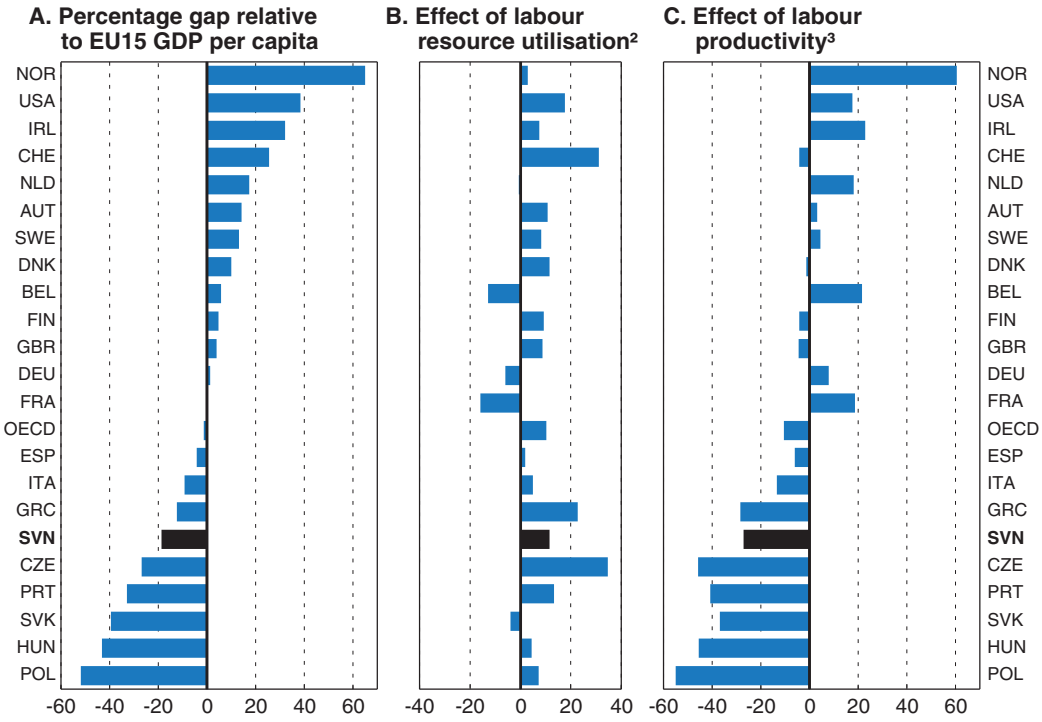
Beyond the crisis, maintain a steady economic catch-up without macroeconomic imbalances

Slovenia has enjoyed a steady growth leading to a rapid catch-up in GDP per capita

Slovenia's strong economic performance has led to a marked catch-up in GDP per capita over the last decade, reaching 81% of the EU15 average in 2007 (in current purchasing power parity terms) from 67% in 1997. The current GDP per capita is significantly higher than that of Portugal and close to that of Greece (Figure 1.6). Slovenia's GDP per capita has continuously exceeded that of the four other OECD transition economies over the period (Figure 1.7).

Figure 1.6. **Sources of real income differences**

Percentage point differences in GDP per capita with respect to the EU15, 2007[1]



1. GDP in US dollars at current prices and purchasing power parities.
2. Measured as total number of hours worked per capita.
3. Percentage gap with respect to EU15 GDP per hour worked.

Source: OECD (2008), *Productivity database*, September, *www.oecd.org/statistics/productivity*; OECD (2009), *National Accounts of OECD Countries – online database*, February; and *Eurostat database* (2009), *Economy and Finance*, February.

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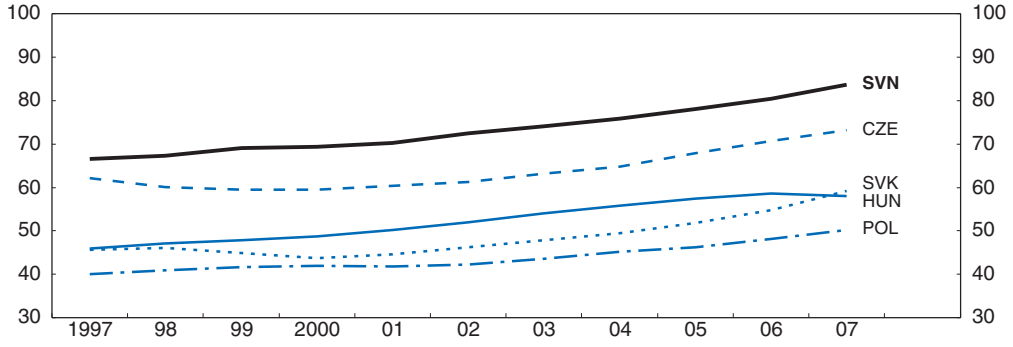
Figure 1.7. **Convergence of real per capita income**

Real GDP per capita in USD at constant prices and constant purchasing power parities, EU15 = 100



Source: OECD (2008), *Productivity database*, September, *www.oecd.org/statistics/productivity*; and OECD (2009), *National Accounts of OECD Countries – online database*, February.

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During 1997-2007, labour productivity gain was the major driver of per capita GDP growth[7] in Slovenia (Table 1.2). The rise in labour productivity stemmed from capital deepening and total factor productivity (TFP) growth, with a slightly larger contribution

from the latter. TFP growth was driven by absorption of advanced countries' production and organisation techniques, helped by deepening integration into the global economy. The contribution of labour productivity to GDP per capita growth compared favourably to that of the Czech Republic or Hungary, but was less than that of Poland or the Slovak Republic during 1997-2007. Regarding the contribution of labour utilisation to GDP per capita growth, Slovenia outperformed all the other OECD transition economies but Hungary, owing to increasing employment rates.

Table 1.2. **Real GDP growth per capita compared to other Central and East European countries**

Per cent, annual average 1997-2007[1]

	Slovenia	Czech Republic	Hungary	Slovak Republic	Poland[2]
Real GDP per capita	**4.2**	**3.1**	**4.3**	**4.7**	**4.2**
Labour utilisation	**0.2**	**–0.3**	**0.7**	**0.0**	**–0.3**
Working time[3]	–0.3	–0.4	–0.2	–0.5	–0.3
Employment participation	0.5	0.1	1.0	0.5	0.0
Demographic structure[4]	0.0	0.4	0.1	0.7	0.5
Employment rate	0.5	–0.3	0.8	–0.2	–0.5
Labour productivity[5]	**4.0**	**3.4**	**3.5**	**5.1**	**4.5**
Capital intensity of labour	1.9	2.4	2.0	2.8	1.4
Total-factor productivity[6]	2.2	1.1	1.5	2.3	3.1
Employment ratio[7]	0.0	–0.1	0.0	–0.4	. .

1. 1997-2006 for Poland.
2. To avoid issues arising from a break in series, Polish employment data prior to 2003 are estimated, see Iradian (2007).
3. Hours worked per person employed.
4. Ratio of working age to total population.
5. Real GDP per hour worked.
6. Calculated as a residual.
7. Employment domestic concept relative to employment national concept.

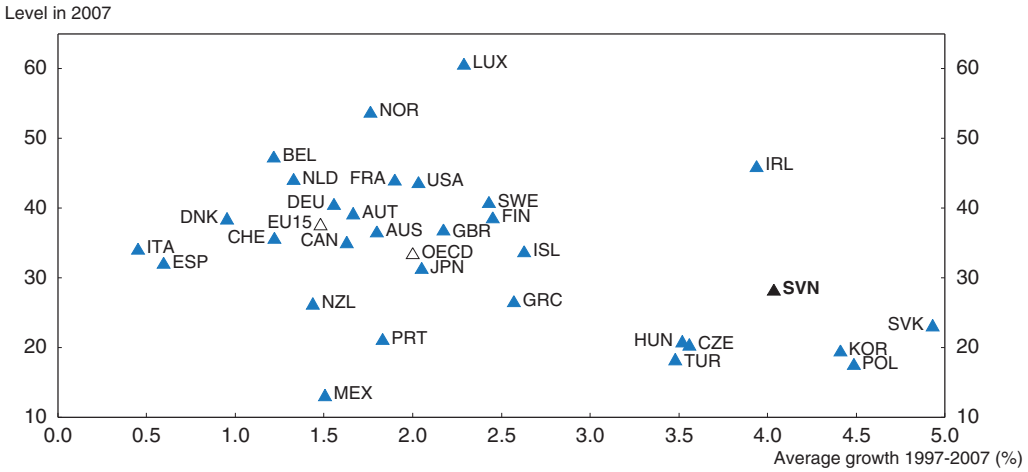
Source: OECD (2009), *National Accounts of OECD Countries – online database*, February; *Eurostat database* (2009), *Economy and Finance*, February; OECD (2008), *Productivity database*, September; and G. Iradian (2007), "Rapid Growth in Transition Economies: Panel Regression Approach", *IMF Working Paper*, No. 07/170, International Monetary Fund.

Looking ahead, GDP per capita in Slovenia will converge to that of the EU15 by 2015 if both Slovenia and the EU15 keep growing at the same pace as during the last decade. To achieve this goal, the challenge for the Slovenian economy is to keep productivity growth high through an increased contribution of TFP, while maintaining a positive contribution of labour utilisation.

Further catch-up will require maintaining high labour productivity growth…

Despite the past strong growth in labour productivity, the level in Slovenia is still low compared to most EU15 countries (Figure 1.8), implying scope for further gains. Improved human capital should help sustain productivity growth; Slovenia seems to have already performed well compared to other transition economies in this respect based on the average years of schooling as a proxy for human capital (Box 1.3). Nonetheless, average years of schooling is only a rough measure of human capital, and the length of schooling in Slovenia seems to be partly linked to extensive part-time student work (Chapter 3). In general, there is scope for further improving human capital by making the education system more efficient and encouraging lifelong learning (Chapter 3). Capital deepening also should continue to drive labour productivity growth for the coming years, not least due to upcoming projects to improve public infrastructure. However, TFP should play a more important role in the longer

Figure 1.8. **Labour productivity**
Measured by GDP per hour worked[1]



1. In US dollars at constant prices and purchasing power parities.

Source: OECD (2008), *Productivity database*, September, *www.oecd.org/statistics/productivity*; OECD (2009), *National Accounts of OECD Countries – online database*, February; and *Eurostat database* (2009), *Economy and Finance*, February.

StatLink http://dx.doi.org/10.1787/643377523264

Box 1.3. **Accounting for growth in Slovenia**

The growth accounting exercise[1] reveals that Slovenia's spectacular growth performance during the past decade is mainly attributable to accumulation of physical capital and total factor productivity (TFP) growth, largely in manufacturing industries (van Ark *et al.*, 2007).[2] However, TFP gained importance over time: it contributed 1.4 percentage points to GDP growth in the first half of the period of 1997-2007 and 2.1 percentage points in the second half of that period (Table 1.3). Human capital – measured by average years of schooling of the working population – has a non-negligible contribution to growth, higher than labour, but lower than capital and TFP.[3]

Table 1.3. **Real GDP growth compared to other Central and East European countries**
Per cent, annual average

	Slovenia			1997-2007[1]			
	1997-2002	2003-07	1997-2007	Czech Republic	Hungary	Slovak Republic	Poland[2]
Real GDP	**4.1**	**4.7**	**4.4**	**3.1**	**4.0**	**4.7**	**4.2**
Inputs							
Labour	0.2	0.3	0.2	–0.2	0.3	–0.3	–0.2
Human capital	0.5	0.5	0.5	0.1	0.4	0.2	0.1
Physical capital	2.1	1.9	2.0	2.3	2.2	2.7	1.3
Total-factor productivity[3]	1.4	2.1	1.7	0.9	1.1	2.1	2.9

1. 1997-2006 for Poland.
2. To avoid issues arising from a break in series, Polish employment data prior to 2003 are estimated, see Iradian (2007).
3. Calculated as a residual.

Source: OECD (2009), *National Accounts of OECD Countries – online database*, February; *Eurostat database* (2009), *Economy and Finance*, February; OECD (2008), *Productivity database*, September; and G. Iradian (2007), "Rapid Growth in Transition Economies: Panel Regression Approach", *IMF Working Paper*, No. 07/170, International Monetary Fund.

Box 1.3. **Accounting for growth in Slovenia** *(cont.)*

In three of the other countries examined, capital deepening plays a more vital role with capital accumulation contributions to GDP growth ranging from 55% in Hungary to 73% in the Czech Republic, reflecting huge inflows of foreign direct investment. TFP contributions in the Slovak Republic reach almost the same share as in Slovenia in the period examined. Notably, the use of labour has a minor part in explaining GDP growth in all countries. A closer look at the data reveals that labour contributions are affected by economic downturn and rising unemployment in the first half of the period, and giving a positive contribution to growth on the back of economic upswing and improved labour market conditions in the second period.

The main finding of the growth accounting exercise that physical capital and TFP are the most important sources of growth in Slovenia seems robust to different assumptions. In the baseline scenario, a capital/GDP ratio of 1.7 in 1996 and a constant depreciation rate of 7.5% are assumed when constructing capital stock data. The average labour income share is estimated at 0.7 over 1997-2007 (see Annex 1.A1 for further details and comparison with other countries). Sensitivity analysis with changing parameters for the depreciation rate, initial capital stock and labour income share has been carried out. In the baseline scenario, physical capital and TFP contributed to output growth with 2.0% and 1.7% over the period. Shifting assumptions in favour of physical capital (lower depreciation rate, lower initial capital stock or lower labour income share) increases physical capital contribution to growth at the expense of that of TFP as shown in Table 1.4, but does not alter significantly the results. The economic cycle may also impact the results of growth accounting. Mourre (2009)[4] estimates the cyclical component of capital, labour, human capital and TFP in the period 2001-07 and found only marginal impacts for Slovenia. The period 1996-2007 is assumed to cover a whole business cycle.

Table 1.4. **Factor contribution to growth**

Different parameters, 1997-2007

Value of parameter	Depreciation rate (%)		Initial capital stock		Labour income share		Depreciation rate 5.0% and initial capital stock 2.0
	5.5	9.5	1.5	1.9	0.65	0.75	
Labour	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Human capital	0.5	0.5	0.5	0.5	0.4	0.5	0.5
Physical capital	2.3	1.7	2.3	1.7	2.2	1.6	2.0
Total factor productivity	1.4	2.0	1.4	1.9	1.5	2.0	1.6

Source: OECD (2009), *National Accounts of OECD Countries – online database*, February; *Eurostat database* (2009), *Economy and Finance*, February; OECD (2008), *Productivity database*, September.

1. Growth accounting seeks to explain main drivers of economic growth. According to standard growth accounting, economic growth is only partly explained by labour and capital input. The unexplained part of economic growth appears as the residual total factor productivity (TFP). TFP encompasses all growth-enhancing factors other than factor inputs, such as better quality of labour and capital equipment, changes in technology and moving resources from low to high productive sectors. It is assumed that output performance in Slovenia can be expressed using the Cobb-Douglas production function including an instrument for human capital.
2. Ark, B. van, M. O'Mahoney and G. Ypma (eds.), "The EU Klems Productivity Report", No. 1, available at *www.euklems.net*.
3. Weak correlation between education and GDP growth could be explained by a high initial level of education of the working force and small variation in education series over time. This instrument does not take into account working experience.
4. Mourre, G. (2009), "What Explains the Differences in Income and Labour Utilisation and Drives Labour and Economic Growth in Europe? A GDP Accounting Perspective", Economic Papers, No. 354, *European Economy*, European Commission.

run as the income gap narrows with more developed economies. Foreign direct investment (FDI) helps increase TFP through knowledge transfer from advanced economies (Chapter 4). In fact, the level of FDI in Slovenia is still relatively low compared to that of Central and East European countries (CEECs). Moreover, flexible product markets, reduced barriers to entrepreneurship, higher private research and development, and enhanced competition in key service sectors could foster TFP growth (Chapter 4).

Productivity growth should mainly arise from improvement in productivity within sectors

As Slovenia's economy moves toward a full-fledged modern economy, "within-sector" productivity should outweigh productivity gains resulting from movement of labour between sectors ("shift effect"), which results from changes in the structure of the economy, as experienced during the transition process toward a market economy. The shift-share analysis confirms that productivity growth arising from within-sector productivity has played a more important role since 2003 than during the five preceding years (Table 1.5). However, productivity gains resulting from within-sector effects have been smaller than those of other OECD transition economies like Poland or the Slovak Republic over the last decade, pointing to a need to implement measures favouring within-sector productivity growth (Chapter 4). Conversely, the shift effect in Slovenia was more important than other transition economies during the period (except Poland), which may have been caused by the gradual process of reforms that prolonged the transition from old to new sectors. During 1997-2007, employment in the textile, food and mining industries kept decreasing whereas it continued increasing in new and profitable industries producing car equipment, metal and electric products and machinery (Figure 1.9).

Table 1.5. **Shift-share analysis of labour productivity growth per person**[1]

Per cent, average

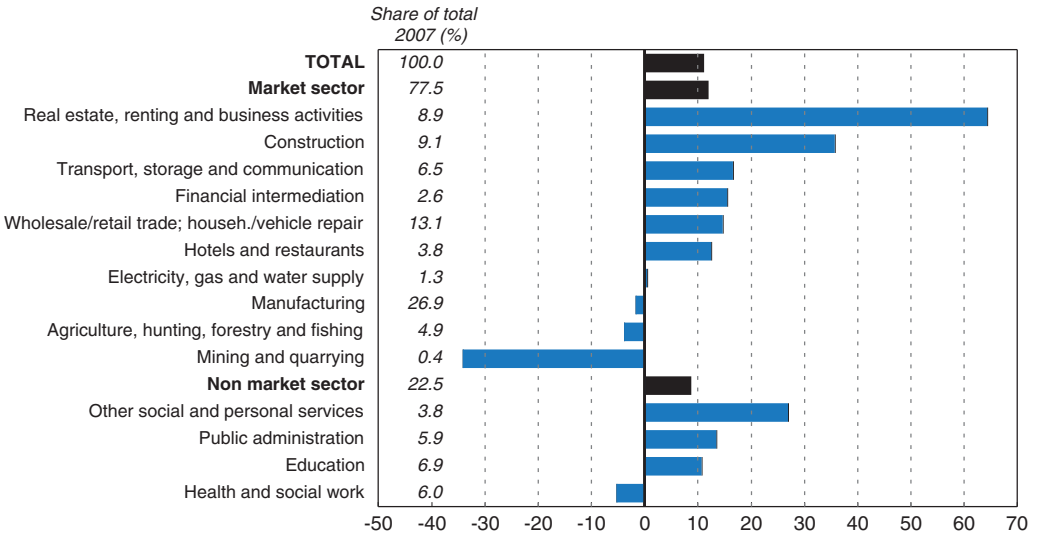
	Slovenia			1997-2007				
	1997-2002	2003-07	1997-2007	Czech Republic	Hungary	Poland	Slovak Republic	EU15[2]
Total market sectors[3]	4.4	4.9	4.6	3.9	4.0	5.7	5.0	1.5
Within-sector effect[4]	3.4	4.5	3.9	3.7	3.3	4.1	5.0	1.2
Shift effect[5]	1.2	0.5	0.9	0.2	0.9	2.0	0.3	0.3
Interaction effect[6]	–0.2	0.0	–0.1	0.0	–0.3	–0.4	–0.2	–0.1

1. Measured by value added at constant prices per person employed.
2. Aggregate calculated using USD at constant prices and constant purchasing power parities weighted by employment shares. Includes some estimates where data is unavailable.
3. Excluding public administration and defence; compulsory social security; education; health and social work; other community, social and personal service activities; private households with employed persons; and extra-territorial organisations and bodies.
4. The within-sector effect measures the impact of productivity growth within each sector on total economy productivity growth, assuming that labour shares are unchanged.
5. The shift effect measures the impact on total economy productivity assuming that the level of productivity in each sector is unchanged.
6. The interaction (or cross-term) effect measures the change in both labour share and productivity in each sector and accounts for the impact of labour re-allocation between sectors with varying productivity growth rates.

Source: OECD (2009), *National Accounts of OECD Countries – online database*, February; and OECD (2008), *Structural Analysis (STAN) database*, December.

Figure 1.9. **Employment growth by sector**

Percentage growth, 2000-07



Source: OECD (2009), *OECD Reviews of Labour Market and Social Policies: Slovenia*, forthcoming.

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... and potential gains seem high in the service sector

During the last decade, manufacturing, wholesale and financial intermediation contributed the most to within-sector productivity growth (Table 1.6), as in other transition OECD countries. The substantial contribution of these sectors reflects their high labour productivity growth (Figure 1.10). Manufacturing in particular recorded an impressive average productivity growth of over 6% in 1997-2007 in Slovenia.

Table 1.6. **Within-sector contributions to labour productivity growth**[1]

Per cent, average 1997-2007

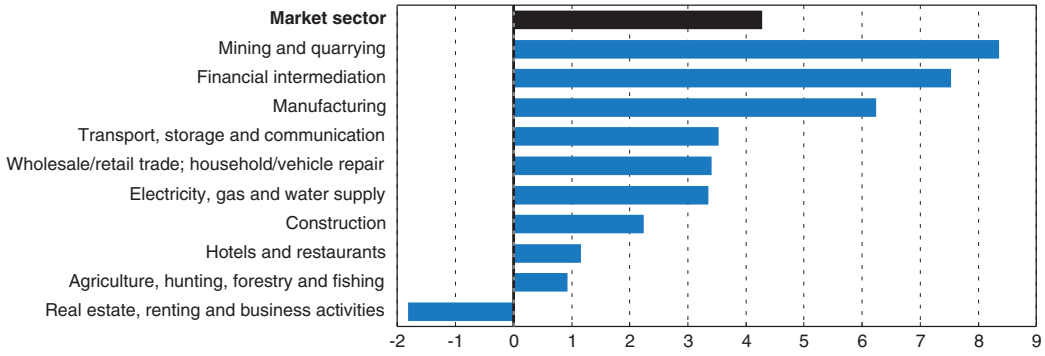
	Slovenia	Czech Republic	Hungary	Poland	Slovak Republic	EU15[2]
Agriculture, hunting, forestry and fishing	0.1	0.2	0.7	0.6	0.8	0.1
Mining and quarrying	0.1	0.0	0.0	0.0	0.1	0.0
Manufacturing	2.2	2.2	1.9	1.7	3.7	0.7
Electricity, gas and water supply	0.1	0.0	0.0	0.1	–0.4	0.1
Construction	0.2	–0.2	0.1	0.2	0.2	0.0
Wholesale and retail trade; repair of motor vehicles and household goods	0.6	1.3	0.5	0.8	0.7	0.2
Hotels and restaurants	0.1	–0.2	0.0	0.0	0.0	0.0
Transport, storage and communication	0.3	0.4	0.5	0.4	–0.1	0.3
Financial intermediation	0.4	0.1	0.3	0.4	–0.1	0.2
Real estate, renting and business activities	–0.2	0.0	–0.8	–0.2	0.1	–0.2
Market sector	**3.9**	**3.7**	**3.3**	**4.1**	**5.0**	**1.2**

1. Measured by value added at constant prices per person employed.
2. Aggregate calculated using US dollars at constant prices and constant purchasing power parities weighted by employment shares. Includes some estimates where data is unavailable.

Source: OECD (2009), *National Accounts of OECD Countries – online database*, February; and OECD (2008), *Structural Analysis (STAN) database*, December.

Figure 1.10. **Labour productivity growth by sector**[1]

Percentage growth, annual rate, 1997-2007



1. Measured by value added in US dollars at constant prices and constant purchasing power parities per person employed.

Source: OECD (2009), *National Accounts of OECD Countries – online database*, February.

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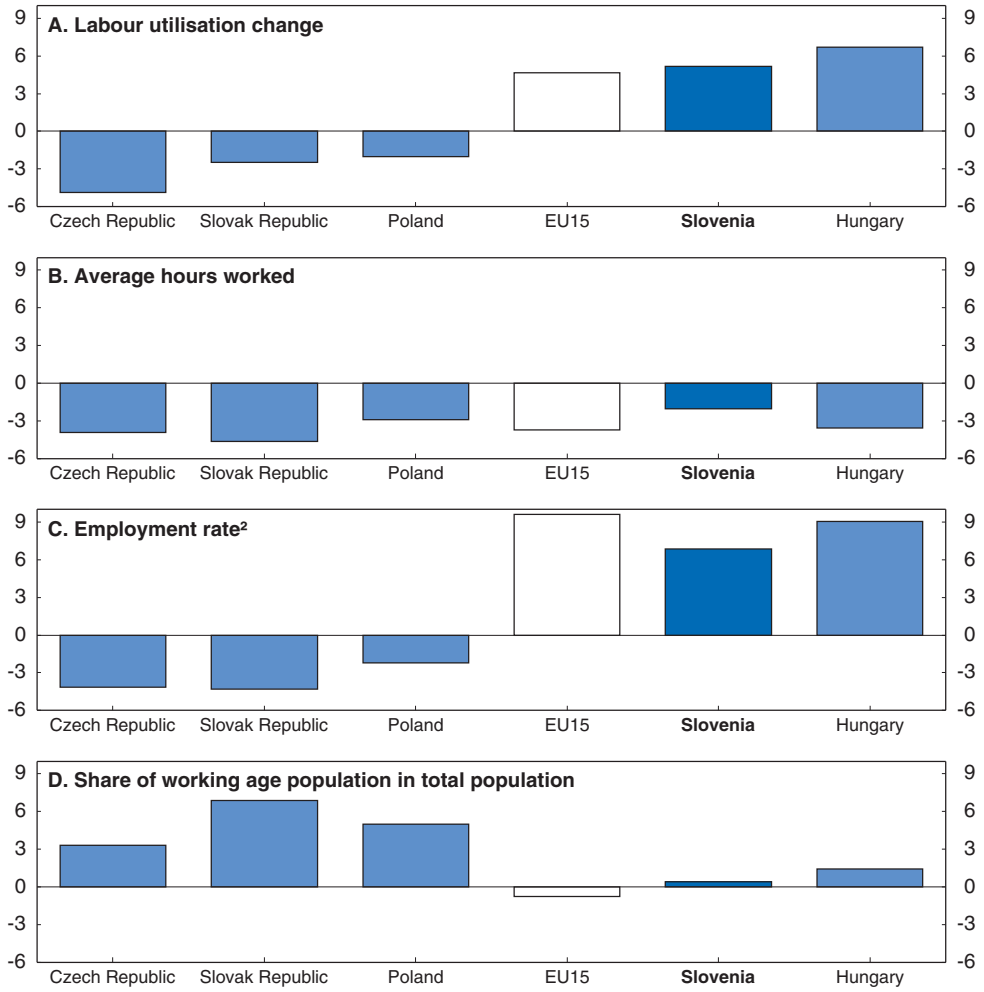
In the future, within-sector productivity could be further strengthened by efficiency gains in sectors where productivity improvement has been limited in the past decade, notably the service sector. Even in sectors enjoying sizeable productivity growth, like the financial sector, productivity could be further improved by tackling input inefficiencies, as demonstrated by several studies (Chapter 4). Since the service sector accounts for an increasingly larger share of employment in the economy, enhanced competition and efficiency in this sector will be important to maintain high productivity growth in Slovenia.

Increasing labour utilisation remains a challenge for the future

Slovenia's convergence in terms of GDP per capita has benefited from increased labour utilisation (Table 1.2). This contrasts with the negative labour utilisation developments in the Czech Republic, Poland and the Slovak Republic, where favourable changes in the demographic structure were not sufficient to offset the negative impact of fewer hours worked and decreasing employment rates (Figure 1.11, panel D). As in the EU15 (and Hungary), the increased labour utilisation in Slovenia was almost entirely due to the higher employment rate, arising from strong growth as well as policies favouring labour participation, such as the pension reform in 1999 (Chapter 3). For the future, maintaining a positive contribution of labour utilisation to GDP per capita growth will remain a challenge for Slovenia. Given its rapidly aging population, Slovenia is unlikely to experience positive changes in the demographic structure in the near future. Regarding total hours worked, Slovenia's average number of hours worked per capita (821 in 2007) was already well above that of the EU15 (737) and most CEECs, except the Czech Republic (993). If Slovenia follows its peers and the number of hours worked falls, a positive contribution of labour utilisation to growth will require increased labour participation, especially of the older and younger cohorts (Chapter 3), or increased immigration.

Figure 1.11. **Decomposition of labour utilisation**[1]

Per cent change, 1997-2007



1. Labour utilisation is measured by the number of hours worked per person.
2. To avoid issues arising from a break in series, Polish employment data prior to 2003 are estimated, see Iradian (2007).

Source: OECD (2008), *Productivity database*, September, *www.oecd.org/statistics/productivity*; OECD (2009), *National Accounts of OECD Countries – online database*, February; *Eurostat database* (2009), *Economy and Finance*, and *Population and Social Conditions*, February; and G. Iradian (2007), "Rapid Growth in Transition Economies: Panel Regression Approach", *IMF Working Paper*, No. 07/170, International Monetary Fund.

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To achieve sustainable growth within the euro area, well-directed policies are needed

Slovenia adopted the euro in 2007, only three years after entering the European Union. As a result, its vulnerability to external shocks has been sharply reduced as the probability of a currency crisis has become almost nil. Indeed, euro area membership has played an important role in protecting Slovenia during the current global crisis. In the long run, being part of the euro area will bring static and dynamic gains, through lower transaction costs and increased competition, which will help boost potential GDP. Overall, euro membership should provide a sound macroeconomic framework (moderate inflation, disciplinary

mechanisms to ensure prudent fiscal policy) that is conducive to growth. Reaping the benefits of being a member of the euro area is, however, demanding. The loss of monetary policy independence and exchange rate flexibility requires a more flexible economy, so that Slovenia remains resilient to shocks, especially asymmetric shocks. Structural reforms need to create flexible product and labour markets so that prices and wages can adjust quickly if needed. The loss of monetary policy independence also requires that fiscal policy plays a bigger role in influencing aggregate demand and ensuring that inflation remains close to the euro area objective.

Fiscal policy will need to pay greater attention to the appropriate policy mix

Rapid convergence was helped by overall prudent macroeconomic policies over the last decade

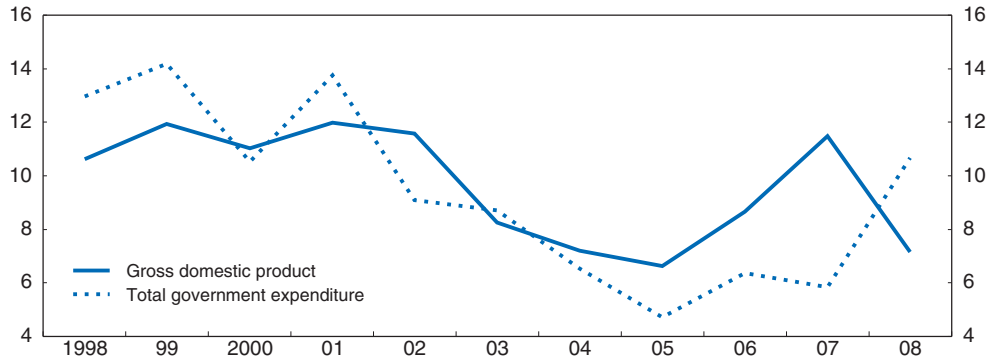
Monetary policy was very successful in bringing inflation down to average euro area levels, paving the way for Slovenia to be the first transition country to enter the euro area. Adherence to a tight money-based stabilisation programme – supported intermittently by nominal exchange rate and core inflation targets – helped bring inflation down to single digits by 1996 (Ross, 1998). With capital account liberalisation and hence less control over broad money, the Bank of Slovenia successfully adopted a new policy framework closer to inflation targeting[8] in 2002 and followed a gradual approach to disinflation based on declining currency depreciation (International Monetary Fund [IMF], Article IV, 2002). This helped the entry to the exchange rate mechanism agreement ERM II in mid-2004 at a euro/tolar parity that did not change until euro adoption in 2007. However, as a surge of capital inflows exerted upward pressure on the exchange rate, the Bank of Slovenia was first forced to intervene in the exchange market – with sterilisation operations – and then to converge faster than expected toward euro area interest rates. Sterilisation operations and lower interest rates helped fuel a subsequent credit boom (see below).

Prudent fiscal policy was also important. The fiscal deficit improved from a peak of 4% of GDP in 2001 to a small surplus in 2007. The adoption of rolling two-year budgeting in 1998, which was implemented from 1999-2000, was an effective tool to contain the growth in expenditure. Since 2002, a two-year budget had been formulated to be consistent with Slovenia's medium-term goal of attaining close to structural balance before adopting the euro. Consequently, nominal expenditure growth was more moderate than that of nominal GDP from 2002 to 2007 (Figure 1.12), leading to a decrease in the expenditure-to-GDP ratio to 42.4% in 2007 from 47.6% in 2001. However, part of this achievement was due to delayed public sector wage increases, which may now pose a risk to the fiscal position as a catch-up of public wage started in 2008 (see below and Chapter 2).

However, euro area monetary policy is likely to be too loose for Slovenia

Slovenia entered the euro area at a time when its economy started to boom. Despite monetary tightening by the ECB, financial conditions remained loose for Slovenia during its two first years of euro membership (2007 and 2008). The credit expansion in recent years has been further boosted by pro-cyclical events. In 2006, the introduction of International Financial Reporting Standards (IFRS) expanded banks' capacity to lend, since these IFRS are less stringent than previously existing Slovenian provisioning requirements. The most significant one-off boost came in spring 2007 when the Bank of Slovenia ceded all its instruments of quasi-money creation, as required by European Monetary Union (EMU) rules. This led to a repayment to banks of all bills issued as part of sterilisation

Figure 1.12. **Government expenditure and GDP**
In current prices, per cent growth



Source: OECD (2009), *National Accounts of OECD Countries – online database*, April.

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operations during the ERM II period, whose total amount equalled EUR 3½ billion, about one tenth of total bank assets. This operation alone explained about 40% of the credit growth in 2007 as part of this amount was used for lending purposes (and the rest was invested in secondary liquidity instruments on the money market). This excess in credit during recent years may have led to a build-up of risky loans, which could turn out to be non-performing given the current economic slowdown, weakening banks' balance sheets.

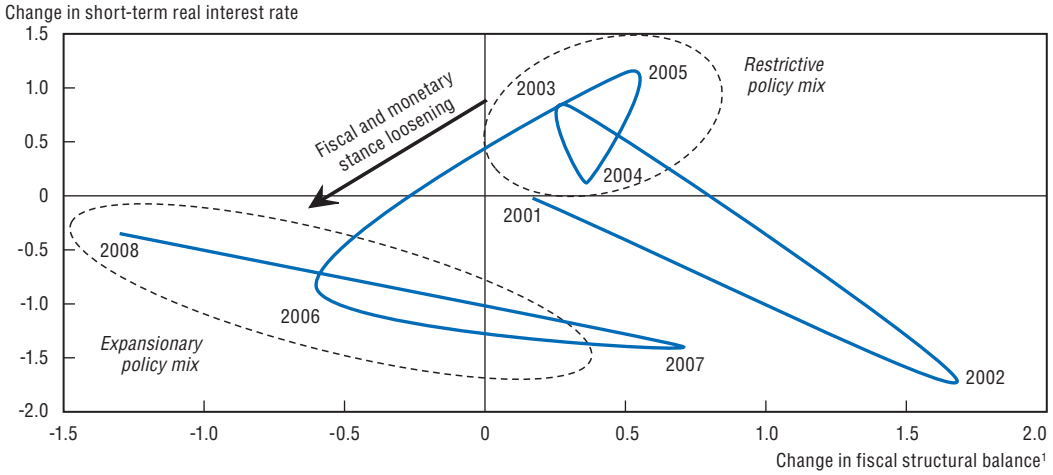
Slovenia being a small country at the periphery of the euro area, the likelihood of a misalignment of the common monetary stance to Slovenia's business conditions will remain high in the coming years; ECB monetary policy is likely to be too loose for Slovenia's catching-up economy. The Balassa-Samuelson effect is estimated at around 1-3% per year (Mihaljek and Klau, 2008). Such misalignment could be exacerbated by the pro-cyclical impact of mark-to-market valuation, as actually happened in 2007.

To avoid an excessive credit expansion in the future, the Bank of Slovenia should try to use all the instruments under its control to limit credit. Such options have already been explored by the Bank of Slovenia when it tried to limit the *de facto* boosting of the solvency ratio following the introduction of the IFRS norms by imposing an additional buffer (roughly 0.8 percentage points in excess of the capital adequacy ratio) until mid-2008. In case the economy starts overheating in the future, the central bank should consider again the use of additional capital requirements or other instruments that could mitigate the procyclicality of fair value accounting (Novoa *et al.*, 2009).

Consequently, fiscal policy needs to be tighter in good times in contrast to what happened upon entrance to the euro area

In the absence of a monetary policy instrument, the main responsibility to ensure an appropriate level of aggregate demand will fall on fiscal policy. In this sense, fiscal policy should have been tighter after euro area accession. Although the fiscal balance was in surplus in 2007 (0.5% of GDP), a more restrictive fiscal policy would have been desirable to compensate for the relatively loose ECB monetary stance *vis-à-vis* Slovenia's cyclical position. Figure 1.13 shows that both fiscal and monetary policy stances were tightening during the period of qualification for the euro area (2003, 2004 and 2005). Conversely, in 2006 – the year immediately preceding euro area entry, when the Bank of Slovenia policy was *de facto* aligned to that of the ECB and its stance already easing – as well as in 2008,

Figure 1.13. **Fiscal-monetary policy mix**



1. In per cent of GDP.

Source: European Commission (2009), *Economic and Financial Affairs, AMECO database*, April.

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fiscal policy was too expansionary. Moreover, the apparent tightening of fiscal policy in 2007 was quite limited. In fact, the improvement in the structural balance owed much to the build up of likely contingent liabilities (arising from the construction company DARS) and exceptionally high tax elasticities that were compensating for the tax reforms (see Chapter 2). Correcting for these factors, the fiscal stance was expansionary in 2007.

Insufficiently tight fiscal policy was compounded by the government decision to restructure its debt in 2007 in a way that helped boost domestic credit when it was already booming. The government issued its first euro-bond of EUR 1 billion in 2007 and used three-quarters of it to repay, earlier than scheduled, debt owed to domestic banks, thereby increasing the liquidity available for banks at a time when liquidity was already expanding fast because of the repayment by the Bank of Slovenia of bonds purchased during the ERM II period. On the positive side, this borrowing, connected to EMU entry, facilitated access to the euro market during the current crisis.

One way to help guide fiscal policy in the future could be to put in place a fiscal council. The rationale of a fiscal council is that it mitigates the information asymmetry problem between the government and its electorate and hence it helps the electorate to judge the government's fiscal decisions. This council should provide independent assessments of Slovenia's fiscal stance and its long term fiscal sustainability. Such a fiscal council could also be a useful instrument to encourage timely withdrawal of fiscal impulse as economic prospects improve, thereby preventing fiscal policy from becoming pro-cyclical. Finally, a fiscal council could play a useful role in assessing the government's medium-term objectives. For such a fiscal council to effectively perform its task as a fiscal "watchdog", it is indispensable that it be unbiased, technically capable and highly visible (Stéclebout-Orseau and Hallerberg, 2006). As country experiences show, fiscal councils can be a useful tool in guarding fiscal sustainability. The discipline imposed by, for instance, the High Council of Finance in Belgium has contributed to the improvement of public finances over the past decade. The High Council of Finance has helped to reduce spending pressures, define medium-term budgetary objectives and incorporate age-related spending into the budgetary strategy (Lebrun, 2006).

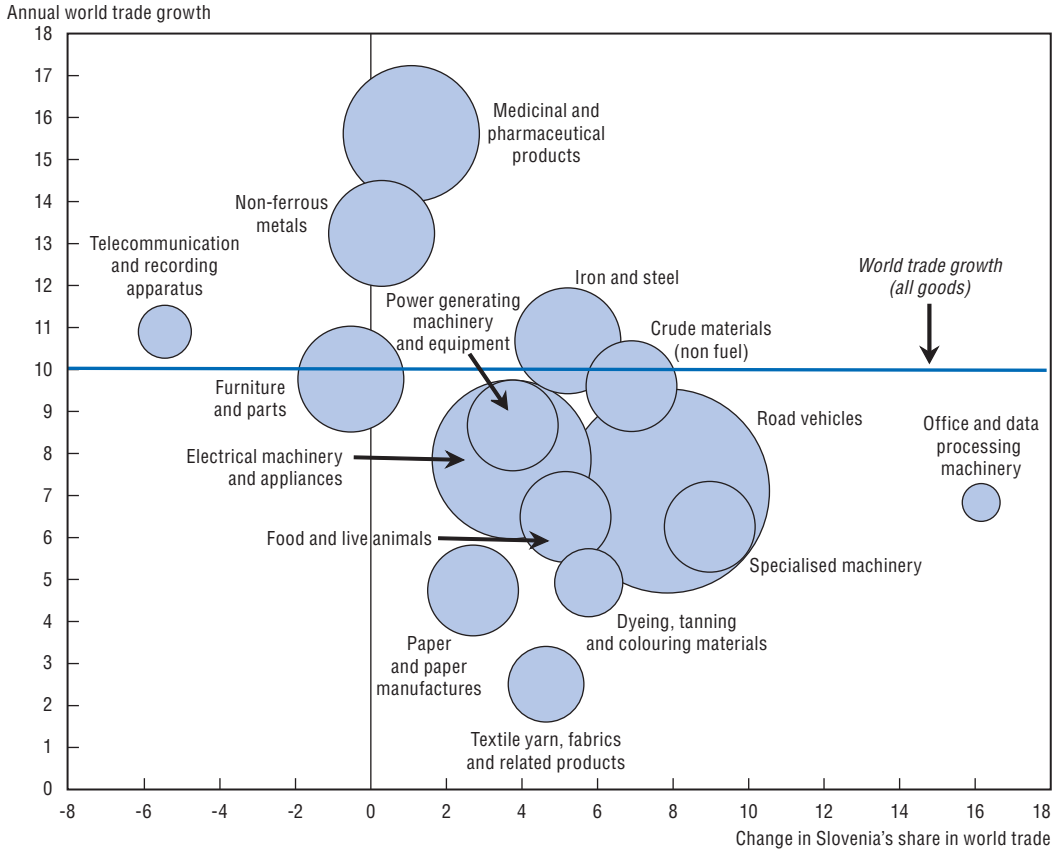
To maintain competitiveness, real wage growth should not exceed productivity growth

Despite limited current account deficits until recently, Slovenia's competitiveness performance is mixed

Slovenian exporters managed to increase their share in world trade in most major export products during 1997-2007 (Figure 1.14). The most remarkable gain was in medicinal and pharmaceutical products, where Slovenia's market share increased amid double-digit growth in world trade. Similarly, good performance was achieved in the metals sector (iron and steel and non-ferrous metals). In road vehicles, Slovenia's most important export product, exporters boosted their share in world markets by 8% during 1997-2007. Slovenia's comparative advantage in road vehicles – measured by the revealed comparative advantage index (Figure 1.15, panel A) – increased markedly after EU entry to a level close to that of Germany (but still far from that of Japan).

Figure 1.14. **Slovenia's export performance in selected commodities**[1]

Per cent, 1997-2007



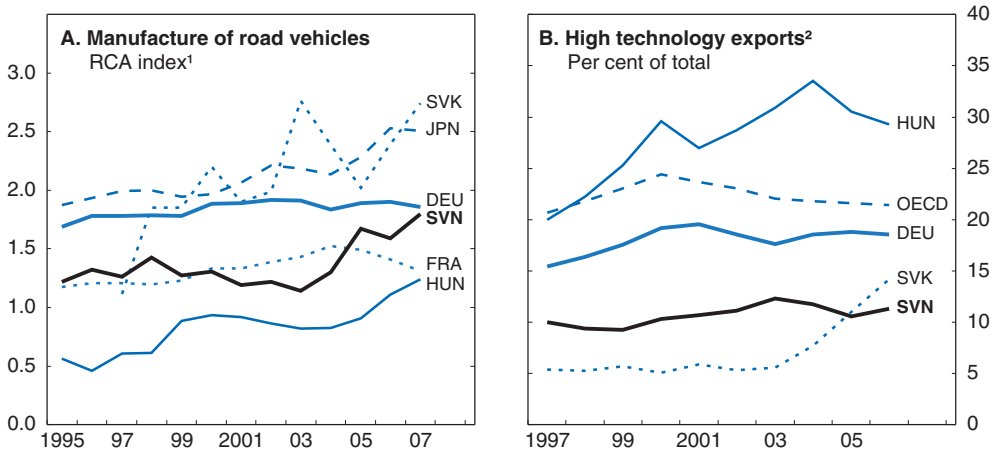
1. Commodities based on SITC Rev.3 classification; those shown represent 64% of total exports in 2007. The size of the bubble indicates the share of the sector in total exports in 2007.

Source: OECD (2009), *International Trade by Commodity Statistics*, *ITCS online database*, January.

StatLink http://dx.doi.org/10.1787/643446131177

Despite this outstanding export performance in some products, the technology-intensity level of Slovenian export products remains relatively low. Measured by the share of high-technology exports in total exports, Slovenia lags behind the OECD average and

Figure 1.15. **Export performance**



1. Commodity 78: Road vehicles, based on SITC Rev.3 classification. The revealed comparative advantage (RCA) index of a country i for product j is calculated as: $RCA_{ij} = (x_{ij}/X_{it}) / (x_{wj}/X_{wt})$, where x_{ij} and x_{wj} are the values of country i's exports of product j and where X_{it} and X_{wt} refer to the country's total exports and world total exports.
2. Based on ISIC Rev.3 classification the high technology sector includes codes 30, 32, 33, 353, 2423 pursuant to the OECD high technology definition.

Source: OECD (2009), *International Trade by Commodity Statistics*, *ITCS online database*, January.

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some dynamic exporters in the region, such as Hungary (Figure 1.15, panel B). Slovenia's FDI inflows are also remarkably small compared to other CEECs (Chapter 4). These points suggest a less rosy picture of Slovenia's export performance. In fact, the relatively small current account deficits until the last three years were hiding large deficits in goods trade that were mostly balanced by surpluses in the services account.

