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Hungary

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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Publié également en français.

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BASIC STATISTICS OF THE REPUBLIC OF HUNGARY 2002

THE LAND

Area (km^2)	93 030
Arable land (km^2)	44 998

THE PEOPLE

Population (thousands, end year)	10 142
Urban population (per cent of total)	65
Rural population (per cent of total)	34
Projected population in 2005 (1995 = 100)	96
Employment (thousands)	3 830
Unemployment rate (per cent of civilian labour force)	5.8
Participation rate of 15-64 year olds	59.7

Population of major cities (thousands):	
Budapest	1 739
Debrecen	206
Miskolc	182
Employment by sector (per cent of total):	
Agriculture	6
Industry	35
Services	59

THE PARLIAMENT

Number of seats	386
Number of political parties (elections of April 2002)	4
Share of seats held by governing coalition (per cent)	51
Next election	2 006

PRODUCTION

GDP (HUF billion, current prices)	16 980
GDP per head (current PPP in USD)	13 497
Consumption (private, per cent of GDP)	53
Gross fixed capital formation (per cent of GDP)	22

PUBLIC FINANCE

Central government budget balance (per cent of GDP)	–8.8
General government revenue (per cent of GDP)	43.4
General government balance (per cent of GDP)	–9.2

FOREIGN TRADE

Exports of goods and services (per cent of GDP)	64
Imports of goods and services (per cent of GDP)	66
Official reserves (average, incl. gold, SDR billion)	8
Total gross external debt (euros billion)	38
Total gross external debt (per cent of GDP)	55

THE CURRENCY

Monetary unit: Forint

Forints per euro:	
Average, 2002	242.97
End December 2002	235.90

Forints per USD:	
Average, 2002	258.00
End December 2002	225.16

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

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The economic situation and policies of Hungary *were reviewed by the* Committee *on* 3 December 2003. *The draft report was then revised in the light of the discussions and given final approval as the agreed report by the whole* Committee *on* 6 *January* 2004.

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The Secretariat's draft report was prepared for the Committee *by* Philip Hemmings, Ann Vourc'h, Carl Gjersem, Andreas Reindl *and* Boris Cournede *under the supervision of* Andreas Wörgötter.

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The previous Survey *of* Hungary *was issued in* June 2002.

Assessment and recommendations

Continued catch-up requires maintaining competitiveness and increasing labour force participation

The Hungarian economy has achieved strong growth, averaging 4¼ per cent annually since 1997. This good performance has relied on a dynamic export sector largely made up of foreign-invested firms, and a rapid integration into European production networks. Since 2001, very strong domestic demand has been underpinned by a surge in minimum wages and public sector pay as well as strong public-sector investment. However world-trade growth has slowed and gains in export-market share have diminished substantially so that, overall, GDP growth has weakened. The continued rapid real convergence of the Hungarian economy with that of the European Union will first and foremost require maintaining, and indeed strengthening, the competitiveness of the Hungarian economy in a broad sense of being an attractive location for developing business activities. This is key to assuring that highly productive export-driven firms continue to expand, that the linkages between these firms and Hungarian suppliers continue to deepen, and a high rate of enterprise creation and development is maintained to respond to the domestic market opportunities generated by rising incomes. However, continued strong growth cannot rely on high productivity growth alone but will also require a more intensive utilisation of labour resources. The Hungarian economy is characterised by a very low overall employment rate and a sharp regional divide between the booming central-western part of the country, where growth has been concentrated and labour shortages are emerging, and the poorer, less dynamic north, south and east. Increasing labour force participation, enhancing labour mobility and broadening the economic boom to currently less prospering regions thus constitutes another challenge for Hungary.

A smooth entry into EMU poses challenges for fiscal and monetary policies

Alongside the challenge of maintaining the momentum of real convergence, Hungary faces the challenge of achieving rapid nominal convergence so as to meet the authorities' target of early entry into the European Monetary Union (EMU). Early entry is seen as desirable for further strengthening economic integration with the European Union, but also as a vehicle for importing macroeconomic stability while providing a medium-term boost to economic growth through lower real interest rates. However, this strategy does contain risks. Significant budget overruns have generated difficult conditions for monetary policy and have limited the room for reducing taxes. Thus, achieving both disinflation and budget consolidation to the required extent is challenging and major efforts from both monetary and fiscal policy will be essential to safeguarding external competitiveness in the process. The more a medium-term fiscal strategy manages to reduce expenditures and to free resources, the easier it will be to achieve disinflation targets implied by EMU entry, while reducing risks of turbulent developments in interest rates and the exchange rate.

Fiscal consolidation is proceeding, but is not yet adequately anchored in a medium-term strategy

The general government deficit for 2002 overshot the initially approved deficit by a wide margin, coming in at 9.2 per cent of GDP on an accrual basis. To some extent this outcome reflects one-off factors worth about 3 per cent of GDP, in particular the incorporation into the budget of previously accumulated large quasi-fiscal debts relating to motorway construction. However, the large deficit was also due to over-spending in almost all categories of expenditure in anticipation of local and general elections. The 2003 deficit, estimated in early 2004 to be 5.6 per cent of GDP, marks an improvement, especially in view of the difficult international environment But, in order to reach sustainable public financing and to comply with the Maastricht criteria for EMU entry in 2008, the general government deficit will have to be reduced to 3 per cent of GDP by 2006 through savings on the expenditure side. This further adjustment will be much more difficult as the easy measures have been taken. The 2004 budget envisages deficit reduction to 3.8 per cent of GDP (ESA95 basis). This is mainly brought about through increased revenue, rather than significant expenditure cuts. The relatively small expenditure cuts are due to accelerated investment in motorway construction, EU-accession related spending and the fact that achieving substantial saving in structural expenditure takes time. Given the already high tax-burden, its further increase next year is not helpful for growth. At the same time, there are useful moves in specific revenue and spending areas that could give rise to wider and substantial expenditure reductions. Following-up on measures taken in 2003, there is to be further narrowing of eligibility and reduced generosity in the housing-loan subsidy scheme. Also a cut of ten per cent in central government employment (around 7 000 employees) is scheduled for 2004. Though this is a small reduction in the approximately 821 000 public-sector employees, further cuts in employment may arise from tightening wage-related transfers from central budget to other areas of government.

It is essential to develop now the key elements of a medium-term consolidation programme

If Hungary is to comply in a sustainable way with euro-area membership criteria, budget consolidation from the expenditure side has to start now. Given development and implementation lags, the efficient continuation of budget consolidation in 2005 and beyond requires that work should begin now on the key elements of a medium-term fiscal strategy that:

- encompasses appropriate measures to broaden the tax base and lower rates where possible;
- strengthens budgetary procedures to assure that the longer-run implications of spending decisions are clearly identified and to promote value-for-money through output-oriented financing and performance benchmarks;

and identifies structural measures to reign in the growth of spending across the full range of government programmes.

Tax reform should aim at cutting rates and base broadening

The scope for achieving deficit reduction through revenue enhancement seems exhausted. While efforts made over recent years to reduce tax evasion and strengthen tax administration and collection have yielded positive results and should be continued, the prospects for further reducing the grey economy and thereby enlarging the tax base would seem to require a substantial reduction of the tax-wedge on labour. While such a reduction is highly desirable on structural grounds, the trade off in revenue terms is almost surely negative, at least in the short term. At the same time, pressures to reduce business taxation will remain strong. Nonetheless there are a number of base-broadening measures the government should explore:

- The taxation of capital income varies widely across income types and in some cases is very lenient. Most notably, interest income, currently taxed at a zero rate, should become subject to some taxation once disinflation has progressed sufficiently.
- The system of income tax credits and allowances should also be reviewed. In particular the allowance on housing loans should be further cut back and family tax credits should focus more on increasing female labour force participation.
- There remains scope for broadening value added tax.
- Finally, local governments should be encouraged to make more use of the available opportunities for residential property taxation.

Overall, given the already high tax burden, the role of tax reform should be to improve efficiency and reduce the most damaging distortions in the system, while budget consolidation should be pursued primarily on the expenditure side.

Public expenditure reform is urgent

A strategic, medium term framework to quicken expenditure reform is essential, and requires not only systematic review and prioritisation among central government programmes with a view to higher efficiency, but also an enhanced local government involvement and responsibility for achieving fiscal policy targets and adopting budget reforms. Specific issues to be examined include:

- Already in 2004, the planned cuts in public sector employment need to be linked to administrative reforms and targeted on lower-priority activities rather than being implemented across the board. The logic of the substantial pay increases awarded in the public sector in the last couple of years, 50 per cent for most employees, was to create the basis for a smaller, more productive public administration, which needs to be implemented.

– The 1998 pension reform foresaw a progressive reduction in spending on first-pillar benefits with a view to assuring the sustainability of the system. The logic of this reform should be restored, and the decision to introduce a thirteenth month to pensions should be reconsidered.

While, overall, replacement rate levels in social transfer programmes are not very high in international terms, their coverage is very wide. In view of Hungary's low participation rate, careful re-design of these programs, as further discussed below, could both reduce spending pressures and improve work incentives.

A challenging phase for an overburdened monetary policy in the run-up to euro entry

The transition from a crawling-peg to an inflation-targeting regime was achieved smoothly and initially the new regime appeared to be working well. However, monetary policy has recently faced some difficult challenges, including speculative attacks on the currency. These events partly reflect a concern that monetary policy is overburdened, since that involves not only achieving inflation targets but also stabilising the exchange rate within a narrow band which is considered to be compatible with inflation objectives and contribute to a smooth entry to ERM II and the euro area. There is nevertheless a risk that market conditions will make these goals incompatible. Given this problem, the Central Bank's policy of pursuing a nuanced communication strategy that includes reference to an exchange rate objective seems appropriate but risks attracting speculative attack if a lot of detail on the willingness to defend the exchange rate target is made in public.

Co-ordination among macroeconomic policy players should be expanded

Particularly in late 2002 and in the beginning of 2003, there was discordant public debate between the Central Bank and the government, threatening the credibility of macroeconomic policy in the eyes of the markets. Since then, substantial efforts have been made for more visible, as well as substantive, consensus. It is important that the authorities maintain these efforts, particularly in light of the ambitious deficit and inflation targets for euro entry. Responding to some inflationary revenue increases in the 2004 budget, the Bank, in agreement with the government, has set an inflation target of 4 ±1 per cent for December 2005, half a percentage *above* that for the end of 2004 though still incorporating within the band the 3 per cent expected to be sufficient for euro entry. If fiscal policy goals are fully met, the jointly set inflation target may be reached without further monetary tightening. Nevertheless, if need be, a final push to the inflation rate required to fulfil the convergence criteria can be made in the final run-up to the 12-month assessment period. This strategy is not without risks. Adoption of the euro in early 2008 would require a positive convergence assessment which in the case of the inflation criterion would be based on a 12-month assessment period starting somewhere in 2006. It will thus be important to communicate in a credible way that the Bank would respond to a prolonged pause in disinflation with an appropriate tightening in monetary conditions. As noted, support from a fiscal strategy based on expenditure restraint will be necessary. Clearly, failure of fiscal policy to achieve the targets set for it would compromise both the credibility of the nominal convergence strategy and the coherence between inflation and exchange-rate objectives.

Wage setting should anticipate disinflation and the move to communicate wage guidelines in nominal terms should continue

Wage setting is crucially important for competitiveness and price stability. In recent years private sector real wage growth has been strong, though less so in 2003. The substantial fall in inflation from mid-2001 appeared to have had a delayed impact on the rate of nominal wage increases. Hikes in the minimum wage led to increases among the low-paid and likely had a ripple effect on wages above the minimum. In addition, a succession of large increases in public sector pay between 2001 and 2003 has had demonstration effects on private-sector pay increases and may have tightened supply for certain types of labour to the private sector. The challenge for wage determination in the years ahead is twofold: first, the wage increases that have been well above average productivity gains will have to be clawed back to some extent in order to restore a wage level which is compatible with international competitiveness, and second, nominal wage rises will have to appropriately incorporate the sharp disinflation that will be achieved, one way or another, on the way into the euro zone. Wage policy for 2004 reflects these aims and includes reverting to indicative wage guidelines in gross nominal (rather than net real) terms. This practice should be continued.

Wage moderation would be enhanced by a more responsive labour supply

The delayed reaction of nominal wages to falling price inflation suggests that inflation expectations have not yet fully incorporated actual developments. The lagged nominal wage response also points to tight labour markets in leading sectors and for certain skills in the central-western part of the country. This further underscores the need to implement policies that bring more of the non-employed into work. To some extent this is a regional issue, which has to be addressed by increasing labour mobility on the one hand and broadening job creation across the whole country on the other. More generally, formal employment is restricted by the high tax wedge on working, especially for the low-paid. Some social benefit programmes, like the disability scheme and family benefits, have become an effective route to leaving the labour force. Such an environment is also not conducive to human capital accumulation necessary to secure employability on the official labour market.

Reductions in the tax-wedge would boost incentives for creating and taking up jobs…

While there have been encouraging, though slight, increases in labour force participation and employment rates in recent times, levels remain well below leading countries in this regard. While considerable reductions in the tax wedge have been made in recent years, further reductions are still needed. These should incorporate a focus on improving incentives for creating and taking up jobs with skill requirements appropriate for the inactive population. The tax-wedge reductions should also increase incentives to take up official employment so as to reduce grey-sector activity and widen the tax-base. The shift to exempt the minimum wage from income tax further bolsters incentives to join the labour force and measures should now focus on reducing the substantial employer contributions for low-paid workers in order to boost demand. In particular, the fixed component of the employers' contribution to health care adds excessively to labour costs at the low end of the job market and contributed to the poor development of part-time work. The authorities have decided to exempt this payment for certain groups, including certain categories of part-time workers and should aim to advance the complete phasing out of this fixed contribution from its envisaged date of 2006.

… along with reforms to the disability benefit system…

The increases in the statutory retirement age and significant tightening of access to early-retirement schemes were implemented effectively, reduced withdrawal from the labour market and have played an important role in encouraging recent improvement in the employment rate among older workers. And the full effect of the reform has yet to be realised as old schemes were grandfathered. However, as in other countries which have sought to restrict early retirement, Hungary has experienced a concomitant increase in the number of persons on disability benefits. Reforms to this system are needed and should introduce a more thorough assessment of the remaining capabilities of workers and promote their reintegration in the labour market through rehabilitation measures and in-work training.

… and more work-oriented child care support

Support for child care is largely in the form of cash benefits and family tax credits. Although participation of prime-age women in the labour market is roughly similar to the OECD average, further improvements in the relevant policy areas should be sought. In addition, state-supported child care services vary widely across local authorities but are in general limited. The possibility of three years parental leave may distance parents from the workforce, increasing the chances that they will not take the option of returning to their jobs and risking poor progress in professional terms if they do. With these issues in mind, the authorities should consider ways of re-balancing the package of child care support to provide less cash, but more child care services either directly, or by subsidising private-sector child-care for working families so as to make work a more attractive option.

More labour mobility and regional wage differentiation are needed

Regional labour-market imbalances are accentuated by the "lock-in" effect on labour mobility generated by the combination of a small market for rental housing and high home ownership in all parts of the country. The enormous differences in house prices across regions reflect, at least in part, the impact of tax-breaks and non-transferable subsidies to home ownership which essentially impact on the property market in the west of the country. The recent reductions in the scope and generosity of the housing-loan subsidy scheme may help to reduce the bias in favour of home-ownership, and prevent a further regional widening of house price differences. Further downsizing of the scheme is needed and it should eventually be abolished. The tax-breaks on mortgage interest andcapital repayments also favour buying rather than renting. At a minimum, the tax breaks should only be on interest payments and the authorities should seriously consider whether the welfare objectives of the breaks could not be better achieved in other ways. Expanding the dynamics of job creation throughout the country might be assisted by allowing local labour market conditions to be fully reflected in wages as well as by improving infrastructure so as to broaden the location of investment.

Progress in improving transport infrastructure is uneven

The density and quality of long-distance road and rail transport influences firms' location decisions, contributing to the large regional differences in economic development. In addition, poor short-distance transport in many areas limits commuting possibilities. Thus, local labour markets are often small and this contributes to demand-supply imbalance and unemployment within regions. The substantial increase in resources allocated for road infrastructure in the 2004 budget submission is a welcome move to reduce regional disparities, as the main priority of road construction is to more closely link peripheral and less developed parts of the country to the more economically successful regions. In this environment of accelerated spending the authorities are urged to strive for greater efficiency in outcomes by increasing the role of cost-benefit studies in the decision making process. Steps in this direction have been taken recently to ensure that decisions are not excessively biased towards "glamorous" projects for new motorways over small-scale road-building and maintenance. In rail services, modernisation clearly needs major investment. This should be driven by further progress towards liberalisation, including the introduction of a fully independent network operator.

Market openness and transparency are important for business

Hungary has made considerable efforts to establish a business friendly regulatory environment from the outset of the transition process and the high rate of FDI and enterprise creation is a positive reward in this regard. However there are outstanding issues, ranging from a need for better co-ordination between central and local tax authorities to strengthening competition and regulation in network industries and especially the part of the Hungarian economy serving the domestic market. There is also considerable scope for efficiency improvement by cutting back subsidy programmes for a wide range of activities. A fundamental issue concerns the accountability and de facto independence of regulators. In particular, legislation presented to parliament should be used as an opportunity to strengthen these in the area of financial supervision. While the legislation aims to strengthen accountability *vis-à-vis* the Ministry of Finance, it is accepted among OECD countries that financial supervisors should have the operational independence required to carry out supervision of financial institutions and markets autonomously.

Business taxation needs to become better co-ordinated across different levels of government

In business taxation, the impact of the low corporate tax rate in making Hungary attractive for investment is weakened by the inappropriate base of the local business tax. More generally, there is a lack of stability to the tax system due to frequent changes, making compliance difficult and adding to administrative burdens. Local taxation on non-residential property also has an inappropriate base. Recent changes in business taxation are aimed to mitigate these problems, however further reform is necessary.

Bank profitability relies too much on subsidised loan programmes

The banking sector dominates Hungary's financial system, with capital markets playing a less important role. Recent trends in the efficiency and profitability indicators of the banking sector bode well for future financial stability, although part of the buoyancy in the sector is related to subsidised loans, in particular the housing subsidy and, to a lesser extent, the various loan and credit subsidies for SMEs. The authorities should make a general evaluation of how much subsidy support is leaking into the financial sector and take a close look at the design of all relevant schemes.

Competition law is generally well-founded but efficiency in enforcement could be improved

The examination of competition legislation and its enforcement in the special chapter of this *Survey* underscores that many features of this area of law and its application compare favourably with average OECD practice. Nevertheless, two areas of legislation are identified as requiring attention. First, individuals should be given the right to initiate actions in certain circumstances without having to go through the competition authority. This would avoid complications due to differences with European Union legislation and may also improve overall enforcement and reduce the workload of the competition authority. Second, introducing sanctions against individuals in hard-core cartel cases would likely improve the competition authority's effectiveness in this area provided that any new sanctions do not interfere with the current framework of enforcement. Procedural and organisational changes, supported where necessary by legislative changes should be explored with a view to freeing resources and improving the competition authority's ability to prioritise. In particular, the formation of a unit specialising in consumer fraud is recommended along with a number of reforms in procedures.

Steps should be taken to expose the domestic sector to greater competition

While broad indicators do not suggest Hungary suffers from endemic monopoly and cartel problems, there are clearly some problems in specific sectors. Entry restrictions and price setting in professional services are particularly stringent and competition law should be given greater powers through reductions in the scope of overriding legislation. In retailing, the prohibition of sales below costs and credit rules for certain food products aimed at protecting producers, traditional wholesalers and small retailers should be removed. Overall, estimated productivity gains from pro-competitive regulatory reform could be considerable and more efforts should be made to reduce entry barriers and enhance competition in areas which are serving the domestic market and are lagging in productivity.

Among the network industries, policy challenges remain for the privatised energy sector and in postal services

Despite partial liberalisation further steps are necessary in developing competition in network industries. One problem is that the industry regulators do not have final authority in some key areas, a prime example being in the setting of retail household prices for gas and electricity where the government has the final word. These price controls should be phased out and prices allowed to reflect market rates. Welfare concerns about energy costs for low-income earners should be resolved by alternative means. A reduced role of government is also needed in the determination of access charges and in the independence of network operators. Dominance of markets by the incumbents needs to be tackled more vigorously in the gas and electricity sectors and long-term contracts in electricity markets need to be monitored. Postal services are being liberalised in accordance with the European Union Directives in this area. Within this context, the authorities need to confront more rigorously the problem of over-staffing and non-viable rural post offices.

Economic instruments should be used more systematically to reduce greenhouse gas emissions and local air pollution

The Kyoto target is set to be attained, but the climate change strategy could be made more cost-effective. The current and future emissions trading price should be used as a benchmark for the evaluation of the cost-effectiveness of greenhouse gas mitigation measures. However, in doing so, costs and benefits that flow from meeting other policy objectives should also be taken into account. For instance, renewable energy programmes, which are designed to reduce greenhouse gas emissions, can also improve air quality to a certain extent. More comprehensive analysis of the environmental impact of the various renewable energy projects should also be carried out. The alignment of energy prices for households to market rates, as already underway for businesses, would also provide a cost-effective mitigation measure. Although considerable improvement has been achieved in air quality, Hungary faces important challenges in reducing emissions to comply with its international commitments and those relating to forthcoming European Union membership. Hungary has recently transposed the EU Directive on large combustion plants into national legislation. Although the benefits of the associated emission reductions are likely to outweigh the costs, this command-and-control approach will not minimise the overall abatement costs. As regards mobile sources, economic instruments could be used to a greater extent to contain air pollutant emission; in particular, road-use pricing and vehicle taxation based on emissions should be seriously considered.