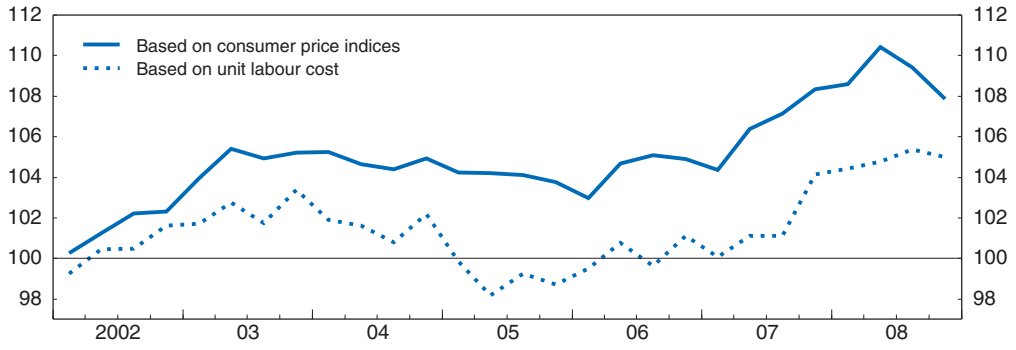
The current account deficit has risen significantly in recent years (Figure 1.1), but this does not stem from deterioration in competitiveness. Rather, as a result of the recent commodity price boom, negative terms of trade shocks contributed to a faster increase in imports than exports in value terms, boosting the deficit in goods trade. Imports were also booming because of the overheated economy, before the global crisis hit Slovenia. Finally, the current account deficit was driven by the rise in payment on the income account largely as a result of: *i)* an increased share of domestic commercial banks' borrowing abroad; and *ii)* a rise in interest rate during the period, leading to a larger than usual deficit in the current account. Nevertheless, price competitiveness, measured by the real effective exchange rate, has been deteriorating on account of high inflation, increases in labour costs and the strong appreciation of the euro since 2005-06 (Figure 1.16).

Renewed agreement that wage growth should not exceed that of productivity is key to maintaining competitiveness in the future

Recent experience highlighted the risk of a loss in competitiveness arising from excessive price or wage dynamics. Headline inflation picked up with the increase in oil and food prices in 2007 (Figure 1.1), and inflation reached the highest level in the euro area by mid-2008. The sensitivity of Slovenia's inflation to food prices is not easy to explain (Dalsgaard, 2008) and may indicate less competition in the food manufacturing and retail sectors, as shown by the high mark-ups in these sectors. The magnitude and stickiness of core inflation in 2007 and 2008 was also a puzzle and raised concerns of second-round

Figure 1.16. **Real effective exchange rate trends in Slovenia**

Index, 2001 = 100



Source: Institute of Macroeconomic Analysis and Development.

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effects as labour shortages and higher wage demands were prevalent at the time. Despite the current slack, wage growth is expected to exceed that of productivity in the near future for the first time since 2001, with significant planned wage increases of more than 25% over three years, of which 14.5% is a consequence of the policy of public wage catch-up that started in 2008.

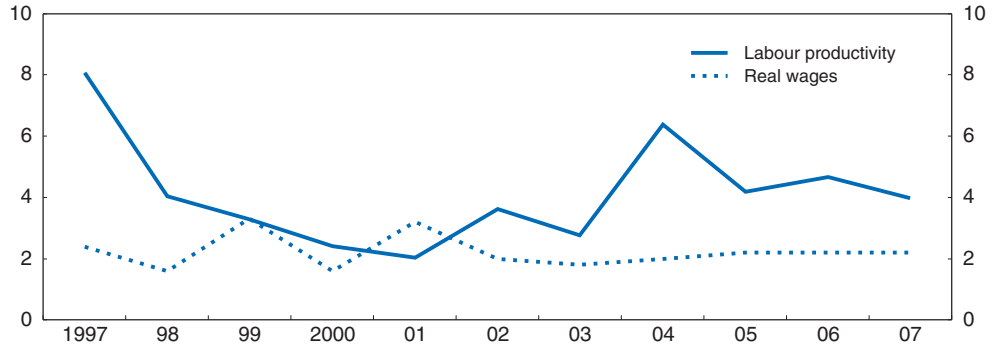
The financial crisis and the ensuing slack in the labour market have certainly reduced the risk of a wage-price spiral in the coming years. However, it remains important that wage growth does not exceed that of productivity, as had been the case since 2002, following a political agreement in 2001 between the State, employees and employers to end the backward-looking indexation of wages to inflation and to aim to keep wage growth below that of productivity (Figure 1.17). The agreement became particularly constraining for public employees as wage indexation was held to only 50% of inflation forecasts from 2004 to 2007 in order to facilitate euro area entry. Private sector wages were more dynamic, but still remained below or roughly in line with productivity growth. The new wage bargaining setting after 2001 helped to reduce inflation by lowering cost-push factors that had been largely driving inflation in Slovenia (Surti, 2008). The possibility that public wage increases could eventually add to wage pressures when the crisis subsides, damaging employment and competitiveness, is a key reason why the government should reconsider them.

Structural reforms need to be less gradual and broaden

Since independence, Slovenia has made steady progress in implementing major structural reforms in the trade and financial sectors, tax system, product and labour markets. Slovenia's catch-up and acceleration of structural reforms were not accompanied by widening income inequalities. In contrast to most other transition economies, Slovenia has succeeded so far in maintaining a very low level of inequality: the Gini coefficient in Slovenia was around 0.25 in 2005 (Medgyesi and Hegedüs, 2007), close to those of Scandinavian countries and below the EU average (0.3), and far below EU countries with similar income levels, like Portugal (0.4). Low income inequalities in Slovenia are largely attributable to strong preference for social and economic fairness, with the constitutional obligation of the State to provide employment opportunities and a healthy living environment for its citizens.

Figure 1.17. **Wages and labour productivity growth**[1]

Per cent



1. Labour productivity measured by GDP in constant prices per hour worked; wages measured by the growth of real gross wages per employee.

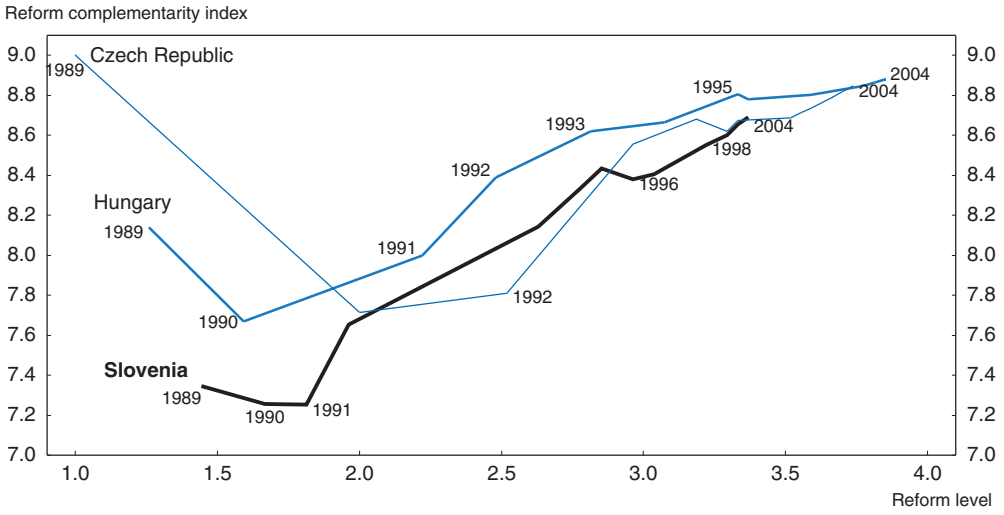
Source: OECD (2009), *National Accounts of OECD Countries – online database*, February; *Eurostat database* (2009), *Economy and Finance*, February; IMAD (2008), *Development Report 2008*, Institute of Macroeconomic Analysis and Development.

StatLink http://dx.doi.org/10.1787/643643702513

However, the reform process has been quite gradual. For most of the 1990s, state banks were protected from competition by a ban on foreign branch banking and deposit rate ceilings; capital controls and labour market regulation were extensive; and enterprise privatisation took place mostly through a voucher scheme or internal buyouts raising governance issues. The prominent role of the Economic and Social Council, the forum for tripartite dialogue, in adopting policy reforms and its working principle of consensus building may have enhanced public support for the reforms adopted, but may also have reduced the speed and the scope of reforms. The pace of structural reforms accelerated only after a critical report by the EU Commission in 1998. EU accession (2004) and euro entry (2007) put pressure on the government to implement the remaining major structural reforms within a few years.

Reform gradualism may have slowed down the catch-up process of Slovenia. But the sequencing of structural reforms is also important as it affects the political acceptance of continuing with reforms (IMF, 2004) and reforms can also breed their own momentum. For example, there is empirical evidence that product market reforms help implement labour market reforms (Nicoletti and Scarpetta, 2003; OECD, 2002 and Fiori *et al.*, 2008). In the case of Slovenia, the timing of reforms was only partially satisfactory (see Annex 1.A3). Major trade reforms and financial liberalisation were implemented quite late (late 1990s and early 2000s) and, as a consequence, the associated benefits could not be reaped early to help implement other structural reforms. Product market reforms were implemented more slowly, with delays in privatising, setting-up efficient competition regulators, and opening up to competition of network industries (see Chapter 4). This relatively slow pace in product market reforms may explain why labour market reforms have been quite limited so far and tax reforms aiming at improving the labour market efficiency only partial and recent (see Chapters 2 and 3). Overall, progress has been made in reform level, but as shown by a recent study, the pace of reform achievement was slower compared to other countries in the region like the Czech Republic or Hungary (Figure 1.18) and, until EU accession, the complementarity of reforms was less satisfactory (de Macedo and Oliveira Martins, 2008).

Figure 1.18. **Reform achievement**
Index based on EBRD structural indicators



Source: De Macedo, J.B. and J. Oliveira Martins (2008), "Growth, Reform Indicators and Policy Complementarities", *The Economics of Transition*, Vol. 16, No. 2, European Bank for Reconstruction and Development, Blackwell Publishing.
StatLink http://dx.doi.org/10.1787/643675101574

Challenges ahead: restore and maintain a sustainable growth within the Monetary Union

Looking ahead, the challenges for economic policy are set to intensify. Being a high-wage-cost country among emerging markets, Slovenia faces growing pressure to preserve its competitiveness. Moreover, maintaining the rapid pace of real income convergence requires stronger TFP gains and better labour utilisation than during the last decade. Box 1.4 summarises the main policy recommendations to restore and maintain a sustainable growth within the Monetary Union.

The prospects for stronger productivity and better labour utilisation hinge upon implementation of structural policies capable of promoting fiscal sustainability, making employment more attractive and enhancing the business environment. The following three chapters are devoted to these issues.

- *Keeping public finances on a sustainable path and improving its efficiency*. Slovenia's fiscal policy needs to be sufficiently counter-cyclical, particularly during good times. In addition to sticking to ambitious medium-term objectives, the introduction of an expenditure rule would be a useful device to achieve this goal. Furthermore, long-term sustainability requires taking into account upcoming ageing costs. The most important reform to implement in that respect is a pension reform, which will have the side benefit of increasing labour participation. A reform of the tax structure with a lower labour tax wedge and more consumption taxes will also foster employment and growth.
- *Labour policies: making employment more attractive*. In the medium term, labour policy measures should aim at correcting the low participation of old and young workers, and the rising duality of the labour market. Regarding the elderly; the pension system needs to be reformed to provide sufficient incentives for staying active. As for young workers, an improvement in the education system should help raise incentives for rapid graduation. To avoid a persistent dual market, an easing of employment regulation should be considered once the crisis subsides.

- *Enhancing the business environment to foster productivity growth*. While the overall state of the business environment is good, the play of competitive forces is hampered by pervasive state involvement, notably in finance, energy and telecommunications. Subdued prospects for privatisation have reinforced the need for better managing, for example through upgrading managerial skills, of state-owned enterprises as well as in firms where the government and special state funds exercise strong control. Market forces have also been hindered by strong market concentration inducing anti-competitive practices in key service sectors (retail food, banking, insurance, energy and telecommunications). Effectively tackling abuses of market power requires truly independent institutions of competition protection and market regulation.

Box 1.4. **Policy recommendations for restoring a sustainable growth path within the Monetary Union**

Conducting appropriate policy-mix

- Fiscal policy should pay greater attention to providing an appropriate policy-mix particularly when the euro area monetary stance is not consistent with Slovenia's business cycle as was the case during the past cyclical upturn. A fiscal council would be a useful device to help shape the political and public awareness on the appropriate policy-mix and fiscal sustainability.

Maintaining competitiveness

- Renew the social agreements ensuring that real wage growth is not higher than that of productivity as in the past.

Fostering the banking system

- Create a competitive banking sector that more efficiently intermediates funds. The efficiency of the banking sector could be enhanced by privatising the second largest bank once global financial markets recover.

Notes

1. Given the uncertainty about how long this revived demand for cars will last, the newly employed at Revoz are on fixed-term contracts.
2. Less than 1% of household income was capital income, one of the lowest shares in the EU according to the 2005 EU SILC survey (Medgyesi and Hegedüs, 2007).
3. An amendment to the Corporate Income Tax Act in 2008 implies that legal persons (either domestic or foreign) are exempt from the 15% withholding tax on interest received from banks (*i.e.* interest paid by banks) as long as their actual management is not located in a non-EU country where the general nominal corporate tax rate is lower than 12.5%.
4. The exposure of the financial system to contaminated assets is estimated to be limited to EUR 25 million (Bank of Slovenia).
5. X-inefficiency, which measures the slack in the use of production inputs, is derived from the stochastic frontier approach. According to Bems and Sorsa (2008) Slovenia appears among the furthest from the efficiency frontier irrespective of the underlying time period (1995-2007, 2000-07 and 2005-07). Holló and Nagy (2006) confirm that Slovenian banks had been relatively far from the efficiency frontier 1999-2003.
6. The Bank of Slovenia announced that it would increase the share of sight deposits (from the present 45%) that need to be matched by short-term investments under the liquidity ladder regulation. This measure was not adopted as competition for deposits has become less fierce.

7. GDP per capita (in purchasing power parities) is decomposed into the share of working age population (age 15-64) in the total population, the employment rate, hours worked per person employed, and labour productivity (per hour worked):

$$\frac{\text{GDP}}{\text{Total population}} = \frac{\text{Working age population}}{\text{Total population}} \times \frac{\text{Persons employed}}{\text{Working age population}} \times \frac{\text{Hours worked}}{\text{Persons employed}} \times \frac{\text{GDP}}{\text{Hours worked}}$$

8. Instead of targeting a specific inflation rate, the Bank of Slovenia announced a medium-term objective of 3-4% by 2005, and specific end-year forecasts for end-2002 (5.8%) and end-2003 (4.1%) consistent with this goal.

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ANNEX 1.A1

Growth accounting framework

Following the standard growth accounting framework, output performance in Slovenia can be expressed using the Cobb-Douglas production function:

$$Y_t = A_t K_t^{\alpha} (q_t L_t)^{1-\alpha}$$

where *Y* is real GDP, *K* is the physical capital, *L* is labour input, *q* is a human capital index (measured by education), and *A* is total factor productivity (TFP), which can be interpreted as containing any growth enhancing factor other than the inputs mentioned.

The path of the physical capital is calculated from:

$$K_{t+1} = I_t + (1 - \delta) K_t$$

where *I* denotes the real investment and δ is the rate of depreciation of the existing capital. Time series for real GDP, employment and human capital are obtained from the OECD National Accounts database. Employment data for Poland are from Iradian (2007) and education data for Slovenia from the Institute for Macroeconomic Analysis and Development (IMAD).

There exists no official capital stock for Slovenia. Capital stock series are constructed assuming a capital/GDP ratio of 1.7 in 1996 and a constant depreciation rate of 7.5%, following assumptions in Jongen (2004). For the Czech Republic, Hungary and the Slovak Republic, capital stock series are derived by assuming a capital/GDP ratio of 2.0 in 1996 and a constant depreciation rate of 5%, following Mourre (2009) whereas capital stock series for Poland are taken from national accounts. The stock of human capital is approximated using average years of schooling of the population of working ages 25-64 and is on average at 11.6 years in Slovenia, 13 years in the Czech Republic, 11.5 years in Hungary, 12.8 years in the Slovak Republic and 11.5 years in Poland in 1997-2007. Slovenian data come from IMAD. Labour contribution is measured by total hours worked by all persons in employment.

Gollin (2002) argues that labour income shares $(1 - \alpha)$ should be adjusted for self-employment in emerging economies, which means including a share of national mixed income. Assuming labour has the same share of mixed income as compensation of employees has in GDP, labour income shares are calculated each year. Average labour income shares over the period 1997-2007 are estimated at 0.70 in Slovenia, 0.64 in the Czech Republic, 0.68 in Hungary, 0.60 in the Slovak Republic and 0.58 in Poland.

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ANNEX 1.A2

Shift-share analysis of labour productivity growth

The productivity-decomposition analysis used in Chapter 1 is based on the shift-share analysis described in European Commission (2003), which decomposes aggregate changes in labour productivity into an intra-industry, a shift and an interaction effect. The "within-industry effect" measures productivity growth within each sector. The "shift effect" measures the effect on total economy productivity of the displacement of resources between industries of varying productivity levels. Finally, the "interaction effect" accounts for labour re-allocation effects between industries with varying productivity growth rates.

For each individual industry *i* labour productivity is defined as output *Y* divided by labour input *L*:

$$LP_{it} = \frac{Y_{it}}{L_{it}}$$

$$LP_t = \frac{Y_t}{L_t} = \sum_i Y_{it} / \sum_i L_{it}$$

When expressed in nominal terms, labour productivity can be written as a weighted sum of the within-industry productivity values:

$$LP_t = \sum_t LP_{it} \frac{L_{it}}{L_t}$$

This gives, in difference terms:

$$\Delta LP = \sum_i \Delta(LP_i) \frac{L_{it-1}}{L_{t-1}} + \sum_i LP_{it-1} \Delta\left(\frac{L_i}{L}\right) + \sum_i \Delta(LP_i) \Delta\left(\frac{L_i}{L}\right)$$

Dividing by LP_{t-1} to get the growth (percentage change) and rearranging the terms:

$$\frac{\Delta LP}{LP_{t-1}} = \sum_i \frac{\Delta LP_i}{LP_{it-1}} \frac{Y_{it-1}}{Y_{t-1}} + \sum_i \frac{LP_{it-1}}{LP_{t-1}} \left(\frac{L_{it}}{L_t} - \frac{L_{it-1}}{L_{t-1}}\right) + \sum_i \frac{1}{LP_{t-1}} (\Delta LP_i) \Delta\left(\frac{L_i}{L}\right)$$

- The first component is the within-industry effect, *i.e.* the sum of industry productivity growth rates, weighted by the initial (nominal) output shares.
- The second component is the shift effect, *i.e.* the sum of changes in input shares, weighted by the relative productivity level (*i.e.* the ratio of industry productivity to average productivity). This effect could also be written and decomposed as the sum of industry labour input growth rates, weighted by initial output shares, minus total labour input growth.

- The sign of the residual (interaction) component is usually negative (in the economy there is a majority of industries where the productivity change and the labour input change have opposite signs). It may, however, be positive when beneficial restructuring of the economy occurs (in this case, most of the industries enjoying productivity growth are at the same time attracting more resources).

The decomposition described above would strictly hold only in the case of (discrete) percentage changes. The logarithmic approximation (used throughout the study) entails an error of magnitude often comparable to the interaction effect. We have, however, defined the within-industry effect and the shift effect analogously to the discrete case. A corresponding decomposition for the continuous time assumption can be found in Nordhaus (2002), who has also shown that when "old-fashioned" price index methods are used (*i.e.* not the Törnqvist method), one should add to the decomposition an additional term accounting for the drift in prices.

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ANNEX 1.A3

Main structural reforms in Slovenia

Main objectives	Achieved so far	More progress needed
	Trade sector	
Lower barriers to imports	Common external EU tariff since 2004	None at Slovenian level (EU-wide policy)
No barriers for exports	No export restrictions	None
	Financial sector	
Less restrictions on international financial transactions	Liberalisation started in 1999; full application of EU directives since 2004	None at Slovenian level (EU-wide policy)
Less credit controls	Application of European Monetary Union (EMU) rules	None at Slovenian level (EMU-wide policy)
Less state regulation of interest rate	Recommended maximum deposit interest rates abolished in 2000	None at Slovenian level (EMU-wide policy)
	Product markets	
Lower public ownership	Privatisation of majority of public firms since 1991	Privatise remaining state shares (banks, insurance)
Lower barriers to entry	One-stop shop for companies (2007)	Reduce market share of incumbent in many sectors (retail, bank insurance)
Improve market structure (less concentration)	Competition agency strengthened recently	Increase powers for the competition agency
Avoid price controls	. .	Further liberate price setting for petroleum products
Liberalise network industries	Full or partial liberalisation for road, air, telecommunications, gas (2003) and electricity but incumbent share still high	Reduce further the incumbent share for telecommunications and electricity; open to competition rail and postal services
	Labour market	
Reduce excessive employment protection (EPL)	Reduction in EPL, though mainly on temporary contracts	Further reduction in EPL on regular work contracts
Raising the employment rates of the youth and the elderly	Tightening of eligibility criteria for unemployment benefits	Further pension reform to raise work incentives of the elderly
	Simplification and reduction of labour taxes	Reform study support system and student work to raise incentives for rapid graduation
	Alignment of education system with Bologna requirements	Further reduction in minimum wage relative to average wage
	Taxation	
Reduce marginal tax rate and broaden tax bases	Reform of personal and corporate income tax (2005)	Avoid further deduction for corporate tax base
Avoid excessive taxation on mobile input factor (capital, qualified labour)	Labour tax wedges have been slightly reduced since 2003	More reduction in labour tax wedge needed
Appropriate level of consumption taxes compared to labour taxes	VAT introduced in 1999	Change tax mix more towards real estate tax and indirect taxes
	Environmental taxes have been increased	

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Chapter 2

Keeping public finances on a sustainable path and improving efficiency

Slovenia belongs to the group of new EU member countries, which have given a high priority to fiscal prudence. This both stabilised the economy and paved the way for entry to the EU in 2004 and adoption of the euro in 2007. It also created room to counteract the current weakening of the economy. But fiscal policy has to cope with four main challenges: i) *ensuring a return to fiscal consolidation after the current economic downturn;* ii) *achieving longer-term fiscal sustainability by continuing pension reform;* iii) *limiting growth of public spending and improving its quality; and* iv) *making the tax system less distorting for job creation and growth.*

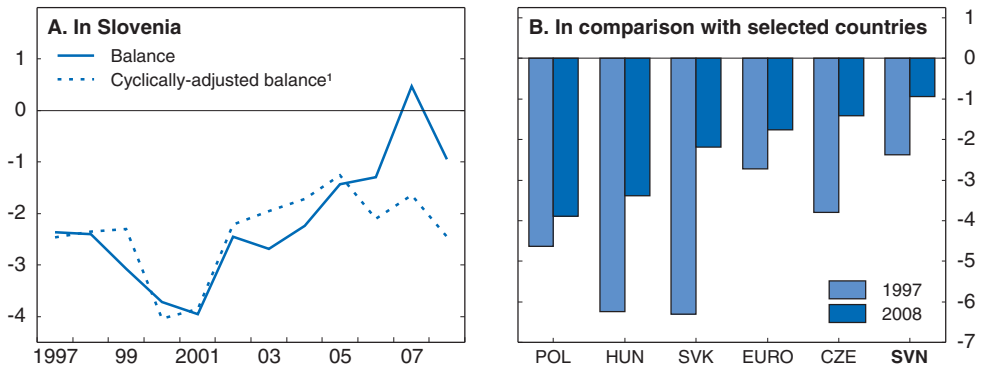
Fiscal consolidation in recent years has enabled Slovenia to counter the current economic downturn by expansionary fiscal policy. The revised budget submitted to Parliament end-February 2009 incorporates a stimulus package which aims to reduce the impact of the crisis on enterprises and safeguard jobs. The package includes new measures, building on earlier ones which are now taking effect, and should help mitigate the downturn and strengthen medium-term growth. Subsequent sections examine the underlying strength and the short and longer-term risks of the fiscal system. They point to the need for strengthening the control of government spending and continuing with structural reforms of government spending and taxation. The policy conclusions are summarised in Box 2.5 at the end of this chapter.

Fiscal consolidation has paid off...

Slovenia has followed prudent fiscal policies through most of the past years. After a short period with an exceptionally high deficit of around 4% in 2000-01, the general government budget steadily improved toward a surplus in 2007, before deteriorating again in 2008; this was the best budgetary performance since independence in 1991, better than in most other Central European countries and better also than the euro area average (Figure 2.1). The deficit targets of the medium-term Convergence and Stability Programme have been exceeded or at least met in recent years[1] (Figure 2.2). The level of debt is only around 23% of gross domestic product (GDP) so that Slovenia also benefits from a low debt service. This overall prudent fiscal policy contributed to macro stability, which helped Slovenia enter the EU in 2004 and join the euro area in 2007.

Figure 2.1. **Development of the fiscal balance**

General government financial balance, in per cent of GDP



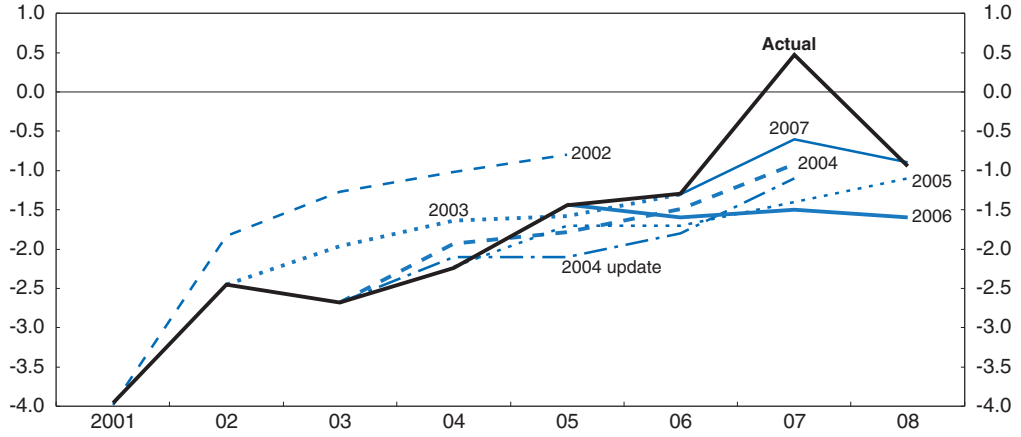
1. In per cent of potential GDP.

Source: OECD (2009), "OECD Economic Outlook, Interim Forecast", March and European Commission (2009), *Economic and Financial Affairs, AMECO database*, April.

StatLink http://dx.doi.org/10.1787/643680657625

Figure 2.2. **Actual fiscal balance and fiscal projections laid out in the Pre-accession, Convergence and Stability Programmes**

Per cent of GDP



Source: Republic of Slovenia (2002-07), *Pre-accession Economic Programmes*, *Convergence Programmes* and *Stability Programmes*, available at *www.mf.gov.si/angl/tekgib/konvergencni_programi.htm*.

StatLink http://dx.doi.org/10.1787/643714876880

The fiscal improvement in recent years was mostly of a structural nature: the cyclically-adjusted deficit declined to ½ per cent of GDP in 2007 after a peak of around 4% in 2000. Both the deterioration of the fiscal balance between 1997 and 2001 and its improvement after 2001 were mainly caused by changes in spending. Between 1997 and 2001, the expenditure-to-GDP ratio had increased by more than 2 percentage points (from 45.4% in 1997 to 47.6% in 2001), but from 2002 onwards, it declined by more than 5 percentage points to 42.4% in 2007, before increasing again to 43.6% in 2008. Experience in other countries has shown that if fiscal consolidation is achieved through expenditure restraint, it is more sustainable than if reached through higher tax revenues (Guichard, 2007). From that perspective, one could be optimistic that Slovenia has achieved a sustained consolidation.

... but is exposed to several risks

Several factors point, however, to risks for the future development of public finances.

First, part of the improvement in the structural balance was due to exceptional increases in revenues

The improvement in the fiscal balance benefited from a buoyancy in tax revenues mostly related to an exceptional increase in the tax elasticity. However, this will not be sustained in the coming years as the tax elasticity will likely fall below its long-term average during the economic downturn and eventually return to a more standard level. In 2007, the improvement in the structural balance of 0.6% of GDP (as estimated by the European Commission) was almost completely explained by high tax elasticities, as efforts by the government to control expenditures (owing to two-year budgeting) only served to compensate for the negative impact on the structural balance of significant tax reductions resulting from tax reforms (see Box 2.1).

Box 2.1. **The impact of favourable tax elasticity in recent fiscal improvement**

An improvement in the structural balance owing to a cyclical increase in the tax elasticity leads to a misinterpretation if the progress is attributed to government efforts when it is in fact out of the government control. This problem stems from the construction of the structural balance, which is generally computed as the "residual" between the actual balance and the so-called "cyclically-adjusted" balance, although the latter does not include short-term fluctuations in the tax elasticity. Based on the approach suggested by Duchêne and Levy (2003),* the improvement in the structural balance in 2007 has been decomposed and the part related to the government efforts (control of expenditure or new tax measures) has been disentangled from the part resulting from events out of the direct government control (mainly changes in tax elasticities). This analysis suggests that the improvement of 0.6% of GDP in the structural balance in 2007 was almost fully explained by the positive impact of higher tax elasticities (about 0.5% in GDP) as the positive efforts to control expenditure amounting to 1.1% of GDP were fully offset by an identical negative impact of new tax measures related to significant reductions in the income and payroll taxes (and to a lesser extent to a reduction in the corporate income tax, while some excise taxes had been raised). As a result, the purely discretionary effort of the government to improve the structural deficit was *de facto* nil in 2007.

* Duchêne, S. and D. Levy (2003) "'Solde structurel' et 'effort structurel' : un essai d'évaluation de la composante 'discrétionnaire' de la politique budgétaire", *Analyses Économiques*, No. 18, Direction de la Prévision et de l'Analyse Économique du Ministère Français de l'Économie, des Finances et de l'Industrie, Paris.

Second, spending risks are increasing

A closer look at the underlying factors explaining the divergence between forecast and actual fiscal balances in recent Stability Programmes shows that the revenue gains due to the high tax elasticity, together with exceptionally high nominal GDP growth, were the main reasons why the deficit targets of the Stability Programmes were exceeded. Conversely, the analysis reveals that actual expenditure growth has become higher than projected in recent Stability Programmes, which suggests that spending controls have weakened in contrast to pre-accession Convergence and Stability Programmes of the first half of the current decade when actual expenditure growth remained lower than forecast (Figure 2.3 and Annex 2.A1).

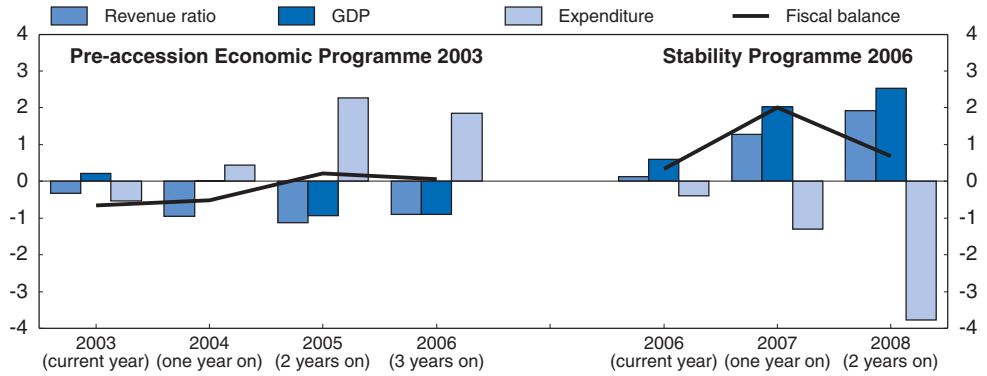
Furthermore, during 2004-07 public wage growth was limited to only half of forecast inflation, with the intention to ease qualification for European Monetary Union (EMU) but with the promise that this restraint would be compensated later.[2] As a result, public wages are now catching-up, with a first increase in September 2008, a second one in January 2009, and a social agreement to proceed to two more increases depending on the economic situation. The expected cumulated increase in public wage is more than 25% in nominal terms. Furthermore, as promised during the election campaign, basic pensions will also be raised significantly.

Third, a contingent liability is emerging in the construction sector, adding to the major pension liability

In 2004, the government transformed the status of DARS, a state-owned company responsible for constructing and maintaining motorways, into a commercial company, thus enabling it to finance its investment through borrowing instead of receiving capital

Figure 2.3. **Deviation between the actual and the projected change of the fiscal balance and the main causes of the deviation**[1]

Gap between actual and forecasted change, per cent



1. Cumulative data from the reference year, *i.e.* the year before the programme.

Source: Republic of Slovenia (2003), *Pre-accession Economic Programme* and Republic of Slovenia (2006), *Stability Programme*, available at *www.mf.gov.si/angl/tekgib/konvergencni_programi.htm*.

StatLink http://dx.doi.org/10.1787/643747856817

transfers from the government budget. Between 1994 and 2008, more than half of the funds for motorway construction were on average raised by DARS through the capital market. If instead these funds had been raised by the government, its annual deficit would have been on average around 1% of GDP higher. In autumn 2008, the debt level of DARS amounted to almost EUR 3 billion or about 8% of GDP. While this kind of road financing reduced the deficit of the general government sector, the government will most likely have to continue subsidising DARS, as borrowing by DARS is backed by state guarantees and revenues from tolls will probably not be sufficient to cover debt servicing and other costs. This may eventually lead to a reintegration of DARS into government accounts. If DARS expenditures were consolidated into government accounts, the structural fiscal balance would not have improved in 2007; and if the positive cyclical impact of high tax elasticity were taken into account, the structural balance, so measured, would have deteriorated. Another and much higher contingent liability of the general government sector emerges from unfunded liabilities of the pension system, which is discussed in more detail below.

Fourth, some aspects of the fiscal package adopted to mitigate the current slowdown may undermine fiscal sustainability

Due to weaker growth and expansionary measures, the government revised its 2009 forecast of the central budget deficit down from 0.33% to 2.9% of GDP. It now expects a general government deficit of 3.4% and does not rule out that it could reach 4% or more. In fact, the government estimated the impact of automatic stabilisers on the budget at 1% of GDP in December last year, but the impact is most likely to reach 2% of GDP as economic prospects have further deteriorated and the tax elasticity may fall more than anticipated by the government. Following the worsening of the financial crisis, the government has adopted new fiscal measures amounting to 1.2% of GDP and submitted it to Parliament end-February 2009; last year's agreement (July 2008) to significantly increase public wages end-2008 and in 2009 add to the loosening of the fiscal stance by about 0.3% of GDP (Box 2.2).

The expansionary course of fiscal policy is justified by the economic situation and, thanks to past fiscal prudence, there is room for discretionary policies. However, the

Box 2.2. **Fiscal stimulus package**

The Slovenian government has implemented a fiscal stimulus package amounting to EUR 800 million, or 2.1% of GDP. The measures have been classified according to three categories: *i)* slowing down the impact of the economic crisis on enterprises (0.2% of GDP); *ii)* enhancing enterprise financial liquidity and safeguarding existing jobs (1.7% of GDP); and *iii)* increasing expenditure in research and education to improve the growth potential of the economy and its resilience (0.2% of GDP).

However, only 1.2 percentage points of this package represent new measures. The principal new measure is a subsidy per employee to firms that need to reduce their working hours (EUR 60 per employee when working time is reduced to 36 hours a week, EUR 120 if reduced to 32 hours). The total expected cost of this measure is EUR 230 million or 0.7% of GDP. The subsidy will be granted for six months with the possibility for a one-year extension, but the companies involved will have to promise not to lay off staff and not to pay out management bonuses. Another significant measure is a recapitalisation of the state-owned development and export bank (SID) to support lending (EUR 160 million). The fiscal package also includes diverse tax measures to support investment of small firms (about EUR 100 million) and reductions of tax pre-payments in order to increase liquidity of firms (around EUR 50 million). Furthermore, the disbursement of EU funds is accelerated by giving priority to those projects of ministries which are closer to implementation.

The stimulus package also includes several measures, which had been adopted earlier and are not crisis-related, such as the last step of the phasing out of the payroll tax (2009 revenue shortfall 0.6% of GDP), the reduction of the corporate income tax (2009 revenue shortfall 0.1% of GDP) and the increase in public wages (about 0.3% of GDP in 2009; the expected total fiscal cost of planned increases is about EUR 400 million, *i.e.* 1% of GDP).

In order to limit budgetary costs of the fiscal package, excise duties on gasoline and oil derivatives are increased (2009 additional revenue 0.7% of GDP). Furthermore, in accordance with the trade unions, expenditure on public salaries should be lower than originally planned.

government should not lose sight of the medium and longer term budgetary risks as mentioned above and should ensure that the fiscal measures do not lead to permanent fiscal costs. In this respect, increases in public wages pose a significant threat to fiscal sustainability, compounded by a significant increase in the number of public employees during the period. After the current weakening of the economy, fiscal policy needs to return to a strict course of consolidation.

A new pension reform is needed to ensure long-term fiscal sustainability

With the transition from the communist command-and-control system to a market-based economy, the fiscal system needed fundamental reform. While in the old system, social protection was largely provided by employment in state-owned enterprises and subsidised prices of basic goods and services, with the transition to a market-based economy, a contribution-based social security system was established including health, unemployment and pension insurance. Overall, it appears that Slovenia has coped relatively well with the social problems arising from transition and the increase in poverty and inequity has remained subdued (Fox, 2003). Income inequality and the risk-of-poverty rate are also lower than in the EU average, although both indicators for social cohesion increased somewhat between 2000 and 2006 (IMAD, 2008).

However, Slovenia's labour market problems, which emerged during the early stage of transition, were "solved" by mass early retirement, which shifted the costs to the pension system. The choice to use the pension system rather than more targeted measures for the poor – as a welfare cushion – may also have been influenced by political economy considerations. By providing relatively generous early retirement pensions, this policy supported a larger portion of the electorate, which reduced political resistance to continuing with structural reform.[3] However, it turned out to be very costly: the share of pensions in GDP increased by around 5 percentage points in the first half of the 1990s and the (joint employer and employee) pension contribution rate had to be raised by more than 8 percentage points, to 31%, in 1995. In 1996, the employer contribution rate was lowered (from 15.5% to 8.85%) in order to increase competitiveness of the Slovenian economy. This led to a deficit in the pension fund, which was covered by additional funding from the government budget.

In light of the rising pension expenditures, a second reform of the Slovenian pension system was enacted at the end of 1999 that became applicable in 2000 (Box 2.3). The new system is rather complex, not least due to protracted negotiations within the government coalition and even more between the government and the social partners (Stanovnik, 2002). The conditions for acquiring the right to old-age pension are confusing due to the existence of several pensionable ages and different periods relevant for qualifying for pensions. Furthermore, the calculation of pension benefits is complex owing to various adjustment mechanisms meant to ensure horizontal and vertical equity of the system. The pension system should be made more transparent in order to enable insured persons to make an informed decision about whether to retire or remain active.

The net replacement rate declined (largely) as a consequence of pension reform, from 75.3% in 2000 to 67.1% in 2007 (IMAD, 2008). But pensions remain indexed to wages rather than to prices as in many other countries. The statutory pension age has only gradually increased (from 58 to 63 for men in 2008 and from 53 to 61 for women in 2023). The pension is reduced if workers retire before they reach the statutory retirement age and is increased if workers retire later, but the additional pension received is less than proportional to the extra time worked. Thus, the pension system provides only weak incentives to continue working and many people still choose to retire early (Egoumé-Bossogo and Tuladhar, 2006; Ahčan and Polanec, 2008).[4] The pension system is redistributive as pension contributions are proportional to wages while pension benefits are capped at four times the minimum pension; furthermore, workers receive a minimum pension (set in 2000 at 62.5% of the average net wage) after a qualifying period of 15 years of service.

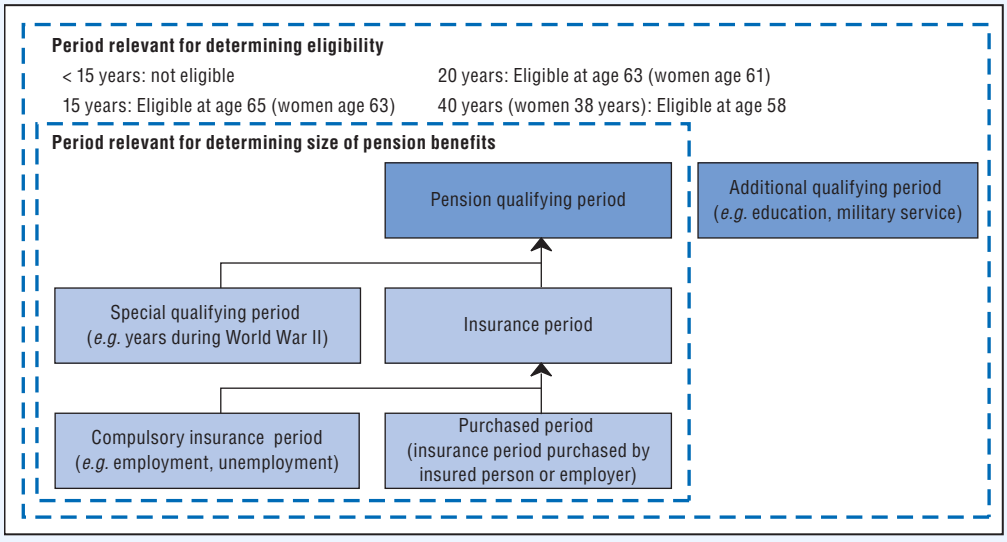
The state pension system is supplemented by a voluntary private funded system (second pillar) and by individual private retirement savings through life insurance (third pillar).[5] The second pillar is gaining importance and by 2006 over half of the active working population was included in voluntary pension insurance, with the majority covered through collective insurance. The individual pension saving segment (the third pillar) remains marginal (Majcen and Verbič, 2008). However, for many of the insured persons in the funded scheme (including civil servants) only the minimum premium is paid so that there remains a large gap between the actually paid premium for supplementary pension insurance and the target premium value that would compensate the effects of the lowering of the replacement rate in the first pillar.

Box 2.3. **The state pension system**

The new *Pension and Disability Insurance Act* (PDIA) which was adopted in 1999 brought about a major reform of the Slovenian pension system. Implementation of the new rules started in 2000, but due to long transition periods some of them are not fully in place yet. The Act has been amended several times since 1999, though its main provisions remained unchanged. This box briefly lays out the main features of the new pension system envisaged in the 1999 PDIA and its amendments. The focus is on the first pillar of the pension scheme (defined-benefit scheme) whilst the second and third pillars (both defined-contribution schemes) are discussed below.

The new PDIA specifies three different pensionable ages at which an insured person acquires the right to old-age pension, depending on the length of the pension qualifying period (Figure 2.4). *First*, insured persons acquire the right to old-age pension when they attain 58 years of age – henceforth the minimum pensionable age – if they have completed a pension qualifying period of 40 years (men) or 38 years (women). *Second,* they acquire the right to old-age pension at 63 years of age (men) and 61 years of age (women) if they have completed a pension qualifying period of 20 years. This is the so-called full pensionable age.[1] *Third*, insured persons acquire the right to old-age pension at 65 years of age (men) and 63 years of age (women), if they have completed a pension qualifying period of 15 years.[2] The pension qualifying period consists of the special qualifying period (years that are credited such as those spent in World War II) plus the insurance period, where the latter consists of the period during which a person was actually insured and the purchased period (an insurance period that was purchased either by the insured person himself or his employer). For the assessment of the eligibility criteria (but not for the calculation of pension benefits) the so-called additional qualifying period is also taken into account (such periods include, for example, years of university education [up to the number of years necessary to obtain a degree] as well as military service).

Figure 2.4. **Periods relevant for determining pension eligibility and benefits**

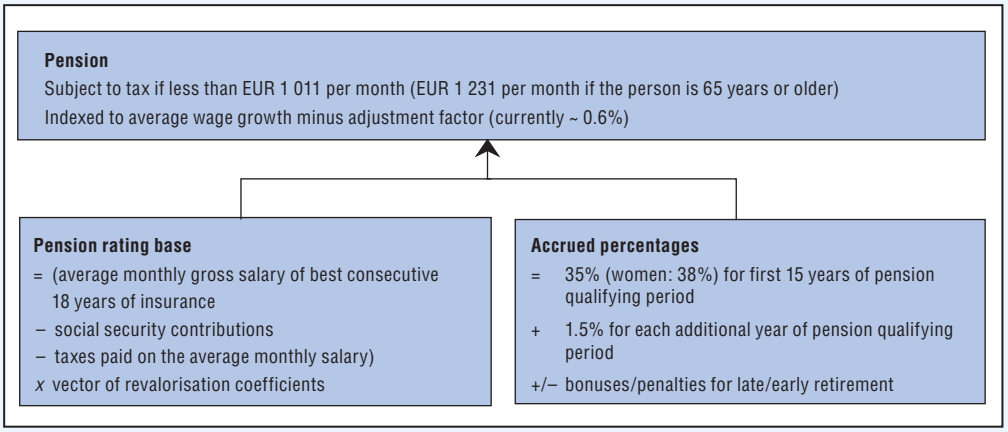


The scheme pays 35% of the so-called pension rating base for men and 38% for women once they have completed a pension qualifying period of 15 years (Figure 2.5). Thereafter, the accrual rate is 1.5% per year of completed pension qualifying period (2% for every year

Box 2.3. **The state pension system** *(cont.)*

completed before the year 2000), implying that men obtain a replacement rate of 72.5% when having a pension qualifying period of 40 years and women when having a pension qualifying period of 38 years. The pension rating base is the average monthly gross salary during the best consecutive 18 years of insurance, reduced by social security contributions and taxes paid on the average monthly salary in Slovenia and revalued using a vector of revalorisation coefficients that are fixed every year (the revalorisation coefficients are an instrument to obtain equity between existing and new pensioners and are obtained by dividing the average salary of October 1990[3] by the average salary in the year that is taken into account for calculating the pension rating base). As the use of the average personal income tax for the calculation of the net pension rating base favours higher income earners, pensions that exceed an upper limit of EUR 1 011 per month (EUR 1 231 per month if the person is 65 years or older) are subject to a tax.