Summary

For Hungary to maintain strong growth, macroeconomic policy has to aim for sound and sustainable public finances, low inflation and maintaining the competitiveness of its FDI-driven export sector. Fiscal consolidation has to focus on lasting structural reforms, which bring down the volume of government expenditure in a sustainable way. Revenue increases buy time for the 2004 budget, but this time has to be used to implement measures that will durably reduce spending in a medium-term framework. The difficult balancing act for monetary policy between achieving inflation targets and steering the exchange rate for entry into the euro zone could be made easier if fiscal targets are achieved. The move to base future budgets on the joint inflation target is a welcome step to improve co-ordination between the government and the Central Bank and should be continued. In wage setting, the indicative wage guidelines should be used to communicate disinflation in the run-up to EMU, and thereby limit the risk of unintended real wage increases. Wage moderation should also be assisted by measures which increase the supply responsiveness of labour. Any room created for tax cuts should be used to reduce Hungary's large tax wedge on labour, which interacts negatively with some social benefit programmes. Large regional disparities should be addressed by measures which increase labour mobility and broaden investment across regions through further improved infrastructure. Business conditions can be further improved by addressing the low level of competition in some network industries and more generally improving the conditions for market entry in the domestic sector. The considerable costs of programmes to reduce the emission of greenhouse gases and also more local air pollutants could be reduced with the wider application of economic instruments. Hungary will only be able to reap the full benefits of European Union accession and EMU entry if it establishes a sound macroeconomic framework, boosts labour force participation and sustains high productivity growth.

I. Key issues and challenges

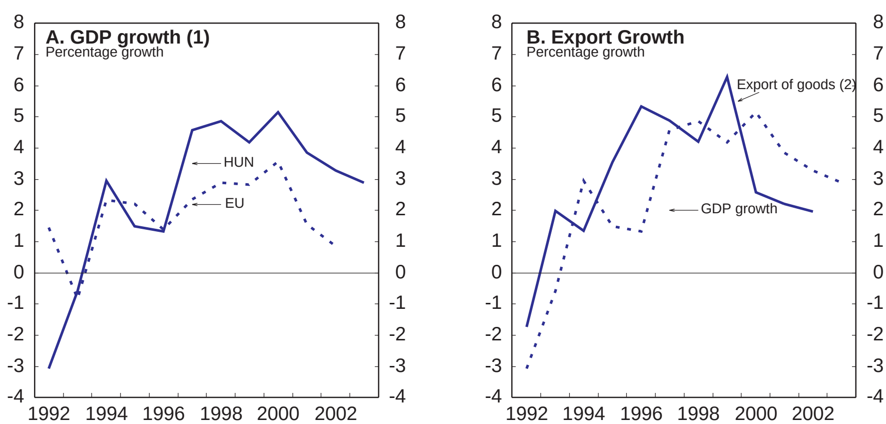
Hungary has posted strong growth since the mid 1990s, principally through establishing itself as part of the supply chain for European manufactured goods funded by foreign direct investment (FDI). The international competitiveness needed to become part of the supply chain both in terms of production costs and the wider considerations of investors, has not only been helped by a policy of low corporate taxation but also by other incentives for FDI. In addition, privatisation, regulatory reform and successful policies in bringing down inflation from high levels in the early years of transition have provided investment opportunities and made for a more business-friendly environment. For the foreseeable future, this supply-chain activity is the most viable major route towards generating sufficiently strong growth for catch-up to average living standards in the rest of Europe. Maintaining the international competitiveness necessary for continuing this growth strategy is therefore the key challenge for the authorities. Success on this front requires policies that prevent excessive rises in production costs, for example through wage increases, as well as attention to the business-environment in general. Business assessments will be particularly sensitive to macroeconomic performance in the coming years as Hungary positions itself for entry to the euro area in 2008. And, more generally, how the authorities manage euro entry will have economy-wide effects both in the short and, potentially, the long term. Given a need to bring inflation and government deficits down to meet the criteria for entry, combined with concerns about entering at an optimal exchange rate, this is a difficult task and is the second major policy challenge for the authorities at the present time. Reaping the full benefits of international competitiveness and a successfully managed euro entry is complicated by Hungary's problem of low labour force participation and highly regionalised labour market. Mobilising untapped labour resources is the third major policy challenge. It requires further attention to the not only to the degree of work-orientation embodied in the tax-benefit system but also the incentives for employers to hire the predominantly low-skilled and often poorly experienced population of non-employed.

Maintaining international competitiveness

Hungary's export-led growth engine

With the major upheavals of transition over by the mid-1990s the Hungarian economy began to post strong growth, averaging over 4 per cent between 1997 and 2002; around 2 percentage points above the EU average (see Figure 1.1). Such a growth differential, if maintained, would imply a steady but by no means spectacular real convergence. A two percentage point margin of growth implies catch-up to GDP per capita to the average of EU member countries of about 35 years.[1] The main driver behind the surge in growth has been rapid growth in Hungary's role as a production platform – principally for supply chains to European markets. The influence of this activity on growth is illustrated in the close parallel between export and GDP growth (see Figure 1.1). The rapid development of production capacities in electrical and transport goods has been particularly important, with contrasting declines in a number of previously important exporting sectors, notably textiles (see Table 1.1). Exporting activity of this kind, sometimes called "re-exporting" activity, involves large volumes of imports and exports in relation to value added. For instance, Table 1.1 shows that in certain sectors both values of exports and imports are several times value-added. This accounts for Hungary's very large aggregate level of imports and exports in relation to GDP and

Figure 1.1. **Hungary's export-led growth**



1. For 2003, the OECD autumn 2003 projections are included in the series.
2. Exports of goods is expressed as a percentage change of GDP (Exports = (xgv[t + 1] – xgv[t])/gdpv[t]*100) where xgv is exports in volume basis.

Source: OECD, Analytical Database.

Table 1.1. **Sectoral decomposition of growth**

1995-2000

Industry code (ISIC Rev. 3)	Industry (ranked by approximate contribution to total growth)	Approximate contribution to total growth (1995-2000)	Annual volume growth, 1995-2000	Share of nominal value added, 1995	Share of nominal value added, 2000	Ratio of exports to value-added (nominal terms), 2000	Ratio of imports to value-added (nominal terms), 2000
01-99	Grand total	4.19	4.2	100.0	100.0	n.a.	n.a.
30-33	Electrical and optical equipment	1.68	41.3	2.2	5.2	5.0	4.8
65-74	Finance, insurance, real estate and business services	0.72	3.2	19.6	20.8	n.a.	n.a.
34-35	Transport equipment	0.61	26.7	1.3	2.8	4.4	3.2
75-99	Community social and personal services	0.49	2.2	20.5	19.3	n.a.	n.a.
64	Post and telecommunications	0.35	9.8	2.8	3.8	n.a.	n.a.
50-52	Wholesale and retail trade; repairs	0.34	2.7	11.3	10.9	n.a.	n.a.
45	Construction	0.18	3.4	4.6	4.6	n.a.	n.a.
28	Fabricated metal products, except machinery and equipment	0.14	7.7	1.6	1.5	1.0	1.7
60-63	Transport and storage	0.13	1.9	6.2	5.8	n.a.	n.a.
21-22	Pulp, paper, paper products, printing and publishing	0.12	8.1	1.3	1.3	0.8	1.9
25	Rubber and plastics products	0.10	9.9	0.8	1.0	1.8	3.3
55	Hotels and restaurants	0.06	2.7	2.0	1.7	n.a.	n.a.
29	Machinery and equipment, n.e.c.	0.05	3.2	1.6	1.5	2.6	5.2
26	Other non-metallic mineral products	0.05	4.3	1.1	1.1	0.9	1.1
36-37	Manufacturing n.e.c.; recycling	0.02	2.7	0.6	0.5	3.2	2.4
20	Wood and products of wood and cork	0.01	2.4	0.6	0.5	1.5	1.4
27	Basic metals	0.01	1.0	0.8	0.7	3.2	5.2
17-19	Textiles, textile products, leather and footwear	0.00	–0.1	2.0	1.6	3.1	3.0
40-41	Electricity, gas and water supply	–0.03	–0.9	3.3	3.6	0.0	0.1
10-14	Mining and quarrying	–0.04	–8.9	0.5	0.3	0.1	11.1
01-05	Agriculture, hunting, forestry and fishing	–0.06	–1.1	6.7	4.2	0.4	0.2
15-16	Food products, beverages and tobacco	–0.17	–4.1	4.2	3.4	1.2	0.5
24	Chemicals and chemical products	–0.27	–9.9	2.6	2.3	1.9	3.2
23	Coke, refined petroleum prod. and nuclear fuel	–0.28	–15.1	1.9	1.4	0.7	0.6

Note: The contribution to growth is approximated by 1) weighting the average annual volume growth for each industry by the average of the nominal shares in GDP for 1995 and 2000; and 2) applying a common weight across all industries to account for the fact that the sum of the calculation does not equal total average GDP growth.

Source: OECD Stan database.

places it among the growing number of so-called "supertrading" economies.[2] The financing of this exporting activity has mainly come from FDI. Due to the build-up of foreign capital, re-invested earnings have become an increasingly important component of FDI inflows alongside injections of "new" capital (see Annex A, Table A.1). Indeed on a per capita basis Hungary has accumulated since the early 1990s among the highest net FDI inflows among OECD countries (see Table 1.2). Its principal competitors for FDI within the region are the Czech Republic, Poland and, more recently, Slovakia.

Part of Hungary's appeal for investors is its proximity to European Union markets and production facilities, making for relatively easy logistics and less costly communication. In addition, the manufacturing base prior to economic liberalisation

Table 1.2. **Cumulative net FDI flows in OECD countries**[1]

1993-2002

Net inflows (USD billion)		Net inflows per capita (USD thousand)	
Mexico[2]	123.2	Ireland	18.44
Ireland	70.8	New Zealand	4.99
United States	63.8	Czech Republic	3.40
Poland	48.6	Sweden	2.98
Czech Republic	34.9	**Hungary**	**1.97**
Australia	30.9	Slovak Republic	1.78
Sweden	26.5	Denmark	1.77
Hungary	**20.1**	Australia	1.59
New Zealand	19.2	Mexico[2]	1.27
Slovak Republic	9.6	Poland	1.26
Denmark	9.5	Austria	1.00
Austria	8.1	Greece	0.53
Turkey	7.6	United States	0.22
Greece	5.6	Belgium/Luxembourg	0.20
Korea	2.4	Turkey	0.11
Belgium/Luxembourg	2.1	Korea	0.05
Iceland	–0.3	Portugal	–0.07
Portugal	–0.7	Canada	–0.55
Norway	–3.6	Italy	–0.65
Canada	–17.4	Norway	–0.80
Italy	–37.2	Iceland	–1.05
Finland	–38.3	Spain	–1.10
Spain	–44.2	Germany	–1.16
Netherlands	–74.4	Japan	–1.64
Germany	–95.8	Netherlands	–4.65
Switzerland	–118.2	France	–5.27
Japan	–208.8	United Kingdom	–6.92
France	–312	Finland	–7.37
United Kingdom	–407	Switzerland	–16.32

1. The data does not include re-invested earnings for the following countries: Hungary, Denmark, Greece, Korea and Spain.
2. Based on outflow data for 2001 and 2002 only.

Source: OECD International Direct Investment Database and Analytical Database.

meant that for the initial wave of investment there was to some extent a ready-made infrastructure and workforce. Policy also played a crucial role in establishing and later on maintaining investors' confidence. Starting with a good track record in honouring foreign debt and successful management of a macroeconomic stabilisation crisis in the mid-1990s, the authorities provided a powerful message of determination to achieve overall economic stability. Generally, business-friendly structural policies and an open approach for foreign investors in the privatisation of state assets also helped, as did light labour market regulations and in specific instances attractive tax packages for investors. Furthermore, especially recently, the banking sector has developed in a way that is able to meet the financing needs of a rapidly expanding small-and-medium-enterprise (SME) sector which could bode well for a deepening of sub-supplier activities to foreign companies located in Hungary.

Export activity and growth in the recent downturn

Since 2001 Hungary's export growth has slowed considerably with a fall from close to 9 per cent growth to less than 4 per cent in 2002 and near to stagnation around mid 2003, though third quarter figures signalled a strong pick up. Indeed, GDP growth in 2002 was driven by strong domestic demand, rather than export growth with private consumption growth rising to 10 per cent. Private consumption also looks set to be the main driver of growth in 2003, with the final growth outcome expected to be around 3 per cent (see Table 1.3). The strong consumption growth has been fuelled by strong wage growth, particularly in 2002, on the back of administrated pay raises. The latter comprised of minimum wage increases and large wage increases for public sector employees. Fiscal stimulus was also provided by increases in transfers and infrastructure investment by local government. The export downturn is largely outside the influence of policymaking being strongly linked to the general economic slowdown, particularly that in Europe. Global developments are generally expected to drive a pick up in exports in 2004 and 2005 with a return to pre downturn levels of growth. The OECD's autumn 2003 projection, for example, expects export growth to be 9 per cent in 2005 (see Table 1.3) and similar magnitudes are projected by the Central Bank and the government.

While projections broadly believe that external demand will bring export-led growth back into action, there are signs that the export slowdown contained more than just global cyclical effects. Trade performance relative to export market growth has weakened in the recent downturn suggesting that part of earlier gains in export-market shares could not be maintained during the downturn (see Figure 1.2). And, net direct investment, excluding re-invested earnings, fell sharply in 2002, in contrast to Slovakia and the Czech Republic where ongoing privatisation has attracted substantial foreign investment in recent years.

Table 1.3. **Recent trends and projections of output, demand and prices**

	2000	2001	2002	2003	2004	2005
	Current prices billion HUF	Percentage changes, volume (2000 prices)				
Private consumption	6 879.1	5.7	10.0	8.0	2.0	3.6
Government consumption	2 736.3	4.3	2.2	2.0	0.5	0.1
Gross fixed capital formation	3 179.8	3.5	5.8	3.0	5.6	7.6
Final domestic demand	12 795.3	4.8	7.3	5.6	2.5	3.9
Stockbuilding[1]	884.9	–2.7	–1.9	0.2	0.1	0.1
Total domestic demand	13 680.2	1.9	5.1	5.7	2.6	3.9
Exports of goods and services	9 863.1	8.8	3.8	4.3	7.2	9.0
Imports of goods and services	10 371.0	6.1	6.1	7.7	6.0	8.9
Net export[1]	–507.9	1.9	–1.9	–3.0	0.6	–0.4
GDP at market prices	13 172.3	3.8	3.3	2.9	3.3	3.8
GDP deflator	_	8.6	10.7	6.4	5.7	4.2
Memorandum items						
Consumer price index	_	9.2	5.3	4.6	6.5	4.5
Private consumption deflator	_	8.2	5.0	4.6	6.5	4.5
Unemployment rate	_	5.8	5.9	5.9	5.6	5.2
General government financial balance[2, 3]	_	–4.7	–9.2	–5.2	–4.3	–3.3
Current account balance[2]	_	–3.4	–3.9	–6.0	–5.5	–5.5

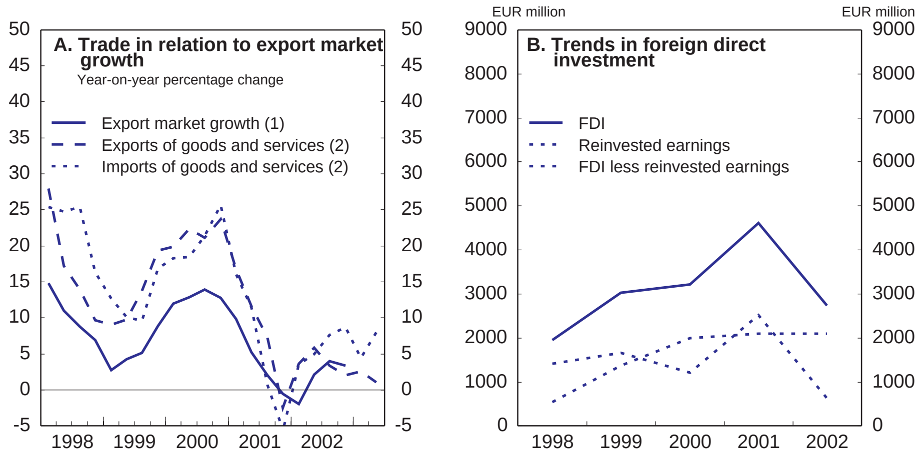
Note: This table is from the OECD's autumn 2003 projection. The Hungarian Statistical Office has since produced revised series of the GDP components and the series presented here therefore differs from those in more recent publications. In addition, the projections were made based on the budget submission made in September, which was subsequently modified.

1. Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.
2. As a percentage of GDP.
3. OECD estimate which adjusts official GSF data, *see Economic Survey of Hungary*, 2002.

Source: OECD.

Besides global slowdown in FDI flows, declining inflows to the country may also point to a shift in investors' current assessment of Hungary as an investment location. Exchange-rate fluctuations following the switch from the crawling-peg to wide-band exchange rate regime and strong wage growth (see below) may well have been important factors affecting decisions on further investment for capital already established as well as the assessment of Hungary as a location for new greenfield investment. While it is too early to say whether these, or other factors, have significantly damaged Hungary's competitiveness for exports and FDI for the medium and long-term, they indicate that policymaking needs to remain vigilant to any emerging weaknesses in the attractiveness of Hungary as a place to do business.

Figure 1.2. **Trade and FDI trends**



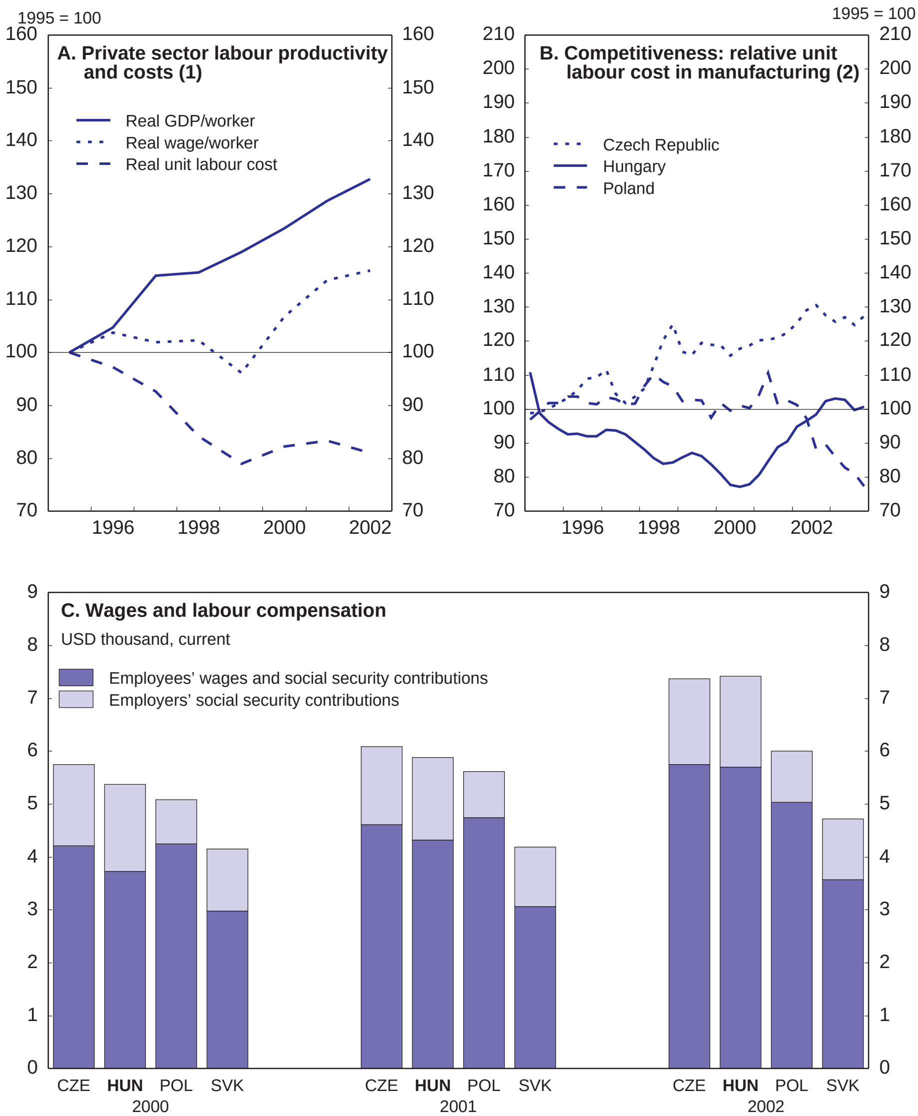
1. Weighted average of import volumes in the export markets of Hungary.
2. 1998 prices created using splicing, seasonally adjusted.

Source: OECD Analytical Database and Magyar Nemzeti Bank.