Figure 2.5. **Calculation of pension benefits**



Staying active once the criteria for retirement are fulfilled is rewarded by bonuses whilst early retirement is penalised by *maluses*. If individuals who have completed the pension qualifying period of 40 years (38 years for women) postpone retirement beyond the age of 58, additional years of work up until the full pensionable age attract a higher accrual rate of 3% for the first year, 2.6% for the second year, 2.2% for the third year and 1.8% for the fourth year (instead of the normal accrual rate of 1.5% per year). Individuals deferring their pension claim after the full pensionable age receive a bonus which amounts to 0.3% per month during the first year, 0.2% per month during the second year and 0.1% per month during the third year (in addition to the normal accrual rate that applies to that person). If an insured person retires before the full pensionable age without having completed a pension qualifying period of 40 years (men) or 38 years (women) the pension is assessed based on the length of the completed pension qualifying period (*i.e.* the pension rating base is lower than 72.5% by the number of missing years multiplied by 1.5%), reduced for each missing month of age by a penalty which amounts to 0.1% per month if the person retires at the age of 62 (only relevant for men), 0.15% per month if the person retires at the age of 61 (only relevant for men), 0.20% if the person retires at the age of 60, 0.25% if he/she retires at the age of 59 and 0.3% if he/she retires at the age of 58.[4] Any reduction or increase in pension benefits is of permanent nature.

Box 2.3. **The state pension system** *(cont.)*

The 1999 PDIA puts great emphasis on the principle of solidarity. The ratio between two comparable pensions (comparable pensions exist when two pensioners have the same insurance period) cannot exceed the ratio of 4:1. The pension system includes a minimum pension base and a maximum pension base which is equal to four times the minimum pension base. Social security contributions are not capped, implying that any contributions that would lead to a pension base in excess of the maximum pension base act as a tax. Pensions are in principle indexed to wages. However, wage growth is reduced by an adjustment factor (currently about 0.6%) in order to ensure that a person who was born at a later point in time and thus retires later does not suffer more from the reduction in the accrual rate from 2% to 1.5% than a person who was born at an earlier point in time and thus retires earlier.[5]

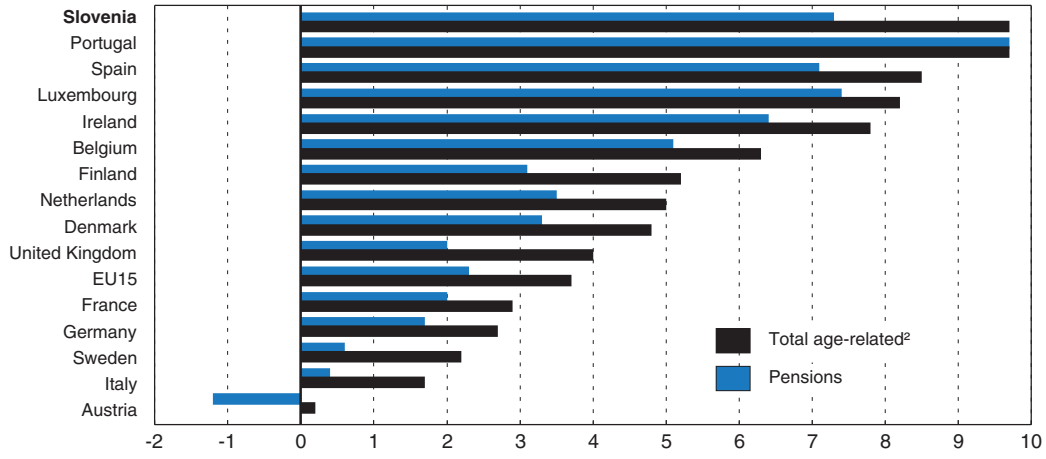
1. The new full pensionable age was a compromise between the government and the social partners with the trade unions opposing the increase to 65 years for men and 63 years for women proposed by the government in its draft of the Act. The compromise was proposed by the United League of Social Democrats (ZLSD). After opinion polls in March 1999 showed that 81% of the population were against the government's proposal of a statutory pension age of 65 for men and 63 for women, but that more than half were in favour of the compromise value, the government backed their proposal and the *Social Agreement on the Reform of Pension and Disability Insurance in Slovenia* was signed in April 1999.
2. If a person has not completed a pension qualifying period of 15 years when reaching the age of 65 (63 for women), he/she has to work beyond that age until meeting the 15-year condition in order to be eligible for pension benefits.
3. Adjusted for changes in pensions made in accordance with the pre-2000 pension regulation.
4. Due to the parallel increase in the full pensionable age and the minimum pensionable age, the early retirement penalties will not enter into effect for women before 2014.
5. But this adjustment does not ensure intergenerational equity, as lifetime income is less reduced for older generations than for younger generations. As replacement rates are likely to be further reduced in order to limit the increase in pension payments (or contribution rates would have to be raised accordingly), adhering to the current interpretation of "equal rights for new and old pensioners" would burden younger generations more than older generations (Sambt, 2008). The minimum (full) pensionable age may be reduced to 55 years (58 years) at most.

The 2000 pension reform has not been sufficient to make the pension system sustainable over the longer run. According to projections by the European Commission (2005), in the absence of additional measures, pension payments will increase between 2004 and 2050 by 7.3 percentage points of GDP and total public age-related spending (including health care, long-term care and education) by 9.7 percentage points of GDP. This is equivalent to almost a quarter of the current level of the general government budget. Slovenia belongs to the group of EU countries with the largest increase in age-related spending and has therefore been classified by the European Commission as a "high-risk" country with respect to long-term sustainability of public finances (Figure 2.6). In an updated scenario, the European Commission (2009) projects an even higher increase in pension expenditure: from 2007 to 2060 pension expenditure is projected (in the baseline scenario) to increase by 8.8 percentage points of GDP (and total ageing costs by about 13 points of GDP, the third most important increase within the EU). These projections illustrate the unsustainability of the pension system and the urgent need for reform.

While many countries have to cope with pressures from ageing populations, several of them have taken decisive actions, which have significantly improved their long-term budgetary perspectives. For Slovenia, a desirable policy would consist of an appropriate mix of: *i)* pre-funding the future pressures on government spending by reducing government debt; *ii)* reforming the state pension system; and *iii)* enhancing private retirement savings.

Figure 2.6. **Age-related public spending is projected to rise sharply in most EU member states**[1]

Projected change in total age-related expenditure, 2004-50, per cent of GDP



1. EU members before enlargement in May 2004. Data for Greece is not available.
2. Excludes long-term care for France and Portugal.

Source: European Commission (2006), "The Impact of Ageing on Public Expenditure: Projections for the EU25 Member States on Pensions, Health Care, Long-term Care, Education and Unemployment Transfers (2004-2050)", *European Economy, Special Report*, No. 1.

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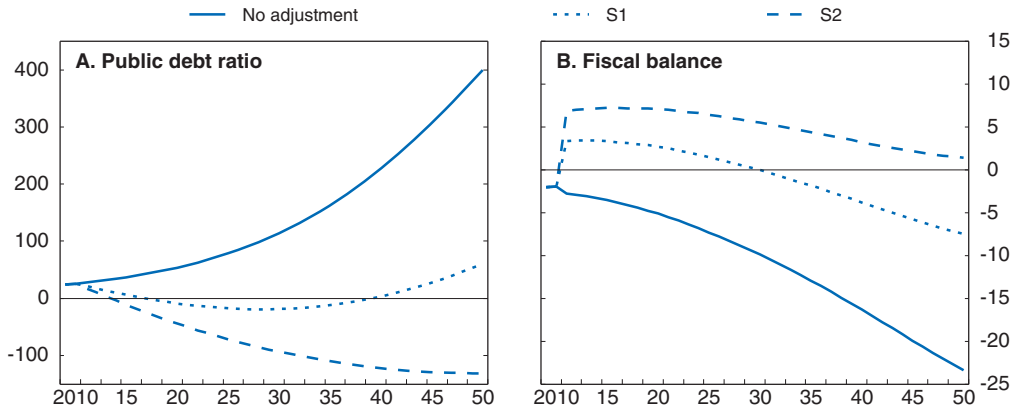
Pre-funding age-related spending by reducing the level of government debt in anticipation of future spending pressures

Increasing government savings in anticipation of age-related spending smoothes tax rates over time. However, if Slovenia were to reach a sustainable fiscal position only by pre-funding it would need a very large improvement in its fiscal balance. This can be seen from the sustainability gap measures S1 and S2 as calculated by the European Commission. The first indicator is the difference between the current primary balance (as a per cent of GDP) and the primary balance needed to reach a gross debt level of 60% of GDP in 2050; this would require in Slovenia an immediate (up from 2011) and permanent increase of above 5% of GDP in the primary balance. The second indicator ensures fiscal sustainability over the infinite time horizon and would require an increase of around 8½ per cent of GDP in the primary balance.[6] Figure 2.7 illustrates the development of the financial balance and the debt level with and without adjustment (following the presentation in Giammarioli *et al.*, 2007). It shows that without adjustment the deficit ratio and the debt ratio explode. With an S1 adjustment, which limits the debt ratio to 60% of GDP in 2050 (but not beyond), public debt will become negative in 2017, amounting to around –20% of GDP towards the end of 2020, and become positive again in 2040 before rising to 60% of GDP in 2050. With an S2 adjustment (which ensures infinite sustainability) government debt will become negative in 2014 and negative debt (a net asset position) will increase to 130% of GDP by 2050.

It is clear from these scenarios that the S2 adjustment is unrealistic. Even the S1 adjustment would require a large improvement in the primary balance. Given the internationally high tax level (see below), much of the adjustment would have to be made on the spending side. Such large spending cuts would be difficult to achieve and could be at the cost of infrastructure spending, which is needed for the development of the

Figure 2.7. **Development of the fiscal balance and the debt level with and without adjustment to ensure fiscal sustainability**[1]

Per cent of GDP



1. S1 and S2 are synthetic indicators computed from debt projections (January 2009 forecast scenario) to gauge the size of a fiscal adjustment necessary to attain a specific debt target in the future. The S1 indicator is the difference between the ratio of the constant primary balance to GDP that is required to reach a gross debt ratio of 60% of GDP in 2050 and the current primary balance ratio. The S2 indicator shows the change in the ratio of the primary balance to GDP that would be needed to equate the present discounted value of future primary balances over the infinite horizon with the current level of debt.

Source: European Commission.

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economy. Last but not least, with the government running high budget surpluses during the next fifteen years, political pressure could increase to use them for other purposes before the pressure from ageing arises.

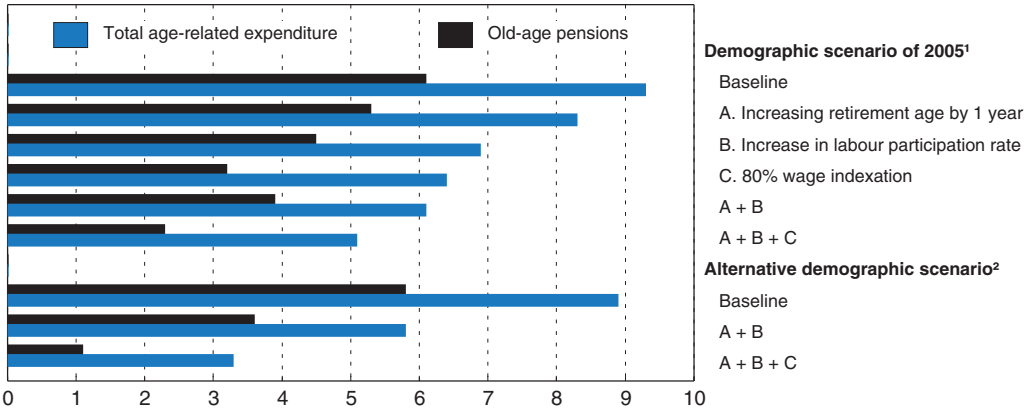
These considerations suggest that a complete pre-funding of age-related spending is neither desirable nor feasible. However, partial pre-funding may be desirable to offset part of the future costs and assure better intergenerational equity, especially if the pre-funding is realised sooner than later (see below and Annex 2.A2). An objective for partial pre-funding could be to run a balanced budget as soon as the crisis subsides. A balanced budget during 10 years with sustained real growth of 3%[7] (and nominal GDP growth at around 5½ per cent) would reduce the debt-GDP ratio to around 12% by 2020. With such partial pre-funding, *i.e.* halving the debt-GDP ratio before the pressure from ageing arises, the main focus would have to be on structural reform of the pension system.

Structural reform of the pension system

Further raising the retirement age and lowering the replacement rate would limit the growth of pension payments (Figure 2.8). The replacement rate could be reduced by reducing indexation of pensions (*e.g.* moving from wage indexation to price indexation or a combination of price and wage indexation, as it exists in many OECD countries) or extending the contribution period to obtain a full pension. The retirement age has already been raised by the past reform but there is room for a further increase. The retirement age (the age at which persons can retire once they have completed a pension qualifying period of 20 years) has been raised from 58 years to 63 years for men and from 53 years to 61 years for women. While the increase was implemented rather quickly for men at a rate of 6 months per year, the increase proceeds at just 4 months per year for women.[8] This implies that the envisaged retirement age of 61 years will not be reached before 2023. The

Figure 2.8. **Sensitivity scenarios on change in old-age expenditure**

Increase in expenditure in per cent of GDP, 2006-50



1. Eurostat projections from 2005 assumed an average fertility rate of one child per woman.
2. Taking into account higher actual fertility rates for 2004-06.

Source: Republic of Slovenia (2007), *Stability Programme – 2007 Update*, December.

StatLink http://dx.doi.org/10.1787/643840571213

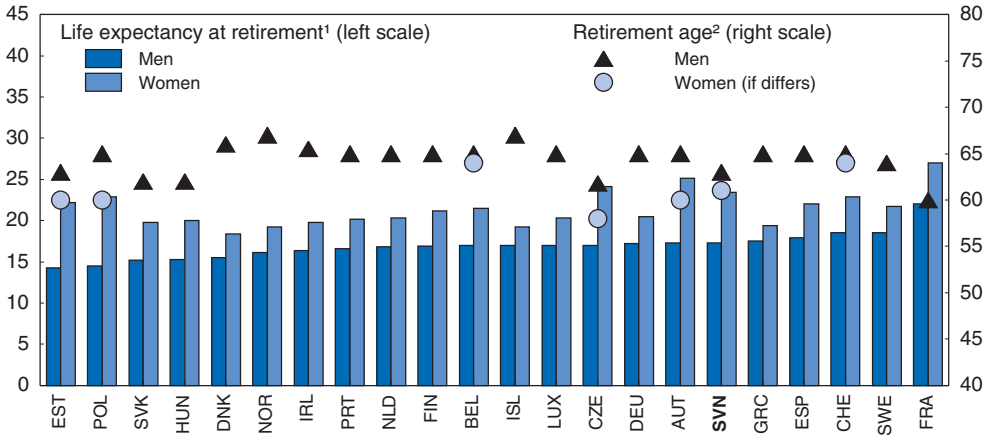
age limits for retirement with a pension qualifying period of respectively 38 years (58 years of age) and 15 years (65 years of age) are also raised by a mere 4 months per year. Several countries from Central and Eastern Europe, that had similarly low retirement ages for women before they reformed their pension systems, implemented the changes at a much faster pace. For example, Bulgaria, Estonia, Hungary and Latvia opted for an increase of 6 months per year (12 months every second year in the case of Hungary) and in the Slovak Republic the retirement age is even raised at a rate of 9 months per year. In light of the negative effects of the rapid ageing of the Slovenian population on public finances, as well as potential economic growth, the increase in the pensionable age for women should be phased-in faster.

Even after the 1999 pension reform is fully phased-in, the pensionable age is low by OECD standards (Figure 2.9). The majority of OECD countries currently have a retirement age of 65 years for both genders and many of them are planning further increases along with gains in life expectancy. As life expectancy in Slovenia is similar to other OECD countries, the lower retirement age implies a higher life expectancy at retirement (particularly for women), putting strong pressure on pension costs on the one hand and depriving the labour market of valuable resources on the other. The authorities should therefore further increase the pensionable age for both genders. The above simulations suggest that an increase in the retirement age by one year will reduce future pension expenditures by around one percentage point of GDP. Once the increase has been phased-in and life expectancy at the full pensionable age has reached a suitable level, additional increases in the pensionable age should be linked to gains in life expectancy. The length of the pension qualifying period necessary to retire at the minimum pensionable age should be raised accordingly. Moreover, the conditions for women should be lined up over time with those for men.

A more far-reaching reform would be to transform the current defined benefit scheme into a notional defined contribution (NDC) scheme, as several countries (including Italy, Latvia, Poland and Sweden) have done. The NDC scheme ties a notional rate of return to overall wage growth, while individual benefits are based on actual contributions during the whole working life. NDC schemes automatically adjust pension benefits to life expectancy as

Figure 2.9. **Life expectancy and retirement age in selected OECD countries**

Years, 2006



1. The mean number of years still to be lived by a person, if subjected throughout the rest of his or her life to the current mortality conditions.
2. Legal retirement age for a standard pension. Where the retirement age is variable (*e.g.* depending on date of birth, number of children raised, etc.), an average has been used. For the Slovak Republic, the retirement age of 62 will be reached in 2015 and for Slovenia, the retirement age of 61 for women will be reached in 2023.

Source: Eurostat database (2009), *Population and social conditions*, January; and European Commission, MISSOC Tables 2007, available at *http://ec.europa.eu/employment_social/spsi/missoc_tables_en.htm*.

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the "notional capital" which is accumulated until retirement is transformed into an annuity payment, which is lower the longer the expected time on pension (Oksanen, 2001; Williamson, 2001). As pure NDC schemes are not redistributive, all countries with such schemes have introduced minimum pensions to protect very low-wage workers whose contributions are too low to survive at old age; such a basic pension already exists in Slovenia.

Enhancing private retirement savings so that it plays a bigger part in the overall retirement system

Another measure to adjust the pension system to the future demographic change is to strengthen the private pillar(s). However, shifting from public to private pensions is no panacea for reducing fiscal costs. Without going into a detailed discussion of the pros and cons of funding, it is clear that shifting to second and third pillars while cutting down first pillar pensions involves transition costs as contributions have to be paid both for the fund and for the first pillar pensions of current pensioners. The size of transition costs depends on the degree of the transition across the pillars, and care is needed to prevent the costs from becoming excessive for the younger generations. Some additional burden on the younger generations can be justified as they have a higher life expectancy and therefore need more retirement savings, they also have fewer children and therefore save on child education and they are also likely to be richer. The relevant question for intergenerational equity is therefore not to achieve an equal burden sharing across generations but rather a burden sharing, which is perceived as fair (Oksanen, 2001; Sinn, 2000).[9] From that perspective, there seems to be some room in Slovenia to increase the private pillar(s). This could be done by making a certain amount of contributions to the private pension fund mandatory or by including all workers into the funded system but allowing them to opt-out if they do not wish to supplement their pay-as-you-go pension. However, the state pension

should remain the main pillar because of otherwise high costs of transition as mentioned above. Furthermore, if the private pillar(s) did not work out as expected, the government would probably have to step in anyway to prevent poverty at old age.

Overcoming political economy constraints

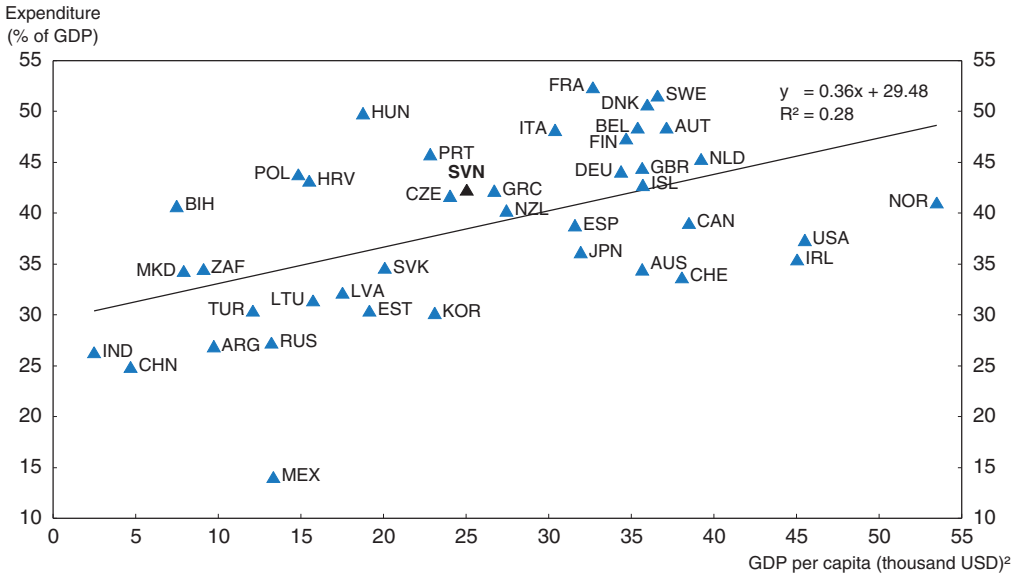
While pension reform is urgent it seems to be politically difficult to implement it and with more and more voters approaching retirement age and becoming pensioners, this could become even more difficult. However, delaying reforms to accommodate ageing – a combination of both pre-funding and pension reform – is costly as well as unfair since it would lead to excessive costs for younger generations. As shown by a simulation of generational accounting for Slovenia (Annex 2.A2), pre-funding clearly favours younger generations compared to a delayed adjustment. While it is mainly illustrative and to be interpreted with caution, this simulation estimates that the pre-funding strategy will provide the new-born generation with net wealth gains of about EUR 35 000 per individual. The simulation also shows that people older than 21 today have a financial interest in delaying the adjustment. Given that they account for the overwhelming majority of voters, the simulation highlights political difficulties of implementing reforms to tackle ageing. The government must therefore find ways and means to convince the public that a fundamental pension reform is urgently needed. The reluctance of the public to such reform may also be caused by a lack of information. The relatively low public sector deficits and debt levels in recent years may also have created an illusion that fiscal sustainability has been attained and even that there is room for more redistribution in favour of pensioners. However, while the explicit public debt is low, the implicit debt by contingent pension liabilities is high. Informing the public about this implicit debt and its adverse effects on the pension system, on the whole fiscal system and on intergenerational equity could help to raise awareness of the need for reform. It is laudable that the government includes in its official budget publications the projections of pension expenditure based on current policies (as a baseline) and of alternative policies; this information policy should be continued and further strengthened. Furthermore, introducing in the pension system automatic adjustments to demographic change as discussed above (such as introducing a NDC pension system, or in the defined benefit system linking the retirement age to life expectancy), makes subsequent and politically difficult amendments to pension law unnecessary and facilitates adjustment.

Restraining public spending…

A major issue for fiscal policy in Slovenia is to determine the proper size and pattern of government spending. The level of general government spending is relatively high as compared to countries with similar living standards (Figure 2.10). Over the last ten years, primary spending has declined somewhat as a percentage of GDP but remains higher than in some other new EU member states with the exception of Hungary where the spending level is higher and the Czech Republic which has a similar spending level (Figure 2.11). In its Stability Programme the government plans to reduce general government spending by 4 percentage points of GDP between 2006 and 2010, but this target will probably be missed due to the new fiscal stimulus package and lower growth. Slovenian authorities have so far not set a ceiling on expenditure growth but there is discussion to limit the growth rate of nominal expenditure to the growth of potential real GDP plus the euro area inflation forecast; as inflation in the euro area tends to be lower than in Slovenia (due to the Balassa-Samuelson effect) this would imply a gradual decline of the share of public expenditure in nominal GDP.

Figure 2.10. **The relationship between the ratio of government expenditure to GDP and per capita incomes: an international comparison**

Data for 2006 or 2007[1]



1. 2004 for Argentina.
2. Calculated using current purchasing power parities.

Source: OECD (2009), *National Accounts of OECD Countries – online database*, February; IMF (2008), *Government Finance Statistics*, International Monetary Fund, December; World Bank (2009), *World Development Indicators – online database*, February; World Bank (2008), *FYR Macedonia – Public Expenditure Review*, Report No. 42155-MK, February; Indian Ministry of Finance (2008), *Indian Public Finance Statistics 2007-2008*; *CEIC database* for China.

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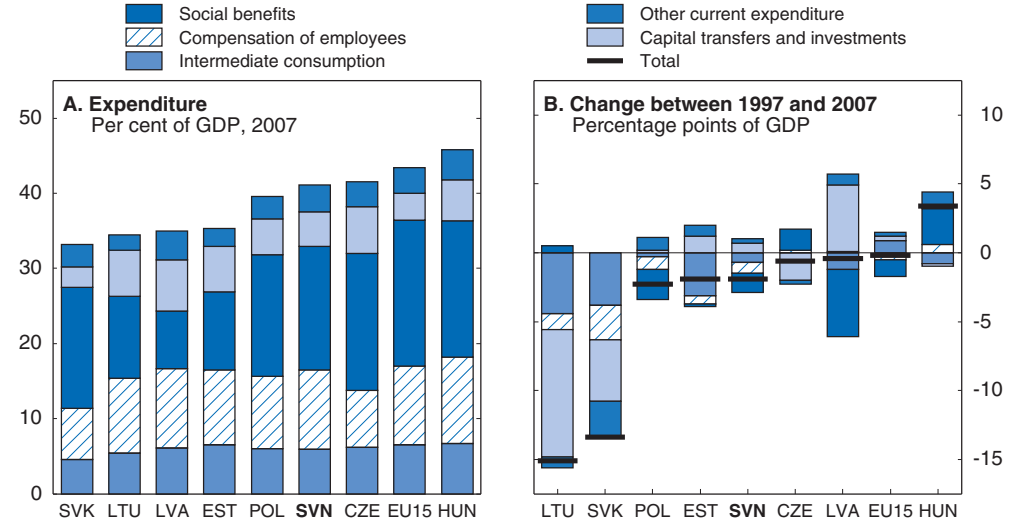
Figure 2.11. **Public expenditure in selected new EU member countries**

General government primary expenditure by economic function



Source: *Eurostat database* (2009), *Economy and Finance*, March.

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Setting a ceiling for expenditure growth is desirable; with such ceiling in place (and enforced) spending control would have been even better, thus improving the starting position for the current economic downturn. However, the effectiveness of an expenditure ceiling also depends on its design. Several OECD countries, notably the Netherlands, Sweden and Finland have in the past been quite successful with setting expenditure ceilings. While the design differs somewhat between the countries, a common feature is the political consensus to consolidate the budget by limiting growth of public expenditure (Box 2.4). Given these considerations, the design of the expenditure ceiling as currently discussed in Slovenia, could perhaps be improved. It would be desirable that: *i)* the ceiling for spending growth refers not only to the central government but also to other government units who should also adopt consistent expenditure ceilings; *ii)* transparency is increased by making the ceiling for growth of real spending explicit, for example by setting it in relation to the expected potential output growth and then calculating nominal expenditure by using the expected inflation rate of Slovenia (GDP deflator or a price index for government expenditure) rather than the inflation rate of the euro area; and *iii)* the political consensus-building is strengthened by a parliamentary vote on the expenditure ceiling.

Box 2.4. **The design of expenditure ceilings in some OECD countries**

When designing a cap on growth of public spending governments have to decide in particular on: *i)* the coverage of levels of government; *ii)* the coverage of spending items; *iii)* nominal or real spending; *iv)* what level of (maximum) spending growth and over which period; and *v)* how to ensure compliance with the rule. In the following we briefly describe the expenditure ceilings in the Netherlands, Sweden and Finland, which have been successful in limiting growth of government spending.*

In 1994, the Netherlands introduced a cap on spending growth which is voted by Parliament at the beginning of a new parliamentary term for the whole government period (four years). The cap is set in real terms for different government units (core government sector, social security and labour market, health care). The real ceiling is converted into a nominal ceiling by using the national income deflator. In the past, interest payments were included in the ceiling but the new ceiling for 2008-11 excludes interest payments, *i.e.* refers to primary spending.

Sweden adopted a spending cap in 1997 which is decided each year by Parliament on a rolling three-years-ahead basis. The cap is set in nominal terms for primary spending of the central government.

Finland introduced a four-year spending cap in 2003; prior to this it had annual expenditure limits. The cap is set in real terms on non-cyclical primary spending of the central government. The nominal expenditure growth is determined by using a deflator for central government expenditure.

* For more details on their experiences and the general design of spending rules see Ljungman, 2008; Bouthevillain *et al.* 2007; Wierts, 2007; Bos, 2007; Roseveare, 2002.

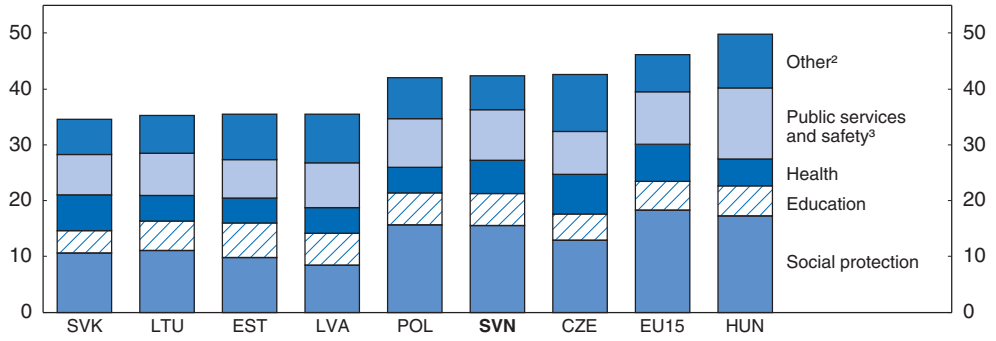
... and improving its efficiency

If efficiency of government spending could be raised, it would be possible to reduce spending as a percentage of GDP without sacrificing outcomes. A main measure to this end is better linking spending performance to budgeting. Over the past ten years, Slovenia has reduced public consumption and transfers and increased capital investment as a per cent

of GDP, but some of the other new EU member countries have gone further in restructuring spending patterns. Slovenia spends more (as a percentage of GDP) on public consumption (intermediate consumption and public wages) and on subsidies than the average euro area country and spends also more on social benefits than several other new EU member countries. The relatively high spending on social benefits is the main reason why Slovenia does not belong to the group of new EU countries with the lowest overall spending levels (Slovak Republic and the Baltic States) (Figure 2.12). One reason for the high social spending may be that in Slovenia the goal of social protection is given a particularly high preference. However, if transfers were better targeted to those in need, social benefits could probably be reduced without violating the goal of social protection. More detailed analysis of public expenditure also suggests that Slovenia has much scope for improving spending efficiency (Mattina and Gunnarsson, 2007).[10]

Figure 2.12. **International comparison of public expenditure by type of spending**

General government expenditure in per cent of GDP, 2007[1]



1. Provisional data for the Slovak Republic and the European Union.
2. Economic affairs; environment protection; housing and community amenities; recreation, culture and religion.
3. General public services, defence, public order and safety.

Source: Eurostat database (2009), *Economy and Finance*, April.

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In the ***health sector***, Slovenia has maintained universal coverage with relatively generous benefits, and consumers in general appear to be satisfied with the provision of health services[11] (Fox, 2003). In the contribution-based public health insurance, co-payments have been introduced which shifted part of the financial burden to private households. This has stabilised the financing of the health sector. Co-payments also aim at containing costs, although this effect is limited, as most consumers have purchased private insurance to cover co-payments. In recent years more funds have been provided to shorten waiting times, but thanks to streamlining measures and helped by the moderate growth of public sector wages, health care spending has not changed much as a share of GDP (IMAD, 2008). Total health care spending is around 8% of GDP and public health care spending is slightly below 6% of GDP, which is among the highest in the new EU member countries but somewhat lower than the EU15 average. The level of health spending per capita (in US dollars at purchasing power parities) is also relatively high in international comparison.

Slovenia has been successful in reducing the oversupply of hospital infrastructure, which was a legacy of the old communist system. While there may still be some excess capacity and room for cost-saving in hospitals, the number of hospital beds (in relation to

the population) is less than in the other new EU member states and the number of practicing physicians is also below average (Table 2.1). The health sector has to cope with continued wage pressures of medical workers and, over the longer-term, also with spending pressures due to the ageing of the population. It is therefore desirable to tap the full potential for improving the efficiency of health spending. This could be done, for example, by better monitoring quality and safety of hospital services and replacing financing of actual costs in hospitals by a system of Diagnosis-Related Groups (DRG) financing, with collectively negotiated compensation rates for expected costs, establishing reference price lists for "mutually interchangeable" drugs and centralising pharmaceutical and medical equipment procurement, and by reviewing the interplay of the system of compulsory public insurance by the Health Insurance Institute of Slovenia (HIIS) and the voluntary health insurers (VHIs) (Mattina and Gunnarsson, 2007).

Table 2.1. **Health care resources in international comparison: practicing physicians and hospital beds**

Per 100 000 inhabitants

	Hospital beds		Practicising physicians	
	1997	2006	1998[1]	2006
Slovenia	**565**	**478**	**219**	**236**
Bulgaria	1 031	621	346	366
Czech Republic	867	817	303	356
Estonia	775	565	306	329
Hungary	818	792	309	304
Latvia	975	759	273	292
Lithuania	1 023	801	374	365
Poland	757	648	233	218
Romania	739	659	188	216
Slovak Republic	815	671	296	316
EU15	669	571	. .	. .

1. 1999 for Romania.

Source: Eurostat database (2009), *Population and Social Conditions*, March.

The ***education sector*** has traditionally been a high priority in Slovenian policy and impressive progress has been made in attaining a relatively high level of education for the whole population. Slovenian children spend as many years in formal education as those in developed OECD countries. Looking at the share of expenditure to GDP, there seems to be no general shortage of resources with total government spending on education slightly below 6% in 2007, which is among the highest of the new EU member states and above the EU15 average of around 5% of GDP; the relatively high spending on education is partly caused by a relatively high wage bill. The government provides the bulk of education spending while private spending is very low and stems mainly from tuition fees for some university programmes. Despite the achievements of education policy, there appears to be room for improving spending efficiency, notably by: *i)* better monitoring outcome indicators (such such as graduation, drop-out rates, academic results and scores in tests) and linking them at the individual school level to the budget process; *ii)* shifting the funding of primary and secondary schools more to per-capita based formulae, linked to the expected cost of service delivery; *iii)* responding to the expected decline of primary and secondary school-age populations by encouraging schools to jointly hire and share new teachers; *iv)* trimming the number of primary school teachers, which is relatively high,

through natural attrition and (selective) hiring freezes, and implement the plan to merge small primary schools; and *v)* pursuing university tuition, introducing student loans and targeting scholarships to lower-income students to insulate them from the impact of higher tuition fees (Mattina and Gunnarsson, 2007).

In the area of ***social protection*** Slovenia has achieved much progress. A major factor was the favourable development of the labour market with unemployment declining from its peak of around 9% in the first half of the 1990s to around 4.5% 2008, which is the lowest among the new EU countries and among the lowest in the EU (see Chapter 3). As a result, the poverty risk after social transfers is relatively low in international comparison. Nonetheless, as shown above, spending on social protection is relatively high in Slovenia. It has been shown that the relatively high transfers (excluding pensions) do relatively little to improve income inequality and reduce poverty. However, efficiency of transfers could be improved by better targeting so that overall spending could decline without increasing inequality and poverty (Mattina and Gunnarsson, 2007).

Making the tax system less distorting for growth

Slovenia has come a long way in establishing a modern tax system although it has followed a more gradualist approach than some of the other new EU countries, such as the Baltic States and the Slovak Republic. After independence in 1991 and the transition from a centrally planned to a market economy, a new tax system and tax administration had to be created. The reforms in the 1990s brought Slovenia's fiscal system closer to the systems in western countries and prepared Slovenia's entry into the EU, which was achieved in 2004. The more recent measures aim at:

- ***Favouring investment, especially foreign, by lowering the corporate income tax.*** The corporate tax rate has been gradually reduced from 25% in 2005 to 23% in 2007, 22% in 2008, and 21% in 2009 and will be further reduced to 20% in 2010. Measures were also taken to broaden the tax base, although tax incentives for investment were introduced which narrow the tax base (such as the 2006 incentives for research and development investment, and in 2008, 30% of the invested amount can be deducted from the tax base, up to EUR 30 000).
- ***Increasing labour supply by lowering the personal income tax.*** Past reforms of the personal income tax led to a reduction in the number of tax brackets and tax rates.[12] Furthermore, in 2006 the synthetic income tax was transformed into a dual income tax with flat rates for capital income while progressive taxation was maintained for active income (from employment and unincorporated business).[13] In 2008, additional general personal income tax allowances were introduced, which reduce the tax burden, in particular for low incomes, and special allowances were reduced and simplified. Personal income tax on employment is deducted at source and only if workers, who do not agree with the scheduled tax liability, are asked to make a tax declaration.
- ***Increasing labour demand by reducing labour costs.*** The payroll tax, which had been introduced in 1996, has been gradually phased out between 2006 and 2009.
- ***Reducing pollution.*** Environmental taxes were strengthened.

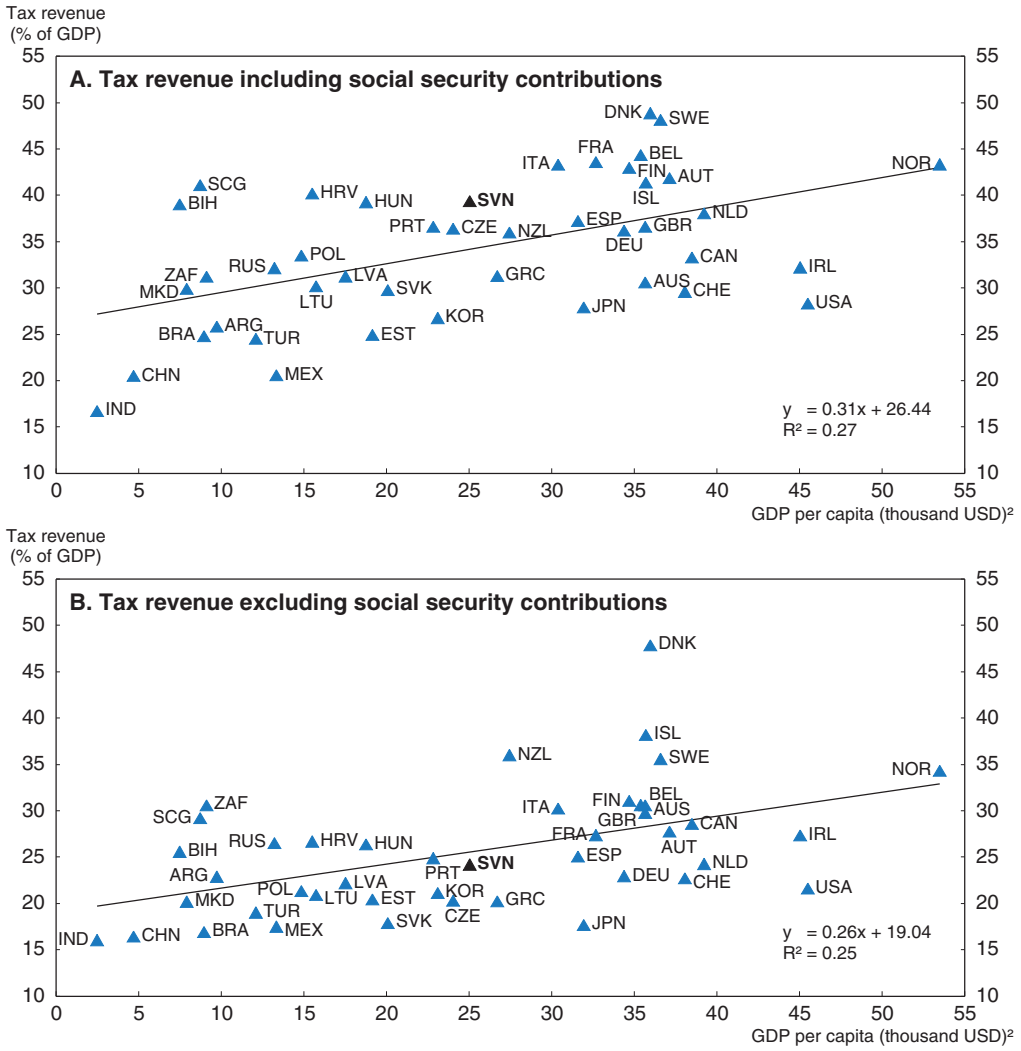
Past and recent tax measures are summarised in Annex 2.A3. This section briefly describes Slovenia's tax system and tries to identify areas where further reform would be desirable. The main consideration is that the overall tax burden should be further reduced, in particular the burden on labour, and that the tax mix should be shifted more onto real property and possibly also to indirect taxes.

The tax burden is relatively high…

Taxes can affect the economy through different channels. In the case of a catching-up country like Slovenia, a key issue is how to develop the tax system and collect taxes efficiently without reducing economic growth and aggravating the divide between the formal and the informal economy. The overall tax burden (of slightly below 40% of GDP) is relatively high by international comparison, considering Slovenia's stage of development (Figure 2.13). Slovenian authorities also perceive the tax burden as too high and are planning to gradually reduce it over the medium term.

Figure 2.13. **The relationship between the ratio of tax to GDP and per capita incomes: an international comparison**

Data for 2006 or 2007[1]



1. 2004 for Argentina, and Serbia and Montenegro.
2. Calculated using current purchasing power parities.

Source: OECD (2009), *National Accounts of OECD Countries – online database*, February; IMF (2008), *Government Finance Statistics*, International Monetary Fund, December; World Bank (2009), *World Development Indicators – online database*, February; World Bank (2008), *FYR Macedonia – Public Expenditure Review*, Report No. 42155-MK, February; Indian Ministry of Finance (2008), *Indian Public Finance Statistics 2007-2008*; *CEIC database* for China.

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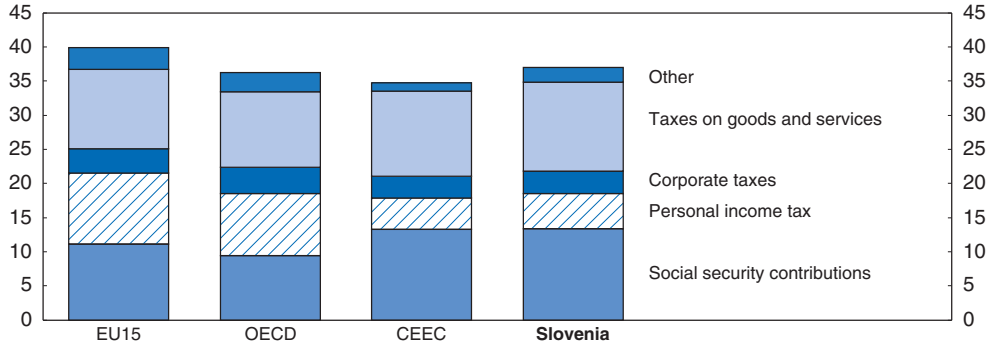
... and mainly levied on consumption and labour

Slovenia relies to a large extent on the taxation of labour and consumption while capital is relatively lightly taxed; in 2007 more than 70% of tax revenues were collected from social security contributions and from taxes on goods and services while revenues from personal income tax amounted to about 14% and from corporate income to less than 9% (Figure 2.14). This tax mix is similar to many other countries that have established extensive social security systems, financed by income-dependent contributions on labour. At the same time, the relatively light taxation of capital aims at attracting business investment, in particular foreign direct investment, in order to accelerate the catching-up of the economy. However, taxes on property are also relatively low although property taxation is less distortive for growth than capital income taxation[14] (Johansson *et al.*, 2008); the revenue from property tax is only 0.6% of GDP and revenue from immovable property is 0.4% of GDP, while OECD countries collect on average 2% of GDP from property tax. As revenues from income and property taxes remain low, relatively high consumption taxes are needed to finance government spending. The implicit tax on consumption is around 24%, which is slightly higher than the EU25 average, and is also higher than in the Czech Republic, Poland and Slovak Republic, although lower than in Hungary (Table 2.2). Slovenia introduced value added tax (VAT) in July 1999 at a rate of 19% (and a reduced rate

Figure 2.14. **Structure of tax revenue**

In per cent of GDP, 2007[1]



1. The zone aggregates are unweighted averages calculated using 2006 data for countries where 2007 data is not available (Australia, Greece, Japan, Mexico and Poland). CEEC covers Central and East European countries that are members of the OECD (Czech Republic, Hungary, Poland and Slovak Republic).

Source: OECD (2008), *Revenue Statistics – online database* and Ministry of Finance.

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Table 2.2. **Implicit tax rates on consumption**

Per cent

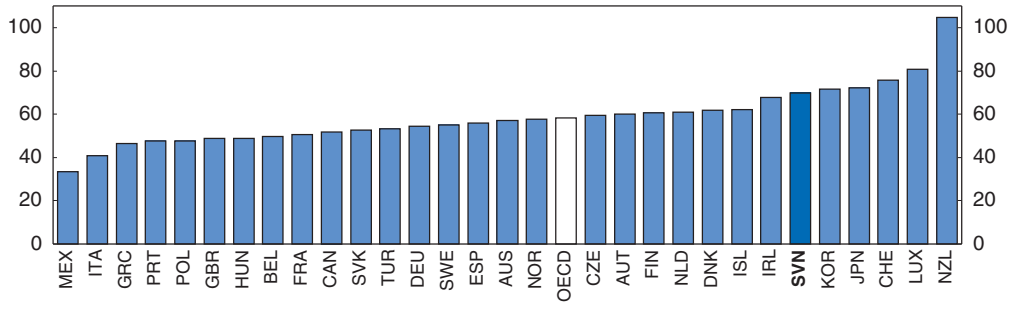
	1995-99	2000-04	2005-06
Slovenia	**24.8**	**24.3**	**24.2**
Czech Republic	20.2	19.8	21.7
Hungary	28.6	26.4	26.1
Poland	20.3	17.9	19.9
Slovak Republic	23.4	20.3	21.2
EU25	21.3	21.2	22.1

1. The implicit tax rate is calculated by dividing revenues of taxes on consumption by the macroeconomic tax base.
Source: EU Commission.

of 8%) and increased the rates in 2002 to 20% and 8.5% respectively. Slovenia achieves a relatively high efficiency in collecting revenues from VAT (Figure 2.15).[15] Revenues from environmental taxes amounted to 3.1% of GDP in 2006, which was above the EU average of 2.6%. The share of these taxes in GDP increased from 3% in 2000 to 3.4% in 2003 but has declined in recent years, also because these taxes are generally based on quantities so that their share declines with rising prices. It is therefore necessary to regularly adjust these taxes, as has been done with the recent increase (see above). Slovenia should further improve the effectiveness of these taxes aimed at achieving environmental objectives by linking these taxes, including those on transportation, more closely to emissions.

Figure 2.15. **Effectiveness of value added taxes as measured by the VAT revenue ratio**[1]

2005[2]



1. The VAT revenue ratio (VRR) is defined as the ratio between the actual value added tax (VAT) revenue collected and the revenue that would theoretically be raised if VAT was applied at the standard rate to all final consumption. This ratio gives an indication of the efficiency of the VAT regime in a country compared to a standard norm. The calculation for Canada is for federal VAT only and the OECD aggregate is an unweighted average of data for the countries shown.
2. 2007 for Slovenia.

Source: OECD (2008), *Consumption Tax Trends* and Ministry of Finance.

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The ***tax on labour*** is relatively high due to high social security contributions while the personal income tax is relatively low. The labour tax wedge for a single worker earning an average wage is currently 42.5% of labour costs; it declined by around 3½ percentage points since 2001, mainly due to the phasing-out of the payroll tax. The progressive income tax and the fact that social contributions are not capped at higher income levels makes the labour tax wedge highly progressive, with rates ranging from around 40% for wages at two-thirds of the average wage to around 56% for wages which are five times higher than the average wage. Prior to the elimination of the payroll tax, the degree of progressiveness of the labour tax wedge was even higher as the payroll tax was also progressive; its elimination thus benefited in particular high-income workers (Table 2.3). High labour tax wedges are not unusual in central Europe and in the EU as a whole. Slovenia's labour tax is above the OECD average and similar to the EU15 average; it is also similar to that in the Czech Republic and lower than in Hungary but higher than in the Slovak Republic (Table 2.4). The relatively high tax burden on labour is also illustrated by the implicit tax rate on labour which remained during the past 10 years at around 38% and above the EU25 average (Table 2.5).

Table 2.3. **Development of labour tax wedges for single earners at different wage levels**

Per cent

Wage levels (% of average)	67%	Average	167%	300%	500%
Labour tax wedge[1]					
2001	43.5	46.2	50.9	56.6	62.6
2005	41.8	45.6	52.3	59.0	62.1
2008	40.2	42.7	48.0	54.7	57.5
2009	39.9	42.5	47.6	53.3	56.1
Change 2001-09 (% points)	–3.6	–3.7	–3.3	–3.3	–6.5
Components of tax wedge					
Personal income tax					
2001	8.5	11.1	15.9	19.4	22.2
2005	6.8	10.5	15.1	18.5	21.6
2008	6.7	9.2	13.8	19.3	22.2
2009	7.0	9.6	14.7	20.4	23.2
Employee contributions to social security					
2001	18.4	18.4	18.4	17.8	16.9
2005	18.4	18.4	17.8	16.9	16.9
2008	18.9	18.9	18.7	18.3	18.3
2009	19.0	19.0	19.0	19.0	19.0
Employer contribution to social security					
2001	13.3	13.3	13.3	12.8	11.5
2005	13.4	13.4	13.0	12.3	12.3
2008	13.7	13.7	13.6	13.4	13.4
2009	13.9	13.9	13.9	13.9	13.9
Payroll tax					
2001	3.3	3.3	3.3	6.5	12.2
2005	3.2	3.2	6.3	11.3	11.3
2008	0.9	0.9	1.9	3.7	3.7
2009	0.0	0.0	0.0	0.0	0.0

1. As a percentage of labour costs.
Source: Ministry of Finance.

Table 2.4. **Labour tax wedges for single earners in international comparison**

In per cent of labour costs, 2007

Wage levels (% of average)	67%	Average	167%
Slovenia (2009)	**39.9**	**42.5**	**47.6**
Czech Republic	40.5	42.9	46.7
Hungary	45.9	54.4	58.6
Poland	41.6	42.8	43.8
Slovak Republic	35.6	38.5	40.5
OECD average	33.8	37.7	42.1
EU15 average	38.0	42.5	47.7

Source: OECD (2007), *Taxing Wages, 2006-2007* and Ministry of Finance.

The tax wedge on low wages increases labour costs for low-skilled workers and for young people who want to enter the labour market, thus tending to reduce their employment opportunities. Indeed, labour participation is relatively low in younger and also in older age groups, and these groups appear to be more vulnerable to labour taxes

Table 2.5. **Implicit tax rates on labour**

Per cent[1]

	1995-99	2000-04	2005-06
Slovenia	**37.9**	**37.6**	**37.6**
Czech Republic	40.3	41.1	41.4
Hungary	43.0	40.0	38.4
Poland	36.1	32.9	33.8
Slovak Republic	38.3	36.2	31.6
EU25	35.9	35.6	34.9

1. The implicit tax rate is calculated by dividing labour tax revenue by the macroeconomic tax base.
Source: EU Commission.

than workers at prime-age. For example, working students get a special allowance, which reduces their labour tax burden considerably, but after finishing studies they are faced with the same labour tax wedge as other workers and often have difficulty finding a job in the formal sector. High labour taxes also have adverse effects on labour participation of older workers and add to the early retirement incentives of the pension system. While labour participation of prime-age workers is high in Slovenia, there is also anecdotal evidence that labour taxes lead to evasion by informal work in second jobs. The relatively high labour tax wedge on high wage earners also bears the risk of brain drain of highly qualified workers. Furthermore, as the labour tax is much higher than the tax on dividends, it provides incentives for tax evasion by transforming wages into distributed capital income.

Challenges for future tax reforms

A key challenge for tax policy is to further reduce tax distortions in the labour market while at the same time creating enough revenues for social security. A way to achieve this objective is to make government spending more efficient so that the labour tax burden and the tax-to-GDP ratio can be reduced without putting fiscal consolidation and public service provision at risk. Tax policies should focus on reducing employer contributions to social security. To compensate revenue losses, the government should: *i)* examine tax provisions to determine if and how base broadening could be achieved; *ii)* raise property taxation;[16] *iii)* (possibly) raise the tax on dividends (which would also reduce incentives to transform labour income into capital income); and if this is not sufficient *iv)* finance remaining revenue shortfalls by raising indirect taxes. However, an increase in VAT should only be considered after the economy has strengthened again, and domestic demand is resilient enough to cope with such a measure. Tax reforms should also improve the design of environmental taxes by strengthening the link to pollution.

Box 2.5. **Policy recommendations for keeping public finances on a sustainable path and improving efficiency**

Fiscal policy during the current downturn

- The low debt-level provides room for temporary discretionary fiscal policy in 2009 along the lines of the EU coordinated strategy. But, Slovenia should prioritise measures that help foster its potential growth in the following years (*e.g.* public investment or expenditures in human capital; tax deductions supporting investment, research and development, etc.) and avoid the ones that could have a negative impact on long-term sustainability.
- The authorities should ensure that, as the recovery takes hold, fiscal policy returns to a strict course of consolidation.

Controlling spending and making it more efficient

- The control of government spending should be strengthened by setting a ceiling for multi-annual expenditure growth. The expenditure ceiling should be transparent and as broad as possible and it should be voted in Parliament.
- The government should be improved by better linking spending performance to budgeting.
- The efficiency of social transfers should be improved by better targeting so that transfers could decline without increasing inequality and poverty.

Ensuring long-term sustainability of the fiscal system

- The strategy of partially pre-funding ageing costs – among the highest in the EU – should be resumed as soon as the crisis subsides by running a balanced budget over the medium term.
- The pension system should be made more transparent.
- The increase in pensionable ages for women foreseen in the 1999 Pension and Disability Insurance Act should be accelerated.
- The pensionable age should be further increased for both genders, possibly taking into account advice from an expert commission when deciding about the size of the necessary increase. Once the increase has been phased in, and life expectancy at the full pensionable age has reached a suitable level, additional increases in the pensionable age should be linked to gains in life expectancy and the length of the pension qualifying period should be raised accordingly. The retirement conditions for women should be aligned with those for men.
- Lowering the replacement rate, *e.g.* by shifting the indexation of pensions from wages to prices or extending the contribution period to receive a full pension
- Consideration should be given to transforming the current defined benefit scheme into a notional defined contribution scheme.

Making taxes less distorting for employment and growth

- If government spending is made more efficient, the tax-to-GDP ratio can be reduced without putting fiscal consolidation and public service provision at risk.
- The tax structure should evolve toward lower taxation on labour and higher taxation on real property and indirect taxes. However, an increase in the value added tax should only be considered after the economy has strengthened again and domestic demand is resilient enough to cope with such a measure.

Notes

1. Pre-accession Economic Programmes were released in August each year. The first Convergence Programme was issued in May 2004 and updated in December 2004, while the others have been published in December each year.
2. A specific fund was created for this purpose but it can only cover the 2008 wage increase.
3. This political economy argument of shifting the transition costs to the social insurance system was suggested for Poland by Keane and Prasad (2000), but was probably also relevant for other of the new EU member countries including Slovenia.
4. According to Eurostat estimates, the average age of retirement of all workers was 59.8 years in 2006 as compared with 61.2 years on average in the EU. According to the Pension and Disability Insurance Institute, men retire at 60 years and 4 months on average, while women at 57 years and 2 months. From 2000 to 2004, the average age of new old-age pension recipients increased steadily under the general rules but the rise stopped in 2005 and 2006.
5. The private funded pension is only obligatory for certain occupations, where employment until full retirement age is unlikely, but is voluntary for other workers.
6. The sustainability gaps S1 and S2 have increased recently due to the deterioration of the cyclically-adjusted primary balance. In its earlier calculations which were based on the fiscal starting position of 2006, the S1 gap for Slovenia was 3.5% of GDP and the S2 gap was 7.0% (European Commission, 2008).
7. A conservative assumption, as Slovenia's sustainable growth was estimated at about 4% by the European Commission during the last decade.
8. The very gradual increase in the retirement age for women is typical of Slovenia's consensus based policy approach which requires the agreement of the social partners on any legislative changes within the *Economic and Social Council*.
9. Intergenerational equity or actuarial neutrality across generations is achieved if the burden of initial explicit and implicit public debt is shared equally between the current and future generations and each generation covers the actuarial value of its future pensions by contributions (Beetsma and Oksanen, 2008).
10. Mattina and Gunnarsson (2007) have made an attempt to measure the efficiency of government spending in Slovenia in the areas of health, social protection and education. They applied Data Envelope Analysis (DEA), a technique that compares public spending (input) and outcomes across countries and uses best-performers at the various input levels (countries at the frontier) as reference. They found that in all three areas the outcomes in Slovenia are far less than in the best-performing countries with similar spending levels.
11. According to a public opinion poll in 1999, a significant majority of the population was satisfied with their general practitioners and their pharmacists, but they were slightly less satisfied with the specialist outpatient and dental services. The causes for dissatisfaction involved primarily waiting times and complicated administrative procedures. People generally thought that introducing private practice will improve the quality of health care, and those treated by private practitioners demonstrated a higher level of satisfaction than those treated by publicly employed physicians (Jakubowski, 2002).
12. 1991: five income brackets, rates between 19-45%; 1994: six brackets, rates between 17-50%; 2005: five brackets, rates between 16-50%; 2007: three brackets, rates 16%, 27% and 41%.
13. The main objective of the dual income tax is promoting investment and preventing capital from flowing abroad. Capital income (dividends, interest, and capital gains) is taxed at a single rate of 20%. Interest income, under the Savings Directive and paid to individuals with residence in another EU country, are not taxed and interest income on bank deposits of domestic individuals are not taxed up to EUR 1 000.
14. In Slovenia, the taxation of real property affects only large residential property and secondary houses.
15. The VAT revenue ratio as used here is, however, a very crude proxy for the efficiency of VAT collection as it does not only reflect the efficiency of tax administration but is also affected by tax exemptions, reduced rates and other special regimes.
16. Establishing a broader based real property tax should be accompanied by reducing transfers to municipalities. Such a reform will meet political resistance which could, however, be overcome by making the property tax progressive. The system of municipality financing was, however, only reformed in 2007 and municipalities no longer receive part of personal income tax as this has favoured the city of Ljubljana.

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ANNEX 2.A1

The Convergence and Stability Programmes of Slovenia and actual fiscal developments

As outlined above, the fiscal balance has improved more than planned in the medium-term programmes. To understand the underlying factors for the over-performance of recent fiscal projections, we have analysed the annual programmes from 2002 to 2006 by dividing the difference between forecasted and actual change in fiscal balance into three determinants, namely the differences in: the revenue-to-GDP ratio, GDP growth, and nominal expenditures. The first factor (the difference between projected and actual changes in the revenue-to-GDP ratio) is affected by changes in tax elasticity and by new fiscal measures. The two last factors divide the difference between projected and actual changes in the expenditure-to-revenue ratio into the difference between projected and actual nominal GDP growth, and the difference between projected and actual expenditure. The main findings are:

- The better-than-expected fiscal balance is mainly attributable to higher-than-projected nominal GDP growth in the 2004, 2005 and 2006 programmes.
- Higher-than-expected revenues (relative GDP), caused by higher tax elasticity or new fiscal measures, have also contributed to the improvement of the fiscal position in the more recent programmes.
- By contrast, actual expenditure growth has been higher than projected, which shows a lack of expenditure control in 2006 and 2007. By contrast in the programmes of 2002 and 2003 actual expenditure growth was lower than projected which suggests that expenditure controls have been weakened more recently.

Our analysis of the programmes focuses on the difference between the projected and the actual changes in the fiscal balance for individual years. To neutralise the impact of data revision for the year of reference (usually the current year of a given programme), we compare not the difference in the deficit level but the difference between the projected and actual change in the deficit. This difference is divided into three factors (see Box 2.A1.1 for details; for a similar study, see Moulin, L. and P. Wierts [2006], "How Credible are Multiannual Budgetary Plans in the EU?", *Fiscal Indicators*, Bank of Italy, Proceedings from the Public Finance Workshop, Perugia, 30 March-1 April):

- The first factor relates to the difference between projected and actual nominal GDP growth. If actual growth is higher than projected, government revenues tend to be higher (with unchanged revenue-to-GDP ratio) and the expenditure-to-GDP ratio tends to be lower (with unchanged nominal expenditures) so that the fiscal deficit is lower than expected.

- The second factor relates to the difference between projected and actual nominal expenditure growth.
- The third factor relates to the difference between the projected and the actual revenue-to-GDP ratio. This difference can be caused by a change in the tax elasticity (as compared with the projection) and/or by new revenue measures.

Box 2.A1.1. **Underlying factors explaining the gap between the forecasted and actual balance**

We unbundle the gap between the forecasted and the actual change in fiscal balance between a given future year and the reference one. First, this can be analysed through the change in two factors: the revenue-to-GDP and expenditure-to-GDP factor. The second factor can be unbundled once again to separate the impact of the gap between forecasted and actual GDP growth from the gap between forecasted and actual nominal expenditure growth.

Let us define D_0^F the forecasted expenditure-to-GDP ratio of the reference year of a given programme (for example 2005 in the 2005 programme); D^F the forecasted expenditure-to-GDP ratio in the future year (for example 2006 in the 2005 programme); D_0^A the actual expenditure-to-GDP ratio for the reference year (using Eurostat figures) and D^A the actual expenditure ratio for the future year (*i.e.* 2005 in our example). We use the same conventions for GDP (*Y*).

The factor to unbundle is the gap between the forecasted change in the expenditure-to-GDP ratio and the actual one:

$$\Delta = \left(\frac{D^F}{Y^F} - \frac{D_0^F}{Y_0^F}\right) - \left(\frac{D^A}{Y^A} - \frac{D_0^A}{Y_0^A}\right)$$

This can be rewritten as:

$$\Delta = \frac{D^F}{Y^F} - \frac{D^A}{Y^A} + \frac{D_0^A}{Y_0^A} - \frac{D_0^F}{Y_0^F}$$

Or:

$$\Delta = \frac{D^F - D^A}{Y^F} - \frac{D^A}{Y^A}\left(1 - \frac{Y^A}{Y^F}\right) - \frac{D_0^F - D_0^A}{Y_0^F} + \frac{D_0^A}{Y_0^A}\left(1 - \frac{Y_0^A}{Y_0^F}\right)$$

Or:

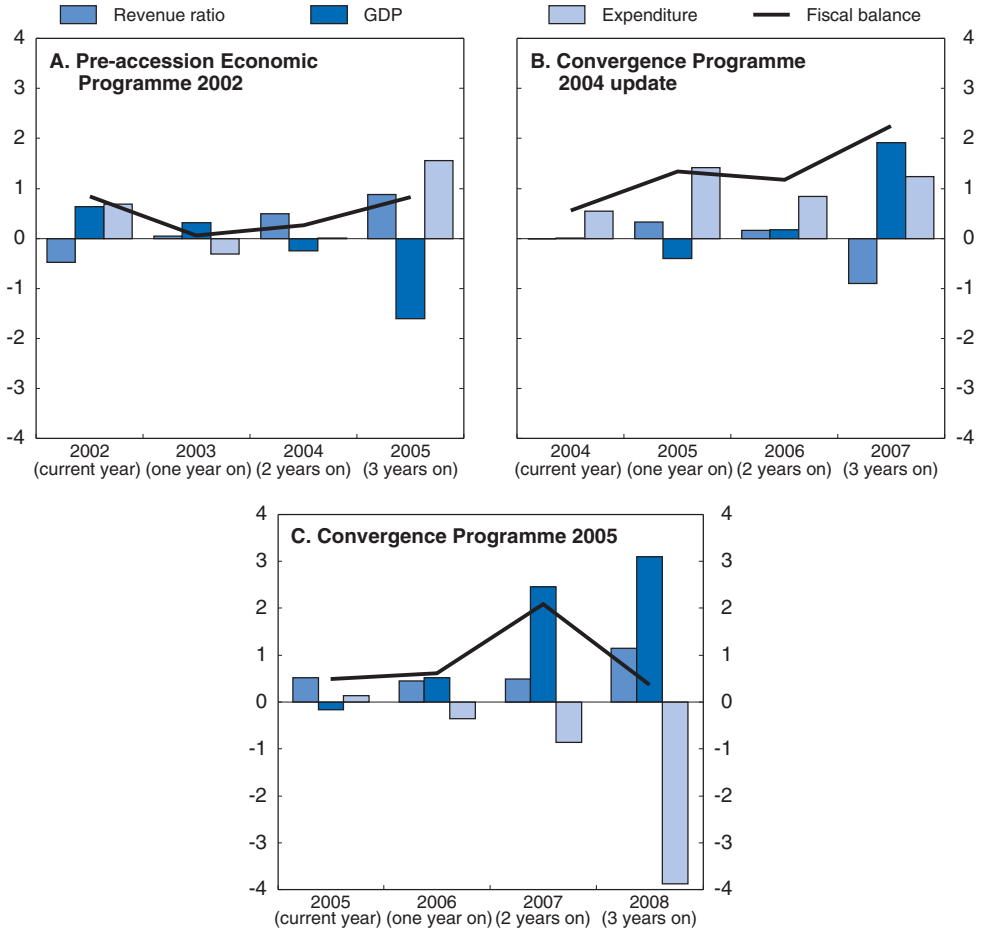
$$\Delta = \frac{D^F - D^A}{Y^F} - \frac{D_0^F - D_0^A}{Y_0^F} + \frac{D_0^A}{Y_0^A}\left(1 - \frac{Y_0^A}{Y_0^F}\right) - \frac{D^A}{Y^A}\left(1 - \frac{Y^A}{Y^F}\right)$$

In the former, the first term relates to the error in forecasting *changes in nominal expenditures* accurately. It implicitly compares forecasted growth of expenditure with the actual one for both years. The second term relates to the impact on the expenditure-to-GDP ratio of the error in forecasting the GDP growth accurately. We assimilate this to the impact of automatic stabilisers.

Figures 2.3 and 2.A1.1 show the results for the Convergence and Stability Programmes 2002 to 2006. In all programmes, the fiscal balance improved more than projected; this is illustrated by the solid line in the figures, which was always positive, with the exception of the first two years of the 2003 programme and the third year of the 2004 programme. While in the programmes of 2002 and 2003 the assumption about nominal GDP growth was too optimistic, in the programmes 2004, 2005 and 2006 actual growth was

Figure 2.A1.1. **Deviation between the actual and the projected change of the fiscal balance and the main causes of the deviation**[1]

Gap between actual and forecasted change, per cent



1. Cumulative data from the reference year, *i.e.* the year before the programme.

Source: Republic of Slovenia (2002), *Pre-accession Economic Programme*; Republic of Slovenia (2004), *Convergence Programme – Update* and Republic of Slovenia (2005), *Convergence Programme*.

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higher than projected. In the programme of 2002 both a higher-than-projected revenue-to-GDP ratio and lower-than-projected expenditure growth contributed to the improvement in the fiscal balance while in the programme of 2003 the lower-than-projected expenditure growth was the only source for the improvement of the fiscal balance (as compared with the projection); this improvement was, however, very small as the revenue ratio and GDP growth were lower than projected. The development was quite different in the last three programmes (2004, 2005 and 2006) as actual expenditure growth in 2006 and 2007 turned out to be higher than projected for these years in the programmes. This was, however, compensated by the stronger GDP growth and by a higher-than-projected revenue ratio.

For example, in the programme published at end-2006 (Figure 2.3), the fiscal deficit was expected to reach –1.6% of GDP in 2008 from a deficit of –1.4% in 2005 (provisional data in the reference year). The 2006 programme was therefore projecting a small fiscal deterioration of 0.2 percentage point from 2005 to 2008. The actual deficit turned out to be

identical to provisional data in the reference year 2005 (–1.4% of GDP), but better than expected in 2008 (–0.9% of GDP), an improvement by 0.5 percentage point, rather than the projected deterioration by 0.2 percentage point, which implies an improvement of 0.7 percentage point (= 0.5 + 0.2) as compared with the programme; this is illustrated by the solid line in Figure 2.3. The better-than-expected GDP growth ("automatic stabilisers") improved the fiscal balance (as compared with the projection) by 2.5 percentage points and the higher revenue-to-GDP ratio by 1.9 percentage points, while the higher-than-projected expenditure growth contributed to a deterioration of the fiscal balance by 3.8 percentage points of GDP.

ANNEX 2.A2

Generational accounting: An illustrative simulation of the wealth impact of ageing pre-funding on younger and older generations

Using a generational accounting framework (drawing on a framework applied to France by J.-F. Ouvrard, 2007, and drawing from Auerbach *et al.*, 1994 and 1999, and Langenus, 2006), this annex aims at illustrating the impact on generations' net wealth of maintaining fiscal sustainability despite rising ageing costs through two alternative options. The first option seeks to ensure sustainability through an immediate and permanent increase in taxes while the second option tries to achieve this goal through a gradual and yearly adjustment of tax level. By simulating these two scenarios, we can analyse the resulting fiscal balance and debt path for each scenario over the simulation period and compare them to the baseline scenario (no adjustment made to ensure fiscal sustainability). Based on assumptions about how each generation benefits from public expenditure and contributes to fiscal revenues, projected fiscal balance paths help us derive generation net wealth for each scenario. By comparing these results we can identify which generations will have net losses or gains depending on the scenario.

More specifically, assumptions made for the baseline scenario (*i.e.* spontaneous evolution of debt and fiscal balance resulting from macroeconomic projections and ageing) are the following:

- Macroeconomic projections from the European Commission Economic Policy Committee working group on Ageing Populations (AWG) for 2007-60.
- Demographic projections adopted by the AWG (2007-60).
- Provisional expenditure projections related to ageing (pensions, health, long-term care, unemployment and education) from AWG for 2007-60. Beyond 2060, ageing expenditures are assumed to stabilise. Other primary expenditures are assumed to be constant as a share of GDP. Interest expenditures are linked to the debt level with an interest rate assumption of 5%. Ageing projection assumptions are summarised in Table 2.A2.1.
- Pension and long-term care expenditures are assumed to benefit only those aged over 62 and education expenditure only those aged under 23. Both are equally attributed among people of these age groups. Unemployment expenditures are equally attributed to those aged between 23 and 63. Health expenditures follow a more complex age profile as assumed for the AWG. Other primary expenditures are equally attributed to all age groups. The combined public expenditure benefiting individuals of a specific age group is summarised in panel A of Figure 2.A2.1.

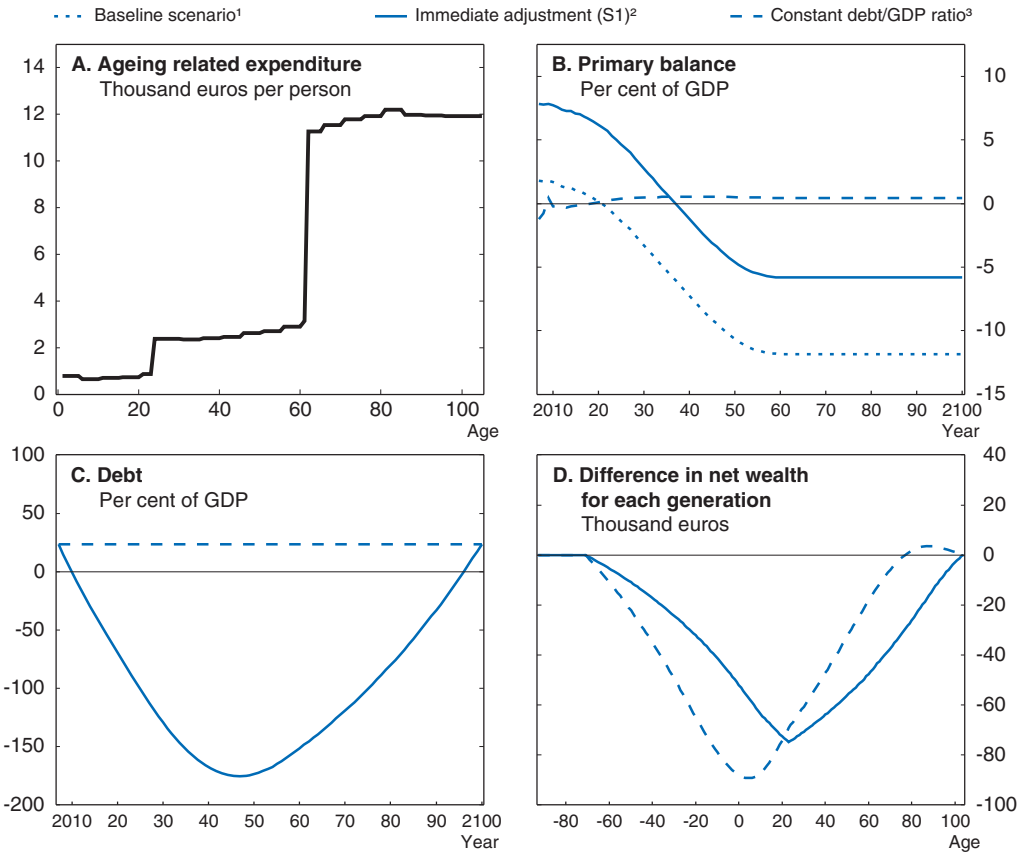
Table 2.A2.1. **Ageing projection assumptions**[1]

Expenditure in per cent of GDP, 2007-60

Pension	Health	Long-term care	Unemployment	Education
+8.7	+3.5	+1.2	0.0	+0.2

1. Provisional.

Figure 2.A2.1. **Impact on generation's net wealth of maintaining fiscal sustainability**



1. Unchanged policies.
2. Targeting the primary balance that would lead to a debt/GDP ratio of 23.4% in 2100.
3. Targeting the primary balance that would keep the debt at 23.4% every year.

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The two policy scenarios share the assumptions of the baseline scenario. But, to ensure fiscal sustainability, taxes (and hence the fiscal balance and the debt level) are further adjusted using two different kinds of assumptions. For the first scenario, the full pre-funding of ageing costs is achieved through improving tax revenues permanently by an amount equivalent to the European commission "S1" tax gap indicator. The S1 indicator is estimated by targeting a specific debt target at the end of the simulation horizon which is long enough (2100) to be able to better compare some generations (but the limited time-horizon makes it impossible to compare all). For the sake of simplicity, this debt target is set identical to the debt level of the first year of the simulation (2007), namely 23.4% of GDP

(an alternative simulation base on a target of 60% of GDP does not change the main conclusions). This option requires that the tax level increases once and for all by an amount identical to the tax gap estimate. The second option aims at keeping the debt level ratio identical to 23.4% of GDP throughout the projection period. Consequently, the tax level is adjusted every year so that the fiscal balance is always the debt stabilising balance.

The simulation result for the baseline scenario shows that the fiscal primary balance turns negative from a surplus of 1.8% of GDP into a deficit as soon as 2021 and from there keeps deteriorating to reach a deficit of 11.8% of GDP from 2060 onwards (Panel B). This deterioration stems from the increase in ageing related expenditure totalling 13.6% of GDP by 2060. In the baseline scenario, the debt level reaches 386% of GDP in 2060 and 1 500% in 2100, assuming that no structural reform is implemented during this period to reduce aging costs. This scenario is not meant to be realistic but just to serve as a reference for the two alternative scenarios. In the first one, the target of a debt level of 23.4% of GDP in 2100 is achieved through an immediate pre-funding of the ageing costs, amounting to an increase in taxes of 6% of GDP (tax gap estimate). This leads to a primary fiscal surplus of 7.8% in 2007 that turns into a deficit in 2037 and stabilises at –5.8% from 2060 (Panel B). As a consequence, the debt level becomes negative in 2010 and leads to an accumulation of net assets peaking at 175% of GDP in 2047. From there, net assets progressively decrease and the debt reaches again 23.7% of GDP in 2100 (Panel C). The second alternative scenario seeks to keep the debt level constant at 23.4% throughout the period (Panel C). This results in a roughly balanced primary balance during the period (Panel B).

By attributing the yearly amount of expenditure and taxes to each individual based on his or her age group, it is possible to estimate the net contribution of each individual to the fiscal balance each year for each scenario. Not surprisingly, for all scenarios, people aged above 62 are net beneficiaries owing to the pension and health expenditure received. Individuals aged below 23 are also net beneficiaries since they receive education expenditure and pay no taxes. Generations between the age of 23 and 62 are net contributors. Using these yearly net contributions, life net wealth can be estimated (using the 5% interest rate assumption as the actuarial rate, and based on demographic assumptions). It is then straightforward to examine how this net wealth evolves for each generation depending on the alternative scenarios and compare them to the baseline scenario. Panel D shows the difference in the net wealth for each generation based on each alternative scenario (negative ages represent generations still to be born). We can see that all generations are worse off under the scenario without adjustment, which is normal since this baseline scenario implicitly assumes that all ageing costs are passed on to the next generations. This simulation partially allows for comparing generation wealth. The comparison is only partial since it is impossible to simulate the full life profile of generations to be born. Still, we can see that for younger generations, the strategy of full pre-funding leads to an increase in net wealth while it has the opposite effect for older generations (in Panel C, generations benefiting from no pre-funding are those aged 21 and older in 2007). For example, for the generation born in 2007 (age 0 in Panel D), the net gain from full pre-funding compared to a gradual adjustment is about EUR 35 000. This illustrates the fact that pre-funding ageing cost is shifting part of the burden of financing ageing from the younger to the older generations. Consequently, adopting a partial pre-funding of ageing costs is a way to ensure a more equitable burden sharing among generations.

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ANNEX 2.A3

Main tax reforms

	Personal income tax
1991	Introduction of a synthetic personal income tax. It has five tax brackets with marginal tax rates of 19%, 28%, 35%, 40% and 45%. The main exemptions are: different transfer income, interest on bank deposits, capital gains on the sale of shares and other securities, including investment coupons. There is no general allowance but there are several other allowances (such as for families, students and older workers).
1994	Introduction of six tax brackets with marginal tax rates of: 17%, 35%, 37%, 40%, 45% and 50%; introduction of a general allowance and maintaining of allowances for families students and older workers.
2005	Introduction of five brackets with marginal tax rates of: 16%, 33%, 37%, 41% and 50% (for 2005 16%, 33%, 38%, 42% and 50%).
2006	Implementation of the dual income approach with active income (mainly from employment and business) taxed at progressive rates and passive income (capital income) taxed at proportionate rates (interest: 20%, 15% in 2006 and 2007; dividends: 20%; capital gains are taxed from 20% to 5%, depending on the period of holding; full exemption from taxes after 20 years).
2007	Introduction of three tax brackets with marginal tax rates of: 16%, 27% and 41%.
2008	Increase of the general and special allowances. New investment incentives for business income.
	Corporate income tax
1991	Tax rate 30%; withholding tax on dividends: 15%; income from interest and royalties is exempt from withholding tax; investment reserve 10% of the tax base.
1994	Increase of tax rate on dividends for residents to 25% (15% for non residents).
1995	Reduction of tax rate to 25%.
2003	Broadening of tax base by reducing investment and depreciation allowances.
2005	Withholding tax on dividends, interests and royalties 25%; implementation of EU Directives (Parent-Subsidiary, Merger, and Interest and Royalties); general employment relief, general investment relief, relief applicable to voluntary supplementary pension insurance schemes, relief applicable to donations.
2006	Introduction of new incentive for research and development; adoption of International Accounting Standards principles.
2007	Gradual reduction of tax rate: 2007 23%, 2008 22%, 2009 21%, 2010 and beyond 20%.
	Payroll tax
1996	Introduction of payroll tax with rates of: 0%, 1%, 2%, 3%, 4% and 10%, depending on the level of an individual wage.
2006	Gradual elimination of payroll tax: maximum rates 11.6% in 2006, 8.9% in 2007, 4.4% in 2008 and abolished in 2009.
	Social contributions
1991	Social security rates for employees, altogether 22.7% and for employers altogether 23.3%.
1996	Reduction of rates for employees to 22.1% and for employers to 15.9%.
	Indirect taxes
1992	Retail sales tax (standard rates: sale of goods 20%, sale of services 5%).
1992-04	Introduction of special consumption taxes for mineral oil and gas, tobacco products, alcohol and gambling.
1996	Introduction of CO_2 tax (under Environment Protection Act from 1994).
1999	Introduction of value added tax (VAT, based on EU directives) with a standard rate of 19% and a reduced rate of 8%. Reform of special consumption taxes (based on EU directives).
2002	Increase of VAT to 20% and 8.5% respectively.
2004-07	Introduction of new taxes for environment protection (water abstraction tax, landfill tax, tax on generation of waste, electronic and electrical equipment tax on used end-of-life vehicles, CO_2 tax, tax on lubricant oils, tax on generation of packaging waste, tax on generation of waste pneumatic tyres, tax on use of volatile compounds.

Source: Based on information provided by the Ministry of Finance.

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Chapter 3

Improving the functioning of the labour market

Labour market outcomes have improved markedly in the past years as the beneficial effects of the economic upswing were reinforced by important structural reforms. With the economy on the verge of a severe economic downturn, it is important to avoid alleviating measures that adversely affect the functioning of the labour market in the long run. Moreover, several structural challenges remain which require further reform efforts. Firstly, to raise labour force participation of the elderly the pension system needs to be reformed by removing incentives for early retirement and facilitating gradual exits from the labour force. Secondly, to increase employment rates of younger age cohorts, the length of tertiary studies needs to be reduced by strengthening incentives for rapid graduation. Moreover, potential negative employment effects associated with the relatively high minimum wage compared to the average wage should be avoided. Thirdly, to combat increasing labour market dualism, employment protection legislation on regular work contracts needs to be eased once the current economic crisis subsides and the preferential treatment of student work should be phased out.

Labour market performance has been improving…

Along with the strong economic growth of recent years, labour market performance has improved markedly. Between 2003 and mid-2008 the employment rate increased by 5 percentage points to around 69%. With labour force participation roughly constant throughout this period the rise in aggregate employment was mainly reflected in a fall in the unemployment rate which came down from 6.7% in 2003 to 4.2% in mid-2008. In 2007 Slovenia had the lowest unemployment among the Central and East European OECD countries (Figure 3.1, panel A). Estimates of the NAIRU – the rate of unemployment consistent with non-accelerating inflation – suggest that the fall in unemployment was mostly cyclical with the unemployment rate falling substantially below the estimated level of the NAIRU, especially in 2007 and 2008 (Figure 3.2 and Annex 3.A1). This is in line with relatively high wage growth in these years.[1] Nonetheless, the beneficial effects of the economic upswing seem to have been reinforced by important structural reforms (Box 3.1) that have been associated with a gradual decline in the NAIRU over time.

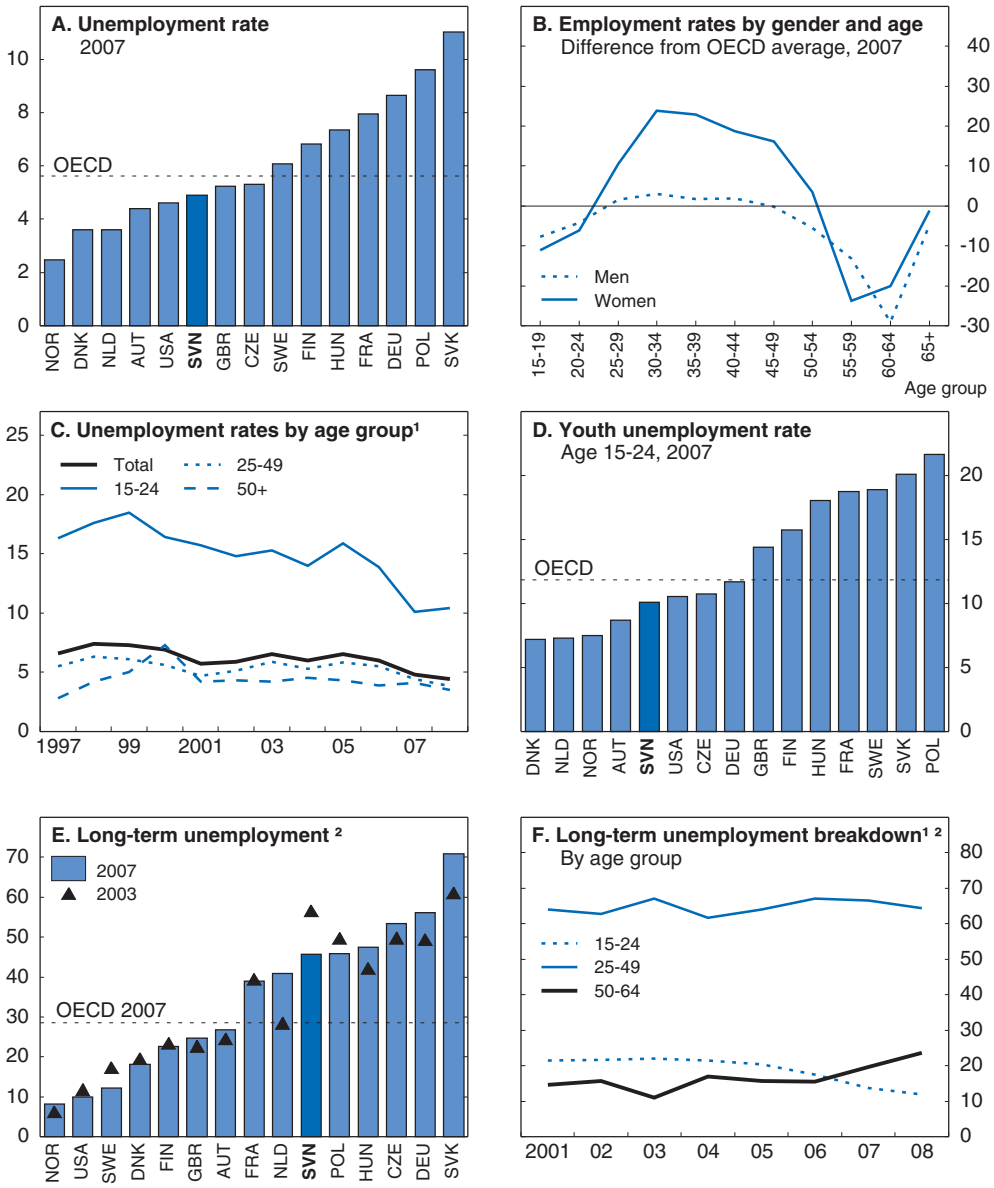
Although aggregate employment is close to the OECD average of 70%,[2] large disparities remain across different age groups and across groups of different educational attainment. While employment rates are around the OECD average for men aged 30 to 49 and well above the OECD average for women in that age group, they are very low for the elderly, reflecting low participation rates (Figure 3.1, panel B). In 2007 only 47% of those aged 55 to 59 and only 17% of those aged 60 to 64 participated in the labour force compared with OECD averages of respectively 66% and 43%. The low participation of older age cohorts is mirrored in low effective age retirement ages of around 60⅔ years for men and 57½ years for women.[3]

The employment rates of those aged 15 to 24 are also lower than in the average OECD country (Figure 3.1, panel B), reflecting a high participation of youth in education and a longer duration of education. The unemployment rate of those aged 15 to 24 has fallen considerably in the past years, coming down from 15% in 2003 to below 10% in 2008 (Figure 3.1, panel C). Particularly lower-skilled youth (without upper secondary education) benefited from this development. Favourable economic conditions as well as active policy measures to integrate the youth into the labour market are the main factors behind the decline in youth unemployment. In addition, the fact that smaller generations of young people are entering the labour market due to the ageing process may have contributed to this development. While unemployment is still much more prevalent among the youth than among other age groups, Slovenia performs better than many other OECD economies (Figure 3.1, panel D).

Along with the decline in overall unemployment, the pool of long-term unemployed has also been reduced in recent years. Past labour market reforms such as the tightening of eligibility criteria for unemployment benefits and active labour market policies (ALMP) aimed at upgrading the skills of those unemployed, who are unable to return directly from unemployment to a new job, are likely to have contributed to this development (Box 3.1).

Figure 3.1. **The Slovenian labour market**

Per cent



1. The reliability of results of the detailed unemployment data by age and gender may be affected by the small sample size or the sampling method used.
2. Unemployment duration of one year or longer in per cent of total unemployment.

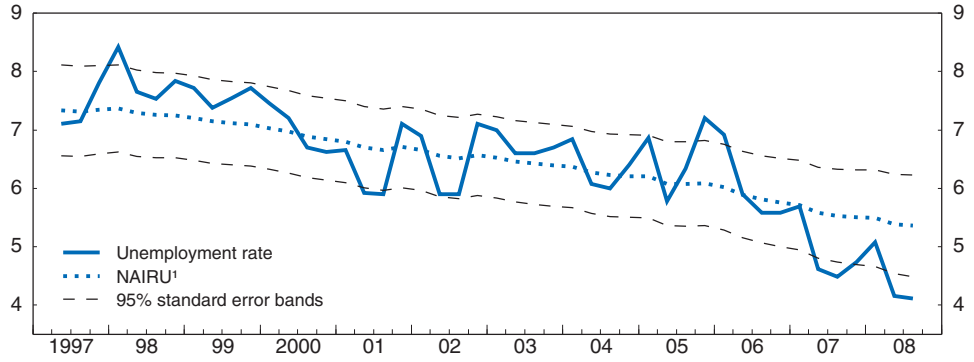
Source: OECD (2008), *OECD Employment database – online version*, *www.oecd.org/els/employment/data* and *Eurostat database* (2009), *Labour Force Survey*, May.

StatLink http://dx.doi.org/10.1787/644237048534

Nonetheless, the share of long-term unemployed in total unemployed remains well above the OECD average (Figure 3.1, panel E). As older workers benefited less from the recent fall in long-term unemployment than other groups, they now account for a higher share of long-term unemployed than before the economic upswing (Figure 3.1, panel F).

Figure 3.2. **The unemployment rate and the NAIRU**

Per cent



1. Non-accelerating inflation rate of unemployment.

StatLink http://dx.doi.org/10.1787/644258375670

Box 3.1. **Recent labour market reforms**

Slovenia has implemented several reforms of the labour code in recent years aimed at increasing the flexibility of its labour market. This was necessary not least to improve the country's ability to cope with asymmetric shocks in the euro area that cannot be dealt with by the common monetary policy. This box briefly outlines the main reforms that have been undertaken since 1997, when the OECD's only other *Economic Survey* of Slovenia was published. The impact of changes in labour market institutions on unemployment are investigated in Annex 3.A2 within a simple search-matching model.

Regulation of employment contracts

In 1998, amendments to the *Employment and Insurance against Unemployment Act* (EIUA) licensed the operation of temporary work agencies and thus contributed notably to a liberalisation of temporary employment. More flexibility in the area of regular employment was introduced by the 2003 *Employment Relationships Act* (ERA) which shortened notice periods, reduced the levels of severance pay and relaxed regulations on collective dismissals, but put additional restrictions on temporary work. More recently, the establishment of specialised temporary work agencies was made easier through amendments to the EIUA adopted in 2006.[1] The 2007 amendments to the ERA expanded the possibilities for fixed-term contracts,[2] exempted contracts for project work from the two-year time limit for temporary employment, and facilitated the termination of regular work contracts by further shortening notice periods in case of termination due to business reasons (to 30 days for less than 5 years of tenure, 45 days for at least 5 years of tenure, 60 days for at least 15 years of tenure and 120 days for at least 25 years of tenure) and exempting employers from the obligation to pay severance pay if the employer or the Employment Service offers the employee an employment contract with another employer during the notice period and the employee concludes this contract. The amount of severance pay remained unchanged at one-fifth of the average monthly wage during the last three months before the termination of the contract for each year of employment, if the worker has been employed for more than one and up to five years (one-fourth if employed for 5 to 15 years and one-third if employed for more than 15 years).