Key policy issues

The most proximate considerations for international competitiveness in the Hungarian context are production costs (notably labour costs), the tax treatment of business revenues and profits and the availability of subsidies and other financial or administrative assistance. Of these factors, recent rapid rises in wages and how policy should contain them in the future is a key issue at the present time. In the second half of the 1990s, real unit labour costs fell considerably and contributed, along with currency depreciation, to a strengthening position relative to other central and eastern European (CEEC) countries (see Figure 1.3). However, since 2001, largely driven by exchange rate movements but also due to strong wage growth wages, competitiveness measured by unit labour costs has weakened. Some of the likely reasons for this are beyond the scope of policy, largely because of the prevalence of individual-level bargaining in the private sector. However, the government's role in setting wages in the public sector, fixing mandatory minimum wages and issuing wage guidelines has also been influential (see Chapter III). Wage growth is set to become an increasingly important issue for competitiveness. With entry to the euro area, strong wage growth will be potentially more damaging as offsetting macroeconomic policy adjustments will no longer be an option for the authorities.

Figure 1.3. **Productivity, wage and competitiveness indicators**



1. Deflated using the GDP deflator. On forint basis hence exchange rate effects are not included. OECD estimates for 2002.
2. Unit labour costs in manufacturing of country X relative to an export weighted combination of those of its trading partners; on effective exchange rate basis.

Source: OECD Analytical Database and Economist Intelligence Unit Database.

A more long-standing issue in labour costs is the high level of taxation on labour and the presence of substantial non-wage labour costs for employers. For instance OECD calculations suggest that this tax wedge is among the highest among member countries, representing around 45 per cent of total labour costs for a single person earning average-production-worker wages (see Chapter III). The tax wedge will have partly been absorbed in lower wages and partly resulted in a withdrawal from the labour market either into inactivity or the grey sector. Reductions in the wedge would therefore have a positive effect on labour supply and employment, in particular for minimum wage earners.

A host of less proximate, but nevertheless potentially important considerations also feature in businesses' location decisions. In this regard, the relatively poor, though improving, transport infrastructure is likely to be of continuing relevance. This issue is of importance, not only as it affects the overall attractiveness of Hungary as an investment location but is also a key factor behind the strong regional imbalances in economic development. At present there are about 520 km of high-speed roads in Hungary, and one direct connection with the west-European network. This is widely regarded as inadequate. While the density of ordinary roads is not far from the EU average, after allowing for GDP differences, the motorway network is judged as relatively small.[3] In addition, due to prolonged underinvestment, rail transport is generally slow in comparison with other OECD countries. The sizeable task of extending and modernising the transport system requires considerable funding over a prolonged period and there is therefore much to be gained from a high level of efficiency in the use of public funds. To-date, this has proved a challenge for the authorities and there has been much public criticism of policy, particularly regarding motorway development.

Access to structural funds following EU membership should help to speed up the development of the transport network and other infrastructure; in 2004 the total value of structural and cohesion funds as well as pre-accession instruments is expected to be HUF 500-550 billion, or about 0.7 per cent of GDP. More broadly, membership will affect, and arguably already has affected Hungary's competitiveness. Because trade and investment links are already substantial with EU-member countries, seismic repercussions for competitiveness immediately following EU entry in May 2004 are unlikely. The effects will be felt much more over the medium and long term. Indeed, some are already underway. The process of fulfilling conditions for EU membership has already helped stimulate positive policy reforms. For example, the assessment by European Commission in relation to Hungary's enforcement of the *acquis communautaire* has already prompted plans to partially liberalise gas prices (see Chapter IV).

The intensity of competition within Hungary also has a bearing on international competitiveness. The regulation of gas prices exemplifies a general tendency for continuing, and sometimes substantial, government influence in the privatised network industries (see Chapter IV). Where influence is excessive, and especially if it does not work to lower entry barriers for new firms, then progress towards a healthier level of competition can be limited. The relatively poor price and service-quality of network services that may result from excessive government influence not only affects households but also businesses and may also influence assessment of Hungary as a place to invest. Weak competition in other domestic industries is likely influence international competitiveness in a similar way. Though this does not appear to be endemic, there are nevertheless specific areas of concern, in some professional services.

Macroeconomic considerations are a key aspect of investment decisions at the present time. While steps towards macroeconomic stability since liberalisation have been substantial, most notably in terms of reduced inflation, progress has faltered more recently. This has possibly increased the perception of investment risks. A large budget deficit in 2002 (see below) is likely to have raised concerns about the commitment of the authorities to fiscal consolidation. In monetary policy, large interest rate and exchange rate fluctuations in 2003 have also boosted risk premia and foreign-currency hedging costs (see Chapter II). Looking forward, the challenging policy goals for euro entry and uncertainties in the policy strategy to achieve them are making investors' interpretations of macroeconomic prospects in the run-up to entry difficult. For the longer term, the macroeconomic environment looks set to become a lot more stable as entry to the euro area will remove or reduce significantly a number of risk factors for businesses considering location in Hungary and will bring increased transparency in prices and costs.

Minimising the costs of EMU entry

Background

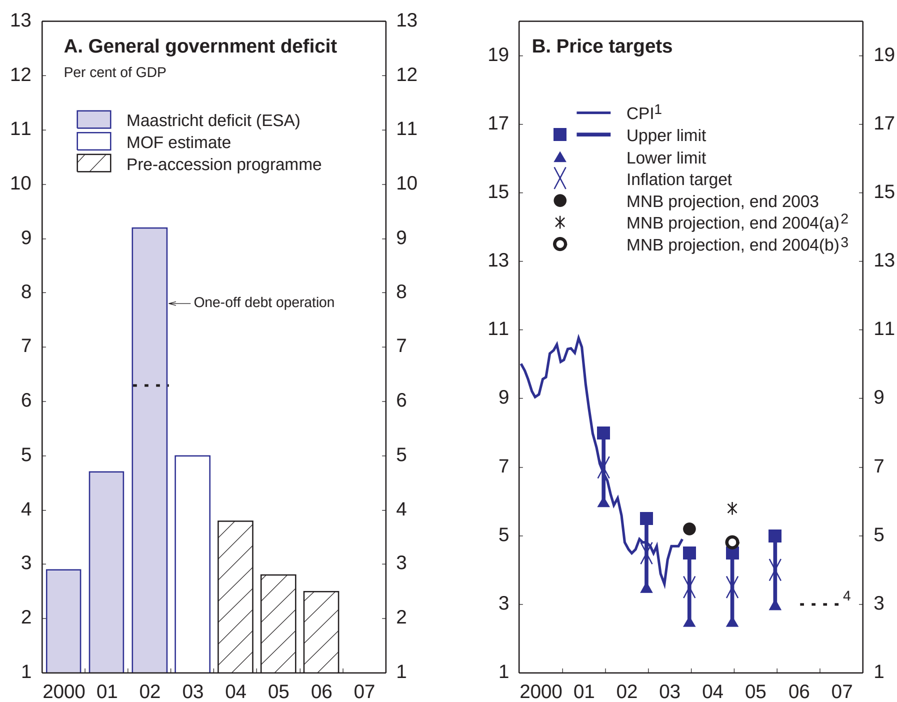
In July 2003, the government, in agreement with the Central Bank, announced its intention to join the euro area on 1st January 2008. The key features of the authorities' approach to fulfilling the convergence criteria (see Annex B) are as follows:

- The authorities are assuming that inflation at 3 per cent or below over the required 12 month assessment period will be sufficient to fulfil the price stability condition. While, at the time of writing, no official date for the assessment period had been set, it has to begin at some point in 2006 and probably not much beyond the middle of that year for euro entry in 2008.[4]
- The government has outlined a pathway to fulfil the general government deficit criteria in the 2003 Pre-accession Economic Programme (Government of the Republic of Hungary, 2003). The pathway entails reduction in the deficit (Maastricht definition, *i.e.* ESA95 account) from a projected

4.8 per cent in 2003 to 2.5 per cent in 2006 (see Figure 1.4). Reductions of one percentage point are planned for 2004 and 2005 and 0.3 per cent for 2006.

– In their strategy to adopt the euro the authorities have signalled their intention of joining Exchange Rate Mechanism (ERM II) as soon as possible, *i.e.* shortly after EU-accession (this strategy, among others, is presented in the 2003 Pre-accession Economic Programme). The similarity of Hungary's current exchange rate band with the ERM band – both are based on a central parity with a ±15 per cent margin – will ease the transition process.

Figure 1.4. **Inflation and deficit targets in the run-up to the euro**



1. Year-on-year percentage change.
2. MNB projection, end 2004(a): standard CPI projection.
3. MNB projection, end 2004(b): CPI projection excluding the direct one-off effects of the planned 2004 change in VAT and excise duties.
4. Approximate assessment period for euro-entry; three per cent inflation is widely judged to be the average inflation required.

Source: Eurostat, Ministry of Finance, Central Statistical Office and Magyar Nemzeti Bank.

– Within the ±15 per cent band the authorities are aiming to sustain a narrow band which is considered to be compatible with inflation objectives and competitiveness considerations. The band was initially set at 250 to 260 forints (per euro). Nonetheless it should be stressed that, in accordance with EU rules, the authorities will not announce in advance their preferred ERM II central parity.

The goals outlined above represent a significant challenge for the authorities.[5] In the near term there are upward pressures on inflation and it is likely that monetary policy will have to be active in engineering disinflation in the run-up to the assessment period. The Central Bank's *Quarterly Report on Inflation* of November 2003 estimates 5.1 per cent inflation for December 2003 and projects 5.9 per cent for end 2004. The 2004 figure factors in the effects of proposed changes to VAT and excise duties. Even with the latter removed, inflation of 4.3 per cent is projected for the end of 2004, marginally above the top of its own target band for that year and 1.3 percentage points above the 3 per cent average required over the assessment period (see Figure 1.4). The authorities have set a target for end-2005 of 4 ±1 per cent.

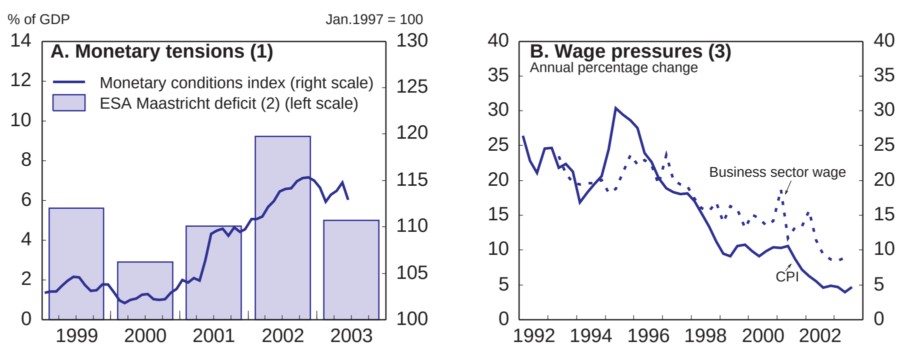
Policy issues

A successful Central-Bank strategy for achieving inflation targets while minimising output sacrifices in the run-up to euro entry has to consider a number of implementation issues. First, transmission lags narrow the window for monetary policy instruments to influence inflation in time for the assessment period. The relatively short lag from base-rate changes to impacts on inflation via the exchange-rate channel is advantageous. Nevertheless, monetary-policy measures to bring inflation down to meet euro-entry requirements must mainly be carried out by early 2005. Second, the "sacrifice" ratio may alter in the run-up to entry. Previous euro-entry experiences have suggested that accession in itself provides a strong anchor for inflationary expectations and reduces the size of interest-rate changes needed to affect inflation, especially in the final run up to entry. Third, there is a risk that the exchange rate may not sit easily within the preferred band and may present the authorities with incompatible policy objectives.

A patchy track record of fiscal discipline in the past suggests that bold steps are needed to realise the ambitious programme of fiscal consolidation. Most notably, 2002 saw significant departure from budget plans with a 9.2 per cent deficit (European Standard Accounts, ESA95, basis). Although about three percentage points of this is attributable to one-off operations, the remaining deficit still represented a substantial overshoot. If fiscal consolidation turns out weaker than planned in the run-up to euro entry, this could increase the risk of entry at a relatively high exchange rate, compromising Hungary's competitiveness and placing reliance on the relatively slow process of subsequent price and wage adjustment to recover lost ground. Also, with less constraint on demand from fiscal policy, monetary policy instruments may have to do more work to achieve inflation targets, pushing up exchange rates, increasing the perceived volatility of exchange rates and interest rates and damaging overall credibility.

It is evident that achieving the right conditions for successful euro entry will require close co-operation between the government and the *Magyar Nemzeti Bank* (MNB), something that has not always been achieved in the recent past. Tensions in economic policy and political friction between the Central Bank and the government grew significantly in 2001 and 2002 and persisted to some degree into 2003. This contributed to an unbalanced macroeconomic policy mix with simultaneous growth of the government deficit and tightening monetary conditions (see Figure 1.5): on the one hand the government was boosting demand while on the other hand the Central Bank, aiming to achieve inflation targets, was dampening demand. Concretely, the price of this unbalanced mix is higher interest rates. In addition, it is probably one of the factors weakening the credibility of monetary policy and, more generally it has likely weakened Hungary's image in the eyes of international investors. The fact that the government, specifically the Ministry of Finance, has, at least in the past, often used inflation and growth numbers in its budget planning that are not necessarily compatible with the inflation target of the MNB, confuses financial markets about the commitment to macroeconomic policy targets. The government and the Central Bank, seeking to

Figure 1.5. **An unbalanced macroeconomic policy mix**



1. The Monetary Conditions Index was computed according to the following formula: I(t) = I(t – 1)[1 + {r(t) – r(t – 1)} –a{ln[RER(t)] – ln[RER(t-1)]}], where r = 12 month interest rate deflated by expected inflation derived from Reuteurs poll; RER = real (CPI deflated) exchange rate with respect to the basket; a = the average annual export to GDP ratio.
2. OECD estimate for 2003.
3. Nominal wage inflation of the business sector.

Source: OECD Analytical Database; Eurostat; Magyar Nemzeti Bank.

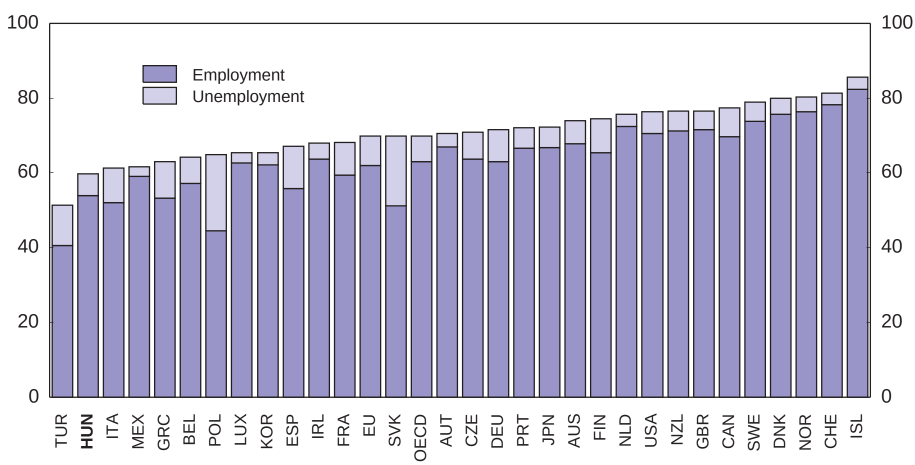
improve the consistency of the main components of macroeconomic policies, have jointly set an inflation target of 4 ±1 per cent for December 2005. And, according to their harmonised position, inflation should fall below 3 per cent towards the end of 2006.

Mobilising untapped labour resources

The available manpower and skills of the working-age population are not only underutilised in Hungary but also a large share of the non-employed are, at least according to standard statistics, disengaged from the labour market altogether. For instance, the labour force survey shows the employment rate in the population aged 15 to 64 to be one of lowest in the OECD. In 2002 it was 56 per cent, roughly equal to the rates in some other countries, such as Italy and Greece, but 9 percentage points lower than the OECD average (see Figure 1.6). Compared with the other CEECs, the employment rate is a couple of percentage points higher than in Poland, close to Slovakia but lower than in the Czech Republic. Hungary's low employment rate is accompanied by low unemployment and, hence, low labour force participation rates. In other words, a large share of the non-employed is not recorded as actively seeking work. This situation is strikingly different from that in other CEECs where more of the non-employed are recorded as actively seeking work.[6]

Figure 1.6. **Labour force participation and employment**

Per cent of population 15-64 years, 2002



Source: OECD (2002), *Labour Force Statistics*, Part III.

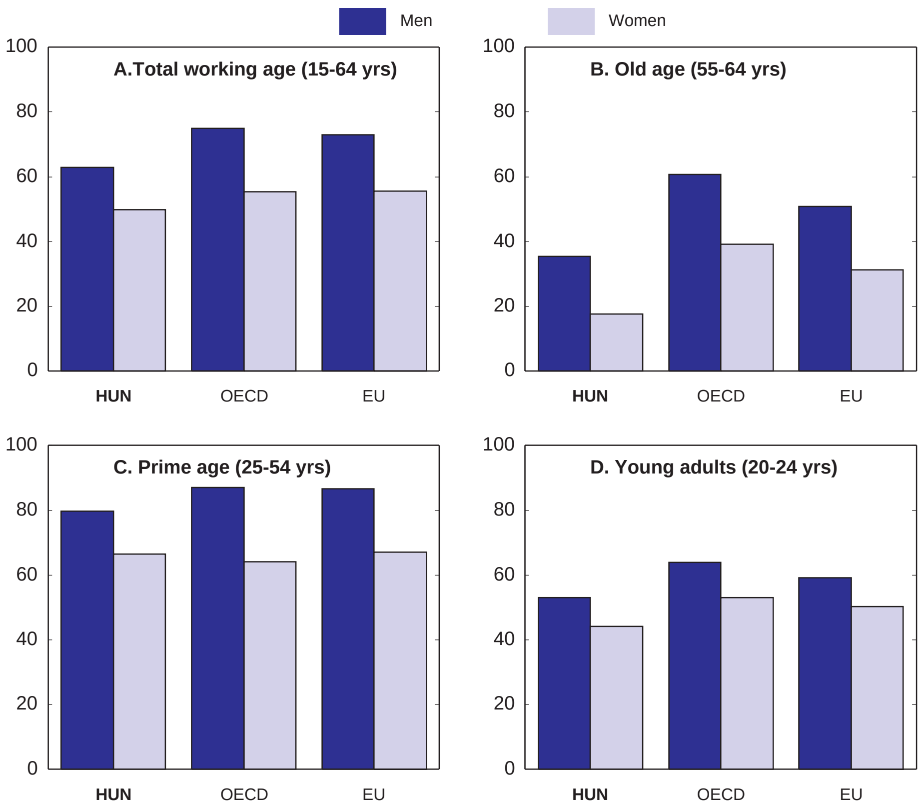
Though grey-economy activity is generally reckoned to be in decline it is still significant and complicates assessment of the true size of the active population. There are certainly a sizeable number of people whose activities are hard to pin down. A special survey by the Central Statistical Office indicates that there are around half a million persons, *i.e.* about 8 per cent of the working age population are apparently neither employed, seeking work nor recorded as retired, on parental leave or in full-time education.[7] It is likely that many of these persons are working but are reluctant to report so. The fact that fewer individuals may be as truly "inactive" than implied by the standard labour force survey does not provide much solace for policymakers. The large uncertainty over the numbers in grey activity makes for an unreliable basis for policy calculation and the reluctance to reveal information by grey-sector workers can thwart targeted measures to help bring them into formal activity. More importantly, the grey sector is to some extent the end-result of a vicious circle for policy with grey activity narrowing the tax base, forcing higher tax rates and further pushing activity into the grey sector.

Measurement issues aside, the low employment rate partly reflects a low age of retirement, as in a good number of other OECD countries. The statutory retirement age remains at the bottom end of the spectrum in OECD terms, at 62 for men and 59 for women, despite a gradual increase since the late 1990s.[8] Furthermore, many permanently withdraw from the labour force before the statutory retirement age, receiving financial support from special arrangements in the pension system or through welfare schemes such as disability benefit. The increase in the statutory retirement age, combined with tightening of opportunities for financial support in early retirement has contributed to a welcome increase in employment rates among older age groups. Nevertheless the rate remains low in international comparison, for example among 55 to 64 year-olds it is about half the OECD average and is especially low for women (see Chapter III).

In contrast to most other OECD countries, relatively low employment rates are also found among prime-age men. Only about 80 per cent of men aged 25 to 54 are recorded as in employment, contrasting with other OECD countries where the norm is 85 to 90 per cent. The low prime-age employment rate, combined with its relatively large weight in the working-age population, means it accounts for a large share of the shortfall in the aggregate employment rate relative to other countries (see Figure 1.7). Non-employed prime age males are predominantly low-skilled and live in the more economically depressed areas of the country. Low prime-age employment is particularly prevalent among the Roma population (see Box 1.1), bringing cultural and social aspects to the problem and raising issues of disadvantage and discrimination.

Underlying the national labour market figures are large, and even increasing, regional disparities. For instance, employment rates are about 12 per cent lower in the north and north-eastern regions than in western Hungary (see

Figure 1.7. **Employment rates by age and gender**
Per cent, 2002



Source: OECD (2002), *Labour Force Statistics*, Part III.