Duration and level of unemployment benefits

The amended EIUA adopted in 1998 cut the potential period of entitlement to unemployment benefits for some groups of the unemployed (to 3 months for insurance up to 5 years, to 6 months for insurance of 5 to 15 years, to 9 months for insurance of 15 to 25 years and to 12 months

Box 3.1. **Recent labour market reforms** *(cont.)*

[18 months if the insured person is older than 50 years and 24 months if the person is older than 55 years] for insurance of over 25 years).[3] In 2006, stricter rules were introduced regarding the obligations of unemployed: they are obliged to actively search for employment and after three (six) months of unemployment they have to accept a job offer from the Employment Service for which the education is one level (two levels) below the education level of the unemployed person. If the unemployed person does not comply with these rules the cash benefit is cut in half for a period of two months. The level of unemployment benefits has not changed since the last *Economic Survey* and amounts to 70% of the average monthly salary received in the 12 months prior to unemployment for the first three months and to 60% in the subsequent months. The minimum (maximum) benefit is equal to 0.46 (1.37) times the minimum wage. Unemployment assistance was abolished in 2006. Instead, the unemployed can get means-tested social assistance after the expiration of unemployment benefits.

Labour taxation

The rates of payroll tax were gradually reduced between 2006 and 2008 and the tax was completely phased out in January 2009, considerably reducing unit labour costs. Furthermore, reforms of the personal income tax led to a reduction in the number and level of tax rates. In 2005, the number of tax rates was cut from six (from 17% to 50%) to five (from 16% to 50%) and in 2007, the number was further reduced to three (16%, 27% and 41%). In 2008, the level of general and special personal income tax allowances was raised, lowering the tax burden, in particular for low income earners, and special allowances were reduced and simplified.

Wage bargaining

In 2006, the *Collective Agreements Act* came into force and introduced significant changes to the system of collective bargaining. The Act regulates the parties, scope and hierarchy of collective agreements, and the procedure of conclusion and termination of the collective agreement as well as its validity. The Act does not provide for the mandatory conclusion of collective agreements or the mandatory content, nor does it determine the types of collective agreements and the level of their conclusion. The main novelties introduced by the Act include the principle of voluntary conclusion, the possibility of subsequent accession to concluded collective agreements, the restriction of the validity of collective agreements to the parties that concluded it or their members, and the regulation that the collective agreement that is most favourable to workers should apply if an employer is bound by more than one collective agreement of the same type. Wages are limited downwards by the *Minimum Wage Act*, introduced in 2006. According to the Act the minimum wage is determined once a year by the Minister of Labour based on the forecast of consumer price inflation, after consulting the social partners.

Active labour market policy

Slovenia's expenditure on active labour market policies (ALMP) amounted to around 0.22% of gross domestic product (GDP) in 2008, part of which is financed by the European Social Fund. At the end of 2006, new guidelines for ALMP were adopted within the *Active Labour Market Policy Programme for the period 2007-13*. The programme envisages measures in four areas: *i)* counselling and assistance for employment; *ii)* training and education; *iii)* promotion of employment and self-employment; and *iv)* programmes for increasing social inclusion. The programme is complemented by action plans which are confirmed by the government for each budget period. New ALMP envisaged for 2009 include a subsidy programme to promote employment of young people with tertiary education and of older and long-term unemployed persons; the promotion of part-time work; and education and training programmes for unemployed who wish to become self-employed and for employees of micro and small firms and of firms with subsidised full-time employment.

Box 3.1. **Recent labour market reforms** *(cont.)*

Organisation of working time

Some measures have been taken to facilitate the reconciliation of work and private life, for example by granting parents the right to work fewer hours. The 2007 amendments to the ERA introduced possibilities for longer overtime work and, so as to make part-time work more attractive to employers, defined the principle of proportionality of rights of part-time employees with respect to the number of working hours. The amended *Prevention of Illegal Work and Employment Act* opened employment possibilities for short-term and small work by considering it as declared work.[4]

Migration

In 2001, a new *Employment and Work of Aliens Act* came into force, providing for a comprehensive regulation of all forms of work by foreigners (excluding citizens of all EU member countries) in a single Act. The Act specifies different types of work permits[5] according to the aim and the duration of employment and regulates the number of foreigners allowed to enter the Slovenian labour market (the annual quota is set by the government, though it may not exceed 5% of the actively working population). In 2005, conditions were tightened for self-employed foreigners (the requirement of one year of prior residence in Slovenia was introduced) whereas they were relaxed for seasonal workers. In 2007, the Act was amended to simplify procedures for workers from occupations facing labour shortages.

1. Such agencies can now acquire the right to provide temporary work only by entry in the registry of agencies providing temporary work and do not have to conclude a concession contract as other employment agencies have to do.
2. In particular, the amendments expanded the possibilities for temporary work contracts to cases where none of the applicants fulfils the required conditions for the job, employment of managers and employment on projects.
3. The cut in benefit duration had a sizable positive effect on the exit rate out of unemployment at all lengths of the unemployment benefit duration (Ours, J.C. van and M. Vodopivec [2006], "How Shortening the Potential Duration of Unemployment Benefits Affects the Duration of Unemployment: Evidence from a Natural Experiment", *Journal of Labor Economics*, Vol. 24, No. 2, University of Chicago Press, Chicago), though it did not reduce job match quality (Ours, J.C. van and M. Vodopivec [2008], "Does Reducing Unemployment Insurance Generosity Reduce Job Match Quality", *Journal of Public Economics*, Vol. 92, No. 3-4, Elsevier BV, Amsterdam).
4. Short-term work is unpaid work in micro firms or private institutions by the spouse of the owner or a person to whom he/she is related to in the first degree, and which lasts 40 hours a month at the most. Small work lasts not more than 20 hours a week and not more than 40 hours a month, while payment does not exceed 50% of the minimum wage, and is carried out by a person who is not in full-time employment, who does not pursue an independent activity and who does not receive a pension.
5. Three different types of work permits exist: personal work permits, employment permits and permits for work. A personal work permit is issued on the application of a foreigner who has a temporary or permanent residence permit and who has lived in Slovenia for at least one year, and grants free access to the Slovenian labour market. An employment permit is issued upon the request of an employer, provided that he meets all necessary conditions, including the provision that hiring a foreigner does not adversely affect the domestic unemployment situation. A permit for work allows a foreigner to work in Slovenia for a limited period of time defined in advance based on the purpose for which the permit is issued (*e.g.* seasonal work, managerial work).

... but challenges remain

The substantial and welcome progress in improving labour market outcomes notwithstanding, challenges remain in specific areas. In the short term the main challenge will be to cope with rising unemployment due to the global economic crisis. The government has adopted a number of measures to safeguard jobs and contain the rise in unemployment within the fiscal package adopted in February 2009 (see Box 2.2 in Chapter 2). Whilst such initiatives are vital under current circumstances, it is important

that they are well designed and do not harm economic growth in the long run. In this respect, the subsidy scheme for shorter working hours should be phased out once the crisis dissipates. In the meantime, eligibility should be temporary in nature as is the case in several other OECD countries such as Germany (Box 3.2). Moreover, any measures that are detrimental to the functioning of the labour market should be avoided. tightening the rules for immigrant workers during the crisis in order to maintain jobs for Slovenian citizens would be the wrong way to go as immigrant workers are needed in the longer run to address skill mismatches in the domestic labour market.

Box 3.2. **The German subsidy scheme for shorter working hours**

The subsidy scheme for shorter working hours is meant to reduce the labour costs of companies that are in temporary distress. Companies are eligible for the subsidy if they face a major drop in orders due to economic reasons or extraordinary events, provided the drop in orders is temporary in nature. More than one-third of the employees must lose at least 10% of their gross wage for the company to be eligible, though this condition is suspended from February 2009 to December 2010 (instead, the subsidy can only be paid to employees who lose more than 10% of their gross wage). The scheme can only be introduced if it is agreed in a collective agreement, a company agreement or the working contract of the individual employee. If a work council is active in the company it also has to agree to the implementation of the scheme. Employees participating in the scheme have to accept a cut in their monthly income as the State only pays 60% of the forgone net wage (67% if the employee has children).* Employees do not lose any social insurance claims as the companies continue to pay their part of social security contributions (50% of the payments are currently refunded as part of the government's fiscal stimulus package), whilst the State pays the employee's part of the social security contributions on the entire forgone income. The maximum duration of eligibility is generally limited to 6 months, though it has recently been extended to 24 months for all employees that become eligible before the end of 2009. Since end 2008, the scheme may also be used for workers of temporary work agencies.

* Some collective agreements stipulate that the benefits paid by the State are to be extended by the employer.

It is also important to look beyond the short-term horizon and reflect on the structural problems of the labour market. As stressed by Høj *et al.* (2006), structural reforms are sometimes easier to implement in times of economic crises because bad economic conditions make it clearer that existing policies are no longer sustainable, either for individual citizens or for the economy. On the other hand, the political opposition to reforms in certain specific labour market areas (for example, employment protection legislation) is likely to be stronger during economic downturns as workers are already suffering from high unemployment. It therefore seems expedient to proceed rapidly with reforms that are not costly under current circumstances but have beneficial effects in the long run (such as a reform of the pension system) while delaying reforms that face strong opposition due to the crisis until the next economic upswing. On the whole, three main areas stand out where further reform is needed (by the importance of issues and hence suggested priority for policy makers):

- Labour force participation rates among the elderly are very low by international standards.

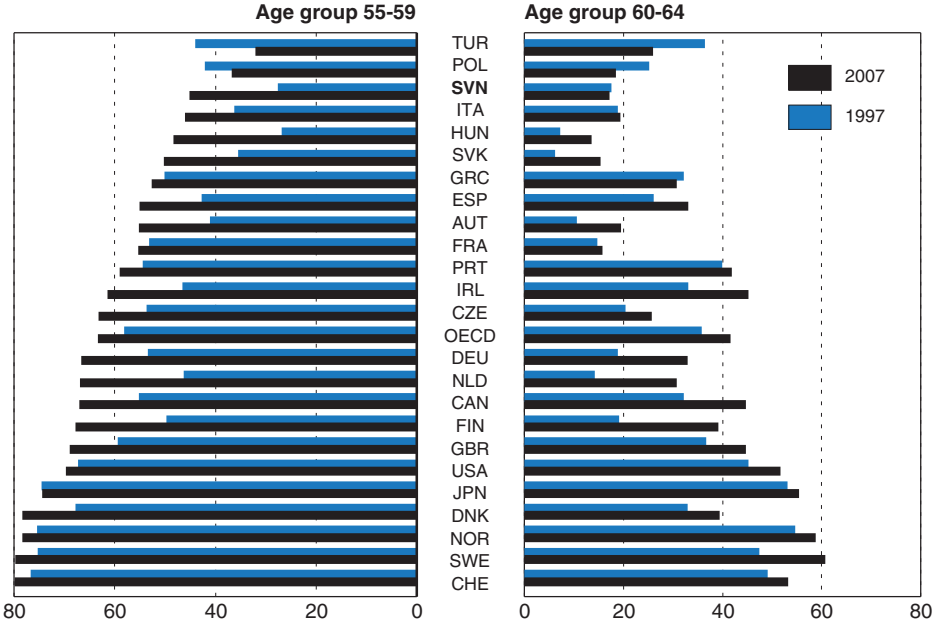
- Despite recent increases, the employment rates of younger age cohorts remain relatively low, partly reflecting a long time in completing education.
- The share of temporary employment has been rising quickly, especially among youth, which risks creating a dual labour market.

Boosting the labour force participation of the elderly

The employment rates of older persons have increased markedly over the past decade. The increase was particularly strong for persons aged 55 to 59, owing to the effects of the 1999 pension reform (see Chapter 2 for details) as well as to demographic effects as the early-retirement generation from the early 1990s is leaving this age group. Between 1997 and 2008, the employment rate of this age group rose by around 17%, reaching slightly more than 45% in the third quarter of 2008. However, despite this progress the employment rate is still the third-lowest in the OECD (Figure 3.3). The employment rate of persons aged 60 to 64 is also amongst the lowest in the OECD and, due to rising employment rates in many other OECD countries, has even fallen further behind the OECD average in recent years. The low employment rates of older persons are mirrored by a low effective retirement age (Figure 3.4). Men retire about three years earlier in Slovenia than in the average OECD country whilst for women the difference is as much as five years.[4] The low effective retirement age, together with rapid population ageing (Figure 3.5), puts pressure on the growth of public expenditure for old-age pensions and at the same time limits the growth potential of the economy through a shrinking labour force. To avoid these negative effects it is essential that steps are taken to boost the labour force participation of the elderly.

Figure 3.3. **Employment rate of the elderly**

Per cent



Source: OECD (2008), *OECD Employment database – online version, www.oecd.org/els/employment/data.*

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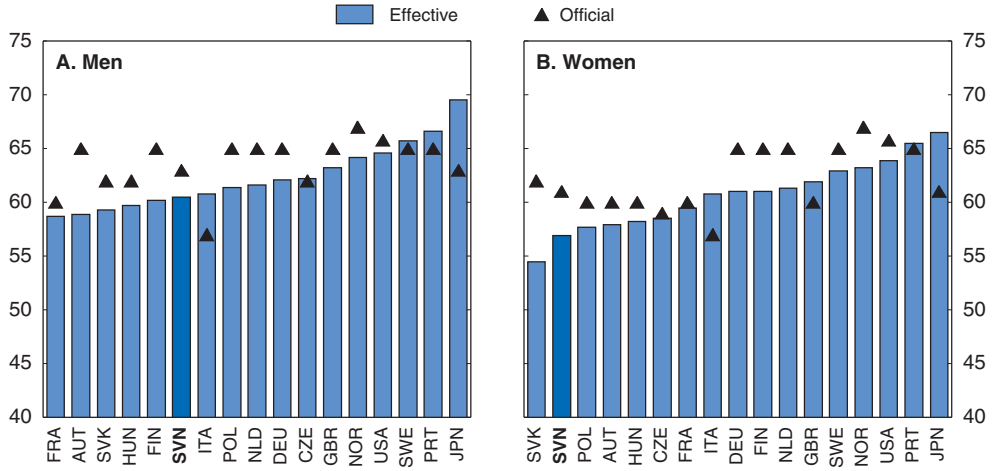
Figure 3.4. **Average effective age of retirement versus the official age**[1]

2002-07



1. The average effective age of retirement is defined as the average age of exit from the labour force during a 5-year period. Labour force (net) exits are estimated by taking the difference in the participation rate for each 5-year age group (40 and over) at the beginning of the period and the rate for the corresponding age group aged 5-years older at the end of the period. The official age corresponds to the age at which a pension can be received irrespective of whether a worker has a long insurance record of years of contributions. For Italy, workers can retire at age 57 (56 for manual workers) with 35 years of contributions. For Slovenia, the official retirement age of 61 years for women will be reached in 2023 and for the Slovak Republic, the official retirement age of 62 years for women will be reached in 2015.

Source: OECD (2009), *Ageing and Employment Policies* – Statistics on average effective age of retirement, available at *www.oecd.org/document/47/0,3343,en_2649_34747_39371887_1_1_1_1,00.html*.

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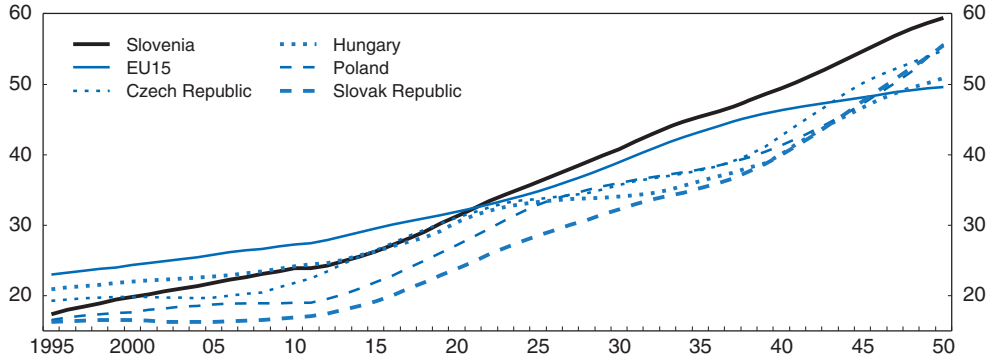
Figure 3.5. **Old-age dependency ratio**[1]

Population aged 65+ as per cent of population aged 15-64



1. Using population projections from the convergence year in 2150 scenario, population at 1 January.

Source: *Eurostat database* (2009), *Population and Social Conditions*, May.

StatLink http://dx.doi.org/10.1787/644381544361

Work and retirement decisions are highly complex and depend on a range of institutional settings as well as the socio-demographic characteristics of the individual (OECD, 2006a; Vodopivec and Dolenc, 2009). *First*, so-called "pull" factors, associated primarily with financial incentives embedded in public pension and early retirement schemes, are "pulling" older workers into retirement and thus play an important role in determining retirement decisions (*e.g.* Burniaux *et al.*, 2003; Duval, 2003; Burtless, 2009).

The decisions will be influenced by the age at which benefits can first be claimed, the generosity of replacement rates and the accessibility of informal paths to early retirement through unemployment, disability and long-term sickness insurance programmes. *Second*, so-called "push" factors, which determine the available set of job opportunities open to older workers, are "pushing" workers into retirement. The job opportunities depend for example on the age profile of labour costs relative to productivity, employers' perception about the capacities of older workers, and the strictness of employment protection legislation (EPL). In addition, inflexible working time arrangement might be pushing workers into early retirement (*e.g.* Gustman and Steinmeier, 2004).

Past reforms of the labour code as well as the pension and education system have influenced these push and pull factors in the right direction, leading to a significant improvement in both work incentives and employment opportunities of older people. Examples include the gradual increase in the statutory retirement age, the introduction of ALMP tailored specifically to the needs of the elderly such as tax reliefs and exemptions from social security contributions for employers who hire older persons, and the launch of a wide range of adult education programmes. However, the recent progress notwithstanding, more needs to be done to encourage the elderly to remain active. In particular, retirement needs to be made financially less attractive for older persons by further raising the statutory retirement age (see Chapter 2) and adjusting the financial incentives for early/late retirement, and the employment prospects of the elderly have to be improved to ensure that those wishing to work longer also find appropriate jobs.

Removing incentives for early retirement

A major novelty of the 1999 *Pension and Disability Insurance Act* (PDIA) was the introduction of a comprehensive bonus/penalty system to reward deferral of retirement beyond the pensionable age and penalise retirement prior to that age. However, the size of the bonuses and penalties appears relatively small and might not provide sufficient incentives for remaining active.[5] In addition, the new Act provides several possibilities for individuals to retire prior to the pensionable age without being subject to a penalty. *First*, the pensionable age can be reduced progressively for persons with children (by 8 months for one child, by 20 months for two, by 36 months for three and by another 20 months for each additional child).[6] *Second*, for women who subscribe to compulsory pension insurance prior to the age of 18, the pensionable age is lowered by the duration of insurance prior to that age.[7] *Third*, insured persons can retire before the full pensionable age (provided they have completed a pension qualifying period of 20 years) under special conditions such as long-term unemployment, redundancy programmes, programmes allowing the employer to replace the insured person by a younger unemployed person, or the bankruptcy of the employer.

Such options for early retirement considerably reduce the actual age at which persons retire. Estimates of the median retirement age for the period 2002-07 based on Labour Force Survey data indicate that half of all men (women) retired before the age of 56.3 (52.5), which is markedly below the full pensionable age prevailing at that time. From a labour supply perspective, there is thus a large pool of still relatively young persons whose human capital is lost due to very early retirement. While it appears reasonable to allow for some flexibility in the retirement decision to be made by the individual based on personal preferences, the design of the pension system must not encourage early retirement. The authorities should therefore ensure that the penalties/bonuses for early/late retirement

are actuarially neutral, so that the change in pension benefits from working one additional year is equal to the entitlement earned in that year and, conversely, 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.[8] The upper limit on the number of additional working years beyond the statutory retirement age during which bonuses are paid (currently set at three years) should be abolished. In addition, the possibility to retire prior to the pensionable age for special reasons such as the upbringing of children, entry into compulsory insurance before the age of 18, long-term unemployment or bankruptcy of the employer should be phased out.

Raising the statutory retirement age and closing formal pathways to early retirement (or making them less attractive) might encourage individuals to switch to informal early retirement schemes, such as disability, long-term sickness and unemployment. Since the 1999 pension reform, the share of inactive persons aged 50 to 64 who do not seek employment due to disability or sickness has risen markedly, from 6% in 2000 to 22% in 2007. The share has also increased for other age groups, albeit by a much smaller amount, indicating that disability and sickness benefits are increasingly used by the elderly to withdraw early from the labour force. The authorities should review the disability and long-term sickness insurance schemes to ensure that eligibility conditions are sufficiently tight and adequately monitored.

Unemployment benefits by contrast are not yet widely used for the purpose of early retirement. In mid-2008 the unemployment rate of 50-64 year-olds stood at around 3½ per cent, more than half a percentage point below the aggregate rate. However, there is a risk that this pathway becomes more popular in the future along with further increases in the retirement age and stricter controls on disability and sickness benefit recipients. To prevent this from happening, the generosity of the scheme should be reduced further for older people. Currently, older workers with an insurance history of 15 to 25 years are eligible for benefits during respectively 18 months (if they are older than 50 years) and 24 months (if they are older than 55 years) whereas workers below the age of 50 receive benefits for 12 months. As a result, the incidence of unemployment benefits is highly skewed in favour of older workers. The authorities should reduce the length of unemployment benefit duration for long-term unemployed older workers towards the general length of 12 months, once the current economic crisis dissipates.

Work decisions may also be influenced by the degree to which an individual's pension benefits are linked to the entire working career in terms of length and level of earnings. If pension benefits are calculated based on a finite number of best years, older workers might be encouraged to exit from the workforce, particularly if they do not expect any further increases in earnings or have to accept earnings cuts to stay employed. Since 2008, pension benefits in Slovenia are based on the 18 best consecutive years (the assessment period had been gradually increased from 10 years in 2000 after the passage of the 1999 PDIA). The link between pension benefits and working careers could be strengthened further by basing benefits on full lifetime average earnings as is done in most OECD countries (OECD, 2007).

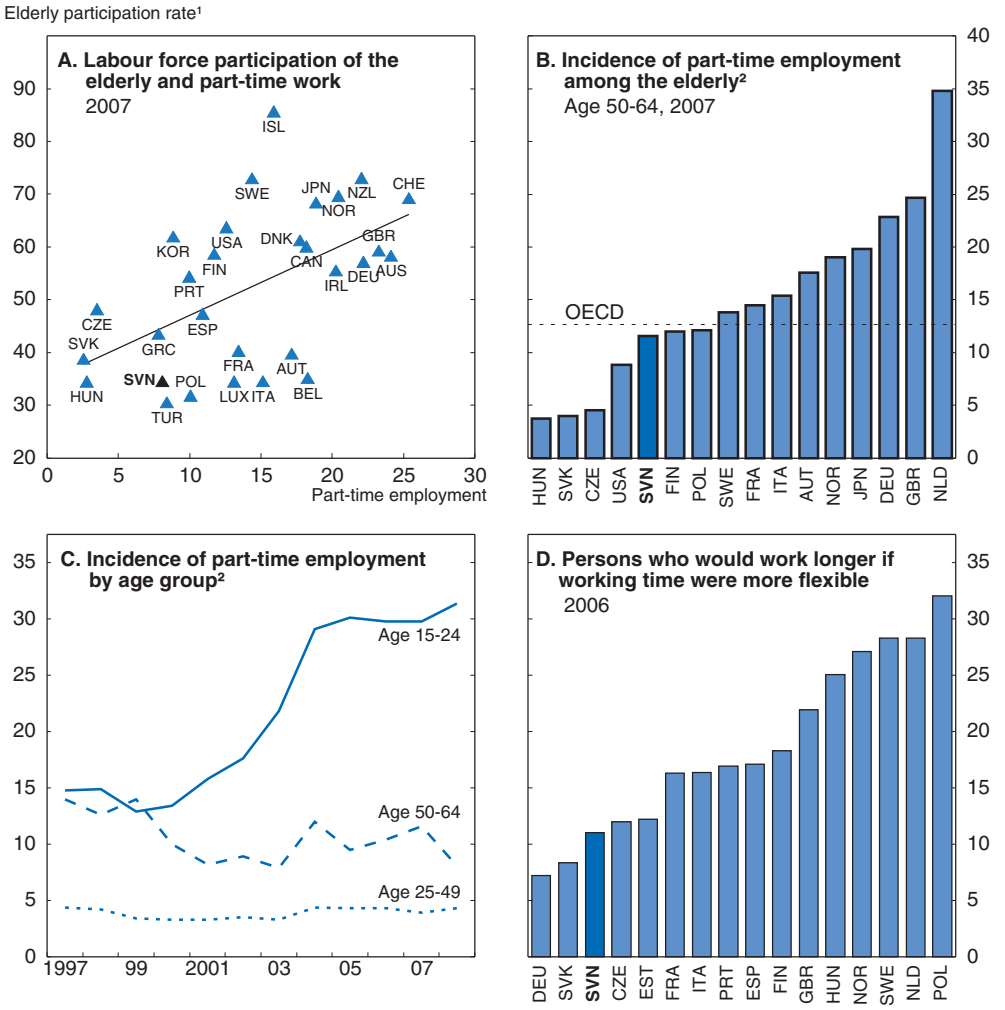
Making partial retirement more attractive

Inflexible working time arrangements may discourage older workers from continuing to work longer due to difficulties in reconciling work with family life. This may result in a cliff-edge pattern of retirement with older workers shifting instantly from working full-time to not working at all (OECD, 2006a). Such an abrupt departure from the full-time

career job may actually not be the preferred path to retirement for many workers; they would prefer to gradually reduce their work commitments over a period of time. Rigidities to a gradual exit from the labour market may result, *first* from barriers to part-time work in general (as shown in panel A of Figure 3.6 those countries with a higher incidence of part-time employment tend to have higher overall labour force participation of the elderly), and *second* from constraints on the right to draw all or part of a pension while continuing to work at the same time. In Slovenia, individuals are not allowed to be retired and work at the same time, though it is possible to retire partially which means receiving half of one's pension and continue working half-time (or less). Yet, the possibility of partial retirement is hardly used; at the end of 2007, only 184 persons retired in such a way (IMAD, 2008a), which is less than 2% of new old-age pension recipients.

Figure 3.6. **Part-time employment**

Per cent



1. Age group 55-64.
2. In per cent of total employment.

Source: OECD (2008), *OECD Employment database – online version*, *www.oecd.org/els/employment/data* and *Eurostat database* (2009), *Labour Force Survey*, May

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Restrictions on part-time work in general are unlikely to be the main explanation for the low number of partial retirees. Although the share of workers aged 50 to 64 working part-time falls short of the levels seen in most OECD countries (Figure 3.6, panel B) and has not increased in recent years, the number of such jobs has risen among other age groups, most notably the young (Figure 3.6, panel C), not least thanks to some progress in liberalizing working-time arrangements (Box 3.1).[9] It thus seems more likely that factors related to the partial retirement scheme itself are at the root of its low popularity.

The rules on partial retirement are indeed such that the scheme does not appear very attractive. *First*, the conditions for partial retirement are very tight as it requires the fulfilment of the conditions for full retirement and the consent of the employer. Moreover, the partial retiree is allowed to work on a half-time basis at the most and will receive one-half of the old-age pension to which he is entitled. *Second*, partial retirement is financially not very attractive as the pension income is taxed as regular income (although the pension already represents net income taxed through the translation of the gross pension basis to the net pension basis) and the wage income is subject to social security contributions. Whilst the contributions to pension insurance translate into a higher replacement rate upon full retirement, contributions for health and unemployment insurance act essentially as a tax since individuals who meet the criteria for retirement are not eligible for unemployment benefits and since health insurance contributions for full retirees are paid for by the Institute of Pension and Invalidity Insurance of Slovenia.

Although Slovenia is likely to benefit less from a relaxation of partial retirement conditions than other OECD countries, still 11% of employed persons stated in the 2006 Labour Force Survey that they would stay longer at work if more flexible working time arrangements were available (Figure 3.6, panel D). The authorities should therefore allow people to receive wage and pension income at the same time. At the very least, the rules for partial retirement should be relaxed and the tax disincentives should be phased out. In particular, there is no need to demand the consent of the employer for partial retirement, if EPL is sufficiently flexible (see below). While easing barriers to part-time work and partial retirement may lead to an increase in the participation of older people, the net impact on effective labour supply will be smaller or even negative since some workers, who prior to the change would have continued working full-time, will also reduce their hours worked (*e.g.* Gustman and Steinmeier, 2004).

Raising the demand for older workers

Whilst removing incentives for early retirement and facilitating gradual exits from the labour force will help increase the labour supply of older workers, it does not guarantee that the increase in supply is matched by a corresponding increase in demand. The demand for older workers may be limited due to negative perceptions on the side of employers about the capacities of older workers to adapt to technological or organisational changes and due to wage-setting practices that let labour costs rise more steeply with age than productivity. These issues have to be addressed in order to ensure that those people who wish to work longer also find appropriate jobs.

To counter negative employer attitudes, several OECD countries have launched information campaigns and introduced legislation that bans age discrimination in employment (see OECD, 2006a, Table 5.1 for an overview on the adopted measures). The two approaches are complementary: age-discrimination legislation may be less effective if not accompanied by information campaigns and guidelines to help employers implement

good practices and to make older workers aware of their rights; at the same time, information campaigns and guidelines may not be very effective if not backed by sanctions for discrimination on the grounds of age (OECD, 2006a). Slovenia banned age discrimination in 2003 when the *Employment Relationships Act* was adopted. The legislation was amended in 2007 to define the sanctions in more detail and to shift the burden of proof towards the employer. A special information campaign to promote the employment of older workers is planned for 2009. The campaign should create awareness of the benefits of an age-diverse workforce where older workers share the benefits of their greater work experience with younger workers who in turn share their knowledge of new production techniques and ways of working with older workers. Emphasising age diversity rather than pointing out the needs of older workers reduces the risk that they become a stigmatised group. Prominent examples of information campaigns include the *UK Age Positive* campaign and the Finnish information campaign that was launched as part of the Finnish *National Programme on Ageing Workers* (see OECD, 2006a, Box 5.1 and 6.5).

Employers might also be reluctant to hire or retain older workers because they cost too much relative to their productivity. Some OECD countries have started to tackle this issue by moving away from seniority-based wage systems. Examples are Korea where the government has encouraged employers and trade unions to adopt a peak-wage system where wages are downward flexible after a certain age in exchange for greater job security and Sweden where wage-setting in the public sector has gradually shifted from a seniority-based system to one based much more on individual qualification and performance (OECD, 2006a). In Slovenia, the *Employment Relations Act* stipulates that wages must include a supplement for the number of years of service, though the size of this seniority bonus can be determined freely in collective agreements.

A number of OECD countries have introduced wage subsidies aimed at aligning more closely labour costs for older workers and productivity (see OECD, 2006a, Table 5.2 for an overview on wage subsidy schemes in OECD countries). This is also the approach taken by Slovenia: employers who hire an unemployed person older than 55 years who has been registered with the Employment Service for over 12 months or a registered unemployed person aged over 55 years with an occupation in oversupply are exempt from social security contributions. It is welcome that the wage subsidies are not granted solely on the basis of age but are more narrowly targeted at specific groups of older workers. As argued by OECD (2006a), more narrowly targeted subsidies tend be more effective than subsidies for older workers in general, as the latter may involve a substantial deadweight loss (as a large proportion of subsidised workers would have been employed even without the subsidy) and substitution effects (as subsidised jobs lead to the loss of jobs for other groups of workers ineligible for the subsidy). Moreover, subsidies granted solely on the basis of age may again lead to stigmatisation and reinforce negative attitudes on the side of employers.

Whilst reforming wage-setting practices to reflect individual performance and providing employment subsidies to lower the cost of employing older workers, a closer match between productivity and costs can also be achieved by helping older workers to acquire new skills and update existing ones so as to raise their productivity as discussed below.

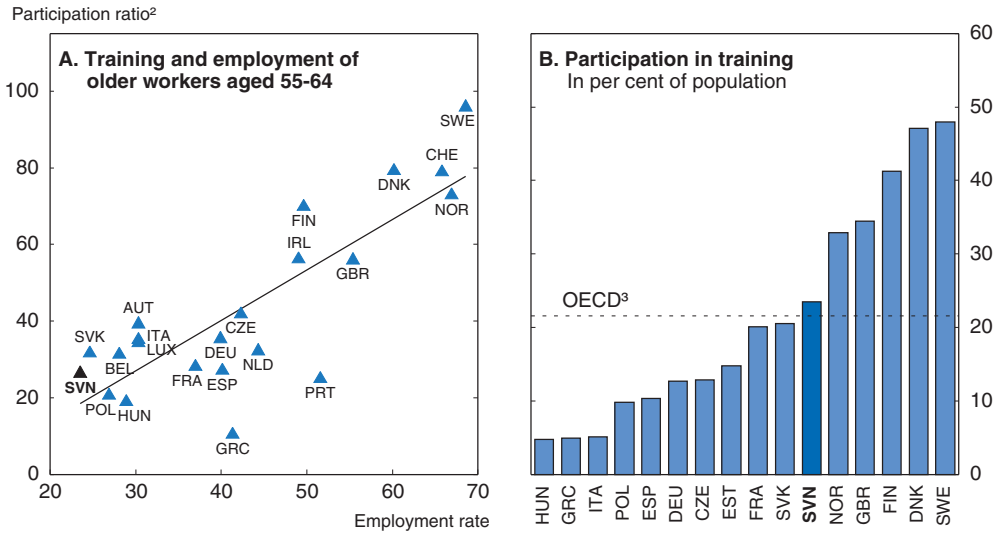
Encouraging participation in lifelong learning

Due to organisational and technological change, as well as the ongoing structural shift from manufacturing to services, job requirements are constantly changing. As a result, the

skills of workers risk becoming obsolete, unless they continuously acquire new skills and upgrade existing ones (Behaghel and Greenan, 2005). Participation in lifelong learning can therefore considerably enhance the employability of older workers.[10] In addition, job-related training is associated with a higher wage level (Bassanini *et al.*, 2005) and thus increased incentives to remain active and defer retirement. Providing workers of all ages with good access to vocational training and lifelong learning programmes can therefore help to raise the employment rates of the elderly. At the same time, workers are more likely to engage in training activities if the pension system encourages them to keep working at older ages as this increases the number of years available to recoup the returns on investment in training by both workers and employers.[11] As shown in panel A of Figure 3.7, there is a significant positive correlation across countries between the incidence of training for older workers relative to younger ones and the average employment rate of older workers.[12]

Figure 3.7. **Training**[1]

Per cent, 2003



1. Non-formal education.
2. Per cent of persons participating in education, ratio of age 55-64 to age 25-34.
3. Unweighted average of data for 22 OECD countries.

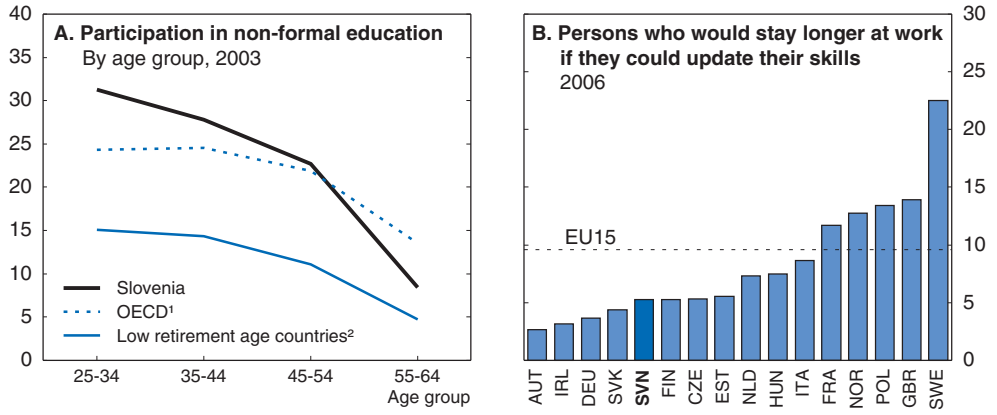
Source: Eurostat database (2009), *Population and Social Conditions*, March.

StatLink http://dx.doi.org/10.1787/644446032450

Participation in lifelong learning activities is relatively high in Slovenia (Figure 3.7, panel B). Nevertheless, some scope for further improvements remains, as demonstrated by several other OECD countries such as Switzerland and the Nordic countries which have even higher participation rates. More importantly, in Slovenia, the share of the population participating in lifelong learning rapidly decreases with age which may to some extent reflect fewer expected years left in the workforce and hence fewer years to regain the returns on investment in training. While this phenomenon is common across countries, the decline is faster in Slovenia than in other OECD countries (Figure 3.8, panel A). The suggested further increase in the pensionable age as well as the removal of incentives for early retirement should make participation in training activities more attractive, especially at higher ages.

Figure 3.8. **Participation in lifelong learning**

Per cent



1. Unweighted average of data for 21 OECD countries.
2. OECD countries with a low statutory retirement age: Belgium, Czech Republic, France, Greece, Hungary, Italy and Slovak Republic.

Source: Eurostat database (2009), *Population and Social Conditions*, February.

StatLink http://dx.doi.org/10.1787/644467751142

In addition the issue could be tackled more directly. Several initiatives have been taken in the past to promote lifelong learning in Slovenia. In 2006, the *National Professional Qualifications Act* was amended, introducing a system of recognition of non-formal and informal training. Under the Act, individuals can obtain a certificate demonstrating that they have the professional or vocational competencies necessary to exercise a profession based on either direct demonstration of knowledge, skills and competencies, or based on documents and other proof collected by the applicant. In 2007, the *Resolution on the National Programme of Higher Education of the Republic of Slovenia 2007-10* was adopted, which envisages an increase in the share of population participating in lifelong learning activities and the development of programmes for employees, unemployed and inactive persons who wish to return to tertiary education. Measures in the area of lifelong learning are also envisaged in the *Social Agreement for the period 2007-09* and the *Operational Programme for Human Resources Development for the period 2007-13*. The implementation of the *Lifelong Learning Strategy* adopted in 2007 is still hindered by the failure to develop an associated operational programme.

To further encourage the population to participate in lifelong learning, the inter-ministerial working group which was set up to discuss the implementation of the *Lifelong Learning Strategy* should quickly develop a plan to put the strategy into action. Given the wide range of adult education programmes currently available, it is also important to evaluate their impact on labour market outcomes. So far, such empirical assessments of specific programmes are rare. As stressed for example by Martin and Grubb (2001), the outcomes of training programmes vary considerably with programme design. In general, training that is targeted and has a strong on-the-job element appears to be the most likely to be successful. Furthermore, it is vital that the *Active Ageing Strategy,* which envisages specific measures to encourage the participation of older persons in lifelong learning activities, be swiftly set up and implemented.

The immediate impact on employment rates of any initiatives to encourage participation in training activities might be limited though. In the 2006 *Labour Force Survey*

only 5% of employed persons stated that they would work longer if they could update their skills (Figure 3.8, panel B), indicating that the lack of lifelong learning possibilities is not the main reason for withdrawing from the workforce. Nonetheless such initiatives are an important complement to the further increase in the pensionable age and the reduction of early retirement incentives. Both are likely to raise the interest of workers in lifelong learning programmes to acquire the skills needed to find employment.

Raising the employment rates of youth

The employment situation of youth has improved markedly in recent years with labour force participation of those aged 15 to 29 rising from 52% in 2003 to 61% in mid-2008 and unemployment falling from 12.3% to 7.4%. Although the progress clearly reflects the favourable economic conditions over that period, the introduction of more flexible forms of employment as well as active labour market policies aimed at facilitating the school-to-work transition also contributed to this development. These active labour market policies include, for example, employment incentives for the young provided in the form of subsidies and tax reliefs for employers, and training and education programmes such as the *Programme 10000 – Formal Education* and *Project Learning for Young Adults* (see Box 3.3).

Box 3.3. **Project Learning for Young Adults**

Project Learning for Young Adults (PLYA) is a non-formal education programme for unemployed young adults aged 15 to 25 who have failed at school, have no basic vocational education and face social exclusion. The basic aim of the programme is to motivate participants to continue their formal education and acquire the knowledge and skills needed on the job-market. Participants are meant to gain positive learning experiences and to more clearly define their aspirations concerning their career and their general life. The programme has a high success rate with 60% to 70% of the participants enrolling in a suitable educational program and/or finding employment. In 2007, the programme won the European Regional Champions Award in the area of social policy.

Participants can join PLYA any time during the school year. Participation is strictly voluntary and participants are entitled to stay in the programme for one year. The education focuses on three main areas. *First*, participants gain basic knowledge in a variety of fields such as mathematics, writing, communication, and natural sciences and they acquire the skills required for independent learning. *Second*, participants are prepared for the working life by designing a career plan, establishing links with potential employers and learning the basic components of labour legislation. *Third*, participants acquire socio-cultural skills such as taking responsibility for one's actions, dealing with less favourable incentives from the social environment, and using leisure time more effectively and constructively.

Project learning is carried out in four types of project work. *Individual learning projects* are part of the career and individual learning plan of the student. They are derived from his/her defined personal goals such as the passing of certain exams. In *optional group project work* each member of the group realises his/her own learning objectives within the context of the common group project (*e.g.* a theatre play). The student is expected to work on the common goals of the group and the group supports the efforts of the individual student. *Productive project work* is concerned with the development of possibilities for the revival of

Box 3.3. **Project Learning for Young Adults** *(cont.)*

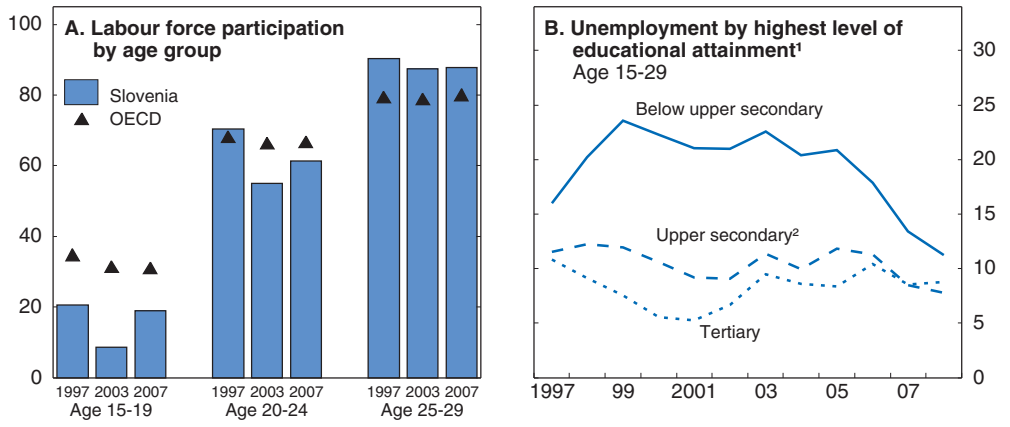
old and disappearing crafts and the use of environment-friendly technologies. *Extra-curricular activities* are used as a tool for raising a student's motivation and for enlarging interests within new fields in which he/she has no experience. The activities can be directly connected with a certain project or can be organised independently, just for fun or to satisfy the participant's own interest.

While participating in the programme students are guided by mentors. The mentor's sensibility for the interests and abilities of the participant is thus an important element of the programme's success. Participants actively participate in the implementation of the programme by choosing the theme of the project, the methods and procedures, which helps to increase their motivation. Every student sets up an individual learning plan that has to be realised during the programme. This plan is the foundation for the selection of activities in the programme and is also used to evaluate the student's progress according to the goals set at the beginning.

The recent progress notwithstanding, several problems remain that need to be addressed. *First*, youth labour force participation is still below the OECD average (Figure 3.9, panel A), reflecting a relatively long duration of initial education. Consistent with this, much of the increase in participation seen in the age group 20 to 29 is due to a rising number of student workers who are not in regular employment. *Second*, unemployment is still more prevalent among youth than among other age groups. Particularly youth without upper secondary education face considerable difficulties in finding employment (Figure 3.9, panel B). One possible reason is the high minimum wage which might hurt the young disproportionately as they tend to be less productive than other workers due to the lack of experience.

Figure 3.9. **The labour market situation of young adults**

Per cent



1. The reliability of results of the detailed data by age may be affected by the small sample size or the sampling method used.
2. Includes post secondary non-tertiary education.

Source: OECD (2008), *OECD Employment database – online version*, *www.oecd.org/els/employment/data* and *Eurostat database* (2009), *Labour Force Survey*, May.

StatLink http://dx.doi.org/10.1787/644475037253

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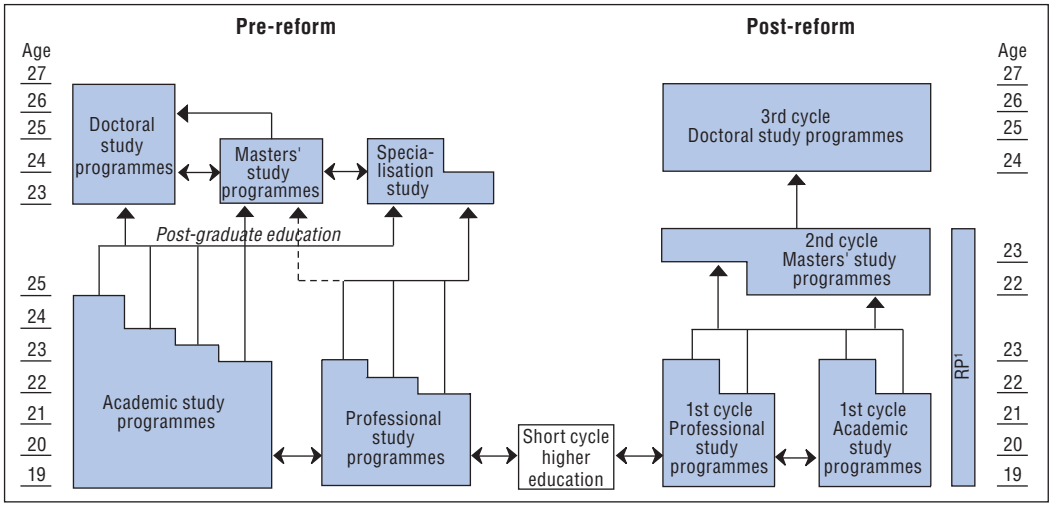
Achieving the right balance between work and studies

The demand for tertiary education has expanded rapidly in the last decade with a rising number of school leavers wishing to continue education before entering the labour market. In 2006, one-third of 20-29 year-olds was enrolled in education compared with one-fourth in the average OECD country (OECD, 2008). As longer periods in full time education should filter through to workforce skills and growth potential, the increase in the number of tertiary students is a positive feature provided the right skills are acquired at the right pace. However, the average duration of tertiary studies is rather long in Slovenia. In the academic year 2006-07, students in higher professional programmes finished their studies on average in 5.4 years and students in university programmes needed 6.9 years.