Figure 1.8).[9] Again, the weak integration of the Roma population in the labour market partially accounts for this, pushing up unemployment and inactivity in the depressed eastern regions. More generally, widespread layoffs in the wake of liberalisation, particularly in previously state-owned industries, pushed many out of work in these areas. A number of factors likely contribute to the persistence of these regional disparities. New labour demand in the more dynamic western part of the country typically requires different and more sophisticated skills. Thus, skilled-labour bottlenecks in the relatively advanced areas have continued to coexist with significant excess of unskilled labour in backward regions. But this is

Box 1.1. The Roma population*

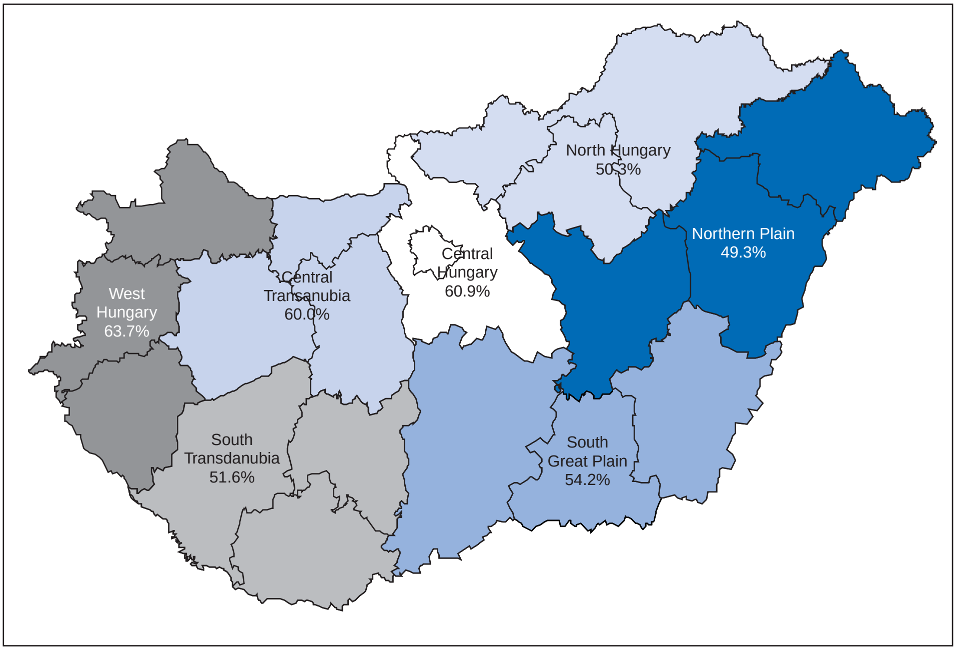
The Roma ethnic minority, estimated to represent between 5 and 10 per cent of the Hungarian population, experienced particularly acute economic difficulties in the economic transition in central and eastern Europe. In the early 1970s, the employment rate of Romany men was over 80 per cent and close to that in the overall population. During the transition, the vast majority of Roma lost their jobs and became long-term unemployed. According to estimates made in 2001, only about one quarter of the Roma population aged 18 to 74 is in employment, compared with about half for the total Hungarian population. Not surprisingly, the involvement of Roma in the informal sector is substantial.

The immediate reasons for why the transition hit the Romany population so hard are relatively clear. Low average levels of education and concentration in industries that were strongly cut back in transition (such as heavy industry and agriculture) meant not only jobs losses but also difficulty in finding employment in Hungary's new and more skill-demanding industries. However, these immediate reasons also reflect deeper social problems for the Roma arising from cultural differences with mainstream Hungarian society and concomitant issues of disadvantage and discrimination. Successive governments have made additional efforts to overcome the labour market aspect of these problems, with special measures over and above those already provided to the long-term unemployed. At present there are 11 programmes aimed at improving the labour market integration of the Roma population. These are carried out by labour centres at the county level and are run principally by Roma staff. There are also targeted measures in education policy. Here the emphasis is currently on promoting integrated (not segregated) education, effective skill development and improvement of the prospects of those with multiple disadvantages, especially the Roma population.

* This box is based on information contained in Csongor *et al.* (2003) and information received from the Hungarian authorities.

not the whole story, sharp contrasts are also found within regions, implying that regional mobility is not only an issue related to the small highway network, but also by the poor state of the transport infrastructure in general. Local labour markets in some areas would indeed appear to cover only a limited area, OECD (2002) noted that given the relatively high cost of public transport, the effective labour market in relatively poor parts of Hungary is estimated to be confined by a radius of 16 km or less.

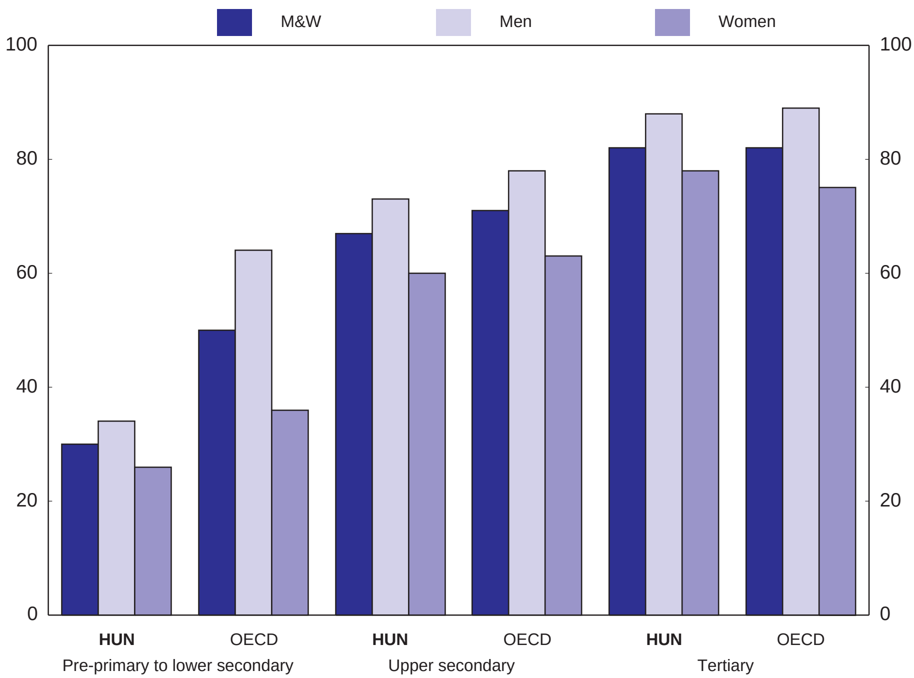
Figure 1.8. **Employment rates by region**



Source: Central Statistical office.

The low labour market participation also reflects weaknesses and mismatches in skills. For instance the labour market attachment of those with low educational achievement is very low (see Figure 1.9). Educational attainment across the board is also low in international comparison. For instance, the prime-age population, partly due to the structure of tertiary education (until recently, short-cycle tertiary programs were not common), has one of the lowest percentages of tertiary education attainment in the OECD along with several other central European countries (see Figure 1.10). Though there is evidence of a sharp acceleration in tertiary enrolment in recent years, it will take time for it to have a substantial impact on overall educational attainment in the working-age population.[10] Looking forward, policies on education and training have to play a crucial role in ensuring the skill-base of the workforce widens and deepens to underpin increased growth potential. Hungary's shrinking, and ageing workforce suggests that policy measures need to not only focus on getting education right for young people but also need to be accompanied by measures that help raise skill levels in older cohorts.

Figure 1.9. **Employment rates by educational attainment**[1]
Per cent, 2001



1. ISCED-97 Educational classifications. Upper secondary also includes post secondary programmes which have a duration of less than two years FTE.

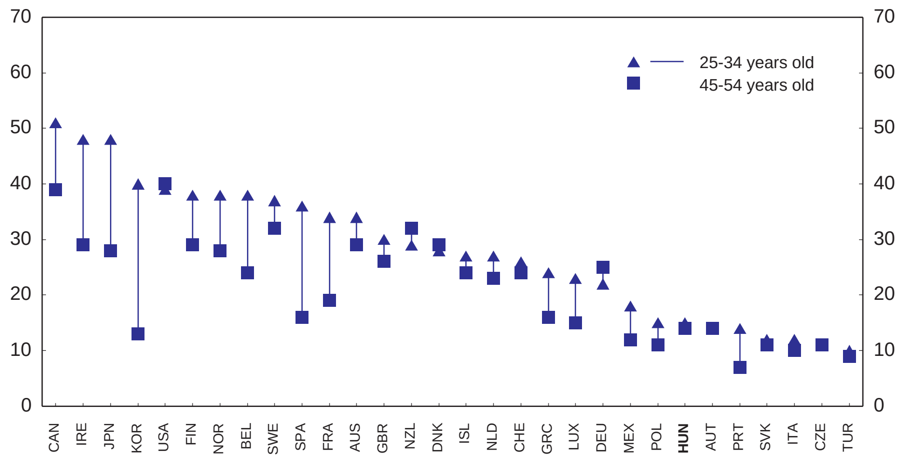
Source: OECD Education database.

Conclusion

For the foreseeable policy horizon, strong growth in Hungary has to come primarily from deepening and widening its export-based industries. In maintaining the level of international competitiveness to achieve this, the authorities face long-standing issues of a weak transport infrastructure and a high tax wedge on labour. More recently other challenges for competitiveness have emerged, in particular high growth in wages. Also for the near term, there is a complicated and challenging period for macroeconomic policy in the run-up to euro entry. The inflation and fiscal goals needed for entry are ambitious and are combined with an exchange rate objective, the presence of which may lead to difficult policy trade-offs. A patchy track record of achieving macroeconomic goals in the

Figure 1.10. **Percentage of the population that has attained tertiary education, by age group**

Per cent, 2001



Source: OECD, *Education at a Glance*, 2003.

past, sometimes characterised by a lack of co-ordination between the government and the Central Bank further heightens the challenges for a successful entry to the euro area. In mobilising untapped labour resources, grey-economy activity complicates assessment of the true size of the active population. And, opportunities in the grey sector are an additional factor in the economic incentives facing those without official employment, alongside those generated by the tax-benefit system. Inactivity in official figures is relatively high among all age groups, even among prime-age men. And, it is markedly different across regions reflecting strong regional disparities in the concentration of rapidly growing economic activities but also possibly weak incentives for households to move to regions where jobs opportunities are better.

Notes

1. **Years needed to catch up with the average EU GDP per capita**
(based on GDP per capita on a PPP basis in Hungary being approximately half that of the EU average)

Growth rate in "leading" OECD countries (per cent)	Growth rate in Hungary (per cent)						
	2	3	4	5	6	7	8
1	70	35	24	18	14	12	10
2		71	36	24	8	14	12
3			72	36	24	18	15
4				72	36	24	18

2. For a broad analysis of the globalisation of production chains, manifest in growing intra-industry trade, see OECD *Economic Outlook*, June 2002.
3. For a brief summary of transport issues see the *Hungarian National Development Plan* 2004-2006(Prime Minister's Office, 2003)
4. Press reports have frequently stated that the assessment period will begin in March 2006, and appear to be basing this on previous euro-entry schedules. The authorities can choose a later assessment period than this but are nevertheless bounded by the need for sufficient time in 2007 after the assessment period for analysis and decision making prior to the date targeted for euro entry.
5. Interesting discussions on the policy issues facing countries in the run-up to euro-entry can be found in Begg *et al.* (2003) and Kontolemis (2003).
6. The full reasons for the contrasting job-search activity among the non-employed this are not clear, the difference may not only be due to genuine differences in job-search intensity between Hungary and other CEEC countries but also due to differences in the questionnaire and sampling methods in labour force surveys, even though considerable efforts are made for these to be the same across countries. Another reason could be that differences in the type of income support received by the non-employed across countries prompt different responses to questions about job-search activity. For instance, those receiving disability benefit may feel it is important to say they are not searching for a job while those on unemployment benefit may feel it important to say that they are.
7. The working-age population for this purpose is taken to be the population between 15 and 64, 6.2 million in 2003 according to United Nations figures.
8. The statutory retirement age for women is programmed to increase further, by 2009 it will be the same as for men, at 62 years.

9. Source: central statistical office, *Központi Statisztikai Hivatel* (KSH); the reference population for the regional employment rates is the population aged 15-74.
10. The most recent *Education at a Glance* (OECD, 2003, Chart C2.2) shows enrolment rates in tertiary education have close to doubled in the period 1995 to 2001.

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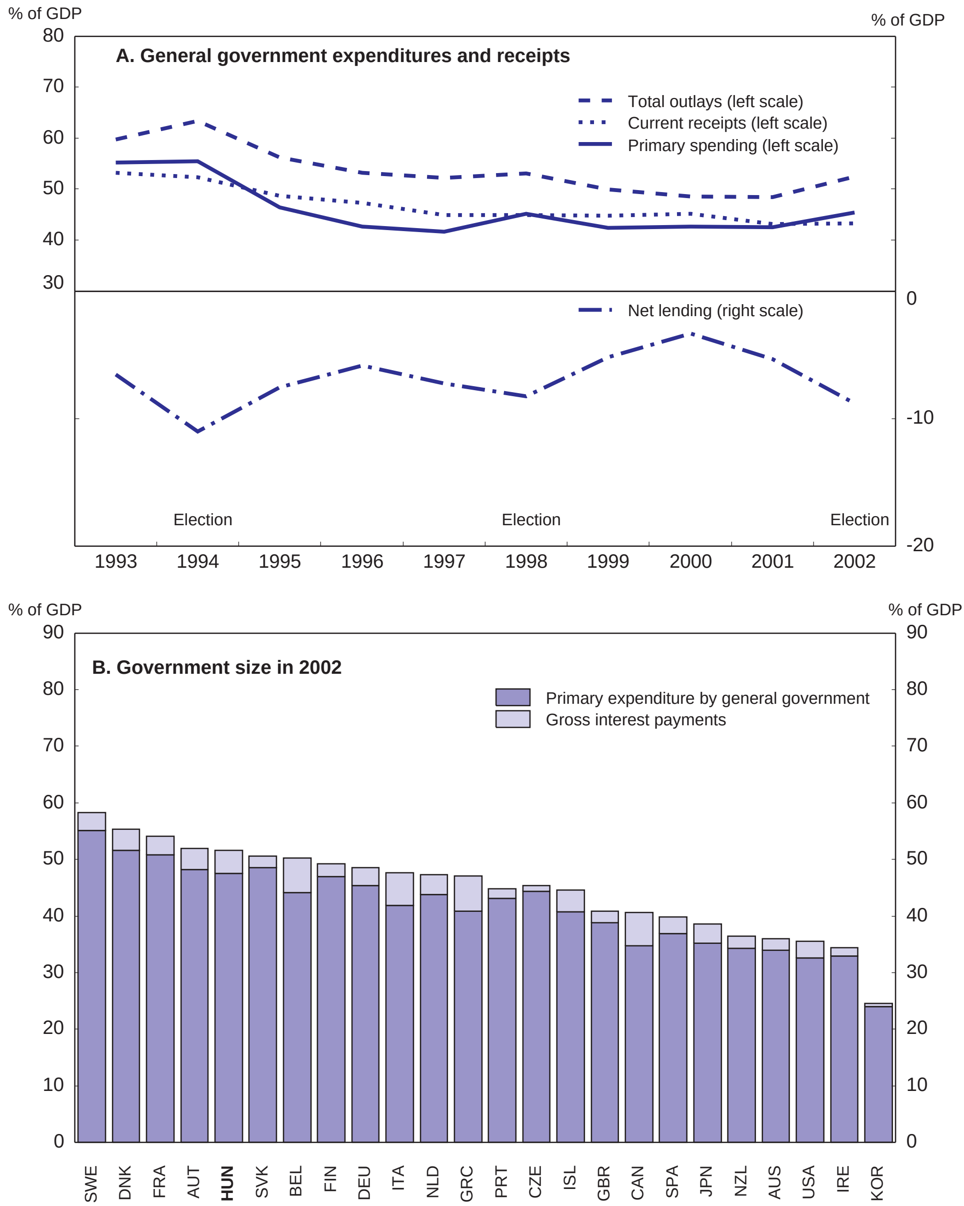
II. Macroeconomic policy

As outlined in Chapter I, the main challenge facing macroeconomic policy is that of successful entry to the euro area. Not only do the assessment criteria on inflation, deficit and long-term interest rates have to be met but the authorities also need to avoid entry to Exchange Rate Mechanism (ERM II) at an inappropriate exchange rate. Furthermore, all these objectives need to be met without severe short-run costs in terms of economic output. In fiscal policy a patchy track record in deficit discipline has been seen in recent years, particularly in 2002, and the authorities have yet to make substantial inroads in reducing the overall size of government spending in GDP. Monetary policy has recently been distracted from inflationary goals and markets have found it difficult to read its current strategy.

Fiscal policy

In broad terms, Hungary has a level of government spending that impinges on its long-term growth prospects. Following a scaling down of government in the years immediately following liberalisation, primary government spending has remained within a range of roughly 40 to 45 per cent of GDP (Figure 2.1), a relatively high level in comparison with other middle-income countries. Hungary's level of public spending raises three concerns for long-term growth. First, a high level of spending is likely to partially reflect excessive or inefficient delivery of public services, using up resources that could be better utilised elsewhere. Furthermore, even if efficiency is not poor in international comparison, a large public sector contributes more to overall inefficiency in the economy compared with a small one. In Hungary, given that the approximately 820 000 public-sector employees represent around 20 per cent of employment, improvements in productivity and, where appropriate, the release of resources to the private sector can clearly make a significant difference to total growth. Second, high levels of spending can also reflect inefficient and overly distorting systems of welfare transfers and subsidies. A key example in the case of Hungary is housing benefit, which distort location decisions and reduce labour mobility. Third, even if spending is efficient, it is difficult for a tax system that is required to collect large revenues not to be highly distorting and this reduces

Figure 2.1. **Government spending**



Source: OECD Economic Outlook Analytical Database; revised GFS accounts.

the efficiency of market operation (in particular the labour market) and compromises the international competitiveness of the economy.

Final 2002 *deficit: strong electoral spending*

One reason for the continued high level of spending is that the authorities have had difficulty in reaching budget targets. Notably, there is a strong tendency for spending commitments to be ramped up in the run-up to elections (see Figure 2.1). This can have not only immediate fiscal and macroeconomic impacts. For instance, lagged impacts and pre-election commitments that are politically difficult to reverse mean that post-election governments can inherit a good part of the fall-out from electoral spending. With general elections in May and local elections in the autumn, 2002 was no exception in this regard. Indeed, at face value the deficit of 9.2 per cent (European Standard Accounts (ESA95) basis, (see Table 2.1 and Box 2.1) overshot the approved budget target of 4.9 per cent by a large margin and increased the general government debt to 56.3 per cent. Alternative budget calculations to ESA95 accounts broadly confirm this picture. The government's cash account deficit for 2002 was 9.9 per cent and adjusted cash-account calculations by the OECD showed a deficit of 8.8 per cent. Part of the deficit (2.9 percentage points on an ESA95 basis), was due to debt transfers and other one-off operations.[1] Nevertheless, even discounting this, the deficit overshot the 2002 target by 1.8 percentage points and represented a fiscal loosening of some 3.4 percentage points on 2001.

A large share of the increase in current spending in 2002 was due to the continuation of a series of large wage hikes for government and public sector employees. These began in July 2001 with increases in pay for civil servants and public order officers and ended in 2003 with a second-round increase for civil servants and employees in the judiciary system (see Table 2.2). The vast majority of employees got a 50 per cent wage increase from these measures. In 2002, the partial implementation of this series of wage hikes, combined with a rise in public-sector employment of about 1½ per cent to 821 000, increased the government's wage bill by nearly 23 per cent (Table 2.3). Most observers recognise that prior to these increases many areas of government and the public sector were having difficulties in recruitment and retention. At the same time, large across-the-board wage increases are a blunt and inefficient instrument for dealing with labour market imbalances across the wide variety of occupations in government and the public sector at large. While some occupations may still have supply shortages even after the increase, in others there may have been over-compensation. This can feed through to the private sector in the form of unnecessary pressures on wages in certain occupations. Furthermore, large wage increases given to such a large percentage of the workforce act as a general signal for wage increase in the private sector. In order to avoid similar hikes in

Table 2.1. **Budget plans and outcomes, 2002 to 2004**

General government accounts (unconsolidated)

Accrual basis (ESA95 account), HUF billion

	2002 (approved)	2002 (final)	2003 (approved)	2003 (MOF projection Oct. 03)	2004 (submitted)
Primary revenues	8 125	9 486	9 812	10 076	11 100
Primary expenditures	8 266	10 418	9 976	10 271	11 165
Primary balance	–140	–933	–164	–195	–65
Primary balance in % of GDP	–0.9	–5	–0.9	–1.0	–0.3
Privatisation revenue	Not applicable				
Interest revenues	56	52	50	43	38
Interest expenditures	719	687	725	754	756
Interest balance	–663	–635	–675	–711	–718
Gross revenues	8 182	9 537	9 862	10 119	11 137
Gross expenditures	8 985	11 105	10 701	11 025	11 920
Balance	–803	–1 568	–839	–906	–783
Balance in % of GDP	–4.9	–9.2	–4.5	–4.8	–3.8
GDP (HUF bn)	16 230	16 980	18 510	18 700	20 450

Cash basis (GFS account), HUF billion

	2002 (approved)	2002 (final)	2003 (approved)	2003 (MOF projection Oct. 03)	2004 (submitted)
Primary revenues	8 099	9 061	9 754	10 014	10 942
Primary expenditures	7 940	10 124	9 944	10 205	11 143
Primary balance	159	–1 062	–190	–191	–201
Primary balance in % of GDP	–6	1	–1	–1	–6
Privatisation revenues	6	12	6	10	8
Interest revenues	56	115	74	91	79
Interest expenditures	721	739	722	799	760
Interest balance	–665	–623	–648	–709	–681
Gross revenues	8 156	9 188	9 834	10 114	11 029
Gross expenditures	8 661	10 862	10 666	1 004	1 904
Balance	–505	–1 674	–832	–890	–874
Balance in % of GDP	–3.1	–9.9	–4.5	–4.8	–4.3
GDP (HUF bn)	16 230	16 980	18 510	18 700	20 450

Source: Ministry of Finance.

Box 2.1. Budget accounting methods

The Hungarian authorities use two sets of budget accounts. Following liberalization, a cash-based account using the IMF's *Government Finance Statistics* (GFS86) guidelines was developed. The GFS account is used in the legislated budget and its corresponding deficit presented to parliament. More recently, an accrual-based account using the European Commission's *European Standard Accounts* (ESA95) guidelines has been compiled. This is the account used for the official government deficit target (the so-called Maastricht deficit derived from ESA95 accounts). So, for example, the deficit in the 2004 budget plan presented to parliament by the Ministry of Finance in September 2003 was 4.3 per cent, while the target was 3.8 per cent on the Maastricht basis. In public statements the government is making increasing reference to ESA95 figures rather than GFS figures, although not all press coverage clarifies which account is being referred to.

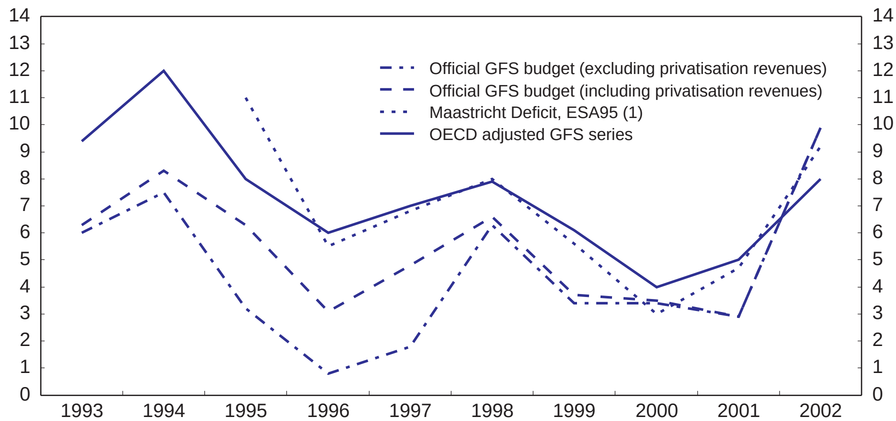
Particularly in earlier periods, the GFS account was not always suitable for economic analysis. The OECD dealt with this by making adjustments to the government's cash-based (GFS86) accounts to bring them more into line with the accrual-based *System of National Accounts* (SNA 93) principles, typically based on figures provided by the Central Bank. The main adjustments include: exclusion of privatisation revenues from the budget balance, inclusion of estimates of investment by off-budget companies, and explicit accounting of social security payments paid by government employers to the social security funds as part of employees' compensation (see *Annex* I of the 2002 *Survey* for more detail). As a result, particularly in earlier years when privatisation revenues were substantial, the gap between the GFS accounts and these OECD accounts has sometimes been considerable (see Figure 2.2 and Annex C).

From spring 2004, with Hungary's accession to the European Union, the official published OECD budget figures will be ESA95-based accounts provided by the Hungarian authorities to the OECD (and Eurostat). In principle, the ESA95 accounting system is fully consistent with SNA; differences arise largely because the relative homogeneity of European economies and statistical systems allows for a greater deal of precision in defining accounting units and activities.* Aside from the official OECD statistical publications, the ESA95 accounts are increasingly the principal benchmark for analysis in OECD research. At the same time, the GFS accounts or adjusted versions of them can provide a usefully different perspective to the ESA95 accounts. For instance, the accrual methods can sometimes give a misleading indication of the economic impact of budgets. The implications of the switch in VAT collection systems for the 2004 budget (see main text) illustrate this point well.

* Eurostat's manual on ESA95 (Eurostat, 1996) accounting contains a brief assessment of the differences between SNA and ESA95 methods.

Figure 2.2. **The general government deficit under different accounting methods**

Per cent of GDP



1. Data for 1995 to 1997 are provisional.

Source: OECD, Eurostat and Ministry of Finance.

Table 2.2. **Public-sector pay increases 2001-2003**

Date pay increase effective	Groups covered	Percentage increase
July 2001	Civil servants, Public order officers	35 to 55 per cent for both groups
January 2002	Public order officers Army officers	15 per cent 55 per cent
September 2002	Public servants	50 per cent
July 2003	Civil servants Employees in the judiciary system	15 per cent 25 per cent
November 2003	Employees in the judiciary system	25 per cent

Source: Ministry of Finance, Hungary.

the future the authorities should put mechanisms in place that provide more regular, and tailored pay increases in the government and public sector. Aside from the increased wage bill, fiscal spending increases in 2002 were strong in social security benefits and similar transfer schemes, as were increases in fixed capital formation (Table 2.3). Spending on social security benefits and other transfers increased by 18 and 27 per cent, respectively between 2001 and 2002. Particularly notable were increases in family benefits.

Table 2.3. **Consolidated general government revenue and expenditure, ESA95 account**

	1999	2000	2001	2002	2002
	Percentage change				% of GDP
Revenue	12.2	16.9	10.3	11.9	43.4
Indirect Taxes (VAT, customs, excise)	17.1	15.1	7.6	9.7	15.6
Direct taxes	18.7	19.6	19.1	13.1	9.9
On households	17.3	22.2	18.8	13.3	7.6
On business	22.1	11.5	20.2	12.7	2.3
Social security contributions	7.9	11.8	13.2	12.1	12.7
Sales of goods and services	–5.9	18.7	–4.0	7.1	2.1
Property income received	3.7	5.8	4.4	–28.3	0.6
Expenditure	7.1	10.8	14.4	22.7	52.6
Current expenditure	13.1	8.7	13.5	16.4	43.2
Government consumption expenditure	12.0	13.6	15.7	17.8	18.6
Final wage expenditure	11.7	12.8	19.9	22.7	11.8
Final non-wage expenditure	12.5	14.6	9.7	10.0	6.7
Social security benefits paid	14.1	8.1	17.2	18.4	15.9
Other current transfers paid	–13.2	232.0	–29.6	26.6	1.2
Subsidies	58.2	–12.5	43.2	29.7	3.3
Property income paid	3.8	–12.2	–1.9	–5.2	4.1
Capital expenditure	–26.8	29.4	17.5	58.3	8.3
Government fixed capital formation	–9.2	29.1	36.9	44.1	5.6
Net capital transfers	–45.8	30.0	–17.1	100.3	2.6
	Per cent of GDP				
Memorandum items:					
Net interest	–6.5	–4.8	–4.2	–3.8	
Primary balance	0.9	1.8	–0.5	–5.5	
Overall balance	–5.6	–3.0	–4.7	–9.2	
GDP (HUF bn)	11 393	13 172	14 849	16 980	

Source: Ministry of Finance, see Annex 3 for further details.

The increase in investment in 2002 was driven notably by local government whose typically close-to-zero balance gave way to a deficit of 0.7 per cent of GDP. Aside from possible election-related motives, local authority investment was boosted by opportunities for European Union-funded subsidies *via* co-payment arrangements. This spending increase came as a surprise to the central budgeting authorities who have reasonably good monitoring of current expenditure by local governments over the course of the year but a less clear picture of investment activity. The additional local authority spending was concentrated in the final quarter of 2002 and it was not until some time into 2003 that the full scale of the local authority deficit became apparent. In the initial estimate of the 2002 general government deficit that was made in early 2003, the local authority deficit was reckoned to be HUF 44 billion. In the finalised accounts for 2002 (published in autumn 2003), the deficit was HUF 124 billion.

2003 *deficit: a missed target but nevertheless a turnaround*

The new government has undertaken significant efforts to reverse the fiscal easing of its predecessor while making the fiscal environment for business more favourable (see Box 2.2). In contrast to the previous year, the budget deficit for 2003 looks set to miss its budget target by a smaller margin, with a reduction in the primary deficit. In October 2003, estimates by the Ministry of Finance were for a general government deficit of 4.8 per cent both on an accrual and cash basis, 0.3 percentage points higher than the 2003 budget target. Deviations from budget plans on the revenue side were expected to balance out. On the one hand, the introduction of a simplified entrepreneurs' tax had yielded higher than expected revenues. Also, value added tax (VAT) revenues and some other wage-related revenues were higher than expected. On the other hand, the negative impact on revenue of rebates from 2002 tax-allowances was greater than expected. The main source of slippage from the approved budget was expenditures: total expenditure (GFS-based) was expected to exceed income by some HUF 235 billion, equivalent

Box 2.2. **The main changes to taxation and transfer systems, 2003**

Taxation and social security contributions

Corporate taxation: the introduction of new tax-free provision for development and accelerated depreciation, reduced healthcare contributions.

Taxation of SME's and the self-employed: simplified taxation for small enterprises, tax-free threshold increased for self-employed in small settlements and farms.

Earned-income taxation and social security contributions: tax exception of earned income up to the minimum wage, tax-bracket increases, tax benefits on adult education, computer equipment and internet connection, increase in the private pension fund membership fee.

Other aspects of income tax: increase in the insurance tax credit, abolition of tax liability on exchange markets, preferential taxation for those in an approved "Employee Securities Benefit Program".

Value-added tax: rates on some items increased from the preferential rate or special exemption to the normal rate.

Transfers

Unemployment: Modification of Act IV of the 1991 legislation on job assistance and unemployment benefits as of 1st January 2003. Measures include: introduction of the "job search" allowance, possibility of transfers to part-time workers, support for distance working and options for introducing new support schemes to help Romas and those aged over 45 integrate into the labour market.

to 4.4 per cent of that approved in the 2003 budget. The chief components of this expected increase in spending were:

- Greater than expected spending in a number of areas including: *i*) housing subsidies (HUF 50 billion); *ii*) financing of non-state institutions providing social assistance and education services (HUF 40 billion); *iii*) subsidies on prescribed drugs (HUF 30 billion); and *iv*) subsidies for firms employing disabled workers (HUF 10 billion).
- Increased interest expenditure (HUF 60 billion).
- Increased pay-outs due to legal rulings regarding eligibility for a supplement to child care fees (HUF 30 billion) and compensation to victims of the Communist regime (HUF 5 billion).

The greater than expected spending on drugs subsidies and the financing of non-state institutions in 2003 were of particular concern to budgetary experts in the Ministry of Finance. The projected overshoot on subsidies for prescribed drugs is reckoned to be due to, greater than expected consumption and a shift towards more expensive products with a high rate of subsidy. Countering this, a switch to a "global subsidy system" in autumn 2003 (the first step to curb pharmaceutical subsidies since 1990) is assessed as being successful and should help rein in final-year spending. However it is yet to be seen if this new system can be continued into 2004.[2] The financing cost of non-state institutions, mainly for social assistance and education services, was at least twice the initial estimate. The overspend appears to be partly because appropriations are uncapped but also because, in this instance, a supplementary subsidy had been introduced that contributed to rapid growth in the number of beneficiaries.

Since October a less positive picture of the likely 2003 budget outcome emerged. In January 2004 the Ministry of Finance estimated that the deficit would be 5.6 per cent of GDP (accrual basis). The slippage from the autumn figures is largely due to weaker than expected central government revenues. Nevertheless, should the January estimates prove to be accurate, the 2003 final budget still looks set to signal a turnaround, contrasting sharply with the 9.2 per cent deficit outturn of the previous year and, more importantly, still representing an improvement even if account is taken of the one-off operations that boosted the 2002 deficit by 2.9 percentage points (see above).

Close to the full impact of the series of increases in government and public-sector salaries will be felt in the 2003 wage bill (see Table 2.2) as only a 15 per cent increase for civil-servants remained and was implemented part-way through 2003. There are temporary special arrangements to help local authorities meet the increased wage bill, including increases in tax-revenue allocations from personal income tax and car tax to local government. In addition, a special fund of HUF 7 billion was made available for local authorities where, even with these measures, budget problems remained due to the wage rises.

2004 *budget plan: some bold measures in the right direction*

Though the 2004 budget plan (submitted to parliament in September 2003) aims to follow medium-term consolidation objectives largely through increasing revenue, it contains some positive reforms in the tax system and some bold specific measures in spending reduction. At face value the reduction in the accrual-based deficit from an estimated 5.6 per cent in 2003 to 3.8 per cent implies a substantial tightening, though there are indications that the demand impact may be somewhat tamer. Commitment to the deficit target was demonstrated in December 2003 when, in response to changing economic conditions relating to tensions in the forint market and the current account, the government announced a number of measures, including steps to curtail spending in addition to those in the September budget submission that are discussed below.[3] Nevertheless, the revenue shortfall experienced at the end of 2003 (see above) indicates risks for achieving the 2004 budget target and underlines the need for expenditure-based consolidation.

The macroeconomic assumptions of the budget are for 3.5 per cent real GDP growth and 5.5 per cent inflation. In the accrual account, revenues are budgeted to be HUF 11 137 billion and expenditures to be HUF 11 920 billion, nominal increases of 10 per cent and 8 per cent respectively on the projected outcome for 2003 made at the time of the budget submission in October (see Table 2.1). The key actions to increase revenues in the budget involve changes to VAT and increases in social security contributions; in combination these revenue sources are expected to account for about 40 per cent of the nominal revenue increase. The 2004 draft budget's consolidated expenditure as a share of GDP exceeds that in the 2003 initial budget, although this is partly because of EU-accession expenditures. In addition, the structure of outlays includes a 1.5 percentage point shift is favour of capital investments against spending on current items. The revenue estimates are also influenced by EU-accession and by tax reductions. Notably, there are cuts in rates and extension of brackets in personal income tax, decrease of profit tax rate from 18 to 16 per cent as well as elimination of many tax allowances and credits.

There is a large difference between the deficits in the accrual and cash accounts in the 2004 budget plan due to a changeover in the method of collecting VAT on imported goods that complicates assessment of the economic impact of the budget. Until end-April, the VAT on imports will continue to be collected by the Customs Duties Office using case-by-case assessment methods. From May this system will be replaced by a monthly self-declaration and payment system run by the Tax Office. The first declarations and payments relating to May will arrive late June. This switch in systems will result in a revenue shortfall of more than one month, estimated to be HUF 100-120 billion. Under accrual accounting this is not counted, being conceptually owed by taxpayers in the future. However the revenue shortfall is in the cash accounts, thus in Table 2.1 there is a gap of HUF 100 billion between the primary revenues on a cash and accrual basis. In this instance, the cash account more accurately reflects the economic implications of the budget: taxpayers will most likely pay less tax in 2004 and the government may have to fund a correspondingly larger deficit than the accrual account shows.

One of the bold measures in the 2004 budget is reduction in public employment. The planned cuts will be made among the 93 000 employees in central public administration with an average 10 per cent cut for central government staff and 6 per cent in other areas. The cuts will total around 7 000 jobs. While, the overall budgetary saving is not estimated to be large (around HUF 10 billion) for 2004, it is an important signal. Furthermore it is planned that central government transfers to local government in 2004 will include only a small part of the planned 6 per cent increase of the wage bill component and this is likely to prompt staff reductions among the approximately 520 000 local-government employees. The staff reductions give the authorities opportunity to evaluate whether the implementation of staff cuts was made efficiently and to apply the lessons learned if further cuts in employment are considered. Clearly further development of output and efficiency indicators would help considerably in this process.

Key tax and transfer measures of the 2004 budget

In **personal income tax and social security contributions**, reductions in marginal rates and increases in bands will be countered by the abolition of a range of allowances and credits (see also Chapter III). On balance, personal income tax revenues as a percentage of GDP are expected to remain roughly the same as in 2003.[4] Reductions in marginal taxes are planned from a schedule of 20, 30 and 40 per cent to 18, 26 and 38 per cent. And, the brackets are to be increased significantly above expected household revenue increases. Also, the employers' lump-sum health care contributions will be abolished for recipients of child care who are part-time employees (part-time being defined as no more than four hours work per day) and for the long-term unemployed aged over 50. At the same time various measures increasing direct tax revenue from households will be made:

– Health care social security contributionsfor employees will be increased by one percentage point.

– The 25 per cent tax credit on the 8.5 per cent pension employee contribution will no longer be tax exempt.

– The 40 per cent tax deduction on mortgage repayments will be significantly reduced.

– The tax credit on investment will be abolished.

In **value-added taxation**, all zero-rated goods and services will move to a 5 per cent tax as part of measures to comply with European Union directives along with some re-rating of goods and services. In addition to these changes the 12 per cent rate will be increased to 15 per cent, while the VAT on books will decrease to 5 per cent. The top rate of 25 per cent will remain. On balance these measures are expected to increase VAT revenue from 8.9 per cent of GDP in 2003 to 9.3 per cent in 2004.[5]

In **corporate income taxation** the rate of profit tax will be cut from 18 to 16 per cent and eligibility conditions for "tax holidays" will be eased. At the same time these gains for the business sector will be countered by an increase in the offshore company tax. And on entry to the European Union, subsidiaries of European Union companies will not have their dividends taxed.

Budgeting practices: *reform still needed*

The large budgetary slippage in 2002 and the smaller one in 2003 partly reflect weaknesses in budgetary procedures identified in the special chapter on public expenditure in the 2002 *Survey* (see Box 2.3). The key message of the recommendations called for a more medium-term outlook both in overall strategy and budgetary implementation. In terms of budgeting, the annually revised *Pre-accession Economic Program* (PEP) provides some degree of strategy and a medium-term focus.[6] And, in a welcome move, the authorities have explicitly incorporated the ESA95 deficit profile for 2004 to 2006 in the 2004 budget document, and stipulated multi-year budgeting for items relating to EU structural funds. However, the PEP budget profile tends to shift from one year to another, in a way that accommodates recent budgetary outcomes and so does not represent a very reliable benchmark. In light of the targets for 2005 and 2006, better anchoring to a more fixed medium-term target is needed.

Public expenditure: *bolder structural reforms needed*

While there is commendable intention in the 2004 budget submission, it is not backed up by significant plans for concrete structural reforms to public expenditure that bring more efficient public services and transfer systems. The lack of such reform not only increases the difficulty of achieving deficit targets, but also continues the impairment of growth potential due to high taxation and inefficient resource utilisation. Measures taken by the government towards fiscal consolidation remain largely within an input-focussed environment and do not signal an increased concern for efficiency. For instance, the planned staffing cuts for 2004 will certainly generate budget savings and release resources for the private-sector labour market. However, it would be more effective if comprehensive output measures, such as those outlined in the 2002 *Survey* (see Box 2.4), were available. Such measures would not only facilitate analysis but can also help overcome political and institutional resistance to proposed cuts.

Box 2.3. Budgeting issues: key recommendations from the 2002 *Survey*

Central government budgeting

- Elaborate a government policy statement at the beginning of each legislature as a strategic policy framework.
- Tie annual budgets more strongly to a medium-term budgetary framework based on medium-term expenditure targets.
- Accompany the institutionally-oriented budget with a task-oriented budget (organised into functional chapters).
- Clarify macroeconomic assumptions of the multi-year and annual budget frameworks. Open alternative scenarios to public discussion and make the fiscal risks transparent.
- Estimate structural (cyclically-neutral) budget expenditure, revenue and deficit targets.

Local government budgeting

- Involve local governments in the multi-year strategic budget process recommended above. Have local governments produce their own medium term fiscal programmes and frameworks.
- Extend monthly budget monitoring to local governments.
- Revise the exemptions to local borrowing caps. Replace sectoral exemptions by exemptions based on project characteristics (for example, degree of actual risk sharing by private investors, or availability of audited cost-benefit analyses).
- Extend public procurement rules to all local investment spending (including spending by off-budget utility companies) above a critical threshold level.

Monetary policy

Although the disinflation process took considerably longer than in some other accession countries, Hungary has successfully tamed the high inflation of the early years of transition. And the recent period of decline from around 10 per cent annual CPI growth in mid 2001 to less than 4 per cent in mid 2003 bears further witness to successful policy. Looking forward there are nevertheless daunting challenges. As outlined in Chapter I, the key goal for monetary policy is to steer a course in the run up to euro entry that meets inflation targets without undue tightening and keeps the exchange rate free from excessive swings.

Box 2.4. Structural reforms to public expenditure: key recommendations from the 2002 *Survey*

General principles

– Set performance benchmarks for service supply efficiency. Trigger management and organisation changes when targets are not met.

– Replace (gradually, also using pilot projects) input-oriented financing with output-oriented financing.