One reason for the relatively long duration of tertiary studies is that the higher education sector and particularly the universities have traditionally focused on providing long and strongly academic courses. Since the launch of the higher education reform in 2004, the situation is changing as the system is transformed into a three-cycle system consistent with the *Bologna Declaration* (Figure 3.10). Slovenia opted for a gradual implementation of the Bologna reform by the academic year 2009-10 when only post-reform programmes will be offered. Until then higher education institutions offer both pre and post-reform programmes. As only a very small number of students have so far graduated from the new system, the impact of the reform on the length of studies cannot yet be determined.

Figure 3.10. **The structure of higher education in Slovenia**

Before and after the reform of 11 June 2004



1. RP: Long non-structured masters' study programmes (*e.g.* EU regulated professions).

Source: Ministry of Education and Sport.

A second major reason for the long study times is the Slovenian system of study support which does not provide enough incentives for rapid graduation (Box 3.4). The level of benefits granted to students enrolled in higher education – such as subsidies for accommodation, transport and meals – appears relatively generous. Moreover, about a third of all students receive direct financial support in the form of scholarships. As a share of total public expenditure on education, Slovenia spends much more on financial aid to students than the average OECD country (Figure 3.11). Student loans do not currently exist

Box 3.4. **Study support**

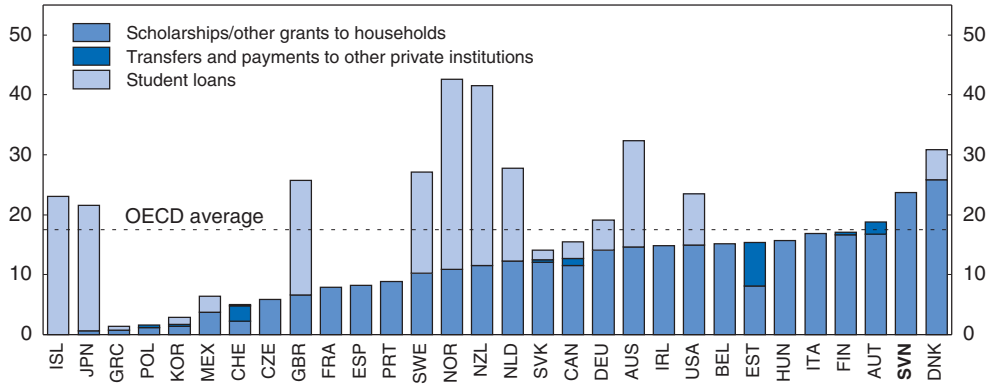
Students enrolled in higher education benefit from subsidised accommodation, subsidised meals (coupon system), discounts on public transportation, discounts on cultural events (such as theatre tickets) and on subscriptions to sports clubs. The only direct financial support is provided in the form of scholarships. *First*, state scholarships targeted at students from low income families are provided to full-time students who enrol in higher education before the age of 27 and whose gross income per family member in the previous year did not exceed 130% of the guaranteed wage. *Second*, academically talented students may be eligible for merit-based scholarships, so-called Zois scholarships (named after a well-known Slovenian scholar). In addition to publicly provided scholarships, there are also company scholarships offered by public and private organisations in relation to their (future) staff requirements. In 2007, 18% of all full-time students were granted a state scholarship (of around EUR 180 per month, on average), 11% were granted a Zois scholarship (of around EUR 210 per month, on average) and 6% received a company scholarship (of around EUR 240 per month, on average).

In 1999 a student loan system was first introduced. Loans were offered on the basis of a contract between the student, the Employment Service of Slovenia and a bank holding a concession (an interest subsidy) awarded by the Ministry of Labour, Family and Social Affairs. Slovenian nationals who were under the age of 27 at the first enrolment, who were not employed and who did not receive any type of scholarship were eligible for the loan. As the number of applicants was very low, the scheme was abolished in 2002/03. The basic amount of a student loan was about EUR 1 050 per annum in 2001, but it could be increased to a maximum amount of EUR 1 580 per annum in special cases.

in Slovenia (with the exception of loans for studies abroad) as the loans introduced in 1999 were abolished again in 2002/03 (Box 3.4). Higher education is in principle free for full-time students of first and second-cycle programmes, though a ministerial decree requires part-time students to pay tuition fees. Institutions have the autonomy to determine the level of tuition fees for part-time programmes themselves; in the academic year 2008/09 the fees ranged from around EUR 1 800 to EUR 4 000 per annum.

Figure 3.11. **Public subsidies for tertiary education**[1]

In per cent of total public expenditure on education, 2005



1. Public subsidies for education to households and other private entities.

Source: OECD (2008), *Education at a Glance*.

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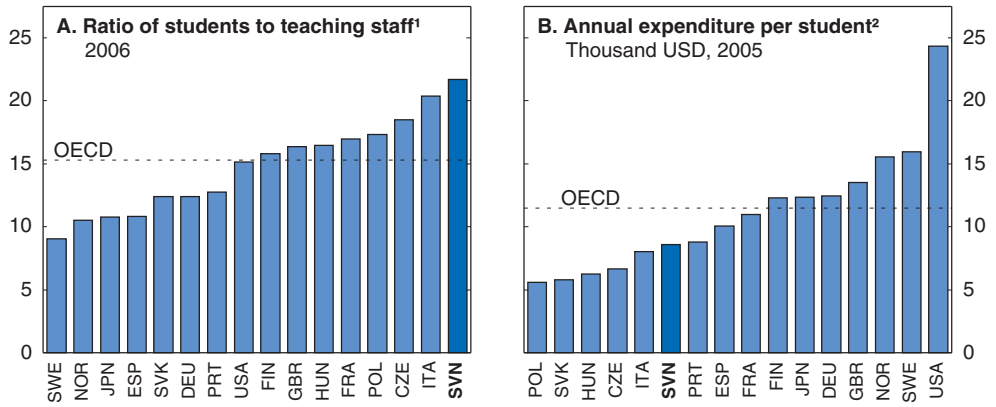
The length of tertiary education is also prolonged by student work. Approximately 60% of all students work alongside their studies. Student workers are exempt from social security contributions (they only pay a contribution to accident insurance) so as to encourage firms to hire them despite the lack of experience. Moreover, students benefit from twice the personal income tax allowance of regular workers (EUR 5 600 per annum) and an exemption from withholding tax for individual payments below EUR 400. While student work allows students to finance their studies and gain work experience, which is certainly useful, the preferential treatment may encourage some students to prolong their studies solely so as to not lose the student status and continue benefiting from a higher net wage. Such behaviour is fostered further by firms who prefer to hire students instead of regular workers thus making it difficult for young graduates to enter the labour market. The system therefore has some serious drawbacks and needs to be rethought and reformed. The government should consider phasing out the preferential treatment or at the very least impose an upper age limit.

Improving the quality of higher education institutions would also contribute to shortening the duration of studies (IMAD, 2008b). The ratio of students to teaching staff, a frequently used indicator for the quality of tertiary education, has barely improved in past years and still falls short of the comparable ratios of most OECD countries (Figure 3.12, panel A), the main reason being the relatively low annual expenditure per student (Čelebič, 2008). In 2005, Slovenia spent USD 8 500 per full-time student (in purchasing power parities) compared with an OECD average of USD 11 500 (Figure 3.12, panel B). Improving the quality of the teaching process may reduce the number of students who have to repeat courses and prevent them from unduly prolonging their studies.

Figure 3.12. **Tertiary education resources**



1. Based on full-time equivalents. Public institutions only for Norway; excluding independent private institutions for France.
2. Expenditure on core and ancillary services, and research and development. In equivalent US dollars converted using purchasing power parities for GDP, based on full-time equivalents. Public institutions only for Hungary, Italy, Poland, Portugal and Slovenia.

Source: OECD (2008), *Education at a Glance*.

StatLink http://dx.doi.org/10.1787/644560104773

Eligibility for student benefits, including cheap housing, should be made contingent on an annual minimum study progress. Similarly, tuition fees in tertiary education that at least partially reflect the cost of education should be introduced. This would raise the

incentives for students to progress rapidly with their studies and also improve market signals between students, providers and the labour market. In addition, it would improve the funding of higher education institutions, thus contributing to a higher quality of the teaching process. To avoid deterring students, especially those from low-income families, the tuition fee system could be accompanied by publicly guaranteed student loans with repayments conditional on earnings after graduation.

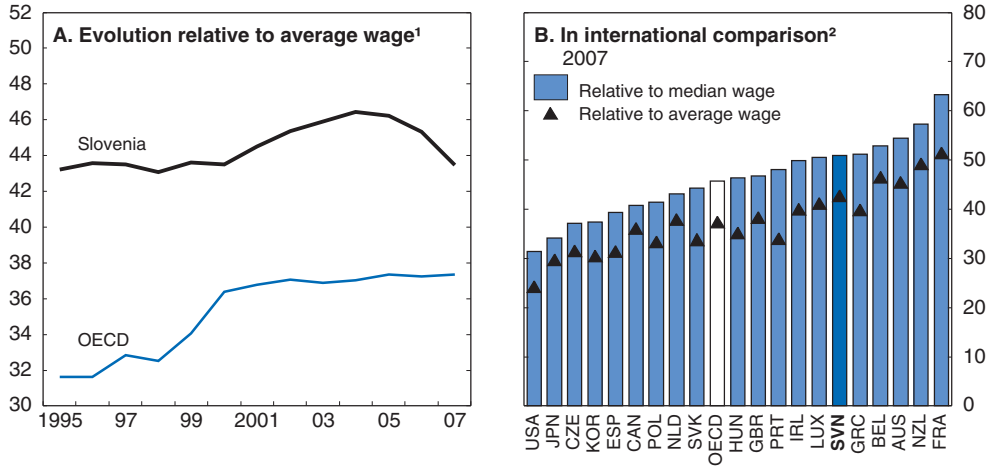
Preventing damage from the minimum wage

The employment opportunities of youth, particularly the less skilled, might also be adversely affected by the relatively high minimum wage. Theoretically, a statutory minimum wage set at too high a level could become a barrier to employment for low-productivity workers by driving a wedge between productivity and labour costs. However, it has proven difficult to pin down the negative employment effects empirically (OECD, 2006b). Regarding the impact on the employment opportunities of young workers the empirical evidence is mixed with some studies having identified negative effects of minimum wages on youth employment, especially if combined with high non-wage labour costs (*e.g.* Abowd *et al.*, 1997; Bassanini and Duval, 2006), while others have failed to do so (*e.g.* Stewart, 2002).

Slovenia has had a statutory minimum wage (which covers all sectors of the economy) since 1995, when the tripartite social agreement determined a cash figure for the lowest permissible monthly wage. Whilst the tripartite agreement concluded in 1997 raised the minimum wage by roughly the same amount as pay in general, the agreement for the period 1999-2001 stipulated an extra increase with the aim of gradually bringing the minimum wage up to 58% of the average wage in the manufacturing sector.[13] During 1999-2004, the minimum wage was also adjusted in line with forecast consumer price inflation and by the real GDP growth rate of the previous year. As a result it increased to around 46.5% of the average wage in the private sector (54% of the average wage in the manufacturing sector) by 2004 (Figure 3.13, panel A). Since 2006, the increase in the minimum wage has been decided by the government after consulting the social partners, based on forecast consumer price inflation. Since inflation came out higher than forecast in 2008 the legislation was amended to provide for an additional increase in the minimum wage of about 5¼ per cent in March 2008. When setting annual increases in the minimum wage, mistakes in forecasting inflation should not only be corrected when underestimated but also when overestimated.

Although the minimum wage has declined relative to the average wage in recent years, it is still fairly high by OECD standards (Figure 3.13, panel B) and may present a barrier to employment for young people, especially for the less-skilled. The ratio of the minimum wage to the average wage should not increase and preferably be further reduced in order to improve the employment prospects of the low-skilled young workers. The argument for reducing the relative level of the minimum wage is reinforced by target efficiency considerations (OECD, 2006b). Although the minimum wage is meant to improve the income of low-income families, a substantial proportion of workers in minimum-wage jobs are likely not to be poor, for example because other family members have earnings. And for those who risk sliding into poverty due to a relative decline in the level of minimum wages, other instruments such as in-work benefits are available that can be better targeted on low-income families. Several OECD countries have lower minimum wages for youth, for example Belgium, the Netherlands and the United Kingdom (see

Figure 3.13. **Minimum wage**
Per cent



1. For Slovenia the average wage data used is the gross wage of the private sector. The OECD aggregate is an unweighted average of the 19 OECD countries shown in panel B, excluding Ireland to 2000, Slovak Republic to 1997 and United Kingdom to 1999.
2. The OECD aggregate is an unweighted average of the countries shown.

Source: OECD (2008), *OECD Employment database – online version*, *www.oecd.org/els/employment/data* and Ministry of Labour, Family and Social Affairs.

StatLink http://dx.doi.org/10.1787/644574232818

OECD, 2009, Table 3.3 for details).[14] However, the empirical evidence on the employment effects of such sub-minima is mixed. While some studies indicate that the negative employment effects of minimum wages are smaller when sub-minimum wages exist (*e.g.* Neumark and Wascher, 1999; Hyslop and Stillman, 2007), others fail to detect any robust effect (*e.g.* Böckerman and Uusitalo, 2007).

Coping with rising labour market dualism

Slovenia has made some notable progress in the past decade in easing EPL in order to improve the flexibility of its labour market (Box 3.1). Vodopivec *et al.* (2007) estimate an index of employment protection legislation for Slovenia over the period 1991 to 2004 and conclude that both the amendment to the *Employment and Insurance against Unemployment Act* that came into force in 1998 and the new *Employment Relationships Act* that came into force in 2003 had a sizable impact on EPL over that period (Table 3.1). Whilst the 1998 amendment to the EIUA facilitated temporary employment, the 2003 amendment to the *Employment Relationships Act* focused primarily on the liberalisation of regular employment and put some additional restrictions on temporary contracts. More recent amendments to the two Acts, enacted respectively in 2006 and 2007, brought about further reductions in EPL on both types of contracts.

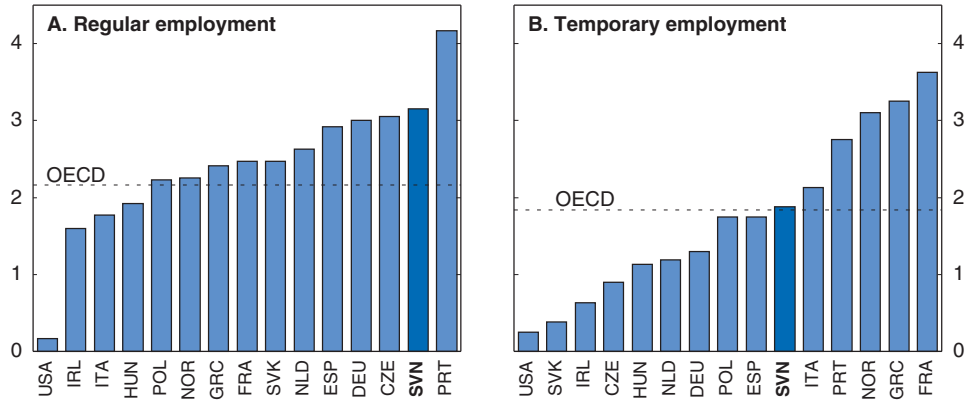
Despite these legislative changes, employment protection is still relatively high in Slovenia (Figure 3.14). The most serious problem is that EPL tends to be much stricter for regular than for temporary work as past reforms eased the use of temporary forms of employment while not going far enough in terms of increased flexibility for those under permanent contracts. The administrative procedures for individual notice and dismissal are cumbersome and the conditions under which dismissals are legitimate are stricter than in many other OECD countries. Moreover, severance payments are still relatively high

Table 3.1. **Employment protection legislation index**
Scale of indicators 0-6, from least to most restrictive

	1997	1998	1999	2000	2001	2002	2003	2004
EPL index overall	4.1	3.1	3.1	3.1	3.1	3.1	2.7	2.7
Regular contracts	4.0	4.0	4.0	4.0	4.0	4.0	2.7	2.7
Procedure	5.0	5.0	5.0	5.0	5.0	5.0	3.0	3.0
Notice and severance pay	3.1	3.1	3.1	3.1	3.1	3.1	1.8	1.8
Difficulty of dismissal	4.0	4.0	4.0	4.0	4.0	4.0	3.3	3.3
Temporary contracts	3.8	1.3	1.3	1.3	1.3	1.3	2.0	2.0
Fixed-term contracts	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3
Temporary work agency employment	5.5	0.5	0.5	0.5	0.5	0.5	1.8	1.8
Collective dismissals	5.3	5.3	5.3	5.3	5.3	5.3	4.8	4.8

Source: Vodopivec, M. *et al.* (2007), "Mobility of Work (Mobilnost dela)", in Dolenc. P. and M. Vodopivec (eds.), *Mobilnost dela in fleksibilnost sistema plač*, Fakultete za Management, Koper.

Figure 3.14. **Regulation of regular and temporary employment**
Scale of indicators 0-6, from least to most restrictive, 2006[1]



1. 2008 for Slovenia which is an OECD estimate. The OECD aggregate is an unweighted average.

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

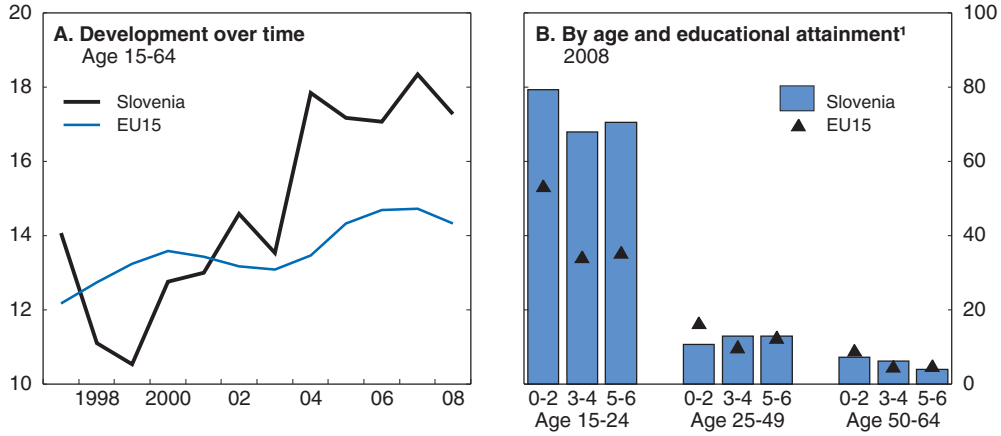
StatLink http://dx.doi.org/10.1787/644580062524

(Box 3.1). The policy of liberalising temporary employment without a similar adjustment of permanent employment risks creating a dual labour market where some jobs are more protected than others.[15] In particular groups with weak attachment to the labour market tend to suffer from a partial relaxation of EPL.

The share of workers with fixed-term contracts has indeed increased significantly since the liberalisation of temporary employment, from 11% in the late 1990s to over 18% in 2007 (Figure 3.15, panel A). A large share of this temporary employment is involuntary with more than half of all workers employed on a temporary basis citing the inability to find a permanent job as the main reason for having a temporary one in the 2007 Labour Force Survey. Temporary employment is particularly prevalent among young workers; in 2007, more than two-thirds of those aged 15 to 24 had a fixed-term contract which is the highest share among European Union countries (Figure 3.15, panel B). In fact, between 2003 and 2007 the number of temporary jobs increased by more than the total number of jobs for the young, implying that the number of regular jobs actually declined during the economic upswing. A large proportion of the temporary employment by youth might be accounted

Figure 3.15. **Incidence of temporary employment**

Employees with a contract of limited duration in per cent of total number of employees



1. ISCED levels: 0-2 = below upper secondary, 3-4 = upper secondary and post-secondary non-tertiary, 5-6 = tertiary. For Slovenia the reliability of results of the detailed unemployment data by age may be affected by the small sample size or the sampling method used.

Source: *Eurostat database* (2009), *Labour Force Survey*, May.

StatLink http://dx.doi.org/10.1787/644603304476

for by student work (see above). The duration of fixed-term contracts is generally very short; more than 80% of all temporary workers aged 15 to 24 have a contract for less than one year (compared with 44% in the EU15).

The large share of youth on fixed-term contracts observed in Slovenia is consistent with existing cross-country evidence showing that a larger difference in employment protection between regular and temporary contracts goes along with a higher prevalence of temporary work among youth (OECD, 2004). As the young are more likely to be subject to entry problems into the labour market than other groups of the workforce they are more likely to be disproportionately affected by the effects of EPL on firms' hiring decisions. Although a temporary job might be the first step towards a more permanent and stable job, this is not always the case and workers might get trapped in the situation of moving between temporary work and unemployment.

The benefits of enhancing overall firm flexibility notwithstanding, temporary work may adversely affect career progression and productivity if workers get trapped in temporary forms of employment that are typically characterised by weak job attachments and limited opportunities to upgrade human capital (OECD, 2004). The problem of labour market dualism needs to be addressed swiftly, not only for reasons of social equality, but also because of economic efficiency. Clawing back past achievements in relaxing EPL for temporary work contracts would, however, be the wrong choice. Instead, once the current economic crisis dissipates, the authorities should continue to ease EPL for regular job contracts. In particular, the administrative burden on individual notice and dismissal should be reduced and the conditions under which individual dismissals are legitimate should be relaxed. Moreover, severance pay provisions should be reformed. One option would be to follow the Austrian example and transform the traditional severance pay system into individual severance accounts (Box 3.5).

Facilitating access of temporary workers to appropriate training could also help to improve their chances of finding a permanent job. Research has shown that job training is

Box 3.5. **The Austrian severance pay reform***

Until 2002 severance pay had to be paid to private-sector employees upon termination of the employment contract (by the employer or in mutual agreement) provided the employee had worked for the employer for at least three years. The payment amounted to two monthly wages after three years of company membership and increased with the duration of the job up to a maximum value of one yearly income after 25 years. This system was criticised for excluding workers on short-term contracts (*e.g.* seasonal workers) from the right to severance pay and for inhibiting labour mobility as employees lost their entitlement to severance pay in the case of self-termination. Furthermore, it was pointed out that SMEs might have liquidity problems if they were to make several severance payments simultaneously.

In 2003, the traditional severance pay system was replaced by a system of individual saving accounts. The account of each worker is funded by the employer *via* an untaxed payment of 1.5377% of the gross wage and is managed by an employee provision fund that invests the balance on capital markets. The payments start in the second month of the employment relationship. If the employee is dismissed after three years of job tenure, he can choose between a cash payment, further investment in the same employee provision fund or in the employee provision fund of the new employer, and transferring the respective amount as a one-time payment to a pension insurance fund. The entitlements to severance pay can thus be cumulated by an employee over his or her entire working career, serving as a form of retirement saving. Upon retirement the employee can either claim a cash payment or convert entitlements into an annuity. If the employee leaves the company voluntarily or if he is dismissed during the first three years of the job contract no cash payment can be claimed, though the claim is not lost as it can be transferred to the new job.

The reform extended the entitlement to severance pay considerably as entitlement starts after one month and neither depends on the job tenure nor on the way the employment relationship is terminated. The level of the payment now depends on the performance of the employee provision fund on the capital market, though the nominal contribution paid by the employer is guaranteed. From an employer's perspective, the new scheme avoids the one-time costs of dismissal and the uncertainty related to the size of the payment at the time of hiring. However, the contributions to the individual accounts add to labour costs.

* This box draws on Hofer, H. (2006), "The Severance Pay Reform in Austria" (Abfertigung Neu), *CESifo DICE Report*, No. 4/2007, CESifo Group, Munich; and Koman, R., U. Schuh and A. Weber (2005), "The Austrian Severance Pay Reform: Toward a Funded Pension Pillar", Empirica, Vol. 32, No. 3-4, Springer Netherlands.

strongly correlated with opportunities for temporary workers to move into permanent jobs (Grubb *et al.*, 2007). In this regard, the recommendations regarding lifelong learning might help to mitigate the dual labour market issue. Finally, the problem of student work needs to be addressed. The preferential treatment of student work may induce firms to hire students instead of regular workers and thus intensify labour market duality. The reimbursement of social security contributions to employers who hire unemployed persons younger than 26, first-time job-seekers whose occupation is in excess supply, or people under 28 who have been unemployed for 24 months (introduced in 2006) is likely to mitigate the negative effects somewhat. However, subsidising regular work by young graduates in order to prevent it from being crowded out by subsidised student work is very costly. Instead, the authorities should consider phasing out the preferential treatment of student work as recommended above.

Box 3.6. **Main recommendations to improve the functioning of the labour market**

Mitigating the effect of the economic crisis without jeopardising the long-run functioning of the labour market

- Ensure that the subsidy scheme for shorter working hours is phased out once the crisis dissipates. In the meantime, make eligibility temporary in nature.
- Avoid any measures that are detrimental to the long-term functioning of the labour market, such as tightening the rules for immigrant workers.

Boosting the labour force participation of the elderly

- Ensure that the penalties/bonuses for early/late retirement are actuarially neutral. Abolish the upper limit on the number of additional working years beyond the statutory retirement age during which bonuses are paid (currently set at three years).
- Phase out remaining possibilities to retire prior to the pensionable age. Limit the use of informal pathways to early retirement by reviewing the disability and long-term sickness insurance schemes to ensure that eligibility conditions are sufficiently tight and adequately monitored, and by reducing the unemployment benefit duration for long-term unemployed older workers towards the general length of 12 months once the current economic crisis dissipates.
- Further strengthen the link between pension benefits and working careers by basing benefits on full lifetime average earnings.
- Allow people to receive wage and pension income at the same time. At the very least, relax the rules for partial retirement and phase out the tax disincentives.
- Ensure that the inter-ministerial working group which was set up to discuss the implementation of the *Lifelong Learning Strategy* quickly develops a plan to put the strategy into action. Evaluate the impact of adult education programmes on labour market outcomes. Swiftly set up and implement the *Active Ageing Strategy*.

Rising the employment rates of youth

- Make eligibility for student benefits, including cheap housing, contingent on an annual minimum study progress.
- Introduce tuition fees in tertiary education. To avoid deterring students, especially those from low-income families, consider complementing the tuition fee system by publicly guaranteed student loans with repayments conditional on earnings after graduation.
- Consider phasing out the preferential treatment of student work or at the very least impose an upper age limit.
- When setting annual increases in the minimum wage, correct mistakes in forecasting inflation not only when underestimated but also when overestimated. Do not increase the ratio of the minimum wage to the average wage and preferably further reduce it.

Coping with rising labour market dualism

- Once the current economic crisis dissipates, continue to ease employment protection legislation for regular job contracts. In particular, reduce the administrative burden on individual notice and dismissal, relax the conditions under which individual dismissals are legitimate and reform severance pay provisions.

Notes

1. Private sector gross earnings rose by around 6½ per cent in 2007 and 8½ per cent in 2008, compared with an average of 3½ per cent per annum over the period 2003-06 when the unemployment rate was close to the NAIRU.
2. The relatively high participation rate is partly due to the structure of the Slovenian population with almost no foreigners and relatively few low-skilled persons. ECB (2008) argue that although the observed Slovenian participation rate is above the euro area average it would be clearly below that average if Slovenia were to have the same population composition as the euro area as a whole.
3. The numbers refer to persons who retired in 2007 under general and special regulation and are taken from the Institute of Pension and Invalidity Insurance of Slovenia (ZPIZ, 2008).
4. The effective retirement ages shown in Figure 3.4 are estimated based on Labour Force Survey (LFS) data to be comparable across countries. The figures for Slovenia are somewhat higher than those published by the Institute of Pension and Invalidity Insurance of Slovenia (ZPIZ, 2008) which are based on the actual age of the persons applying for pension benefits in a given year. A possible explanation for the difference is that some persons are officially retired but continue working in the informal sector. As the LFS considers these persons as employed, such informal employment pushes up the estimated effective retirement age.
5. In 2007, 829 persons claimed a higher pension due to late retirement compared with an increase in the number of total retirees by about 10 000 persons.
6. The minimum (full) pensionable age may be reduced to 56 years (58 years) at most for women and to 58 years (60 years) at most for men.
7. The minimum (full) pensionable age may be reduced to 55 years (58 years) at most.
8. Queisser and Whitehouse (2006) calculate actuarial neutral bonuses/penalties for 19 OECD countries and obtain values in the range of 6% to 9%.
9. The rise was particularly strong in 2003, which may be related to the acceleration in economic growth and, in the case of women, to the right to work reduced hours introduced by the *Parental Protection and Social Benefit Act* (IMAD, 2008a). Moreover, a large share of those aged 15 to 24 in part-time employment is student workers.
10. Cross country evidence for the positive employment effects of adult learning is provided by OECD (2004).
11. This is supported by Bassanini *et al.* (2005) reporting a negative correlation between the rate of training for older workers (relative to younger ones) and the effective tax on continued work (which is likely to be exogenous to training behaviour).
12. As discussed, the causality can run in both directions with higher participation in training raising the employment rates of the elderly and higher employment rates encouraging higher participation in training.
13. The law implementing the provisions of the social agreement for 1999-2001 introduced, for the first time, a national minimum wage in the proper sense as the validity of the part of the law that regulates the minimum wage was not limited, as previously, by the duration of the social agreement.
14. The Netherlands is the country with the most differentiated minimum wage for youth, ranging progressively from 30% of the statutory rate for those- aged 15 to 85% for those aged 22.
15. Temporary contracts tend to be more common in countries with strict EPL on regular contracts even though these countries often also have relatively strict rules on temporary contracts.

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ANNEX 3.A1

Estimating a time-varying NAIRU by means of the Kalman filter

The estimation of the non-accelerating inflation rate of unemployment (NAIRU) follows the approach outlined in Gianella *et al.* (2008). Using the Kalman filter, the NAIRU is derived from its ability to explain inflationary developments within a Phillips-curve framework, subject to constraints on its evolution over time. The Phillips curve equation relates the change in consumer price inflation (measured by the change in the harmonised consumer price index) to real import price inflation (weighted by the import content of consumption to account for the economy's rising openness) and the unemployment gap, defined as the difference between the NAIRU and the unemployment rate.[1] Assuming dynamic homogeneity to hold, the relationship takes the following form:

$$\Delta\pi_t = \sum_{j=1}^{m} \alpha_j(L)\Delta\pi_{t-j} + \sum_{j=0}^{n} \beta_j MGS_{t-j}^{SH}(\pi_{t-j}^{MGS} - \pi_{t-j}) + \gamma(U_t - U_t^*) + \delta D_{VAT} + v_t$$

where π is domestic inflation, MGS^{SH} is the import content of consumption,[2] π^{MGS} is import price inflation (goods and services), U is the unemployment rate, U^* is the NAIRU, D_{VAT} is a dummy variable meant to capture the introduction of value added tax (VAT) in July 1999, and v_t is the residual. The appropriate lag structure for the three right-hand-side inflation variables is determined by starting with four lags each and then dropping statistically insignificant lags. Data on domestic inflation and unemployment are obtained from respectively Eurostat and the Statistical Office of Slovenia; all other data are taken from the *OECD Economic Outlook database*.

There is no unique way of using the Kalman filter to estimate the NAIRU and a variety of assumptions may be adopted to describe the stochastic process it follows. Following Gianella *et al.* (2008), the NAIRU is inferred from two transition equations specifying the time-series properties of respectively the NAIRU and the unemployment gap. The NAIRU is modelled as a simple random walk process which seems appropriate given that the unemployment rate series is integrated of order one. The transition equation for the NAIRU thus takes the following form:

$$U_t^* = U_{t-1}^* + \varepsilon_t$$

where the error term ε_t is assumed to be normally distributed with mean zero and variance σ_ε^2 and uncorrelated with the error term of the Phillips-curve equation v_t.

In addition, a law of motion is imposed on the gap between the NAIRU and the unemployment rate to ensure that the unemployment rate converges to the NAIRU in the absence of shocks. This assumption is consistent with the work by Friedman (1968) on the

natural rate hypothesis implying that the unemployment rate cannot deviate permanently from its natural rate. The unemployment gap is assumed to follow a second-order autoregressive process. This additional restriction allows inferring the level of the NAIRU not only on the basis of information on inflationary pressures, but also based on the unemployment rate dynamics themselves. The transition equation for the unemployment gap can be written as:

$$U_t - U_t^* = \psi(L)(U_{t-1} - U_{t-1}^*) + \zeta_t$$

where the error term ζ_t is normally distributed with mean zero and variance σ_ζ^2 and uncorrelated with ε_t. Although not necessary for the solution of the model, constraints are imposed on the sum of the autoregressive parameters to ensure sensible time-series properties of the unemployment gap.[3]

Applying the Kalman filter to the model outlined above requires assumptions about several parameters. *First*, the values and variances of the two state variables (the NAIRU and the unemployment gap) in the initial period have to be pre-specified. The initial value of the NAIRU is set equal to the average unemployment rate around the first year of the sample and the initial value of the unemployment gap is set equal to the difference between the unemployment rate in the initial period and the prior for the NAIRU. *Second*, assumptions are made about the relative variances of the three residuals σ_v^2, σ_ε^2 and σ_ζ^2. The variance of the error term in the transition equation of the NAIRU relative to the one of the error term in the Phillips-curve equation (the signal-to-noise-ratio) determines the smoothness of the NAIRU series with a smaller ratio resulting in a less volatile NAIRU. While in principle the Kalman filter allows estimating the three variances together with the other parameters of the model, this often leads to NAIRU series that are too smooth (Richardson *et al.*, 2000). As a consequence, the variances are typically fixed in empirical applications. Following the suggestion by Gordon (1997), the signal-to-noise ratio is chosen such that it allows the NAIRU to move around freely but rules out sharp quarter-to-quarter gyrations.

The model is estimated over the period 1997Q2 to 2008Q3, the longest period for which all data are available. The unemployment gap is found to have a significant influence on consumer price inflation suggesting that the derived NAIRU can be interpreted as the unemployment rate consistent with stable inflation (Table 3.A1.1). The sacrifice ratio implied by the estimated coefficients is equal to 0.59 which is consistent with the values obtained by Gianella *et al.* (2008) for other OECD countries. The estimates suggest that the NAIRU declined throughout the sample period, reaching around 5½ per cent in the third quarter of 2008 (Figure 3.2). The sharp drop in unemployment in recent years appears to have been to a large extent a cyclical phenomenon as the unemployment rate fell considerably below the NAIRU.

Table 3.A1.1. **Phillips curve estimates**

Variable	Coefficient	Standard error[1]	Diagnostic statistics	
$\Delta\pi_{t-1}$	–0.892	0.098	Adj. R^2	0.706
$\Delta\pi_{t-2}$	–0.800	0.103	$\sigma_\varepsilon^2/\sigma_v^2$	5.000
$\Delta\pi_{t-3}$	–0.732	0.063	Sacrifice ratio	0.570
$MGS_t^{SH}(\pi_t^{MGS} - \pi_t)$	0.205	0.108	Serial correlation (lags 1 to 4, *p*-value)	0.906
$U_t - U_t^*$	–0.376	0.193	Normality (*p*-value)	0.380
D_{VAT}	0.987	0.274	Heteroskedasticity (*p*-value)	0.765

1. Newey-West heteroskedasticity consistent standard errors.

Notes

1. The change in the real oil price was initially also included in the equation but did not turn out significant.
2. Calculated as $MGS_t^{SH} = M_t/(Y_t + M_t - X_t)$ where M, X and Y denote imports, exports and domestic output.
3. The value chosen for the sum of the autoregressive parameters is equal to 0.75.

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ANNEX 3.A2

Investigating the impact of Slovenian labour market reforms

This Annex makes use of a standard search-matching model to examine the impact of Slovenia's labour market reforms on unemployment. Such models have already been applied to more advanced EU economies and several countries from central Europe. The only application that exists for Slovenia is Domadenik (2007) who investigates the relationship between employment protection legislation and the probability of switching from inactivity or unemployment to employment. The search-matching model allows for a formal analysis of the unemployment effects of labour market reforms in Slovenia. The focus is on changes in unemployment benefits, social security contributions paid by employers, active labour market policies and the bargaining power of workers.

The model is similar to the one used by Boeri and van Ours (2008). Workers are either employed in the private sector or unemployed. Unemployed workers receive benefits *b* while employed workers receive wage *w*. Firms post vacancies to fill jobs at cost *c*, and each filled job results in output *y*. Employment relationships are formed by matching unemployed workers with vacancies through a matching function $A = A(U)^{1-\eta}v^{\eta}$, where A > 0 denotes the efficiency of the matching and $\eta \in (0,1)$ is the elasticity of matches with respect to vacancies. Job offers arrive at rate $\mu(\theta)A\theta^{\eta}$, where $\theta = v/U$. Conversely, firms fill vacancies at rate $\mu(\theta)/\theta = A\theta^{\eta-1}$. After a match is formed, wages are determined through a bargaining process. All jobs dissolve at rate δ and firms pay a severance payment c_S to each dismissed worker. The employment rate $E(t)$ and the unemployment rate $U(t)$ change according to:

$$\dot{E}(t) = A\theta^{\eta-1}v(t) - \delta E(t) \tag{1}$$

and

$$\dot{U}(t) = \delta E(t) - A\theta^{\eta}U(t) \tag{2}$$

Suppressing the time script *t* and normalizing $E + U = 1$, the steady state unemployment rate is:

$$U^{*} = \delta^{-1}(\delta + A\bar{\theta}^{\eta}) \tag{3}$$

Let V_E and V_U denote the value to a worker of being employed and unemployed. Assuming risk neutrality and a discount rate ρ the returns in each of these states follow the Bellman equations:

$$\rho V_U = b + l + A\theta^{\eta}(V_E - V_U) \tag{4}$$

and

$$\rho V_E = w + \delta(V_U - V_E) \tag{5}$$

where l is the value of leisure. Similarly, denoting the value of a filled job by J_E and the value of a vacancy by J_V, the returns are:

$$\rho J_E = y - (1+\tau)w + \delta(J_V - J_E - c_s) \tag{6}$$

and

$$\rho J_V = -c + A\theta^{\eta-1}(J_E - J_V) \tag{7}$$

where y is the output resulting from the filled vacancy and τ is the social security contributions imposed on the employer. Assuming free entry into job-creation, the equilibrium value of posting a vacancy is $J_V = 0$. Equations (6) and (7) become:

$$(\rho+\delta)^{-1}\{y - (1+\tau)w - \delta c_s\} = A^{-1}c\theta^{1-\eta} \tag{8}$$

To close the model, the wage is determined by solving the Nash bargaining problem, where $\beta \in (0,1)$ denotes the relative bargaining power of workers:

$$\max_w (V_E - V_U)^{\beta}(J_E - J_V)^{1-\beta} \tag{9}$$

subject to $S = V_E - V_U + J_E$ and $J_E - J_V > 0$ and $V_E - V_U > 0$, where S is the total surplus. Solving (9) yields:

$$w = (1+\beta\tau)^{-1}\{(1-\beta)(b+l) + \beta(y + c\theta - \delta c_s)\} \tag{10}$$

The steady state unemployment, wage rate and unemployment-vacancy ratio are obtained by solving (4), (8), and (10). The comparative statistics show that unemployment rises with an increase in social security contributions paid by the employer τ, the bargaining power of workers β, the cost of posting a vacancy c, the level of severance pay c_S, the size of unemployment benefits b, the value of leisure l and job destruction δ, but declines with a rise in the efficiency of the matching process A and output y. The values of the parameters are obtained by partly using values from existing studies and partly calibrating them so as to obtain a steady state that is consistent with Slovenian labour market data (Table 3.A2.1).[1] As shown in Table 3.A2.2, the chosen parameters reproduce the key characteristics of the Slovenian labour market indeed quite well.[2]

Table 3.A2.1. **Parameter values of the matching model**

Parameter	Value	Source
Job destruction rate δ	0.015 per quarter	Haltiwanger and Vodopivec (2002), Mitra (2008)[1]
Elasticity of matches versus vacancies η	0.5	Pasi *et al.* (1999), Zhou (2006), van Ours (2007)
Cost of putting a vacancy c	4 per worker	calibrated
Output y	1.7 per worker	calibrated
Matching efficiency A	0.65	calibrated
Discount rate ρ	0.01 per quarter	Pasi *et al.* (1999), Zhou (2006)
Workers' bargaining power β	0.5	set equal to η (Hosios, 1990)
Value of leisure l	0.3 per worker	calibrated
Severance pay c_S	1.15 per worker	calibrated
Employers' social security contributions τ	0.2 per worker	calibrated
Unemployment benefits b	0.5 per worker	calibrated

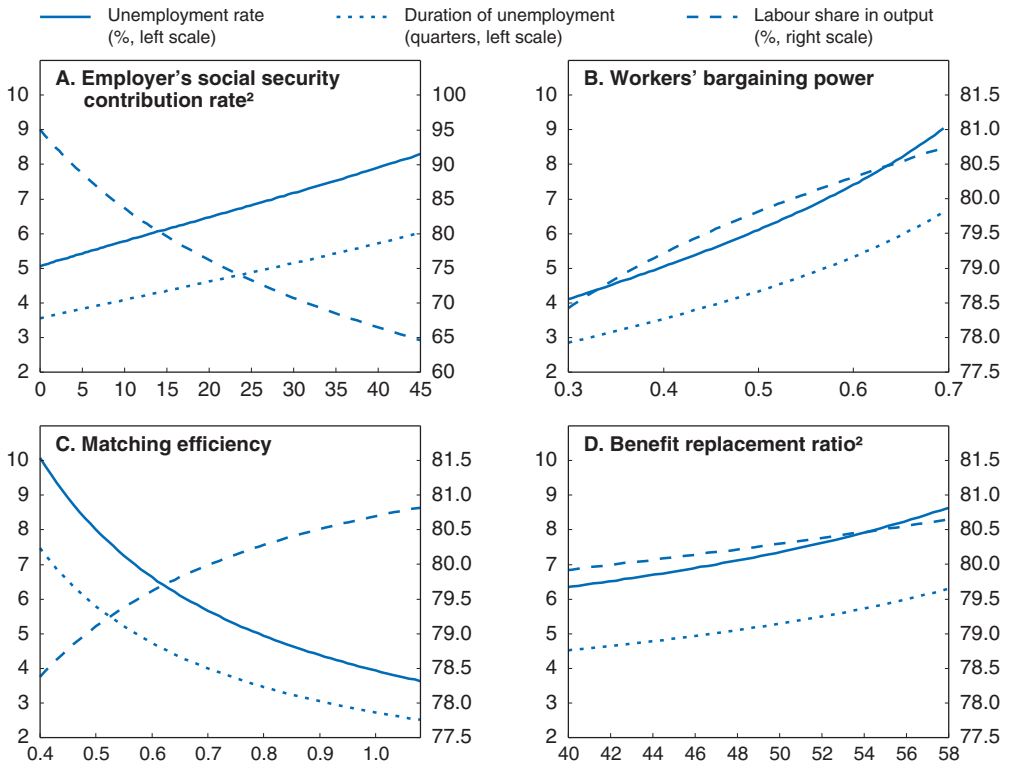
1. The chosen value lies within the range of values reported by Haltiwanger and Vodopivec (2002) and Mitra (2008). Sensitivity analysis shows that unemployment is sensitive to changes in δ though changes lie within the NAIRU's 95% confidence band.

Table 3.A2.2. **Observed labour market outcomes and benchmark equilibrium of the model**

Parameter	Model outcome	Observation
Unemployment U^*	6.1%	6.3% (2001-07, OECD calculations, see Annex 3.A1)
Average duration of unemployment $(A\theta^{\eta})^{-1}$	4.3 quarters	6 quarters (2001-07, OECD calculations based on LFS data)
Ratio of vacancy rate to unemployment rate θ	12.6%	12.4% (2001-06, OECD calculations based on data from the Statistical Office of Slovenia)
Labour share in income w/y	79.8%	69% (2001-07, OECD calculations, see Chapter 1)
Employers' social security contributions rate τ/w	14.7%	13.7% (2008, Slovenian Ministry of Finance)
Unemployment benefit replacement rate b/w	36.9%	37.2% (OECD calculations, assuming unemployment duration of 4.3 quarters)
Severance pay rate c_S/w	84.8%	84.2% (OECD calculations, assuming average job tenure of 10 years, obtained from Eurobarometer 64.1)

The simulations suggest that a cut in the rate of social security contributions paid by employers reduces the level and duration of unemployment as higher profitability induces firms to post more vacancies (Figure 3.A2.1, panel A). A cut in the rate of social security contributions by 10 percentage points is associated with a decline in the unemployment rate by around ½ to one percentage point, though these numbers have to be interpreted with great caution given the uncertainty that surrounds the parameters of the model. Similarly, legislative changes that reduce the bargaining power of workers lead to a decline in the level and duration of unemployment as they raise the profitability of firms, though

Figure 3.A2.1. **Impact of variations in labour market institutions**[1]



1. The variable in the title of the panel is shown on the x-axis.
2. In per cent of the (endogenous) real wage.

StatLink http://dx.doi.org/10.1787/644603401243

such changes are also associated with a fall in real wages (Figure 3.A2.1, panel B). A reduction in a (binding) minimum wage would have a similar impact. By contrast, an expansion of ALMP (or an improvement of existing ones) that raises the efficiency of the matching process reduces the level and duration of unemployment, whilst pushing up real wages (Figure 3.A2.1, panel C). Finally, cutting the size of unemployment benefits reduces workers' bargaining power and hence real wages, which stimulates firms to post more vacancies and thus lowers the level and duration of unemployment (Figure 3.A2.1, panel D). A 10 percentage point cut in the benefit replacement rate is associated with a decline in unemployment by about 0.3 to 2.2 percentage points.

Notes

1. The efficiency of matching is set equal to 0.65, which is below the value of unity that is commonly used in the literature (for example, Zhou, 2006; van Ours, 2007). However, existing studies mainly deal with advanced economies and catching-up economies are likely to have a less efficient matching process than advanced economies as indicated by the longer duration of unemployment in these countries.
2. Similar to other studies that apply variants of the search-matching model the average duration of unemployment implied by the calibration is somewhat lower than the observed one (see, for example, Pasi *et al*., 1999; van Ours, 2007). At the same time, the labour share in output is somewhat higher than the one calculated in Chapter 1 of this *Survey*.