Local-government

– Analyse the efficiency of the existing public service supply. In areas where excessive fragmentation between municipalities curbs competition and efficiency, consolidate supply structures *via* voluntary associations or by furthering the role of an intermediate level of government.

– In areas where local monopolies are natural, reduce their costs and increase the quality of their services by giving local taxpayers and central funding agencies more direct control over their activities (by making them more powerful "principals" for their services).

Infrastructure investment

– Prepare an integrated national infrastructure investment programme. Clarify interdependencies between infrastructures (notably between transportation modes) and between national and regional networks. Make comprehensive use of cost-benefit analyses.

– Explore avenues for private sector participation in long-term infrastructure planning and investment. Devise more economically efficient methods than in the past, by taking into account best-practice international experience. This should be applied notably to the development of new roads and regional airports.

Background: *from crawling-peg to inflation targeting*

In the mid-1990s Hungary adopted a crawling-peg regime based on a narrow exchange-rate corridor: the currency could not deviate more than 2.25 percentage points from a reference rate which, in the last phase of the regime in 2001, was depreciated by 0.2 per cent per month. This regime successfully lowered inflationary expectations and delivered inflation from highs of over 25 per cent to around 10 per cent in mid 2000 when international energy and food-price increases brought disinflation to a halt. In 2001 it was decided to change to an inflation targeting regime within a wide (non-depreciating) exchange-rate band of

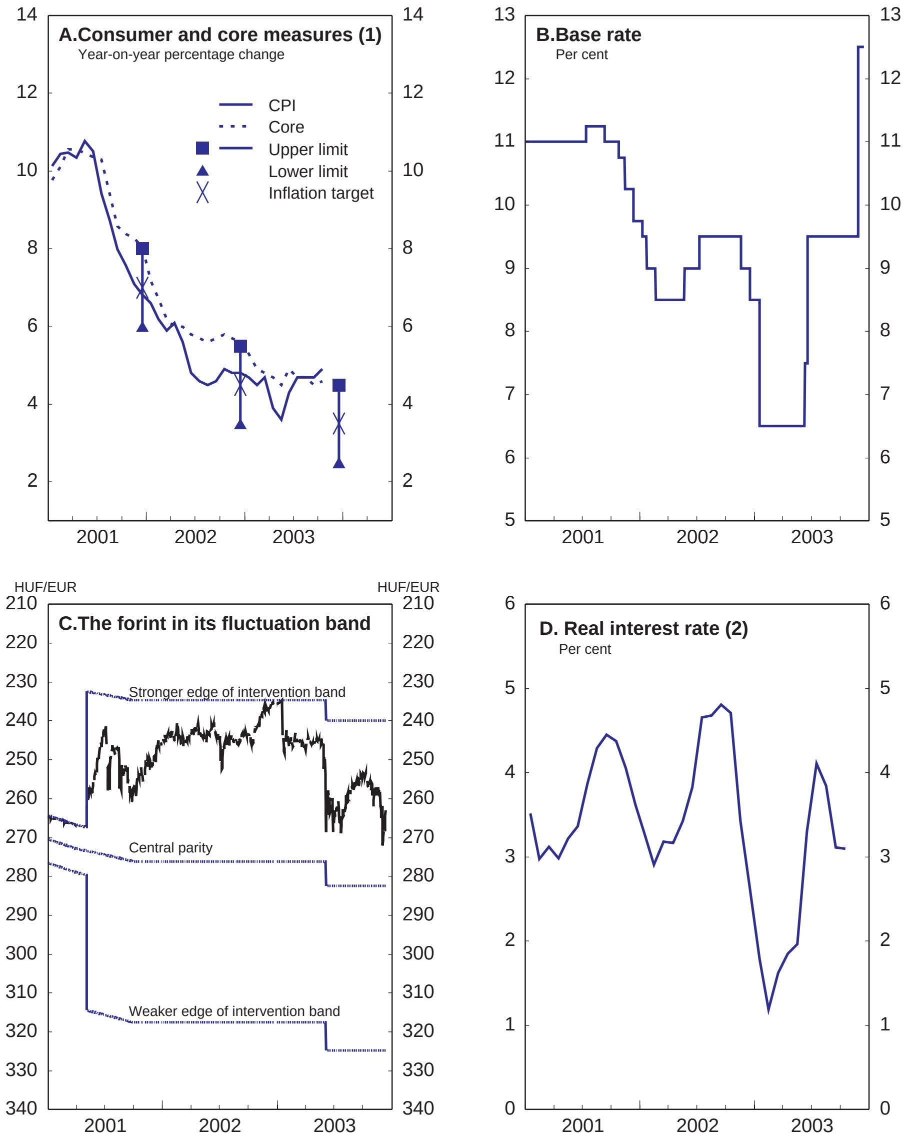
±15 per cent. The new regime was accompanied by a new Central Bank Act, increasing the independence of the Magyar Nemzeti Bank (MNB) to the levels required by the EU and defining price stability as its primary objective. In the Act, the appointment of the President of the MNB (for a term of six years) is made by the President of the Republic at the proposal of the Prime Minister.[7] The MNB adopted standard practice among inflation-targeting regimes of public statements of inflation targets and analysis of the accompanying risks affecting the different components of the CPI basket. The official communication strategy consists principally of the *Quarterly Report on Inflation* and press releases following the fortnightly meetings of the Monetary Council. The inflation target is end-of-year (December) CPI growth and is announced at least 18 months in advance. In many respects Hungary's inflation-targeting regime resembles best-practice (for more details see the Box 3 of the 2002 *Survey*). The early disinflation record was encouraging, the target band of 7 ±1 per cent for December 2001 (see Figure 2.3) was reached with ease.

Events in 2002 and 2003: *speculative attacks and prospects of missed inflation targets*

Success in reaching the target was repeated in 2002 though at a cost of high real interest rates. In 2002 end-December CPI inflation was 4.8 per cent, well within the target band of 4½ ±1 per cent. However, partly because of strongly stimulating fiscal policy this was achieved only through relatively high interest rates. The base rate was 9½ per cent at end-2002 and real interest rates were high. The obviously unbalanced macroeconomic policy mix at this time not only generated interest-rate costs but almost certainly dampened views among market participants of the authorities' ability to achieve inflation and deficit goals for the future. Appreciation of the currency, particularly towards the end of the year, prompted criticism of the Central Bank's policy particularly from business interests. The tension between monetary and fiscal policy also contributed to a decision to delay entry to the euro area by one year, policymakers having initially envisaged entry on 1st January 2007 rather than the current date of 1st January 2008.

A speculative attack on the stronger edge of the forint's intervention band in January 2003 prompted swift cuts in base rates, compromising disinflation. The attack was partly driven by a view among market participants that the achievement of inflation targets was incompatible with the exchange-rate band (see Box 2.5). While the Central Bank successfully defended the currency, its actions also affected its ability to achieve upcoming inflation targets. After the attack the MNB decided that the achievement of the 3½ ±1 per cent inflation target for 2003 was no longer achievable through monetary policy (Barabas, 2003) and shifted its focus to the target for end-2004 (also 3½ ±1 per cent). One of the lessons from the Bank's strategy in handling the speculative attack was that a slightly earlier monetary policy reaction and more effective communication, before the currency actually hit the official intervention band would have been more appropriate.

Figure 2.3. **Inflation, exchange rates and interest rates**



1. Core index, computed by the Central Statistical Office.
2. Twelve month interest rate deflated by expected inflation derived from Reuters poll.

Source: OECD; Central Statistical Office and Magyar Nemzeti Bank.

Box 2.5. The speculative attack on the forint in January 2003

In mid-January 2003, a speculative attack was launched against the forint, bringing the currency to the upper bound of the exchange-rate band and triggering counter action by the Central Bank. In the run-up to the attack, the currency had appreciated steadily and a market view that the exchange rate band was unsustainable gathered momentum. As analysis by Central Bank staff (Barabas, 2003) suggests, the band was seen by markets as incompatible with inflation objectives. Markets also expected that euro entry would force a change in the band. First, because it was assumed that the central parity at which countries lock into ERM II would not be allowed to differ much from market rates. Second, analysis by market participants suggested that forces driving purchasing power parity between the forint and euro area countries also implied an appreciation. The speculative attack took place on the 15th and 16th of January. On the 15th the MNB had to sell HUF 213 billion to prevent the currency overshooting the edge of the band and HUF 1 020 billion on the 16th. A key element in the MNB's success in countering the attack was to accompany a reduction in key interest rates with a widening of the overnight interest rate corridor from ±1 per cent to ±3 per cent (see Figure 2.4). This boost to the reduction in the returns to short-run deposits of forint is considered to have been a key element in dissuading further speculation.

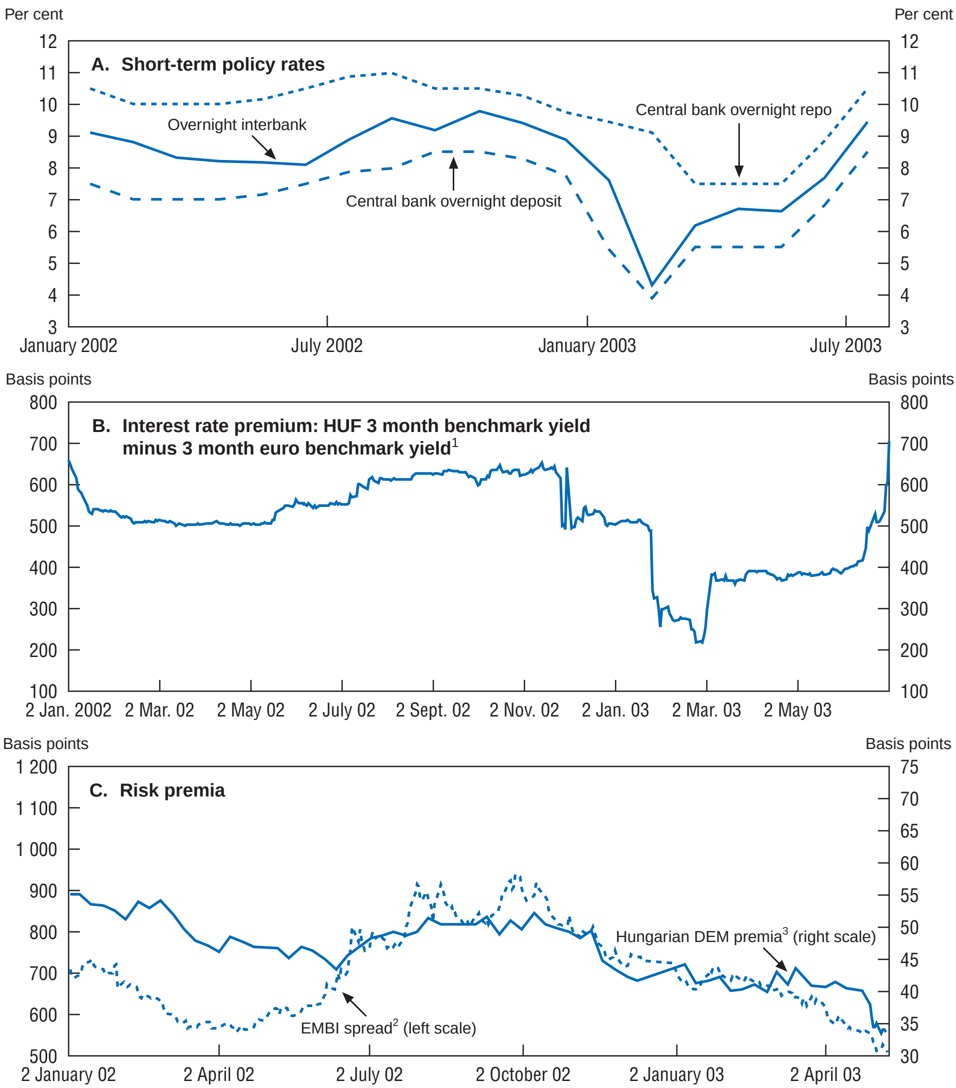
The Central Bank's assessment of the attack is that it failed largely because it was based on fundamentally weak analysis and understanding of the authorities' commitment to the exchange rate band. For example, it is believed that many speculators were not aware that under the MNB Act a shift in the exchange rate band requires the approval of government. It is also likely that counteraction was successful because the authorities were defending the upper edge of the exchange-rate band. Defending the upper edge, means increasing foreign currency reserves, a process which effectively has no limit, while defending the lower edge can exhaust these reserves. Also the fact that interest rate reductions were needed to defend the currency in this instance was probably less of a concern to financial markets at least in the short run than if defence had required interest rate increases.

Irrational or otherwise, the speculative attack demonstrated how the maintenance of the exchange rate band can upset, albeit perhaps temporarily, other monetary policy objectives.

Immediately following the attack, criticism of the MNB from government, business interests and financial markets intensified.[8] In the wake of this, efforts were made towards building a better consensus between the government and the MNB.

In June 2003, the government and the MNB decided to devalue the exchange-rate band (*i.e.* both the central parity and intervention boundaries) by 2.25 per cent in the interests of international competitiveness as this weakened the strongest possible position of the forint against the euro. The move misjudged market reaction, particularly among foreign holders of Hungarian government

Figure 2.4. **Policy rates and risk premia**



1. HUF 3 month benchmark yield is the interest rate on 90 day Hungarian Treasury bills; 3 month euro benchmark yield is that calculated by the European Central Bank as a weighted average of euro denominated Treasury bills of member countries.
2. Spread in USD denominated long-term government bonds, between a weighted portfolio of emerging market country securities and 10 year US Treasury bonds.
3. Spread in DEM denominated long term government bonds, Hungarian (2 of 10 years and one of 7 years, maturing 2003 to 2005) minus German.

Source: Magyar Nemzeti Bank; OECD, *Main Economic Indicators*.

debt. There was a significant flight of capital and large depreciation of the currency, forcing the Central Bank to react with substantial increases in the base-rate. These moves returned the base rate to 9.5 per cent, the same rate as that prior to the speculative attack in January. As in January, efforts were made to improve consensus on policy. Specifically concord on monetary policy by the MNB's president and the Minister of Finance was announced on 19 June 2003. Notably, this included agreement of a preferred range for the exchange rate of 250-260 forints per euro. In late November the currency broke the weaker-bound of this preferred range and started to depreciate further steadily, which prompted a 3 percentage point increase in the base rate by the Central Bank. In the days immediately following the rate hike (28th November), the currency first seemed to strengthen, but then continued to slip, reaching more than 270 forints per euro. However, by the end of the first two weeks of December the currency had rallied to a value of around 264 forint per euro. The recovery was likely helped by the announcement of additional measures towards achieving the 2004 budget deficit target in particular a significant cutback in housing loan subsidies (see above).

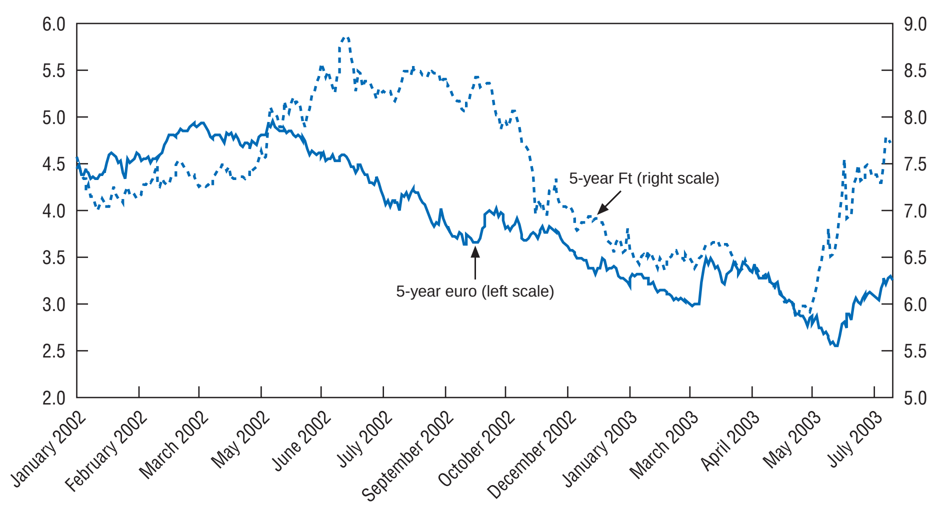
Both the August and November 2003 inflation reports (MNB, 2003a) of the Central Bank signalled doubts that the inflation target for end-2004 would be attained. The November Report's projection, building-in increases to VAT and excise duties expected in the 2004 budget, is for 5.9 per cent CPI growth by the end 2004 and 4.3 per cent if the impact of the VAT and excise duty measures is removed. This contrasted with the May R*eport* which projected 4.1 per cent inflation. In October 2003, a 4 ±1 per cent inflation target for end-2005 was announced, ½ a percentage point higher than that in 2004. The target was presented in a joint statement by the government and the MNB – reflecting welcome efforts for closer co-ordination. Unless the outturn is at the bottom of the target band, a rapid disinflation thereafter may be required in the final run-up to assessment for euro entry.

Triggered by these events, uncertainty among market observers about the immediate goals of monetary policy at the present time has increased. Indeed some reports on the conduct of policy have been quite caustic.[9] Part of problem lies in the nature of the monetary regime. When an inflation targeting regime is bounded by a currency intervention band, this raises the question of "what gives" if, for example, the currency hits the upper edge of the band but inflation objectives suggest rate-cuts are inappropriate. Prior to the speculative attack in January 2003 market players did not know for sure what the policy reaction would be, though it is clear many were betting on a shift in the band. While the message on the intervention band may now be clear to markets, Central Bank communications are now saying that monetary policy involves not only maintaining inflation targets but also maintaining the exchange rate within a narrow band. While these objectives are aimed to be compatible, there is a chance they will not be so if events turn out differently from those expected by the authorities. Therefore, once again, there is a risk that monetary policy will depart from straightforward inflation targeting. Given the policy approach, the Central Bank is pursuing a nuanced communication strategy that includes reference to the preferred exchange-rate band but, appropriately, does not provide too concrete information how, and with what determination, this band is to be defended.[10] Similar to the events of January, concrete evidence of policy has been seen in reaction to currency movements. The large rate increase in response to the weakening of the currency in November 2003 (see above) suggests a strong intention to stabilise the currency close to the preferred levels. After the November rate increase and in subsequent communication, the MNB refrained from explicitly mentioning a narrow target band.

The base rate and exchange rate fluctuations in 2003, combined with changing assessment of macroeconomic prospects and policy, has been reflected in increased uncertainty and risk premia in markets. For instance, the events of June saw a weakening of expected exchange-rate appreciation according to Reuter's surveys of analysts. Analysis by the MNB (MNB, 2003b) suggests that a close correlation between securities' yields trends over one year and the exchange rate was not wholly driven by a change in exchange rate expectations but also reflected an increase in the exchange-rate risk premium required by non-resident investors. Further evidence of this is reflected in the increasingly volatile forint five-year benchmark yields(see Figure 2.5).

Figure 2.5. **Five-year forint and euro government benchmark yields**

Per cent



Source: Magyar Nemzeti Bank.

Notes

1. A number of one-off share acquisitions and debt adoptions are recorded in the government's cash account for 2002. Three corporations were purchased from the Hungarian Development Bank for a total of HUF 100.3 billion. The key debts taken over were (figures in HUF billion): NA Rt. (motorway construction), 190.95; AAK Rt. (motorway maintenance), 63.73; MAV (railways), 57.25 and BKV (Budapest public transport), 36.74. Including some small debt assumptions, the total value of debt adoptions recorded in the cash accounts was HUF 363.25 billion (2.1 per cent of GDP). In the *accrual* accounts the HUF 190.95 billion (1.1 per cent of GDP) concerning NA Rt. (as this involved the purchase of completed road) and share acquisitions had no effect on ESA-deficit. In contrast, HUF 30.4 billion of debt was assumed from Rendezvénycsarnok Rt. (construction of the Budapest Arena), as commitment had been made in 2002 but not realised before the end of the year. Another HUF 61.3 billion debt assumption from and HUF 1.7 billion claim cancellation against the Hungarian Railways, together HUF 63 billion, were included only in the accrual accounts. Thus the debt adoption in the accrual accounts for 2002 is 1.6 per cent of GDP. One-off measures covered also extra transfers to households (pensions and social payments HUF 59 billion) and farmers (HUF 60 billion) and Hungarian Development Bank to cover losses (HUF 60 billion), and various other extra expenditures, together 1.3 per cent of GDP.

2. In the global subsidy scheme, the producers sell to wholesalers at 80 per cent of an agreed non-subsidised price. The wholesalers sell on for 100 per cent of this price to the pharmacies. The pharmacies receive an agreed subsidised price. A planned monthly subsidy is distributed in two stages. An initial instalment is made to pharmacies which covers part of the gap between the cost of the products and the revenue from customers. A second instalment is made at later date which gives the pharmacies the remainder of the subsidy. Part of the remaining subsidy remains with the pharmacies, the rest is passed back to the wholesalers and producers.