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Chapter 4

Enhancing the business environment to foster productivity growth

Slovenia's rapid catch-up process owes much to a favourable business environment. The 2008 level of product market regulation (PMR) index is much lower than in the Czech Republic and Poland, while being closer to the levels noted for neighbouring countries (Austria, Hungary and Italy) or the OECD average. Keener competition since EU accession has set the stage for large numbers of small and medium-sized enterprises to be created. Foreign direct investment (FDI) inflows, though, have remained low, pointing to a sub-optimal transfer of best-practice knowledge. In key service sectors (financial services, energy and telecommunication), low contestability linked to state involvement and strong market concentration may have deterred inward FDI.

In this setting, competitive forces in state-controlled services sectors need to be spurred through economic restructuring, improved corporate governance practices and, ultimately, through further privatisation when the economy recovers. A more efficient financial service sector is particularly needed to develop sophisticated financial products for a rapidly ageing population. Furthermore, overall prospects of reduced potential output growth strengthen the call for a comprehensive innovation system to allocate resources to knowledge-intensive sectors. The quality of Slovenia's future business environment will largely depend upon the success of innovation policies, including the provision of efficient, innovation-oriented support services. The key challenge in this area is the optimisation of collaborative links connecting the research community, the business sector and the State. Evidence suggests that it is the combination of framework conditions rather than a reform in one single area that matters for long-run economic performance.

Led by strong gains in total factor productivity (TFP) and buoyant output growth, Slovenia's per capita income rose to 85% of the EU15 average in 2007. Intense pressure on resources has produced a positive output gap in 2007-08, pushing the unemployment rate below the non-accelerating inflation rate of unemployment (NAIRU) for some years (see Chapter 3). Looking ahead, real income convergence is set to slow, the remaining income gap having become small. In addition, the rapid ageing of the population will tend to curb potential output growth. In this setting, policy makers have naturally focused attention on areas with a strong potential for enhanced efficiency. One of these areas is the business environment.

This chapter outlines the range of opportunities for improving Slovenia's business environment. It identifies major areas where policy action is needed to strengthen competitive forces and to stimulate entrepreneurial dynamism. The first section describes Slovenia's changing ownership and enterprise structures. The second section deals with salient features of the current business environment, as indicated by the state of product market competition and the strength of innovative, entrepreneurial forces. The third section analyses recent initiatives to improve the business environment. Main examples of potentially anti-competitive behaviour in key service sectors are highlighted in the last section. The policy recommendations are summarised in Box 4.4 at the end of the chapter.

Changing ownership and enterprise structure

A slowly changing ownership structure

Slovenia implemented a major programme of ownership transformation in the 1990s as part of its transition into a market-oriented economy. The 1992 Ownership Transformation Act, the main legislation in this area, was aimed at ensuring a smooth transfer of ownership rights in socially owned enterprises (SFRY). These enterprises were held by the State, but run jointly by employees and management (self-managed firms). They constituted the vast majority of firms (Box 4.1).

In the early phase of ownership transformation, foreign participation was kept at bay by capital controls, a two-year freeze on share transfers for newly privatised companies and investment restrictions in the banking and insurance sector. With the advent of EU membership, however, these restrictions were progressively relaxed and phased out. Even so, FDI inflows, though picking up in 2007, have remained relatively low.

By 2004, the divestment of socially owned enterprises was largely completed. In the second phase of ownership transformation, the State was expected to gradually withdraw from the economy (filling the "privatisation gap"), except for companies of "strategic" interest where the State would retain a dominant influence. Privatisation projects included banks, energy utilities, the airport, port facilities (Adriatic seaport of Koper), railways, the Telecommunication Company and major industrial firms producing steel, aluminium, tyres and pharmaceutical products. The second privatisation phase was expected to present significant opportunities for foreign investors.

Box 4.1. **Dissolution of social ownership (1992-2004)**

The 1992 legislation provided for a decentralised approach to dissolving social ownership based on general conditions set out by the law. Ownership transformation followed a predetermined formula, allowing a large proportion of company shares to be allocated to employees and management. During the process of ownership transformation, privatisation certificates (vouchers) were issued totalling 40% of GDP. One fifth of a firm's capital had to be transferred to employees. Another portion of 40% could be sold either to employees or directly to the public. As it turned out, the majority of firms opted for the internal method allocating shares to insiders. The remaining 40% of the socially owned capital had to be transferred to three State-controlled Funds (SCFs) (OECD, 1997).

Two of these Funds, the Compensation Fund (providing compensation payments for previous owners) and the Capital Fund of Pension Insurance, received each 10% of the social capital. The third Fund, the Slovene Development Fund, received 20% of the capital, its main mandate being to restructure companies and to sell them thereafter to private investment funds (PIFs). An ownership certificate (voucher) account was opened for each citizen enabling purchases of non-transferable shares of privatised enterprises. Ownership privatisation took mainly the form of direct management-employee buy-outs, voucher-based purchases and direct sales to buyers. The emerging ownership structure was of a hybrid nature, combining buy-outs by Slovenian citizens with a transitory "nationalisation" through the three State Funds (Buchen, 2005).

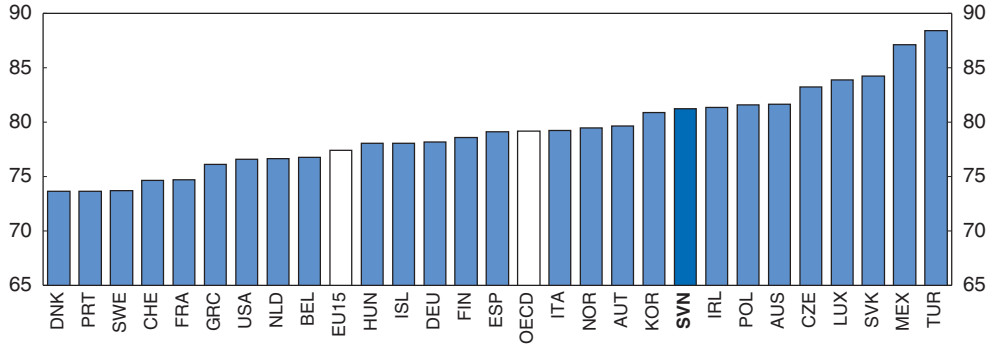
State Funds have held non-controlling shares in large segments of the economy and in the decision-making process of individual enterprises. The Slovenian Development Corporation (1997), the legal successor to the Slovenian Development Fund, restructured, privatised or liquidated a large number of companies. The Slovenian Development Corporation ceased its operation in 2004 after divesting as many as 1 340 companies. The privatisation process achieved one of its main objectives, *i.e.* the transfer of ownership of most socially owned companies to the private sector, while preserving the social consensus over privatisation (WTO, 2002).

As it turned out, privatisation in 2004-08 proceeded more slowly than planned and, EU-accession notwithstanding, inward FDI declined sharply in terms of GDP until 2006. Major privatisations comprised the leading retail food company (Mercator; 100% privatisation in 2005), Slovenska Industrija Jekla d.d. and the second largest bank NKBM (partial privatisation with a sale of 48.1% of the bank's capital through an Initial Public Offer in December 2007). Coincidentally, two State Funds, the Capital Fund (KAD) and the Compensation or Restitution Fund (SOD), reduced their portfolio of companies from 492 in 2004 to 194 in 2008. In remaining companies, however, State participation increased over time. At 81% of the total economy, the private sector is larger than OECD average but remains smaller than in other transition economies (Figure 4.1). However, this ratio does not reflect the full scope of the state involvement in the economy as it has a direct or indirect minority blocking share in many private companies.

Privatisation coincided with a sharply reduced diffusion of popular ownership, the number of shareholders dropping to around one third of the population in 2008 from around three quarters at the end of the 1990s. At the same time, the number of publicly traded companies declined, while the concentration of ownership with management buyouts (MBO) and subsequent squeeze outs of minority shareholders accelerated. Partly financed by state-owned banks, the MBOs have been highly leveraged. In some instances, however, MBOs

Figure 4.1. **Private sector share in GDP**[1]

Gross value added in current prices in per cent of total, 2007[2]



1. Private sector covers NACE activities A to K (from agriculture, hunting and forestry to real estate, renting and business activities).
2. 2006 for Irerland and Mexico. The OECD aggregate is an unweighted average excluding Canada, Japan and New Zealand.

Source: OECD (2009), *National Accounts of OECD countries – online database*, April and *Eurostat database* (2009), *Economy and Finance*, April.

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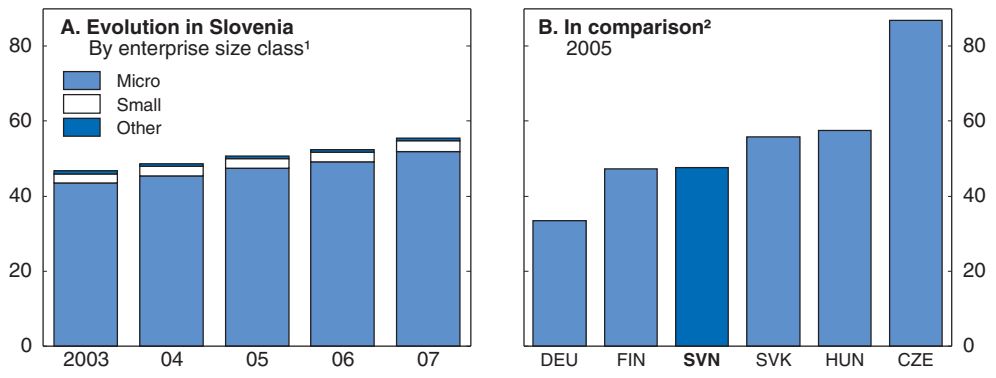
failed to correspond to principles of good corporate governance: existing take-over regulation was circumvented through beneficial ownership being hidden under another friendly name ("parked"). This practice allowed prices to be lowered during the take-over bid.

A rapidly changing structure of the enterprise population

The process of ownership transformation and privatisation has coincided with significant changes in both enterprise density and the structure of the enterprise population. The rise in the number of firms (20% between 2003 and 2007) far exceeded population growth, raising enterprise density (number of firms per inhabitant) to levels observed in many other countries (Figure 4.2). Higher enterprise density reversed earlier trends, which had pointed to an embedded lack of entrepreneurial dynamism (OECD, 1997).

Figure 4.2. **Enterprise density**

Active enterprises in industry and services per thousand population



1. Enterprise size class by number of employees: micro – up to 9, small – 10-49, other – 50 and above.
2. Excluding public administration and management activities of holding companies; 2004 for Germany.

Source: IMAD (2006-08), *Slovenian Economic Mirror* (various issues), Institute of Macroeconomic Analysis and Development; and *Eurostat database* (2009), *Industry, Trade and Services; and Population and Social Conditions*, March.

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The sharp rise in the number of firms from 93 200 in 2003 to 112 000 in 2007 entirely stemmed from buoyant creation of small firms (10-49 persons) and micro enterprises (up to 9 persons), mainly in construction and real estate. In contrast, the number of large enterprises (250 persons and more) fell from 300 in 2003 to 274 in 2007, while the average number of persons employed by large firms increased (Table 4.1). As a result of these divergent movements, the share of small and medium-sized enterprises (SME) in the firm population edged up to 99.8%, with micro firms accounting for as much as 93.5% of the enterprise population.

Table 4.1. **Basic enterprise indicators**

	2003	2007
Number of enterprises	93 233	112 026
of which: small and medium-sized enterprises (SME) (%)	99.7	99.8
Size distribution of enterprises (% of total)		
Large (250 employees and more)	0.3	0.2
Medium–sized (50-249 employees)	1.2	1.2
Small (10-49 employees)	5.2	5.1
Micro (up to 10 employees)	93.3	93.5
Average operating revenue per employee (thousand EUR)		
Large firms	102	140
SMEs	90	130
Medium–sized firms	98	143
Small firms	105	148
Micro firms	73	107

Source: IMAD (2006-08), *Slovenian Economic Mirror*, various issues, Institute of Macroeconomic Analysis and Development.

Value productivity (operating revenues per employed person) increased much more strongly for each of the three SME-categories (medium-sized, small and micro firms) in the period 2003-07 than for large firms. Job creation broadly mirrored the scale of rising value productivity, being buoyant for SMEs, especially for small and micro firms, whereas overall employment in large firms declined. The trend of rising firm creation, value productivity and job growth confirms evidence gathered in other transition countries, where *ex novo* firms stand out in terms of vibrant efficiency and employment gains. In contrast, State-owned and privatised firms often display similar, lukewarm performance patterns (OECD, 1997; Scarpetta *et al.*, 2002).

Signs of qualitative comparative advantages

Historically, Slovenia's SMEs have been proficient in the domain of product design and product differentiation, enabling swift adaptations to shifting consumer demands. This faculty has traditionally enabled firms to operate in product niches, making them competitive in high-value added segments of the manufacturing sector. Movements of unit value ratios (UVRs) show indeed an improvement in the quality content of Slovenia's manufacturing goods exports in the 1994-2004 period (IMF, 2006). While the scale of quality improvement has been larger than in countries with a similar per-capita income level (*e.g.* Portugal), it has been smaller than in other new member states (Czech Republic, Estonia and Hungary). Comparing the structure of Slovenia's exports to the EU15 shows a specialisation in technology-intensive and skilled-labour intensive goods. Most of these, however, fall into the category of medium and low technology (90% as against 74% for the EU15 average).

With reduced prospects of catching up and keener technological competition, the pressure to maintain export market shares is set to rise. In this setting, continued policy efforts are required to raise the sophistication of production and have enhanced quality to open up new markets (Fabrizio *et al.*, 2007). In the past, a programme of cluster formation (2000-02) aimed at sharpening qualitative, comparative advantages by kindling co-operation and networking among local producers (geographical proximity). Based upon the bottom-up approach and the principle of learning-by-doing, the cluster programme is credited with having added to small and micro firms' vibrancy. The most innovative clusters can be found in the machine tools, electrical/optical, automotive, domestic appliances, construction and transport industries (Dermastia, 2005).

Good business environment and adequate entrepreneurial dynamism

Rising foreign trade shares but weak FDI inflows

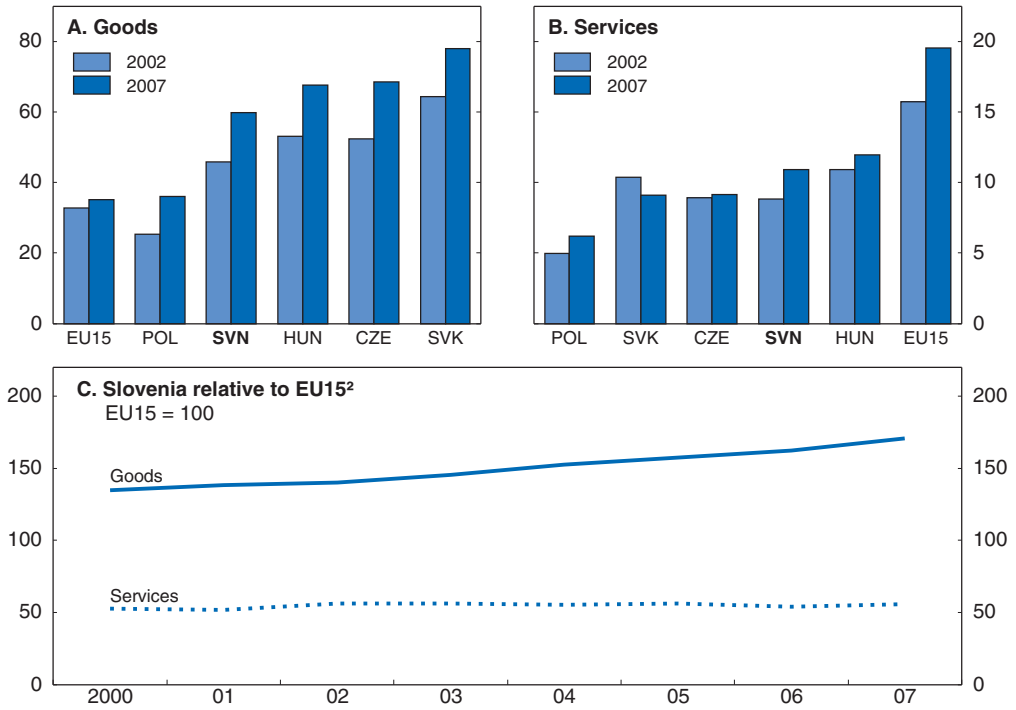
Slovenia's openness to competitive forces is manifest in large and growing foreign trade shares. International market integration (measured by the sum of the value of exports and imports as a percentage of GDP) is strong, with export and import shares being large and rising since EU accession (Figure 4.3). While the international market integration for goods is stronger than for services (a commonly observed phenomenon), the gap between the two (nearly 50 percentage points in 2007) is unusually large for a country with a relatively large per capita income. Moreover, flows of inward and outward foreign direct investment (FDI) have remained subdued in terms of GDP (Figure 4.4). International service trade and FDI thus contribute much less to competitive pressures than international goods trade. In some key service sectors, high market concentration combined with dominant State involvement have deterred inward flows of FDI (Dalsgaard, 2008).

Inward FDI (mostly from EU countries and Switzerland) doubled in 2001-03, rising to nearly 4% of GDP in 2003. It contracted subsequently, falling below 2% of GDP in 2006 (Figure 4.4), a surprising development considering EU accession and FDI increases observed in other new-member countries. The figures for 2007, when FDI inflows reached 3% of GDP, indicate a slight improvement compared to the previous years.

The number of firms with inward FDI participation is small (4.9% at the end of 2006) and largely concentrated in the export and import sectors. In terms of capital, the presence of FDI is stronger, accounting for 17% of the corporate sector's capital at the end of 2006. Firms with FDI participation record higher profits than in the corporate sector as a whole. They also pay wage premiums (13% in manufacturing), but not in the hotel and catering sectors. Nearly one half of inward FDI in 2004 has been concentrated in manufacturing, nearly one fifth in financial intermediation and another fifth in trade (wholesale and retail), transport, storage and communication.

In contrast to the weaker trend of inward FDI, outward FDI picked up since EU accession, surpassing inward FDI in terms of GDP in 2006. Stronger outward FDI largely reflected high expected rates of return on capital in the countries of the former Yugoslavia. Outward FDI is highly concentrated in a few Slovenian firms. At 2.5% in 2004, the number of Slovenian companies investing abroad was only half the corresponding number for inward FDI.

Figure 4.3. **Market integration**
In per cent of GDP[1]



1. Measured by the average value of imports and exports in per cent of nominal gross domestic product.
2. Unweighted average.

Source: OECD (2009), *National Accounts of OECD Countries – online database*, April.

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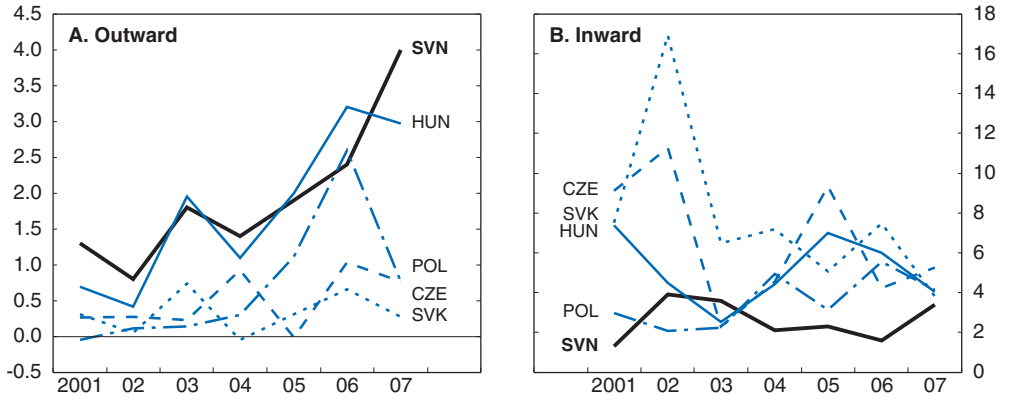
Figure 4.4. **Foreign direct investment flows**
In per cent of GDP



Source: OECD (2009), *International Direct Investment* and *National Accounts of OECD countries – online databases*, April; *Eurostat database* (2009), *Economy and Finance*, April.

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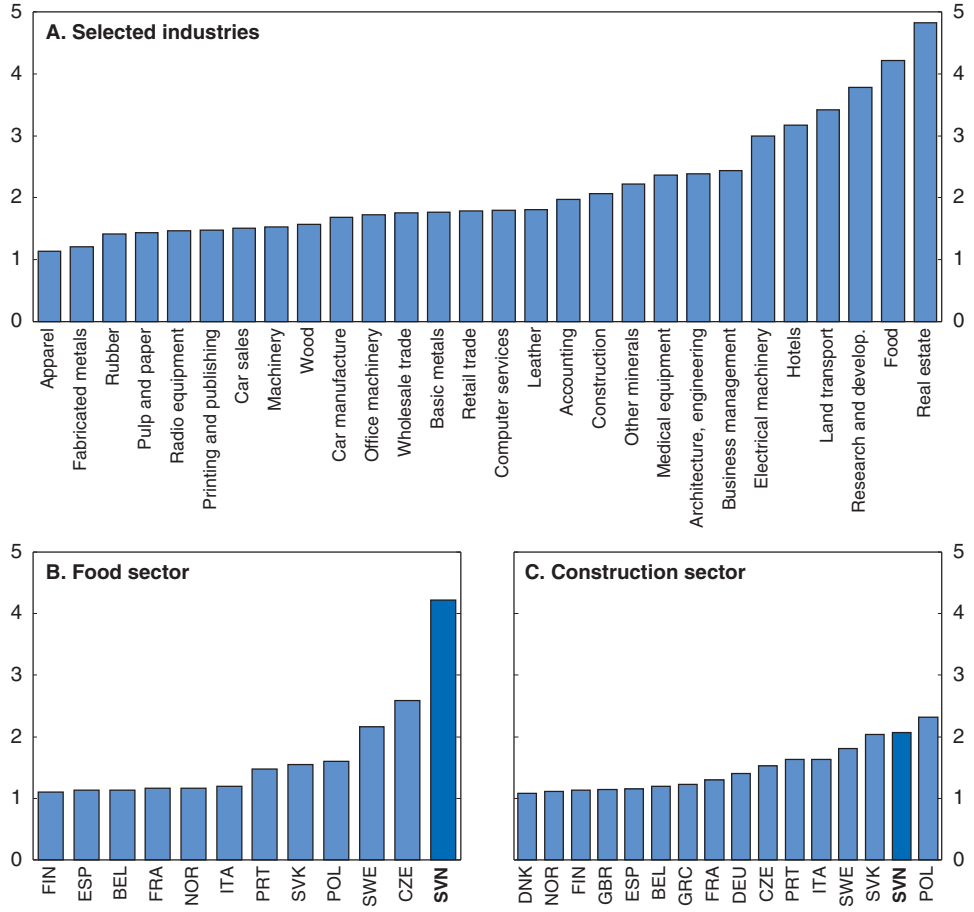
Product market competition: room for reducing mark-ups in some sectors

On average, mark-ups in Slovenian industries do not appear particularly high in comparison with OECD countries, but the average masks large differences across sectors

(for the estimation method of the mark-ups see Annex 4.A1). The lack of competitive pressure allows for high mark-ups in a number of sectors (Figure 4.5, panel A). Mark-ups are probably the best available measure of competition and high mark-ups are an indication of weak competitive pressure stemming from *inter alia* a combination of excessive product market regulation, or the lack of regulation in case of dominant players, or the lack of competition from foreign exporters or investors.

Figure 4.5. **Estimated mark-ups**[1]



1. Mark-ups are estimated using firm-level data over 1993-2005 and are expressed as a ratio over average cost.

Source: Molnar, M. (2009), "Measuring Competition in Slovenian Industries – Estimation of Mark-ups", *OECD Economics Department Working Paper*, forthcoming and Molnar, M. and N. Bottini (2008), "How Large are Competitive Pressures in Services Markets? – Estimation of Mark-ups for Selected OECD Countries", paper presented at the OECD Technical Workshop on Trade Barrier Assessment Methodology, 12 December.

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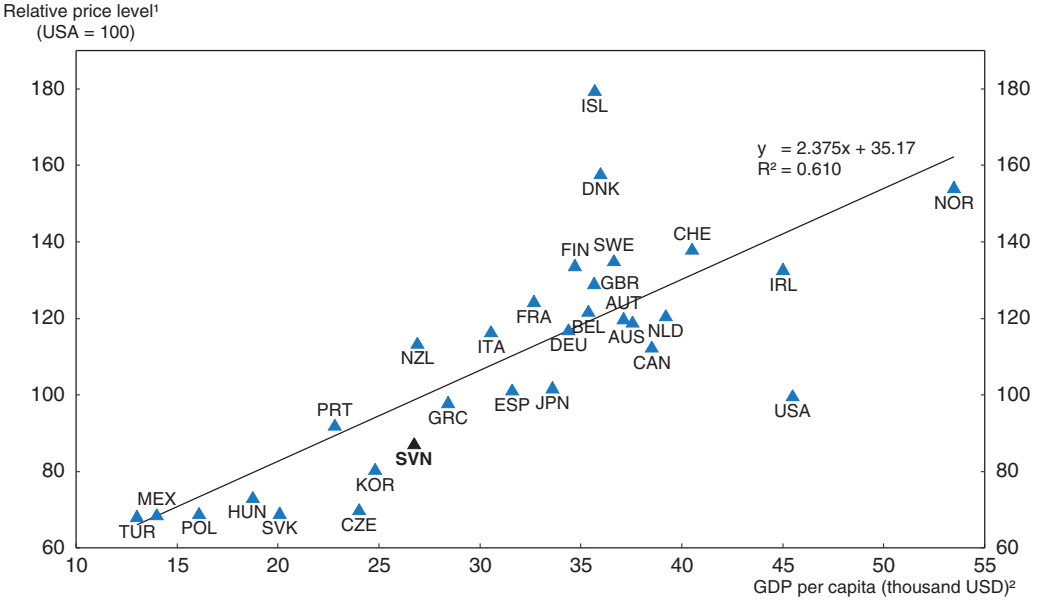
While mark-ups tend to be higher everywhere in highly-regulated and less tradable services industries, in Slovenia, high mark-ups are observed even in some manufacturing industries, in particular food and beverages. Mark-ups in this sector are substantially higher in Slovenia than in other transition economies (Figure 4.5, panel B), where mark-ups tend to be high in general. Vertical integration of retailers and food processors allows for high mark-ups that can be passed on to consumers in the form of higher prices owing to high concentration in the retail food sector (75-85% of market share by the three largest

players if including franchises) and to occasional symptoms of collusive behaviour among players. Mark-ups are also high in some tradable services industries, such as construction (Figure 4.5, panel C), which registers one of the lowest mark-ups among services in OECD countries. High concentration in the construction sector and the growth of construction output outpacing that of GDP have allowed construction firms to charge high mark-ups.

While mark-ups are the best available measure of competitive pressure, other indicators may complement the analysis of such pressures in product markets. A rather rough, but widely used method of measuring product market competition is to compare relative price and wage levels across countries and sectors (Figure 4.6). The major drawback of such comparisons, however, is that final prices may not necessarily reflect the extent of competitive pressures only but other country-specific features such as tax systems, distribution systems or input prices, and gross wages include social security contributions that differ by country as well. Nevertheless, relying on these rough indicators, relative to its per-capita income, Slovenia has a low overall price level and a relatively low level of unit labour costs (Dalsgaard, 2008).

Figure 4.6. **Relative price levels**

2007



1. Purchasing power parities divided by the exchange rate.
2. At current prices and current purchasing power parities.

Source: OECD (2009), *National Accounts of OECD Countries – online database*, April.

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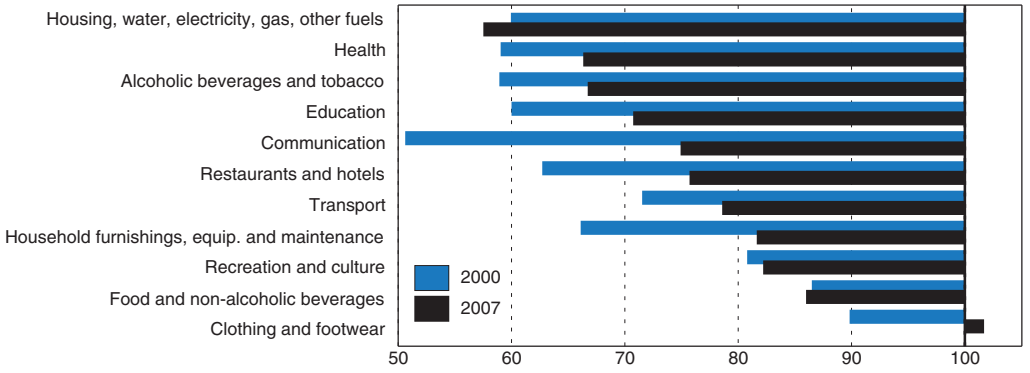
Looking at disaggregated price levels and taking into account Slovenia's per capita income position reveals the same pattern of no "overpricing". Compared to the EU15 average, relatively high prices are only indicated for clothing and footwear (2007) (Figure 4.7). On the other hand, Slovenia along with Spain recorded by far the strongest average annual rise in food prices in 2000-07, exceeding the corresponding increase for EU15 countries by as much as 2 percentage points. This discrepancy has raised questions about the state of competitive conditions in the retail food sector (see the third section of

Figure 4.7. **Price levels by sector relative to the European Union**

EU15 = 100



Source: Eurostat database (2009), *Economy and Finance*, April.

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this chapter). In contrast, relatively low prices are found for housing, water, electricity, gas and other fuels, health, alcoholic beverages and tobacco. "Underpricing" for some of these goods reflects government-regulated prices which, in turn, are fixed in tune with social and competitiveness considerations. In the energy and communications markets, state-controlled companies continue to be dominant, notwithstanding recent increases in market share for new entrants (see last section of this chapter).

Productivity trends show Slovenia is performing well in most manufacturing sectors. This confirms the finding of resources being used efficiently in the goods sector. In contrast, efficiency developments seem to be lagging behind peers in a few service sectors, *e.g.* post and telecommunications, real estate and business services, and financial intermediation (Figure 4.8). In some of these sectors (telecommunications and financial services), market concentration is strong and state control pervasive (see last section).

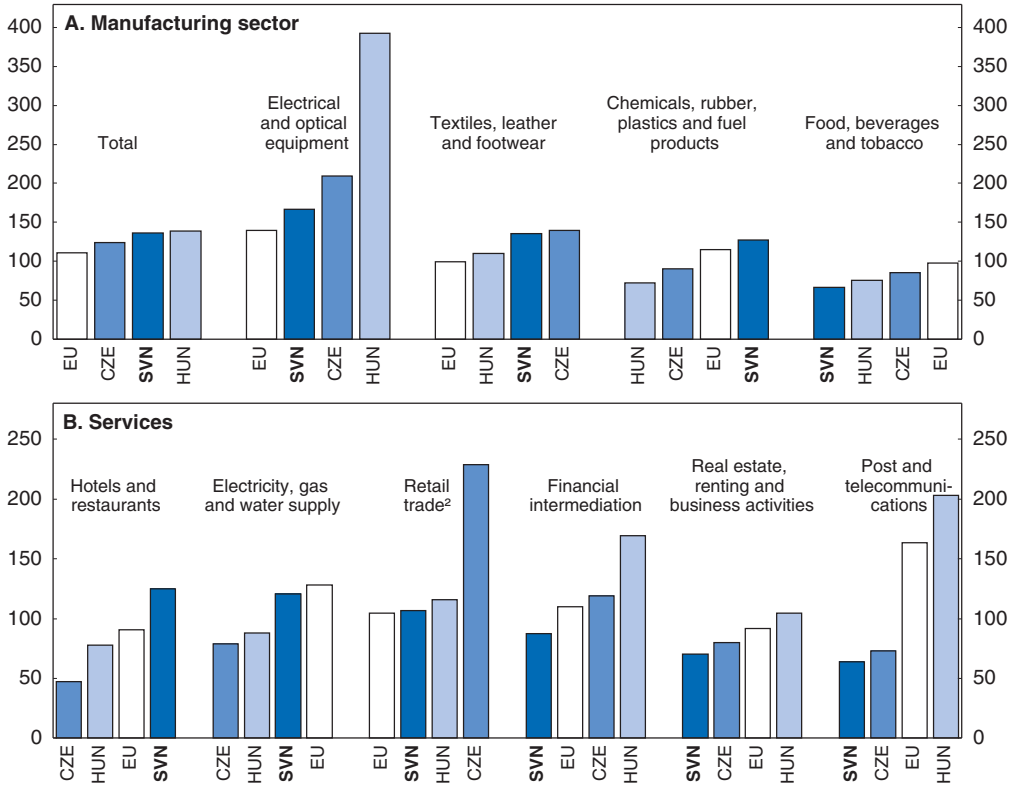
Product market regulations are generally supportive of competition

The recently constructed OECD product market regulation indicator shows a slightly less liberal PMR stance for Slovenia than for the OECD average (Figure 4.9). Compared to other emerging market economies, however, the PMR are much more conducive to unleashing market forces (Czech Republic and Poland). Nonetheless, relative to the United States or the United Kingdom, the two countries with the lowest PMR scores, Slovenia's PMR are much more binding. Looking at sub-indicators reveals a large excess of administrative burdens for sole proprietor firms; explicit barriers to trade and investment; and strong state involvement in business operations.

The State's pervasive influence expresses itself through both the appointment of supervisory boards and the subsequent appointment of management in a number of leading companies. Judging by circumstantial evidence, the selection of both new board members and management appears to be frequently based on political allegiance rather than on expertise. State intervention is not confined to companies where the State has a formal majority of shares. Several leading companies are jointly (partially) owned by state-owned companies and by State Funds (KAD and SOD). Through direct and indirect ownership the State is thus able to exercise strong influence on business operations. In 2008, KAD and SOD alone owned a blocking minority (over 25%) in five of the seven

Figure 4.8. **Total factor productivity**[1]

Value added based, 2005 (1995 = 100)



1. EU covers EU15 member countries for which growth accounting could be performed, namely: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Spain and United Kingdom.
2. Excluding motor vehicles and motorcycles, and repair of household goods.

Source: EU KLEMS database, March 2008; see Timmer, M., M. O'Mahony and B. van Ark, *The EU KLEMS Growth and Productivity Accounts: An Overview*, University of Groningen and University of Birmingham, available at *www.euklems.net*.

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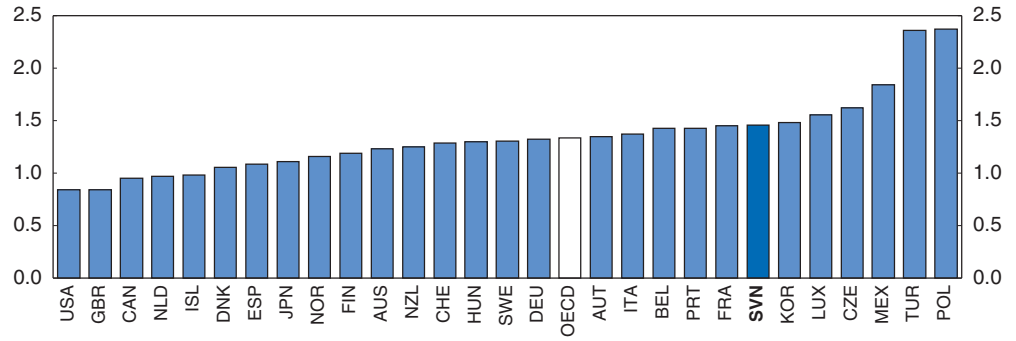
Figure 4.9. **Product market regulation indicator**

Scale of indicators 0-6, from least to most restrictive, 2008[1]



1. The OECD aggregate is an unweighted average of the data available (27 countries).

Source: OECD (2009), *International Regulation database*, *www.oecd.org/eco/pmr*.

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largest listed companies. Being a majority owner in another of the seven largest listed firms, through direct and indirect holdings, the State effectively enjoys a blocking minority in six out of the seven largest listed firms. Over the past few years, the state power has probably been used to influence specific take-over transactions. Moreover, certain state-owned companies have been cajoled into supporting some sectors of the economy. In underperforming state-controlled companies, strategic plans therefore need to be implemented with the aim of raising productivity to levels observed in other EU countries. Competent supervisory boards, which are apt to employ professional management, should be appointed. The new government rightly created an independent Council for Accreditation (CAS), which would be in charge of appointing members of supervisory boards. The State also exercises its influence through significant public procurement each year (Box 4.2). To level the playing field for competition, the State needs to further improve procurement practices to rule out collusion among tenders.

Box 4.2. **Recent changes in public procurement**

In the early 2000s, total procurement of works, supplies and services were estimated at 12% of GDP (2001) (WTO, 2002). Subsequently, Slovenia's procurement policies have been progressively aligned with both EU directives and the WTO Government Agreement (GPA). While the harmonisation process was completed in 2007, each ministry is still responsible for its own procurement. Procurement costs are high and, in some instances, in excess of market levels by as much as 30%. Current public tenders still total 8-9% of GDP per year. Collusive behaviour among tenders and corruption have led the new government to consider establishing a single procurement office. OECD experience on the benefits of a single procurement office shows that procurement costs tend to be reduced. However, evidence is mixed in terms of reducing corruption and unfair competition, the results being dependent on the quality of public governance in each country.

Basic legislation governing public procurement is the Public Procurement Act of 1999-2000. Applied to central and local governments, public undertakings and utilities, the Act increased protection for bidders, unified all procedural requirements and eliminated the 10% preference for domestic bidders. The Act established an independent body, the National Review Commission (NRC) whose members are appointed by Parliament to ensure their independence.

The Act also created a central administrative authority (Public Procurement Office), which is in charge of implementing procurement rules. The Office's tasks include regular analysis of the procurement situation, cooperation with foreign institutions and notification to the National Review Commission. Together with an "electronic" form generator (standardised web applications) and additional e-administrative elements (portal receipt-and-delivery system application, e-payments, e-serving, e-signature, e-awarding of contracts and e-auction facility) these process innovations have yielded substantial procurement savings (EUR 10 million in 2007) (Republic of Slovenia, 2008a).

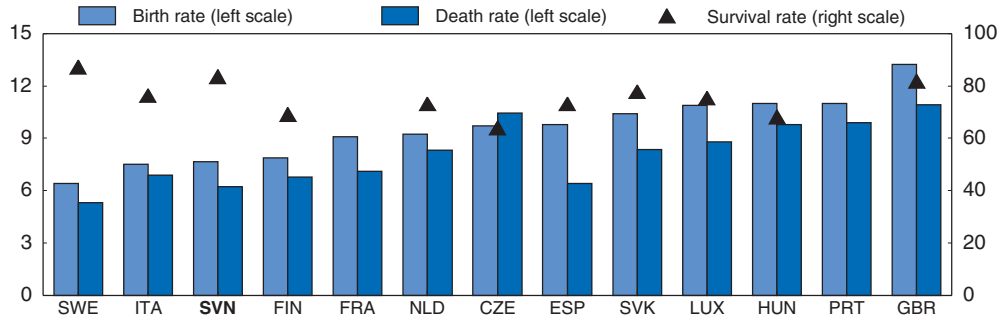
Slovenia is among the first countries to have established a single information portal, on which contracting bodies are obliged to publish all information relating to public tender. With this innovation, Slovenia meets the requirements of the Manchester Declaration, which requires contracting authorities to award at least 25% of all contracts electronically by 2010.

Some obstacles to firm creation remain

Internationally comparable data show that in 2002-05 Slovenia created and closed down fewer enterprises than in many other EU countries (Figure 4.10), whereas the survival rate (average life time) ranked among the highest in the EU area. Such a life profile may be pointing to a general lack of entrepreneurial dynamism. Indeed, in the World Bank's latest ranking of "Ease of Doing Business" covering the 12-month period to June 2008, Slovenia occupies the 54th place among 181 countries (Figure 4.11). Inside the EU, only a few countries (Czech Republic, Greece Italy and Poland) report stronger obstacles to entrepreneurial activity.

Figure 4.10. **Firm creation and firm closure**[1]

Per cent, average 2002-05



1. Industry and services excluding public administration and management activities of holding companies. The birth and death rates are enterprise births or deaths divided by the number of active enterprises. The survival rate is the number of enterprises in a year who have survived for two years divided by the number of enterprise births two years previously.

Source: *Eurostat database* (2009), *Structural Business Statistics*, May.

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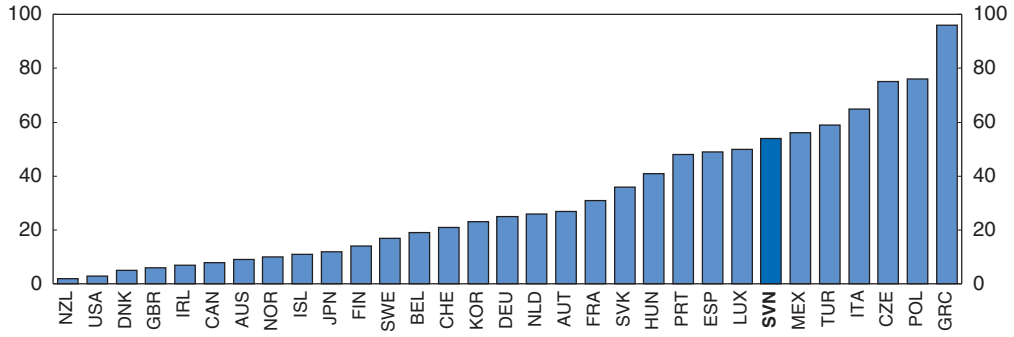
Figure 4.11. **Ease of doing business**

Rank among 181 countries[1]



1. Economies are ranked on their ease of doing business, with first place being the highest. The ease of doing business index averages the economy's percentile rankings on ten topics, made up of a variety of indicators, giving equal weight to each topic. Period covered June 2007 to June 2008.

Source: World Bank and International Finance Corporation (2008), *Doing Business 2009*, *online database*.

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The World Bank's ranking reveals various impediments to entrepreneurial activity, broadly confirming the information conveyed by the OECD PMR indicator. The areas where Slovenia particularly lags behind include employing workers, (158th place among 181 countries), registering property (104th place), getting credit (84th place), enforcing

contracts, trading across borders and paying taxes (78th-79th place) and dealing with construction permits (69th place). On the other hand, Slovenia performs better in closing a business and starting a business, relative to its overall standing in the World Bank's ranking. Some of these comparatively favourable results already reflect recent policy action designed to reduce the administrative burden surrounding firm creation.

Examining the sub-components of the World Bank ranking shows that strict regulations, time-consuming red tape and lack of information constitute the bulk of Slovenia's impediments to entrepreneurial activity (Table 4.2). The principal obstacles are: rigid employment rules (difficulty of hiring, rigidity of hours and difficulty of firing); long duration for registering property (391 days); lack of credit information, public registry coverage and private bureau coverage for access to finance;[1] long delays and high transaction costs for trading across borders (20 days for procedural export requirements); costly time inputs for paying numerous taxes; long delays in enforcing contracts (1 350 days); and high costs and long delays in obtaining construction permits.

Table 4.2. **Slovenia's ranking in Doing Business 2009**
Compared to 181 countries[1]

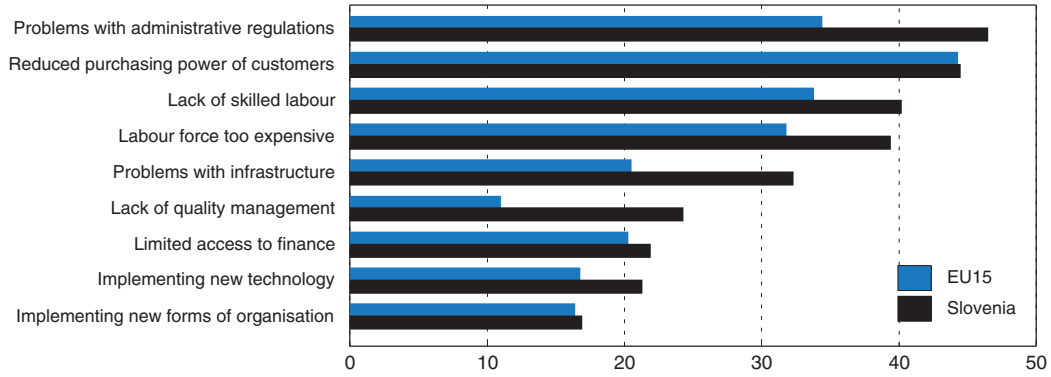
Regulations	Slovenia	CEEC[2]	EU15	OECD
Ease of doing business	**54**	**57**	**32**	**31**
Starting a business	41	77	53	52
Dealing with construction permits	69	97	48	52
Employing workers	158	77	100	82
Registering property	104	53	68	53
Getting credit	84	28	49	37
Paying taxes	78	124	58	65
Trading across borders	78	69	28	36
Enforcing contracts	79	56	38	36
Closing a business	38	72	21	29

1. All aggregates are unweighted averages.
2. Central and East European countries that are OECD members: Czech Republic, Hungary, Poland and Slovak Republic.
Source: World Bank and International Finance Corporation (2008), *Doing Business 2009*, *www.doingbusiness.org*.

Surveys conducted by the Observatory of European SMEs in November-December 2006 (European Commission, 2007) partly confirm the World Bank's findings. The Euroflash Barometer measures the relative importance of nine barriers to entrepreneurial activity by the number of affirmative responses given by a group of SME-entrepreneurs. The intensity of a barrier is positively correlated with the share of affirmative answers. On this basis, administrative regulations were singled out as the most powerful impediment to entrepreneurial initiatives. Then, Slovenian entrepreneurs cited important hindrances in order of importance, as being skill shortages, high labour costs, limited access to finance and infrastructural problems. They also noted lack of quality management and barriers to new technologies and new forms of organisation (collective process innovations) as entrepreneurial stumbling blocks (Figure 4.12).