3. The December 2003 statement on the 2004 budget by the government included further tightening of the housing-loan subsidy scheme. In addition, a mechanism that was leading to strong increases in spending on education by tying subsidy amounts to previous years spending was suspended. More generally, resolutions were made to tighten spending discipline by cutting back or suspending the use of budget residues and by the imposition of a 'budgetary blockage' on central government spending. On the revenue side, preparations for the sale of state-owned assets were speeded up and a revue of the tax system was scheduled for spring 2004. In addition, arrangements to further smooth out the deficit profile over the course of the budget year were taken. Measures were also taken that shifted the mix of government debt from forint-denominated to euro-denominated so as to enhance demand for government debt.

4. This assessment is based on information from the budget presented in September 2003 in which that central government personal income tax revenues are expected to be HUF 955 and 1038 billion in 2003 and 2004 respectively, along with nominal GDP figures of HUF 18700 billion and HUF 20450 billion.
5. This assessment is based on data presented in budget presented in September 2003 in which central government VAT revenues are HUF 1670 and 1893 billion in 2003 and 2004 respectively.
6. The PEP reports have been produced annually and typically made public in August (see Government of the Republic of Hungary, 2003, for the last report).
7. For a full text of the Central Bank Act see the MNB website *http://english.mnb.hu/*.
8. See, for example Economic Intelligence Unit (EIU, 2003a), for an analysis of debate on monetary policy in early 2003.
9. A critical report, for example was made by the Economist Intelligence Unit (EIU, 2003*b*).
10. Such language can for example be found in the text of the statement of the Monetary Council following its meeting on the 6th October 2003 (see *http://english.mnb.hu*): "At its meeting on 6 October 2003, the Monetary Council considered the latest economic and financial developments and left the Central Bank base rate un-changed at 9.50 per cent. The forint exchange rate has continued to appreciate, returning to the upper range of the HUF/EUR 250 to 260 band. Dampening inflation expectations, the current level of the forint exchange rate allows for the possibility that the rise in inflation anticipated for 2004 will remain temporary, *i.e.* inflation in December 2004 will not be in excess of 5.5 per cent, and that disinflation will resume after 2004."

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III. Structural policies to foster growth

Growth has been rapid since the mid-1990s, averaging 4¼ per cent annually since 1997, but *per capita* income in Hungary is still less than 57 per cent of that in the European Union (at purchasing power parities) although about 12 percentage points higher than 10 years ago. While the growth performance demonstrates significant achievement, the level of GDP per capita illustrates the enormous challenge that still lies ahead. Indeed, designing a coherent structural policy strategy that can lead to continued successful catch up and promote macroeconomic stability and fiscal consolidation will require continuing comprehensive structural reforms. This chapter reviews recent progress in a number of key policy areas and points to outstanding problems and options for further growth-enhancing reforms. As outlined in Chapter I, increasing the employment rate is one of the most important challenges. This requires reductions to the tax wedge, particularly at the bottom end of the labour market, but also changes to the transfer system. Reduction in the tax wedge could be helped if avenues for shifting the burden of taxation towards capital are exploited – within the constraint of keeping business taxes favourable for international competitiveness. In this regard, this chapter also examines the other policies used for attracting FDI as well as measures targeting SMEs. Transport policy is also investigated, being of particular relevance for the reduction of Hungary's wide regional disparities in growth and living standards. A review of financial sector issues includes analysis of the subsidised mortgage loans, which are another element driving regional disparities. The chapter also looks at the implications for the banking sector of the subsidised credit and loan schemes for businesses. The key recommendations for further structural reform are summarised in Table 3.1.

Labour market issues

The low labour force participation rate – the second lowest in the OECD area – is perhaps the most conspicuous structural weakness. Progress on this count is especially important, because it would simultaneously boost per capita income and contribute to fiscal consolidation *via* tax-base broadening and reduced spending on social transfers. Among the multitude of factors that likely affect the low activity rate three are particularly relevant for policymakers. First, the facts point to weaknesses in labour demand, particularly for low-paid jobs, in addition to labour supply issues.

Table 3.1. Recommendations for further structural reform and actions taken

Based on previous (in italics) and current *Surveys* and action taken

Previous and new recommendations	Actions taken since previous *Survey*
LABOUR MARKET AND TRANSFER SYSTEM	
Increasing labour force participation and employment	
Advance the complete phasing out of the employers' lump-sum health contribution from its envisaged date of 2006, replacing it with a payment entirely based on a percentage of gross income.	The lump-sum health contribution by employers was reduced in 2003, as a first step towards complete elimination in 2006. In 2004, it is eliminated for part-time workers on parental leave and long-term unemployed over 50 coming back to work. It will be reduced across the board by HUF 1200 in 2005 and will be completely eliminated in 2006.
Monitor developments in remaining early retirement schemes.	Eligibility criteria for state-financed early retirement schemes have been significantly tightened.
Reform the disability benefit system by tightening the assessment criteria and improving quality of assessments. Introduce assessment based on the type of work performed and remaining capability.	
Make childcare support more work orientated by rebalancing it towards forms that increase the supply of affordable childcare, and reduce the parental leave period.	The family allowance, which does not support female labour participation, was increased by 20 per cent in 2002.
Monitor the developments of the new "job-search allowance".	
Improve the employment of the Roma population. Evaluate existing programmes to enhance the education level of this group. Assess access to ALMPs and the efficiency of these programmes.	The September 2003 amendment to the act on public education includes a number of measures aiming at improving education for disadvantaged groups, in particular the Romi. Financial support is provided to schools that promote the integration of Roma pupils in regular classes instead of special education.
Wage formation	
Keep increases in the minimum wage low so as not to further increase the role of the minimum wage in the labour market.	No increase in the minimum wage in 2003. In 2004, the minimum wage is to be increased by 6 per cent – *i.e.* less than the 7-8 per cent recommendation for wage increase in the competitive sector – to HUF 53 000 per month.
Avoid a "stop-go" approach to public sector pay, so as to prevent a build up of retention and recruitment problems and adverse demonstration effects to the private sector from intermittent big hikes in public sector pay. Introduce mechanisms that provide regular increases tailored to market conditions in public-sector occupations.	A series of large wage increases in various parts of the public sector continued in 2002 and 2003.For 2004, the aim in the budget is to preserve real wage levels through an average 6 per cent nominal increase.
Continue couching the central wage agreement in nominal terms.	After having couched the guidelines for 2003 in net real terms for 2003, the central wage agreement reverted to nominal terms for 2004.
Take stock of the function and effectiveness of the National Reconciliation Council in view of its only weak direct influence on wage formation.	

Table 3.1. **Recommendations for further structural reform and actions taken** (*cont.*)

Based on previous (in italics) and current *Surveys* and action taken

Previous and new recommendations	Actions taken since previous *Survey*
TAXATION	
Establishing a tax strategy	
Aim at establishing a stable tax structure guided by a medium-term strategy, rather than implementing *ad hoc* changes. Establish principles such as transparency, neutrality and simplicity more firmly.	*Ad hoc* changes in the tax structure making compliance and planning difficult for businesses and households.
Broadening the tax base	
Further broaden the tax base to allow for reductions in tax rates on labour so as to foster employment creation and reduce tax evasion.	
Reduce tax credits and allowances. Look towards savings on family tax credits. Progressively eliminate the allowance on housing loans to remove the bias for ownership and allow the development of a rental market favourable to workers' mobility.	The tax credit on 25 per cent of the mandatory pension contribution will be eliminated in 2004, and the tax allowance on housing loans will be reduced.
Subject currently untaxed capital revenues, such as interest income, to tax so as to strike a better balance between taxes on labour and capital.	
Further reform the VAT structure by removing preferred treatments, to allow for a reduction in the normal rate.	The zero rate will be eliminated in 2004, and some products taxed at the preferred rate will be subjected to the normal rate.
Reforming local taxation	
Reform local business taxation, with a view to improving the base of taxation. Evaluate whether local business taxation plays too big a role in local government financing and contributes significantly to differing levels of local public service provision.	Tax holidays provided by local government, which were significantly distorting the effective rates of taxation across localities, will be eliminated in 2007.
Reform the property tax towards an *ad valorem* tax, and encourage local governments to make use of the residential property tax.	
Tax administration and collection	
Continue efforts to improve the efficiency of tax administration and collection.	The system has been strengthened progressively since the end of the 1990s, for instance through increasing investigations and better training.

Table 3.1. **Recommendations for further structural reform and actions taken** (*cont.*)

Based on previous (in italics) and current *Surveys* and action taken

Previous and new recommendations	Actions taken since previous *Survey*
INFRASTRUCTURE	
Make greater use of economic evaluation in decisions on transport policy.	In November 2003 guidebooks were published that will be used by central government bodies for the evaluation of road development projects in line with EU guidelines.
Monitor the new arrangement for motorway financing.	The government took more direct responsibility for the debts accumulated for motorway construction and maintenance and increased transparency of financing arrangements.
Carry through plans for investment in rail transport. Further progress is needed towards privatisation and liberalisation of the state-run system, including the introduction of a fully independent network operator and the establishment of an institutional and regulatory framework for competition in train operation.	
BUSINESS SUPPORT	
Assess the efficiency of the various programmes aimed at providing increased access to finance to SMEs with a view to elimination or reform.	
FINANCIAL SECTOR	
Aim to eliminate the housing loan subsidies.	The generosity of the scheme was scaled down in June 2003, by lowering the maximum amount of interest subsidies and limiting the eligibility to one dwelling by investor.
Evaluate the impact of subsidised mortgage loans and schemes to increase SMEs access to credit on the banking sector. Close channels that allow banks to tap into the subsidy funds.	

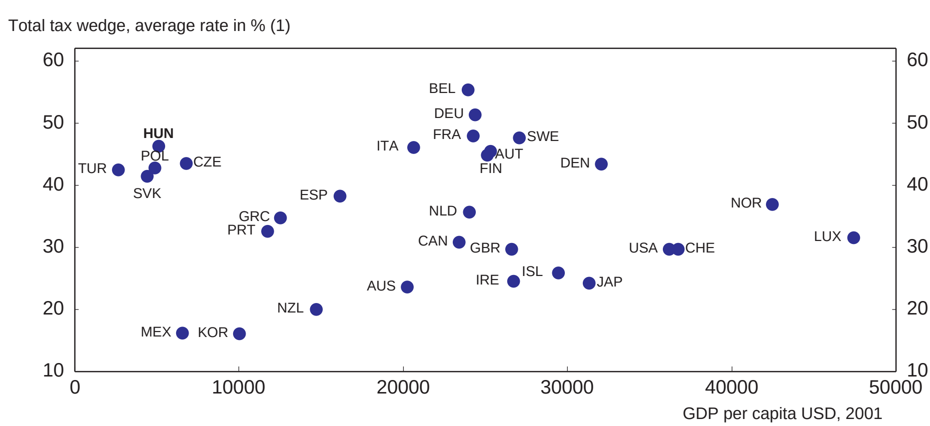
Source: OECD.

Second, analysis of the supply issues suggests the transfer system is generous in its coverage, but not so with respect to benefit levels. For more than 25 per cent of the working age population (15 to 64 years) transfers (social or labour market related) are the main source of registered income. Total social security outlays paid by the government are higher than in other Central and Eastern European Countries (CEEC), reflecting these high take-up rates. While benefit levels are low on average, their purchasing power varies widely: the costs of living are much lower in the less-developed northern and eastern parts of the country than in the prosperous central and western regions. This, in particular, reduces incentives to move from the poorer regions to those where job search has more chance of success. Third, addressing labour demand and supply issues with effective policies is further complicated by the presence of a fairly large informal economy. It adds uncertainty to the true degree of "inactivity" in the working age population. It also adds another dimension to the incentives facing the non-employed through hard-to-measure but undoubtedly significant possibilities for supplementing transfer income by working in the informal economy.

Tax-wedge and minimum wage issues

Despite a decrease in social security contribution rates since the early years of transition,[1] total taxes and contributions on labour remain among the highest in the OECD, and particularly high given the level of economic development (Figure 3.1). While this does not necessarily discourage labour demand

Figure 3.1. **Total tax wedge and GDP per capita in OECD countries**



1. Average tax wedge for an average production worker single with no children.
Source: OECD Taxing and wages database; OECD Analytical database.

per se, the difficulty in controlling the informal economy and preventing tax evasion results in excess burden on those who do not evade. In turn, this contributes to weaker official labour demand and supply, providing a strong incentive not to declare employment both to the tax authorities and in surveys recording labour market activity. While the prospect of rapid and widespread reduction in the wedge is limited, there is nevertheless room for more immediate impacts through improvement in its structure.

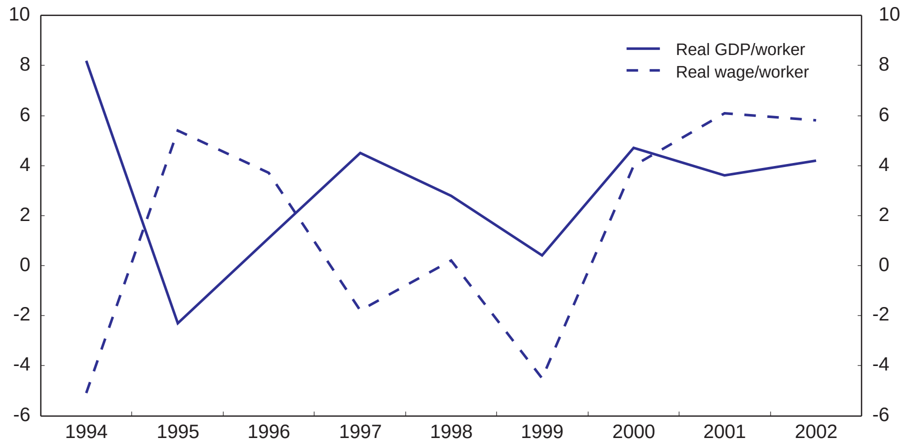
A key element of the tax-wedge, weakening incentives to employ low-skilled and part-time workers is the employers' lump-sum contribution to health-care funds. In 2003, this fixed contribution represented 7 per cent of the employer's contribution at the average wage but 17 per cent at the minimum wage. This not only makes for relatively high non-wage costs on low paid workers but also dissuades the development of part-time employment. Part-time work is indeed very little developed in Hungary, representing slightly less than 7 per cent of total registered employment in 2003, against 15 per cent in the OECD. The government had plans for a gradual phasing out of the fixed health contribution by 2006, partly in order to harmonise with European Union rules on part-time work but also reflecting concerns about its impact on the labour market. However, after a reduction by almost 25 per cent in 2003, the phase-out is to be slowed down in 2004 for fiscal reasons, and the 2004 act on taxation abolishes the contribution only for part-time workers on parental leave and long-term unemployed over 50 coming back to work. Under the agreement reached in October 2003 in the National Reconciliation Council (see below), the fixed health contribution should be reduced across the board to HUF 2250 in 2005 and should be completely eliminated in 2006.

Large increases in statutory minimum wages since 2000 have contributed to private sector wage inflation above productivity (Figure 3.2) and a significant increase in the number of workers subject to a minimum-wage. Until 2000, the minimum wage had been decreasing in real terms (Figure 3.3), and so did its incidence. The hikes in statutory minimum wages reverse this trend.[2] While in 2000, about 7 per cent of business employment was on the minimum wage this share had risen to 18 per cent in 2002 with a similar proportion earning wages no more than 10 per cent above the minimum statutory level. The direct increase in labour costs from the minimum wage hike hit small domestically-owned firms particularly hard as these employ the large majority of low-paid workers. The estimated direct impact of the increase in the minimum wage would perhaps explain about 20 per cent of the increase in the average wage over the 2000-2002 period. To what extent the minimum wage provoked wage increases beyond this further up the pay scale is unclear. Strong aggregate demand, possible lagged inflation expectations and demonstration effects from increases in public-sector pay were also key factors in this period.

Empirical evidence on the effect of the minimum wage increases on labour demand and supply is scarce. Only a rough estimation of overall demand

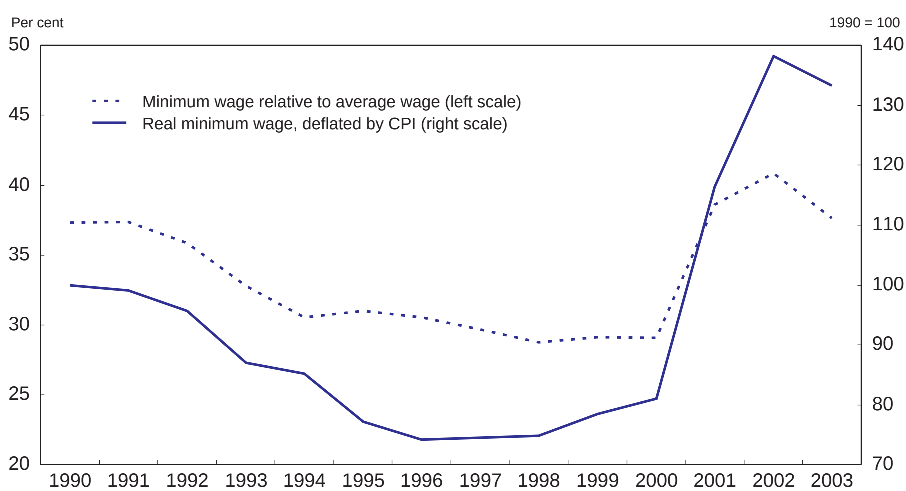
Figure 3.2. **Wage and productivity growth in the private sector**

Per cent, 1994-2002



Source: OECD Analytical database.

Figure 3.3. **The increase in minimum wage**[1]



1. OECD estimates for inflation and wages in 2003.
Source: OECD; Central Statistical Office; Ministry of Economy; National Employment Office.

effects can be made, while little is known about the potential positive effects on labour supply. Kertesi and Köllo (2002) estimate wage elasticities of demand for various categories of labour and find unskilled workers have the highest elasticity, in the –1 to 1½ range. Applying this to data on the wage distribution suggests that the demand for unskilled labour might have declined by some 6 per cent as a result of the increase in minimum wages. The impact is likely to be quite uneven across industries. It has probably been large in the textile industry as well as and for some assembly line production and some low-paid services activities such as tourism. In some parts of the east of the country, falls in labour demand for unskilled workers may have exceeded 10 per cent. Some argue that the minimum wage increases may prompt some employers (particularly SMEs) to under-report hours worked or shift to the grey sector. However such tendencies may have been lessened by the provision of HUF 2 billion in 2001 and HUF 15 billion in 2002 to partially offset the cost increases due to the hike in minimum wage. This was aimed at assisting labour intensive companies and the self-employed (whose social contributions are based on the minimum wage) and is estimated to have provided support to businesses employing 355 000 people.[3] Whatever the final balance of these minimum wage hikes in terms of welfare and labour supply gains, versus losses in labour demand and competitiveness, the now large share of workers at the minimum wage is in itself a signal that further minimum wage increases should be extremely moderate. A 6 per cent increase has been agreed for 2004, one or two percentage points below the recommended wage increase for the competitive sector.

The role of the transfer system

Transfers play an important role in the incomes of a large share of households in Hungary. According to figures in 2000, about 30 per cent of the population receive a pension or another type of allowance from social security – mostly old-age pension and disability benefits.[4] While this is partly driven by old-age pensions, transfers among the working-age population are prevalent. Figures indicate that the (disability or old-age) pensioner-to-population ratio in the 15-64 age-group may be nearing 18 per cent in 2001.[5] A key weakness of the transfer system is that it provides large numbers of the non-employed with benefits that do little to induce active engagement in the labour market. This is not so much because the benefits are generous but because many of them are in the form of disability benefits and official or quasi-official early retirement payments which, unlike unemployment benefits, do not involve assistance and encouragement to look for work.

Early retirement schemes

The low labour market participation of older age groups in the standard definition of the working-age population (15 to 64 years) is due to the combination of a low statutory retirement age and sizeable early retirement schemes. The statutory retirement age has been steadily increased and is now at 62 for men and 59 for women, which is relatively low relative to other OECD countries. One reason for this is that life expectancy is also relatively low, particularly among men where unhealthy lifestyles are common.[6] However, participation is low even in age groups below the statutory retirement age. In recognition of the influence of transfers on labour market participation, eligibility criteria for state-financed early retirement schemes have been significantly tightened since the second half of the 1990s. Currently, only older workers with long contribution histories are now allowed to benefit from early retirement, and less than 170 000 people – or 2.6 per cent of the working age population – are now receiving these benefits, against more than 500 000 in 1999. The authorities should closely monitor developments in the number and composition of beneficiaries to the early retirement schemes, with a view to phasing them out.

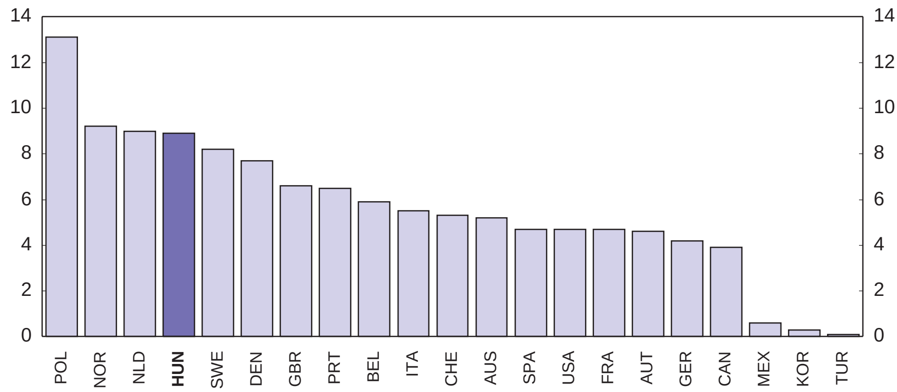
To promote labour force participation among people on old-age pension, the government has fully excluded old-age pensions from the taxable income. Previously it formed part of the tax base if the person was getting additional revenues through work. As a number of retirees seem to be already working in the informal sector to supplement their revenues, this should provide an incentive for them to switch to the formal economy.