A third international indicator of entrepreneurial activity, the Global Entrepreneurship Monitor (GEM) shows Slovenia's early-stage entrepreneurial activity, though rising, to be low (4.8% in 2007 as against the average of 5.2% for 17 EU countries). The ratio of opportunity-to-necessity driven entrepreneurship has kept on rising (a ratio of 9 to 1 in 2007), largely reflecting a search for independence amid buoyant economic conditions.

Figure 4.12. **Obstacles to entrepreneurship**
Per cent, end 2006[1]



1. Share of affirmative responses to a question asking whether the company had faced the obstacle in the last two years. All size classes of business are included.

Source: European Commission (2007), *Observatory of European SMEs: Analytical Report*, Flash Eurobarometer 196, May.
StatLink http://dx.doi.org/10.1787/644836626672

Recent initiatives to improve the business environment

Stronger competition policy

The long-run interplay of market forces is partially conditioned by the effectiveness of competition policy. Slovenia's legal framework in this domain is rooted in Article 74 of the Constitution which prohibits practices restricting competition. The Prevention of the Restriction of Competition Act (1999), replacing the first competition law (1993), transcribed into domestic legislation EU-anti-trust rules about restricting abuse of dominant position and mergers. The law uses a 40% market share threshold as a reference for assessing market dominance. Other criteria like ease of entry are also taken into account.

Competition rules are enforced by the Competition Protection Office (CPO), a functionally independent institution with appropriate statutory powers to review restrictive arrangements and concentrations in all economic sectors. Its powers are exercised *ex post* (except for mergers). Competition issues in individual sectors are dealt with jointly with sectoral regulators, whose *ex ante* control competences provide for market regulation. Having no obligation to report to any executive or legislative body, the CPO has enjoyed some measure of independence. Moreover, the CPO's effectiveness was hindered by insufficient sanctions and inadequacy of legal provisions concerning the liability of companies to cooperate with the CPO.

The 2008 Law on the Prevention of Restrictions of Competition has rectified some of these weaknesses. The new law empowers the CPO to collect information more rapidly, to widen the scope of its investigations and to impose stiffer sanctions. The new law also simplifies the appeal process. With adoption of the 2008 law Slovenia has largely completed the process of transposing EU directives into Slovenian legislation. However, relative to the scale of actual and potential anti-competitive behaviour, the CPO is understaffed (less than 20 persons), requiring strong administrative support from the Ministry of Economy. The government should strengthen the powers of the CPO by transforming it into a truly independent agency with budgetary autonomy.

The nature of cases investigated by the CPO has changed over time. The number of decisions on concentrations has declined, while those on presumed cartel agreements and abuses of dominant position have increased (Table 4.3). Since the end of 2007, the CPO has initiated ten new proceedings regarding alleged cartel agreements and nine proceedings regarding abuse of a dominant position. In the retail trade, energy and financial services sectors, several cases of possible concentration, cartel agreement and abuse of dominant position have been opened.

Table 4.3. **Proceedings before the Competition Protection Office**

	Decisions issued	Concentrations	Abuse of a monopoly position	Restrictive agreements
2006	52	47	1	4
2007	55	50	3	2
2008	45	41	2	0

Source: Republic of Slovenia (2008), "Reform Programme for Achieving the Lisbon Strategy Goals", October; and Competition Protection Office.

Reducing administrative barriers

Under Slovenia's Development Strategy (2005), effective action has been taken to reduce obstacles to entrepreneurial activity. Responding to entrepreneurial complaints about heavy red tape (cumbersome and time-consuming administrative procedures), the government progressively eased administrative burdens in 2006-08. Under the Declaration on the Elimination of Administrative Barriers, nearly 1 000 regulations were checked in 2006, 30% of which were rejected. In 2007, the unified methodology for measuring administrative costs (SCM) was approved, paving the way for legislative measurements of regulatory impacts. A portal was also opened allowing citizens to submit proposals for the improvement of regulations electronically. In effective terms, 30 regulation-reducing measures out of a total of 34 measures planned in 2006 had been put into effect by March 2007. Subsequently, in 2007, an additional 30 measures were announced, half of which had been carried out by March 2008.

For the period 2008-09, the government announced 44 supplementary steps. The 2008-09 Programme for the Reduction of Administrative Burdens is threefold, consisting of the simplification of administrative procedures; the reduction in requirements to collect statistical data and to submit various reports; and cuts in administrative costs by 25% in the labour law domain by 2010. The government also introduced a screening process for new regulations so as to avoid a return of administrative impediments (Republic of Slovenia, 2008a).

To directly spur business start-ups, the government in 2008 created "one-stop shops" (VEM), reducing costs to establish limited liability companies. This, together with other simplified administrative procedures, has vastly improved Slovenia's ranking in the World Bank's subcategory of "Starting a business" within the overall "Doing Business" ranking. Among 181 countries, Slovenia advanced from the 124th place in *Doing Business 2008* to the 41st place in *Doing Business 2009* (World Bank, 2008). Even so, while starting a business currently requires five procedures, it takes 19 days and costs 0.11% of annual per-capita income, suggesting room for further improvement relative to good-practice economies. Labour market reforms included cuts in the cost of redundancy dismissals (shortening the notice period from 75 days to 60 days) and making the hiring of workers easier (extending

the maximum duration of fixed-term contracts) (2007 Employment Relationship Act). Administrative barriers should be lowered further by easing employment rules and facilitating property registration.

Easing access to finance

Among the nine principal obstacles to entrepreneurship listed by the Flash Eurobarometer 196 (November-December 2006; European Commission, 2007) (Figure 4.12), access to finance ranked relatively low, with only 22% of entrepreneurs identifying it as a major hindrance to business activity. On the other hand, credit information, public registry coverage and private bureau coverage are all inadequate, hampering the release of funds to firms. To lower credit transaction costs, the use of credit registry should be promoted. The state-owned Slovenian Enterprise Fund (SEF) has strengthened financial mechanisms for easing SMEs' access to finance in 2007-08. These included loan guarantees, extended guarantees, subsidies and favourable leasing conditions for start-ups of innovative enterprises, including micro firms. In 2007, the government adopted the Venture Capital Company Act, introducing tax relief for venture capital investment in high-growth SMEs. At the same time, a public venture capital company was established in 2007, using public/private partnerships as a means of buttressing new, innovative and expanding SMEs. On the current financial and economic crisis, a lack of confidence and increasing risks have restricted the flow of financial funds to firms.

Searching for a coherent innovation system

A high-wage economy among new EU member states and emerging markets, Slovenia faces growing challenges to maintain its international competitiveness. Quality upgrading and specialisation in higher value-added niche markets represent an increasingly important strategy to withstand competition from low-cost economies. In this situation, the ability to augment the quality and technological content of exports will be a key determinant of long-run growth prospects. The success of moving up on the "technology and quality ladder" largely depends upon an efficient innovation strategy, combining entrepreneurship and innovation policies.

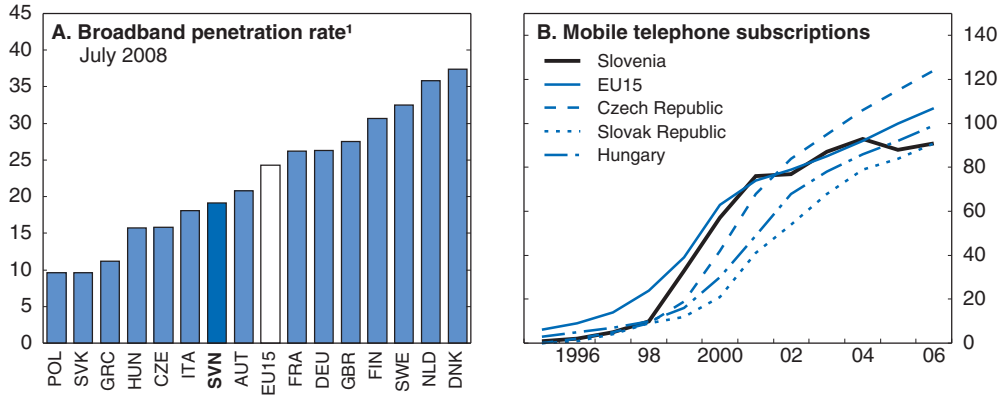
Viewing social capital as a vital innovation asset, many OECD countries since the mid-2000s have increasingly engaged in the creation and expansion of business support units (service stations such as business incubators, innovation laboratories, business development centres and business accelerators).[2] Wide information and communication technology (ICT) diffusion favours the creation and expansion of these service stations. It enables network building, data collection and information exchange among support centres, enterprises and government agencies. ICT also tends to directly lower barriers to entrepreneurial activity.[3] Drawing on the experience of best-practice countries, Slovenia should expand the network of public/private business support centres. Multi-purpose "hubs" need to be established, optimising links between the research community, the business sector and the government.

While the diffusion of new technology is broadly adequate…

ICT diffusion tends to vary with the stage of economic development. Slovenia's ICT record in 2007-08 has been broadly in line with its relative per-capita income position, showing only small gaps *vis-à-vis* the EU15 average in the areas of broadband connection and mobile telephone subscriptions (Figure 4.13). Regarding household's access to internet, Slovenia has achieved virtual parity with the EU15 average.

Figure 4.13. **Telecommunications indicators**

Per 100 inhabitants



1. Number of broadband access lines per 100 inhabitants.

Source: *Eurostat database* (2009), *Information Society Statistics*, May.

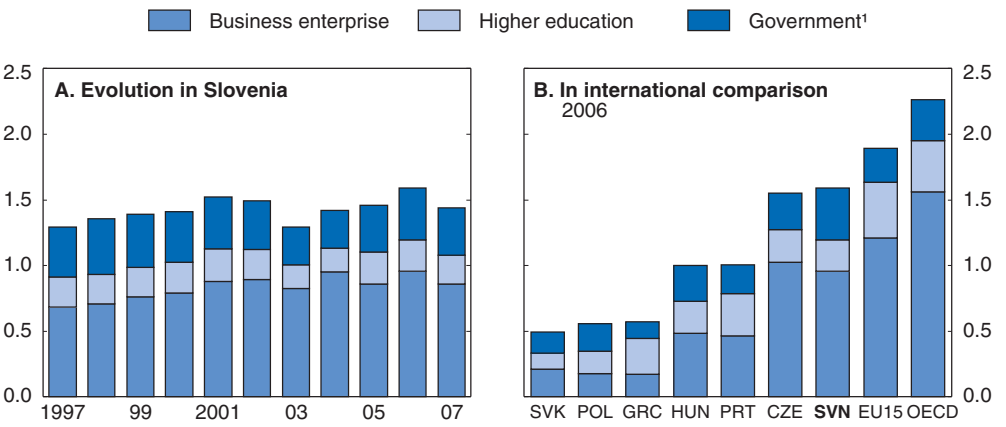
StatLink http://dx.doi.org/10.1787/644852034666

... the structure of R&D spending is still doubly skewed

On the research and development (R&D) side, the gap between Slovenia's spending and the average expenditure for EU15 and EU27 countries has narrowed, R&D outlays totalling 1.6% of GDP in 2006 as against 1.9 per cent of GDP for the EU15 average (Figure 4.14).

Figure 4.14. **Research and development expenditure**

In per cent of GDP



1. Includes the private non-profit sector.

Source: OECD (2008), *Main Science and Technology Indicators*, Vol. 2, December and SORS (2009), "Research and Development Activity, Slovenia, 2007 – Final data", *First Release*, Statistical Office of the Republic of Slovenia, February.

StatLink http://dx.doi.org/10.1787/644876518085

Slovenia's research and development strategy contained in the 2005 Reform Programme for the Implementation of the Lisbon Strategy has been partially put into effect in line with the National Research and Development Programme (2006-10) (NRDP, see Box 4.3). In parallel, the Programme of Measures to Promote Entrepreneurship and Competitiveness (2007-13) has lent support to innovative activity. Nonetheless, policy

initiatives lacked coherence and strong will to implement recognised by the government itself, "there is nowhere a systemic set of relevant interconnected measures brought together within a single comprehensive strategy" (Republic of Slovenia, 2008a). The efficiency of innovation policies can be enhanced by having independent institutions (domestic and foreign ones) measure existing programmes against international best-practices. Administrative dispersion should be reduced by merging innovation support programmes. Overall R&D spending should be raised, stimulating private R&D expenditure while strengthening the technology-oriented component of public R&D outlays.

Box 4.3. **Initiative of innovation policy**

The National Research and Development Programme 2006-10 (NRDP) also aims at rebalancing the structure of public R&D spending, raising the technology-oriented share in public R&D spending from 10% in 2007 to 45% by 2010. To reach this ambitious target, the Slovenian Technology Agency (TIA) together with the Slovenian Research Agency (ARRS) have stepped up the implementation of programmes drawn up by three ministries (Ministry of Higher Education, Science and Technology; Ministry of the Economy and Ministry of Defence) and largely financed by EU structural funds. A large portion of these structural funds are earmarked for reinvigorating innovative and research capacities. In addition, the Slovene Enterprise Fund (SPS) and the Public Agency for Entrepreneurship and Foreign Investment (PAEFI) stimulate innovative activity of SMEs.

TIA's main activities in 2008 included support for the operation of at least ten technology platforms, which will install an infrastructure for stronger and more productive links between academic institutions and the business community. In parallel, the advantage of geographical proximity has been used to help SMEs absorb new technology ("Valor" project). Together with the Ministry of the Economy, TIA has begun developing a methodology for stimulating start-ups of high-technology companies based upon R&D results. Financing, based upon public/private partnerships, is mixed, about 25% coming from EU structural funds, 20% from national and local budgets and the remainder (55%) from private sources. EU and national financial contributions for innovative projects will be allocated through public tender, including allocation of funds for FDI.

On its part, the Slovenia Research Agency (ARSS) has placed stronger emphasis upon adapting work by public-sector researchers to the needs of Slovenian industry. Increased co-financing from private companies for applied projects is expected using private funds to underpin public R&D activity. Promoting technological investments in SMEs and micro firms, the Slovene Enterprise Fund (SPS) completed the first public tender (EUR 49 million) in 2007.

With a view to finally shaping an effective national innovation system, in 2008 Slovenia created the Competitiveness Council, composed of 15 members (9 ministers and 6 members from key academic, research and business institutions) (Republic of Slovenia, 2008b). The Council's main mandate is to create and expand collaborative connections linking knowledge institutions and the business community. To this end, the Council has set highly ambitious targets:

- Raising the number of innovative firms to at least 40% of the enterprise population in 2013-15 from 27% in 2002-04.
- Increasing the number of patent applications at the European Patent Office to at least 110 applications per million inhabitants in 2013-15 from 54 applications in 2004.
- Increasing the share of high-technology exports to at least 16% in 2013-15 from 4.5% in 2006.

- And raising R&D spending to 3% of GDP by 2013 with a split of two thirds for private spending and one third for public spending.

Easing access to entrepreneurship education, training and business services

Policy action has also been taken to respond to both the perceived lack of managerial skills (the sixth most important obstacle to entrepreneurship according to the Flash Eurobarometer 196) and structurally weak, early-stage entrepreneurial activity. The Public Agency for Entrepreneurship and Foreign Investment (PAEFI) has progressively promoted the development of entrepreneurial skills through voucher-based counselling of actual and would-be entrepreneurs. In addition, new legislation (the 2007 Act Regulating a Supportive Environment and the 2008 Register of Innovative Environment) should improve the cooperation between innovation laboratories, technology parks and business incubators.

A National Centre for Innovation and Competitiveness was created in 2008 under the umbrella of PAEFI to upgrade the range of different business support services. The new centre will introduce a comprehensive information system integrating the full range of support services for entrepreneurship development (special programmes for women and young people). In the longer run, entrepreneurial activity should also benefit from the gradual phasing-in of entrepreneurship studies into the school system. In 2008, providers were chosen to implement selected pilot projects at various levels of the school system. The process of introducing entrepreneurship education in schools, universities and research institutions should be accelerated.

Improving the infrastructure

According to the Flash Eurobarometer 196, the inadequacy of the infrastructure is a powerful impediment to entrepreneurial activity. Nearly one third of surveyed entrepreneurs expressed dissatisfaction with various forms of infrastructure (transportation, energy, communications). The railway infrastructure is particularly weak, although the number of railway kilometres per inhabitant is relatively high. The maritime infrastructure (Port of Koper) needs upgrading and expansion after several years of booming international trade. Transport policy is embedded in the 2006 Sustainable Mobility Project (2007-13). The Project aims at reducing road freight and personal vehicle transport in urban areas and at integrating public passenger transport with all sub-systems at the local, national and international levels.

Some progress has been made to create an integrated public passenger transport system, including intermodal terminals. The railway infrastructure is being expanded and improved with the construction of new railway links between Jesenice/Ljubljana/Dobova and between Koper/Sezana/Hodos. In 2007, Slovenia brought railway legislation into line with EU standards, eliminating barriers to cross-border provision of services, raising operating safety and easing access to infrastructure through newly established institutions. Even so, the railway sector has not yet been opened to competition. Negotiations are currently underway, creating a public-private partnership with a foreign company, which would run both railway and maritime operations at the Koper port.

Strong market concentration in key service sectors

In a few service sectors (financial services, energy and telecommunications), high market concentration continues to co-exist with dominant state ownership. High market concentration without state control is present in the retail food sector. Anti-competitive conduct in these sectors has prompted interventions by the Competition Protection Office.

In 2008, the government appointed an inter-ministerial working group to ensure the timely implementation of the EU Service-Directive for the internal market. A draft horizontal law on services in the internal market was finalised in September 2008. With the adoption and implementation of the postal directive, the postal services in the EU will be fully liberalised. In the liberal professions sector, procedures for qualification recognition have been simplified, as applications are now filed and dealt with directly by the respective ministry.

Privatisation has slowed down, while regulatory capacities have improved

At the same time, the pace of privatisation has remained slow. For future sales, advisory groups have drawn up privatisation strategies for four major companies (Telekom, the insurance company Triglav and the two State banks NLB and NKBM). Sales of state-owned assets in 2007 included the 55.3% capital share of Slovenska industrija jekla d.d. to a strategic partner (March 2007) and the sale of a 48.1% capital share in the NKBM, the country's second largest bank. While further sales of NKBM shares are planned, the State intends to retain a 25% plus one minority blocking share. The government will also keep a controlling share in Slovenia's largest bank (NLB). Other major privatisation initiatives scheduled for 2007-08 (sales of capital shares in Triglav, the insurance company, and in Telecom) have been suspended. Looking ahead, the resumption of privatisation should be based upon a calendar of planned sales of state-owned shares along with a list of companies still owned by the State.

Capacities for protecting and promoting competition have improved with stronger powers being given to the Competition Protection Office following the new (2008) law on the Prevention of Restrictions of Competition. In the insurance and capital market sector, powers and the institutional independence of supervisory bodies (the Securities Market Agency and Insurance Supervision Agency) have been reinforced (Act Amending the Market in Financial Instruments and the Act Amending the Insurance Act). Similarly, both the autonomy and powers of surveillance and enforcement of the Post and Electronic Communications Agency have been strengthened (Act Amending the Electronic Communications Act 2006). To further increase regulatory capacities, the new government is considering merging the capital-market and insurance supervisory agencies under the umbrella of the Bank of Slovenia.

The dominant role of state-owned banks

Slovenia's financial sector is less developed than that of European countries with similar income levels. Notwithstanding strong credit growth, bank assets at 40% of the euro area average in 2005 were well below those in euro area peers. The development of the non-bank financial sector was even more behind that of euro area peers, its assets only totalling 20% of the euro area average. In 2001, the banking sector was marked by high market concentration, the three largest banks accounting for 57% of total banking assets and the top seven banks presiding over 80% of total banking assets. Slovenia's largest bank (Nova Ljubljanska Banka, NLB) had a market share of 35% followed by the Nova Kreditna Banka Maribor (NKBM) with a market share of 12%. Both banks were state-owned (WTO, 2002).

Several years later (2008) the banking sector displayed similar, oligopolistic features, the three largest banks still having a high, combined market share (48% in 2008), above corresponding ratios observed in the EU27. The largest bank does not face competition from any institution of similar scale, as its market share of about 30% is three times as high as that of the second-ranking bank. Foreign banks' market share, though rising from low levels over the past few years, has remained relatively small with a market share (measured by total

assets) of 31% in 2008. NLB still conducts about 80% of the banking sector's international transactions. Overall, the Herfindahl index for 2005 ranked the Slovenian banking sector as the 6th most concentrated one among 16 sample countries (Bems and Sorsa, 2008).

Foreign banks can establish commercial presence through wholly capitalised subsidiaries or through branches. Banks registered in the European Union can directly provide services in Slovenia. While the presence of foreign banks has been growing since 2004, the prevailing level and structure of concentration continue to make for low contestability, damping the play of competition. NLB's commanding lead over the second largest bank (NKBM) appears to confer a role of price leadership. Slovenian banks have regularly followed suit when NLB changed its interest rates. Moreover, in 2008, Slovenian banks raised fees for automatic teller machine (ATM) withdrawals simultaneously, prompting an inquiry by the Competition Protection Office into alleged collusive behaviour. Foreign banks abstained from raising such fees.

While market concentration has remained broadly unchanged, the banking sector's ownership structure has changed only slowly over time. In 2001, the French bank *Société Générale* took over the third largest bank (SKB). In 2007, 48% of the second largest bank's shares (NKBM) were sold via an initial public offering (IPO). There are plans to sell half of the remaining state-owned 52% shares of NKBM, the State retaining a blocking stake of 25% plus one share. These privatisation initiatives notwithstanding, the State continues to exercise pervasive control over the banking sector. In 2008, the State still owned 33% of the largest bank (direct control), while it indirectly controlled another 17% through state-owned investment funds and non-bank corporations.

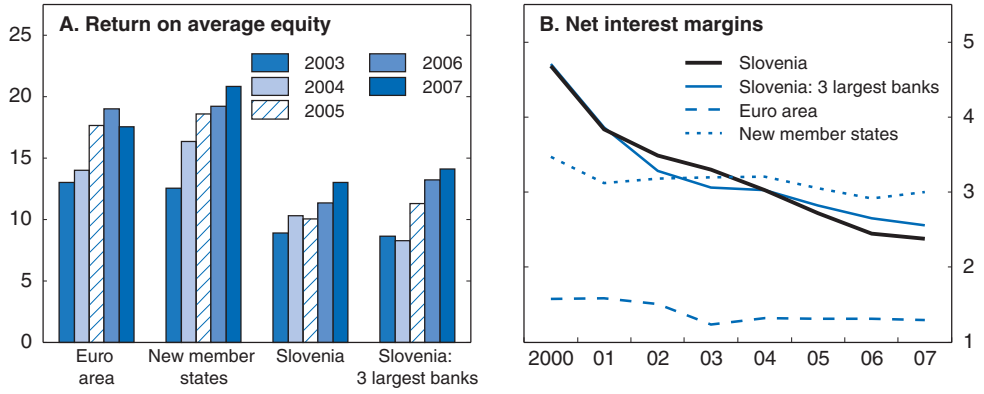
A relative lack of banking efficiency and profitability

Sustained high market concentration and dominant state control have probably contributed to Slovenia's banking sector being less efficient and profitable than banks located in both the euro area and in new member states (NMS). Although rules for loan loss provisions were eased in 2006-07, following the introduction of International Financial Reporting Standards (IFRS), the 2006-07 share of pre-tax profits in total operating income and the return on average equity (ROAE) remained far below levels seen in NMS and the euro area (Figure 4.15, panel A). Within the banking sector, state-controlled banks are found to be particularly inefficient, reflecting heavy overstaffing as well as incomplete use of ICT-based information. Currently, there is no commonly shared base of data on enterprise performance making credit risk assessment unduly costly (World Bank, 2008). Econometric evidence supports the notion of contestability and efficiency being below that of European peers (Bems and Sorsa, 2008; Holló and Nagy, 2006). Strengthening the contestability and economic performance of Slovenian banks thus holds the promise of stimulating competitive forces. The scale of both potential productivity gains and FDI inflows is correspondingly large.

While there are signs of growing competition, state-owned banks need to be rapidly restructured

Net interest margins have substantially narrowed over time, falling from 5% in 2000 to 2.2% in 2007. Since EU accession (2004), net interest margins shrank more strongly in the banking sector as a whole than for the three largest banks, a sign of enhanced competition. Even so, overall net interest margins in 2007 were still twice as high as the euro area average, exceeding this average by more than 1 percentage point (Figure 4.15, panel B). The wider interest spread points to continued low contestability, auguring further pressure on

Figure 4.15. **Return on average equity and net interest margins**
Per cent



Source: Bems, R. and P. Sorsa (2008), "Efficiency of the Slovene Banking Sector in the EU Context", *The Journal for Money and Banking* (Bančni Vestnik), Vol. 57, No. 11, November.

StatLink http://dx.doi.org/10.1787/644877847881

banks' profitability. In the area of retail financial services, competition is set to rise with the implementation of the Directive on Payment Services and the associated full introduction of the Single Euro Payments Area schemes (SEPA). The SEPA Credit Transfer Scheme began to be introduced in January 2008. In the capital market sector, the powers and institutional independence of the Security Market Agency have been strengthened (Act Amending the Market in Financial Instruments).

A more efficient banking sector would also be able to conceive more sophisticated financial products for pension savings for a rapidly ageing population as well as to share information on insurance fraud, enterprise performance and credit conditions. Deeper EU integration and capital market development would, in addition, sharpen the competitive edge of Slovenian banks. While further privatisation could enhance efficiency gains, the government is bent on retaining controlling shares in key banks. In this setting, in both banking and elsewhere, stronger efficiency gains can be reaped through both raising the standards and independence of board members and designing a longer-term growth strategy for state-controlled enterprises along the lines advocated by the OECD Guidelines for the Corporate Governance of State-owned Enterprises. Listing banks in the stock exchange could raise management accountability as well as the transparency of operations (Bems and Schellekens, 2007).

Strong state involvement in the insurance sector

The insurance sector is governed by the 2000 Insurance Company Law and the Law on Ownership Transformation of Insurance Companies. This legislation paved the way for increased competition, foreign investment and privatisation of socially owned enterprises. Currently, there are 18 insurance companies operating in Slovenia, two of which are foreign-owned. In addition, there are three specialised institutions performing insurance functions in the public interest. There are no ownership restrictions on insurance companies, foreign companies being entitled to establish their own, locally incorporated subsidiaries or acquire 100% of a listed or unlisted insurance company.

Market concentration is particularly strong in the insurance sector, the State-controlled Triglav Insurance Company enjoying a market share of 50%. More than one third

of Triglav is owned by the Institute of Pension and Invalidity Insurance (ZPIZ) and more than one fourth by the State Restitution Fund (SOD), making the State a majority share holder. Earlier initiatives to privatise Triglav failed because of procedural complexity. The Pension Fund's share was initially planned to be sold to natural persons who held Triglav-insurance policies in 1990. State-owned shares in Triglav are scheduled to be progressively sold, the withdrawal process ending in 2014.

Triglav's market power has given rise to non-cooperative behaviour, as the company has blocked industry's attempts to create and share a common database on insurance fraud. Moreover, the European Commission has issued complaints about Triglav's discriminatory practices, differentiating insurance premiums across persons with identical characteristics. Despite rising competition from foreign insurance companies since 2004, Triglav's return on capital has remained well below EU averages. The number of insurance premiums per employee is comparatively low, pointing to overmanning.

The Ministry of Finance is responsible for the regulatory framework of insurance companies. The Insurance Supervision Agency is in charge of formulating and implementing regulations as well as issuing licenses for new companies. Since June 2000, the Insurance Supervision Agency, previously part of the Ministry of Finance, has become an independent body, reporting directly to Parliament. Its powers of supervision have been strengthened with the Act Amending the Insurance Act.

Keener competition and low prices in telecommunication services despite strong state influence

The liberalisation of the telecommunications sector started late and has been gradual. Until 2000, the development and the provision of services relied entirely upon the state-owned monopoly Telekom Slovenije (1997 Telecommunication Law). In 2001, a new Telecommunications Act was introduced to complete the deregulation of the market. The 2001 Act opened the fixed-voice telephony market to competition by unbundling the loop, *i.e.* the lines linking individual subscribers to the network. It liberalised both the construction of networks and the provision of basic telecommunication services.

The 2001 Telecommunications Act also established a regulator, the Telecommunications and Broadcasting Agency (the Agency), which is responsible for monitoring prices, regulating and supervising telecommunications markets, and administering interconnections. The Agency's head is appointed by the government. The Agency is also responsible for all procedures related to the entry of new operators. Its decisions need to be communicated to the European Commission. A universal service obligation is imposed upon licensed operators. The Act Amending the Electronic Communications Act (December 2006) extended the autonomy, powers of surveillance and administrative enforcement of the Agency.

The Ministry of the Economy is in charge of telecommunication policy and main regulations in the sector. The 2001 Telecommunications Act also created the Telecommunications Council, an advisory body composed of telecommunication members appointed by Parliament.

The current market structure is marked by high market concentration. Beginning 2008, Telekom Slovenije, the principal operator, still controlled about 90% of the fixed telephone market, two-thirds of the mobile telephone market and the broadband internet market. Market shares of this size are unusually high by international comparison.

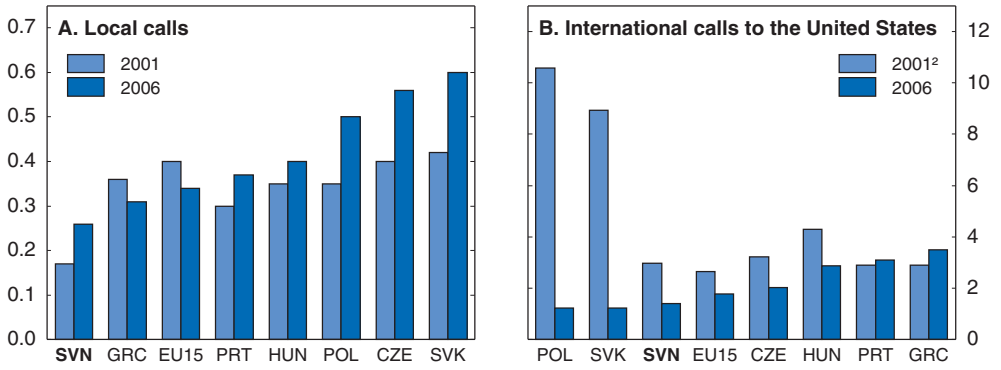
There are signs of rising competition, as evident in declining market shares for Telekom in all segments of the market. On the other hand, the privatisation process has stalled. In 2007, a public tender for the sale of 49.13% of Telekom Slovenije was issued to a strategic owner, but the selling process was suspended. Currently, the government directly owns 52.5% of Telekom Slovenije and another 21.6%, indirectly, through two state-owned Funds. The operator Mobitel is 100% owned by Telekom Slovenije.

Recent trends show continued convergence among existing networks for the transmission of sound, data and broadcasting. In 2007, a rising number of operators provided multiple play services combining fixed telephony, broadband Internet, television and mobile telephony. In the segment of fixed telephony, competition has increased with the growth in Internet provided telephony supplied by nine operators in 2007. In the mobile telephone market, the main operator's share has declined amid five new operators which started operations. Moreover, a new operator entered the market establishing infrastructure in 2007. There are also signs of increased competition among cable operators and xDSL (digital subscriber line) technology providers. New operators have become active in the domain of mobile broadband Internet access. Considering all types of the broadband access, the shares of both the principal and alternative operators have levelled off (Republic of Slovenia, 2008a).

Despite the commanding market share held by Telekom Slovenije, prices for telecommunications by type of call are relatively low. Overall, communication prices in 2007 were 25% lower than the EU15 averages (Figure 4.16). Nevertheless, Telekom has been the subject of several Competition Protection Office dominance cases in various telecom sectors, including fixed telephone (2000), wholesale broadband Internet (2004) and mobile telephone (2005). In February 2009, the CPO started proceedings against Telekom in response to the alleged abuse of the dominant position in the market of broadband and vocal services. The head of Telekom is appointed by the supervisory board for a four-year term. The powers of surveillance and enforcement of the Post and Electronic Communications Agency were strengthened in 2006 (Act Amending the Electronic Communications Act).

Figure 4.16. **Telecommunications prices**

Euro per 10 minute call[1]



1. Price includes value added tax.
2. 2002 for the Czech Republic.

Source: Eurostat database (2009), *Industry, Trade and Services*, May.

StatLink http://dx.doi.org/10.1787/644888415243

Postal services

In the postal market, there were 11 providers in 2007. The license for the provision of universal postal services, including the right of reserved service provision as the sole provider, is held by the Posta Slovenije. The provision of universal postal services implies rendering a public service and thus will be maintained, but under strict conditions of high quality of service and the access of all inhabitants to the single market (Republic of Slovenia, 2008a).

Relatively low final user prices for natural gas and electricity despite strong state presence

Following the dissolution of social capital in the 1990s, all energy distribution companies have become joint-stock companies owned by the State. Their status of a public enterprise was maintained until 2007. Companies producing and distributing electricity began to be partially privatised in 2000, with sales of a 20.5% capital share. In 2001, all energy-producing companies, with the exception of the Nuclear Power Plant Krsko, were merged to become the Slovenian Power Holding Ltd. (HSE).

After slow and partial privatisation, a second pillar of electricity production was established with the creation of Gen Energy Ltd. (2007). At the same time, market and auction instruments were introduced allocating capacities for cross-border transmission. The current market share of the main electricity provider (more than 50%) is lower than the EU27 average (60%). In the wholesale electricity market, the market share of the second production pillar (GEN-I, which is part of the group GEN Energy Ltd.) has recently increased with the transfer of long-term agreements from HSE to GEN-I.

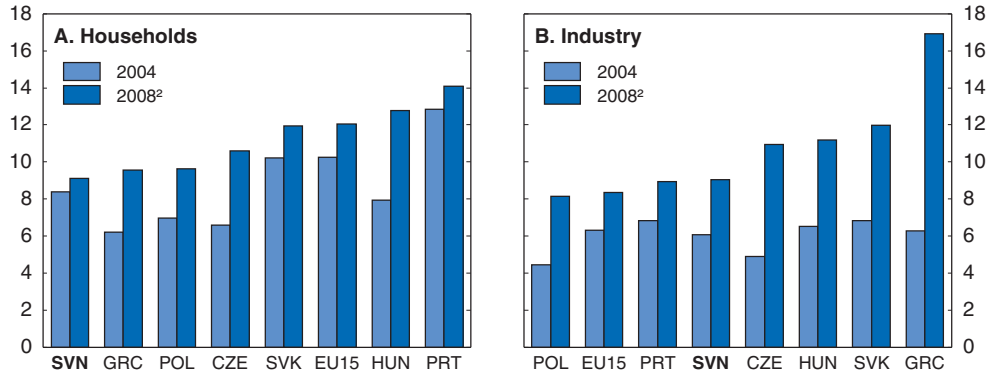
As part of the Reform Programme for Achieving Lisbon Strategy Goals (2008-10), the electricity distribution sector is due to be restructured, transferring the system to the electricity distribution operator (SODO). Following separation of sales and network activities in the electricity sector, privatisation of electricity distribution companies will resume. The government also foresees further gradual privatisation of electricity production. By establishing two "pillars" of production, the government intends to enhance competitive forces in the production sphere.

Electricity and natural gas prices to final users, regulated until 2007, are both lower than in neighbouring countries (Austria and Italy) and generally low by international comparison. The comparative price advantage *vis-à-vis* the EU15 average ranges from 10% for household natural gas to 25% for household electricity and industrial natural gas (Figure 4.17).

In 2007, prices for wholesale electricity increased more strongly than could be explained by exogenous trends. Accordingly, the Competition Protection Office sanctioned the excessive pricing power ("raising prices in concert") and issued rulings against five electricity distributors. A decision by the Supreme Court is pending. Competition in the electricity market is also constrained by restrictions preventing distributors from directly buying electricity from the cheapest source (nuclear energy). While producers' contractual obligations *vis-à-vis* certain buyers of electricity expired in 2008, there are too many tiers in the electricity market, with state-owned wholesale companies separating distributors from producers. Portions of electricity from different sources (hydro, coal and nuclear energy) are allocated to distributors. Action is therefore needed to allow distributors to buy electricity directly from the most cost-efficient source.

In the wholesale market for natural gas, the main provider's market share still accounts for almost 100%. In contrast, several suppliers operate in the retail market, with

Figure 4.17. **Electricity prices**
Euro per 100 kilowatt hour[1]



1. Prices charged to final consumers excluding taxes.
2. 2007 for EU15.

Source: Eurostat database (2009), *Environment and Energy*, May.

StatLink http://dx.doi.org/10.1787/645053772087

none of them holding a dominant position. In 2008, the Italian company ENI entered the Slovenian market for natural gas as a new supplier of retail and wholesale natural gas. ENI sells natural gas through an enterprise which it partially owns.

High market concentration in the retail food sector

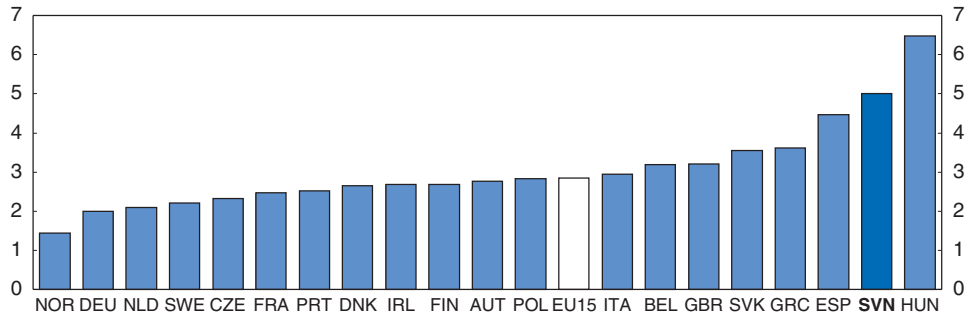
Slovenia's retail sector is largely free from restrictions, with no limitations on evening openings, Sunday work (except for women) and no zoning limits (apart from city centres). Reflecting comparatively low wages and salaries, retail food prices are 10-15% lower than in Italy and Austria. In contrast, market concentration has traditionally been strong, with three companies (Mercator, Slovenia's leading supplier; Spar an Austrian company; and Tuš) holding 65-75% of the retail food market. Including franchising, the combined market share rises to 75-85% of the market. Following EU accession, foreign companies have entered the market (Lidl, Aldi and Hofer), building up a market share of 5-6% in the space of two years (2005-07).

Signs of rising competition notwithstanding, Slovenia's retail food prices accelerated far more strongly in 2007-08 than could be explained by the world-wide food price surge (Figure 4.18). The inordinate rise in food prices has led the Competition Protection Office to examine the possibility of collusive pricing behaviour (hidden price agreements). The CPO's investigations focus, in addition, on Slovenia's principal food supplier Mercator which holds 36-39% of the market. The issue here concerns the unification of pricing lists and effective prices (after rebates) charged by Mercator to wholesalers.

Until 2006, the Mercator Company was partially owned by the State. A 35% share was sold to two companies, one of them being the local brewery company Laško. Sales conditions (absence of tender) lacked transparency, the state's selling prices being surprisingly low. In 2008, in the middle of the financial crisis, Laško expressed its wish to sell 48% of Mercator's shares to a single foreign investor. The selling offer has met with strong resistance from Mercator's management and domestic food suppliers. Increased foreign investment in the Mercator Company is seen as putting domestic food production at risk.

Figure 4.18. **Food prices**

Harmonised index of consumer prices, average annual growth 2000-08[1]



1. 2001-08 for Hungary. The EU15 aggregate is an unweighted average.

Source: Eurostat database (2009), *Economy and Finance*, May.

StatLink http://dx.doi.org/10.1787/645088860800

Box 4.4. **Policy recommendations for enhancing the business environment to foster productivity growth**

Increase competition to foster productivity

- In financial services and selected network industries, reduce state control through progressive, transparent privatisation. Issue a calendar for planned privatisation initiatives along with a list of enterprises still held by the State, even if current financial conditions may warrant some delays.
- Explore ways to improve the management and governance of state companies. In underperforming state-controlled companies, implement strategic plans to raise productivity to levels observed in other EU countries. To this end, appoint competent supervisory boards which have the capacity of appointing professional management.
- In the domain of public procurement, improve the State practices to rule out collusion among tenders.
- Reinforce the independence of the Competition Protection Office by transforming it into a truly independent agency with budgetary autonomy.

Reduce barriers to entrepreneurship

- Ease employment rules and facilitate property registration.
- Widen the use of credit registry to lower credit transaction costs.
- Strengthen entrepreneurship education in schools, universities and research institutions (good practice countries include Denmark, Netherlands and Norway).
- Expand the network of public/private business support centres to foster entrepreneurial dynamism.

Increase efficiency and effectiveness of innovation policies

- Raise aggregate research and development (R&D) spending, increase its private component and strengthen the technology-oriented portion of public R&D expenditure.
- Have independent (domestic and foreign) institutions evaluate existing programmes supporting innovation against international best practice.
- Consider reducing administrative dispersion by merging business innovation support programmes.
- Improve the efficiency of multi-purpose centres (hubs) to strengthen links between the research community, the business sector and the government.

Notes

1. Credit registries, which collect and distribute credit information on borrowers, greatly expand access to credit. By sharing credit information they facilitate risk assessment and credit allocation.
2. One example is Mexico, where policy-induced collective process innovation since 2004 has acted as a main vehicle for stimulating individual product, process and market innovations (OECD, 2007).
3. In the financial sector, rising ICT diffusion enhances banks' capacity of credit assessment, augmenting the transparency of data on firm performance and credit conditions. By potentially kindling competition among financial institutions, ICT eases barriers to finance, with a consequent fall in bank lending rates for SMEs relative to benchmark interest rates (interest rate convergence) (Mittelstädt and Gerri, 2008).

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ANNEX 4.A1

Estimation of mark-ups for Slovenian industries

A departure from the standard assumptions of the neoclassical production theory allows for the assumption of monopolistic firms charging mark-ups over marginal costs.

To implement such an approach, first, the production technology is assumed to be defined by the neoclassical production function:

$$Y = AF(N,K) \tag{1}$$

where Y is output, A is multifactor productivity growth, there are two inputs: N is labour, and K is capital and $F(.)$ is a homogenous function of degree λ (the degree of returns to scale). The firm and year subscripts are subtracted for the sake of simplicity. After log-differentiation* and re-arranging:

$$SR_{primal} = y - \alpha_N n - (1 - \alpha_N)k = (1 - B)a - B(y - k) \tag{2}$$

where SR_{primal} is the primal Solow residual, the lower case indicates log-differentiation, α_t is the revenue share of factor i and B is the Lerner index, which is closely related to the mark-up μ:

$$B = 1 - \frac{1}{\mu} \tag{3}$$

Estimation of equation (2) would lead to biased results as the explanatory variables are correlated with the productivity shock a. To overcome the endogeneity issues, the dual or priced-based Solow residual is derived by using the cost-function associated with the production function in equation (1).

Oliveira Martins *et al.* (1996) show that the equation to estimate the mark-up can also be derived from the direct definition of the mark-up over average cost:

$$SR_{dual} = \alpha_N w + (1 - \alpha_N)r - p = (1 - B)a - B(p - r) \tag{4}$$

where w is the growth rate of wages, r is of the rental price of capital and p is of output. By subtracting (4) from (2) and adding an error term, B can be estimated as Roeger (1995) showed. As the unobservable productivity term, a cancels out with this subtraction, this equation is relatively easy to estimate.

$$\frac{P}{AC} = \frac{P * Y}{(W * N + R * K)} = \frac{\mu}{\lambda} \tag{5}$$

* Through differentiation, the growth rate of output can be related to the growth rates of inputs, *i.e.* capital and labour.

where *AC* is average cost, *P*, *W*, and *R* are the prices of output, labour and capital, respectively, whereas λ is an index of returns to scale (*i.e.* average costs over marginal costs) and μ is the mark-up.

After differentiation and under the assumption of constant returns to scale ($\lambda = 1$) the equation to estimate (after adding an error term) is obtained:

$$(p + y) - \alpha_N(w + n) - (1 - \alpha_N)(r + k) = B[(p + y) - (k + r)] \quad (6)$$

where the first term in the left-hand side is nominal output, the second is wage cost multiplied by the estimated coefficient on labour α_N from the production function and the third is the rental price of capital multiplied by the estimated coefficient on capital ($1-\alpha_N$), all in differences. The totality of the left-hand side is the Solow residual with variables measured in nominal terms. In the right hand-side, *B* is the Lerner index ([Price-Average Cost]/Price) to estimate.

Firm-level data for Slovenian firms are obtained from the Amadeus database and the OLS fixed effect estimator is employed to estimate the mark-ups. For details of estimation methods and results see Molnar and Bottini (2008), and Molnar (2009).

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Glossary

ALMP	Active labour market policies
AWG	Ageing working group
CDS	Credit default swap
CEECs	Central and East European counties
CPO	Competition Protection Office
ECB	European Central Bank
EIUA	Employment and Insurance against Unemployment Act
EMU	European Monetary Union
EPL	Employment protection legislation
ERA	Employment Relationships Act
ERM	Exchange rate mechanism
EU	European Union
EU15	EU members before enlargement in May 2004
EU27	EU members as from 2007
EUR	Euro
FDI	Foreign direct investment
GDP	Gross domestic product
HSE	Slovenian Power Holding Limited
ICT	Information and communication technology
IFRS	International financial reporting standards
IMAD	Institute for Macroeconomic Analysis and Development
IMF	International Monetary Fund
KAD	Capital Fund
MBO	Management buyouts
NAIRU	Non-accelerating inflation rate of unemployment
NDC	Notional defined contribution
NKBM	Nova Kreditna Banka Maribor
NLB	Nova Ljubljanska Banka
NMS	New member states
NPL	Non-performing loan
NRDP	National Research and Development Programme
PAEFI	Public Agency for Entrepreneurship and Foreign Investment
PDIA	Pension and Disability Insurance Act
PLYA	Project learning for young adults
PMR	Product market regulation
R&D	Research and Development
SID	Export and development bank
SME	Small and medium-sized enterprises

SOD	Compensation of Restitution Fund
TIA	Slovenian Technology Agency
TFP	Total factor productivity
USD	United States dollar
VAT	Value added tax
ZPIZ	Institute of Pension and Invalidity Insurance

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