Disability scheme

The take-up of disability benefit in Hungary is very large in international comparison; about 9 per cent of the 20-64 age group are on disability benefit (Figure 3.4). The average disability benefit received by people of working age was equivalent to around 50 per cent of the average wage in early 2003, somewhat above the OECD average.[7] In part the high disability rate reflects the poor health condition of Hungarian workers.[8] However, increasing numbers of beneficiaries at a pace beyond what might be expected from an ageing population suggests that for reasons beyond trends in health, successful applications for disability benefit have swelled, possibly because of the tightening up of other forms of income support.[9]

In response, the authorities have made assessment for eligibility to the disability scheme stricter. Nevertheless, key weaknesses remain. As in other countries with booming numbers of disability beneficiaries, there likely remains room for improvement in the criteria for assessment and quality of the assessment process. In principle, disability benefits in the Hungarian system are provided to workers whose capacity to work is reduced by two thirds. However, the criteria for eligibility contain a number of subjective elements and provide leeway for inappropriately favourable assessment. Also, the system does not favour rehabilitation. While the recent changes are likely to have some impact, stronger measures are needed. The authorities have reportedly prepared comprehensive reforms of

Figure 3.4. **Disability benefit recipiency rate**
Per cent of 20-64 population, 1999



Note: Year 2002 for Hungary.
Source: OECD database on programmes for disabled persons; and calculation based on data from the Central Statistical Office.

the disability schemes, aiming to focus on remaining capability, and these need to be put into action. To have such large numbers of the non-employed on this form of income support detracts significantly from the effectiveness of those schemes designed to help and encourage engagement in the labour market – such as the new job search allowance scheme (see below). More focus should be put on helping disability beneficiaries (re)enter the labour market work through rehabilitation and training.

Childcare schemes

As part of an active pro-natal policy, families with children have access to a large number of transfer schemes (Table 3.2), as well as to family tax credits (see below). Overall, family-related benefits increased the disposable income of families with two children by as much as 20 per cent in 2000, the highest percentage in the OECD (Jaumotte, 2003). Since then, support to families has been increased further.

Overall, the package of family support measures does not strongly encourage female labour force participation, particularly among the low-skilled.[10] Family allowances are relatively high, amounting for example to over 40 per cent of the minimum wage for a family with three children. While kindergarten access for those above 3 years of age is still relatively good, the provision of childcare

Table 3.2. **Principal benefit and wage subsidy schemes for working-age adults**

Scheme	Key eligibility conditions	Maximum length of benefit	Main benefit amount	Funding arrangements
Unemployment and disability				
Unemployment insurance benefit	• At least 200 days of insured employment over the four years prior to becoming unemployed.	270 days	65 per cent of the previous nominal wage up to 39 240 HUF per month.	Contributions to the Labour Market Fund.
Job search allowance	• Must have been a recipient of unemployment benefit for at least 180 days. • Intensive co-operation with job centres.	180 days normally 270 days for those aged over 45 years.	A fixed amount of 85 per cent of the minimum old-age pension.	Contributions to the Labour Market Fund.
Social assistance	• General income support, means tested for prime-age workers. • Prime-age workers refusing an offer of public work are denied benefit. • Public work jobs must be held for at least 30 days.	Indefinite	Variable, capped at 70 per cent of the minimum old-age pension.	Local government and general taxation.
Disability benefit	• Certification of 67 per cent loss of working capacity and improvement not expected within one year.	Indefinite	51 per cent of average net earnings if less than ten years of coverage, increasing by steps to 63 per cent for 25 years of coverage.	Social security contributions.
Childcare and family benefits				
Family allowance[1]	• Family with dependent children.	Variable	Depends on the number of children: • HUF 4 600 per month if one child. • HUF 5 600 per month and per child if 2 children. • HUF 7 100 per month and per child if 3 children.	General taxation.
Maternity allowance	• None	One-off	225 per cent of the minimum old-age pension (taxable income).	General taxation.
Child-bearing benefit	• 180 days of insurance payments during the 2 years prior to maternity leave.	24 weeks	70 per cent of previous wage.	Social security.

Table 3.2. **Principal benefit and wage subsidy schemes for working-age adults** (*cont.*)

Scheme	Key eligibility conditions	Maximum length of benefit	Main benefit amount	Funding arrangements
Childcare benefit	• 180 days of insurance payments during the 2 years prior to maternity leave.	After the child-bearing benefit and until the child is two years of age.	70 per cent of previous wage with a cap of HUF 83 000.	General taxation.
Childcare allowance[2]	• Available until the child is 3 years old.	3 years	The minimum amount of the old-age pension per child (taxable income if the other parent is working).	General taxation.
Child raising support	• Raising at least three minor age children where the youngest is between 3 and 8 years. • Parent claiming the support is allowed to work 4 hours a day maximum.	Variable	The minimum old-age pension (not taxable).	General taxation.
Wage subsidies				
Employers wage subsidy	• The hired person must have been unemployed for at least 6 months (3 months for entry-level job seekers). • The employment contract must extend beyond the period of subsidy by at least the period of subsidy (and cannot be terminated). • The employer must not have dismissed someone in the same position within the previous 6 months.	One year.	50 to 100 per cent of the employees wages.	Labour market Fund.

1. The family allowance depends also on the type of family (it is higher for single-parent families) and on the health status of the child (it is higher in case of disability or long-term sickness).
2. Child care allowance is available for longer periods in case of twins or if the child is disabled.

Memorandum items:

Minimum amount of the old-age pension: 21 800 HUF per month (2003).
Minimum wage: 50 000 HUF per month (2003).
Average net wage, total economy: 85 609 HUF per month (January-September 2003).
Average gross wag, total economy: 130 861 HUF per month (January-September 2003).

Source: OECD Benefits and Wages database; OECD Education Directorate, Hungarian Central Statistical Office *Statistical Report* 2003/9.

services for children below the age of 3 years has fallen by almost 50 per cent since the early 1990s. Only about 10 per cent of the children from 18-36 months go to kindergarten.[11] Although the central government subsidises childcare (36 per cent of the costs for children below the age of 3), local governments have to finance the rest on their own resources and/or through fees paid by the parents. Thus, access is particularly limited in poor areas or localities with high unemployment and poor tax returns, notably those with a high concentration of Roma population. While childcare subsidies increase the relative return of market work, it is not the case of child benefits. Also, while parental leave is generally found to boost female participation by helping women to reconcile working and family lives, the extended parental leave of up to 3 years makes it more difficult for women to return to the labour market. Bearing these factors in mind, the authorities should rebalance the amounts spent on family policy towards childcare provision.

Unemployment benefits and active labour market policies

The first tier in the unemployment benefit system is an unemployment insurance scheme, funded from contributions from gross wages and central government support (Table 3.2). A number of changes have been made to this system in recent years, which makes it much less accessible and generous than in the past.[12] The conditions for eligibility have been tightened and the maximum duration of benefit reduced from 12 to 9 months. In addition, the replacement rate has been significantly reduced. The statutory replacement rate is 65 per cent, but with a ceiling of HUF 39 240 per month (2003 figures) or 180 per cent of the minimum old-age pension, which is equivalent to three-quarters of the minimum wage and about 30 per cent of the average wage.

Second-tier income support, for those who are not eligible for unemployment insurance benefit or who have reached the end of the unemployment insurance benefit, has been significantly altered. An "unemployment assistance" benefit for long-term unemployed, providing relatively modest financial support,[13] has been gradually eliminated and replaced by access to similarly modest regular social assistance, conditional on the acceptance of public-sector work when offered. Room seems to remain to introduce more elements of "workfare" in the system, as any declared earned income (other than that from public works) results in immediate cut-off of benefits.

Another second-tier support was introduced in July 2003, the "job-search allowance". For eligibility, individuals must have been on unemployment insurance benefit for at least 180 days and must be willing to engage in intensive co-operation with labour centres. The allowance is 85 per cent of the minimum old-age pension in 2003, a sum of HUF 18 530. The maximum duration is 6 months (9 months for those aged over 45). The key aspect of the scheme is that if the recipient is employed, even in a part-time job, before the exhaustion of the disbursement period, half of the remaining subsidy to the end of the disbursement period can be paid in a lump sum on request. This has the advantage of encouraging individuals to take up work. But there may be ways in which employers could cash in on the scheme; for example, they may find that job applicants from this scheme may be willing to work for lower wages than would otherwise be the case. The authorities should monitor the hiring strategies of employers and take necessary steps to introduce or adjust side-conditions if unfavourable patterns of behaviour emerge.

As in many other OECD countries, it is difficult to establish a clear picture of the effectiveness and cost-efficiency of active labour market policies (ALMPs). ALMPs now absorb most (around 60 per cent) of the Labour Market Fund, that finances passive and active labour market policies. Several years ago, the then government implemented a reform of active labour market policies, whereby total spending rose considerably and more responsibility was devolved to local governments. The main schemes are public works, training and wage subsidies. Public works allow long-term unemployed to break their unemployment period and provide localities with community services that they might not afford otherwise. In principle, since public works schemes also make it difficult to continue informal work while on benefit, they encourage people to take official market jobs that offer better wages and working conditions. However, impact studies of ALMPs seem to indicate little positive effect from such programmes in terms of success in rehabilitating the long-term unemployed into regular private-sector jobs. For instance Fazekas (2002) concludes that in the majority of cases, public works have proved unable to transfer unemployed persons into normal (unsubsidised) jobs. This has also been found for programmes directed at the Roma population. Wage subsidies – provided generally for one year to employers (mostly SMEs) who hire a long-term unemployed with the obligation to employ them for another year after the supported period – seem to be more successful as employment is continued beyondthe period when employers have signed up to employ them in 70-90 per cent of the cases.

In overall assessment of the reforms to passive and active labour market policies, Köllo (2002) concludes that the workfare reform has been a failure. The reform has reduced the number of benefit claimants significantly, but without raising non-subsidised private-sector employment and the labour force (Csongor *et al.*, 2003). In part, this may be due to the fact that objectives have not been clearly spelled out. It has never been made clear whether the intention of the reform was to provide a work-test, to upgrade skills, to provide subsidies to public-sector jobs in rural areas, or something else.

Wage formation

Though the framework for collective bargaining is in a process of change, wage formation remains very decentralised overall; unionisation is only around

20 per cent and wage negotiations in the private sector take place mainly at the enterprise or individual level. Indeed, the growth in inter-company wage differences according to productivity, location, size and ownership highlights the dominance of company-level bargaining Köllö (2002). The current government is to some extent reviving and extending, the process of central-level social dialogue that had been discontinued by the previous administration. Efforts include encouraging the formation of institutions between employers and unions that could facilitate the emergence of more collective bargaining at the sectoral level (Koltay, 2002).

To-date, however, the moves described above have not significantly altered wage formation in practice. And the principal policy levers available to influence wage increases outside the public sector remain the same: demonstration effects from public-sector pay increases, signalling effects from the central collective agreement and minimum wage increases. As discussed earlier in this chapter the large minimum wage increases partly fuelled the large private sector wage increases. And, the series of large public-sector wage increases between 2001 and 2002 have almost certainly played a role, giving private sector workers additional leverage in pay negotiations. For 2004, a 6 per cent average nominal increase in public wage has been agreed. However, developing more systematic approaches to public-sector pay and rules for minimum wage increases would be required to avoid the current "stop-go" approach and its damaging effects (see sectionabove and Chapter II).

The central collective agreement made by the National Reconciliation Council (NRC) acts for the main part as a signal to the private sector. As previous Surveys have pointed out, average private-sector wage increases typically exceed the recommended wage increases that emerge from the agreement, with the recommendations at face value having little impact. The recommendations have usually been made in terms of nominal, gross wage increases. For 2003 the recommendation was couched in terms of a real net increase. This is generally regarded as not having improved the effectiveness of the central agreement due to the complicated connection between real, net increases and the nominal, gross increases that form the basis of wage negotiation. For 2004, the NRC switched back to making the recommendation in gross nominal terms, a welcome move which should be continued in the future.

Tax policy

Tax policy needs to simultaneously pursue three important objectives. First, reducing the overall tax take should be a key priority. Given the sizeable structural budget deficit, it is imperative to rein in public spending efficiently, if this goal is to be achieved. Second, more emphasis should be put on reforms that could make the tax system more neutral, overall, and shift the tax burden away from labour. At present, tax expenditures are relatively high, partly reflecting the widespread use of tax credits. Moreover, a number of capital incomes, notably interest income, are not taxed. These characteristics imply that there may be scope for broadening bases and cutting rates on labour income. Finally, efforts to improve the efficiency of tax administration and collection needs to be continued. The informal economy, although supposedly diminishing, remains at a disturbingly high level of 20-30 per cent of GDP. Making inroads on this count could provide a helpful contribution to budget consolidation.

The tax system remains in a state of continuous reform, as – over the past decade – major amendments have been made to the tax code almost annually. Recent changes have been partly driven by the imminent accession to the European Union, such as reforms of corporate taxation in order to comply with community rules on state aid, and certain changes in the VAT structure. In particular, certain advantageous tax schemes that were previously offered to large investors have been abolished or have been modified. Another element of tax reform has aimed to increase employment and international competitiveness *via* reductions in the tax wedge on labour. Finally, some changes in the tax system have also been made so as to raise revenues and achieve fiscal targets, most notably the VAT increases in 2004.

At nearly 40 per cent, the overall tax-to-GDP ratio is some three percentage points lower than the average of the European Union countries; the tax burden equals that of the Czech Republic but is some 5 percentage points higher than in Poland and Slovakia (Table 3.3).[14] In international comparison, the structure of taxation is heavily skewed towards consumption taxes due to the high 25 per cent VAT rate. In contrast, revenues from property taxes are lower than in

Table 3.3. **The structure of tax revenues: an international comparison**

2002

	Czech Republic	**Hungary**	Poland	Slovakia	European Union	United States[1]
Tax-to GDP ratio	39.2	37.7	34.3	33.8	42.0	28.9
Total tax revenue	100.0	100.0	100.0	100.0	100.0	100.0
Corporate income tax	11.9	6.2	6.3	8.2	8.4	6.5
Individual income tax	12.8	20.3	22.7	10.2	26.1	42.3
Social security and payroll taxes	44.1	33.5	29.9	43.3	29.3	24.6
Taxes on property	1.4	1.9	4.3	1.6	4.9	10.6
Consumption taxes	27.4	36.9	36.8	33.4	28.3	14.0
Other taxes[2]	2.4	1.2	0.0	3.3	3.0	2.0

1. 2001.
2. Including other taxes of goods and services.
Source: OECD, *Revenue Statistics.*

the European Union and certain elements of capital income go untaxed, or are taxed very lightly. Moreover, the taxation of corporate income is distinctly lenient even when compared with other CEECs. Personal income taxes and social security contributions generate roughly the same share of total revenue as in the European Union, but with the difference that Hungary relies more heavily on social security contributions and less on personal income taxes.

The main features of the personal income tax system and social security contributions are set out below:

- The personal income tax schedule is not strongly progressive. In 2004 new rates were applied of 18, 26 and 38 per cent down from 20, 30 and 40 per cent previously. The threshold for taxable income above which the top rate applies is rather low, slightly below the average earnings of production workers.
- However, marginal effective tax rates (METRs) can be high due to a large number of tax credits and exemptions which narrow the tax base.[15] For example the employee tax credit was raised substantially in 2002, exempting wage income up to the statutory minimum wage from personal income taxation and is progressively phased out (see below). Families get generous tax credit. Some saving instruments, namely voluntary pension contribution and insurance premiums, are also given tax credits. In 2004, however, the government will be eliminating the tax credit on 25 per cent of mandatory pension contributions, and will reduce the tax allowance on 40 per cent of the amount paid on housing loans (subject to ceiling) which had been growing significantly in 2002 and 2003.
- Capital income tax varies widely according to source and is exceptionally light for some forms of income. Notably, all interest income is exempt as well as capital gains on securities traded at the Hungarian stock exchange. Other forms of capital income such as capital gains, dividends and rental income are taxed at a flat rate, typically around 20 per cent.[16]
- The Hungarian tax system, as in most other European countries, relies quite heavily on social security contributions. The total employee contribution is 13.5 per cent of gross salary following an increase of one percentage in the healthcare fund component as part of measures in the 2004 budget, while employers pay 33.5 per cent. Of these, total pension contributions alone are as high as 26.5 per cent of gross wages (with a cap at 2.5 times the expected average gross wage level),[17] owing to the large proportion of pensioners of working age. Social contributions are about a third of overall tax revenues and, given that they are proportional to wages, they also contribute to the overall lack of progressivity in the tax system.

Investigation of METRs using an OECD tax model reveals that they typically exceed those in other CEECs countries, often by a margin of some 10 percentage points depending on individual and household characteristics. For example, a single taxpayer with no children earning 1.3 times the average production worker (APW) wage faces a METR of 76 per cent according to 2002 figures (Table 3.4). Thus the proposal in the 2004 budget plan to eliminate the tax credit for the pension contribution while at the same time lowering the tax rates is an important step towards more neutrality and efficiency of the personal income tax system. The reduction of the tax allowance on 40 per cent of the sums repaid (interest and capital) on housing loans from HUF 240 000 to HUF 120 000 is another step in that direction. The tax allowance will be brought down to 30 per cent in the case of loans related to older dwellings while that for loans related to new housing will remain at 40 per cent. At a minimum, the tax exemption on capital repayments should be abolished and ultimately, the complete elimination of this allowance, which provides strong support to the construction sector and drives housing prices up, should be pursued.[18]

Room remains to further broaden the tax base on other fronts. Families get a particularly favourable tax treatment in Hungary. The introduction of child-related tax credits in 1999 – provided for each child and increasing with the number of

Table 3.4. **Tax wedges on labour income: an international comparison**

2002

	% of APW	Czech Republic	**Hungary**	Poland	Slovakia	United States	Germany	France
Marginal rates:								
Single with no children	67	45	55	45	43	34	59	65
	100	48	55	45	49	34	65	53
	133	48	76	45	49	45	61	54
	167	51	63	45	54	45	50	54
Married with 2 children	50-50	58	34	45(P) 55(S)	37(P) 51(S)	54(P) 38(S)	58	45(P) 56(S)
	100-0	58	55	45	43	54	59	44
	100-67	45	55	34	43	34	62	50(P) 70(S)
Average rates:								
Single with no children	67	42	42	41	40	27	46	38
	100	43	46	43	41	30	51	48
	133	45	52	43	43	33	54	50
	167	46	55	44	45	35	56	51
Married with 2 children	50-50	28	24	37	29	18	32	27
	100-00	29	30	38	30	18	33	39
	100-67	39	35	42	36	25	43	40

(P) Denotes the marginal rate for the principal earner and (S) the marginal rate for the secondary earner.
Source: OECD, *Taxing Wages* 2001-2002.

children – and their extension thereafter has widened the difference in average tax rates between households with and without children. OECD calculations suggest the gap may be as high as 20 percentage points (Table 3.4). While average effective tax rates (AETR) are relatively high by international standards for single wage earners, for families with children they are broadly similar to those in other CEEC countries and in most European Union countries.[19]

While the tax wedge on labour has been brought down from the very high levels in the early days of transition, it nevertheless remains substantial. The contribution rate for an average wage earner was close to 65 per cent in 1993 and is currently slightly less than 50 per cent. In terms of recent measures the increase in the employee tax credit in 2002 has significantly reduced effective tax rates for low-income earners. At the minimum wage the credit reduces the AETR by 20 percentage points, while at twice the minimum wage the reduction is 10 percentage points. The credit is then phased out up to an income equivalent to 1.5 times that of an average production worker (APW).[20] The employee tax credit raises the METR of those with incomes in the phase-out interval by 18 per cent. Offsetting this reduction in the average tax wedge, the 2004 budget included an increase of employees' health care contributions by one percentage point of gross earnings and the temporary interruption of the phasing out of the employers fixed health contribution.

Reductions in the tax wedge are a potentially powerful tool for boosting employment. However, as with many structural reforms, the full impact is likely felt in the medium rather than the short-term because it takes time for demand and supply to respond. For instance, reductions in employer costs for low-paid work can create new business opportunities, particularly in service sectors, but these take time to develop and the initial impact on employment may be disappointing. Similarly, wedge reductions that increase the take home pay in occupations in short supply may do little to relieve the situation in the short run as those motivated to switch into these occupations will take time to become fully trained and effective.

Narrowing tax wedges also reduces the incentives for tax evasion. Based on tax returns, the authorities estimate that about 1.5 million persons, or 23 per cent of the working age population, are participating in the grey economy, either through unregistered employment or through sub-contracting arrangements that reduce labour costs. The self-employed are required to pay the same rates of contribution, but based on the minimum wage not on income actually earned. As a result, subcontracting has developed rapidly in recent years and is particularly common in the media, maintenance, security, and arts professions. In July 2003, the government passed a law to strengthen adherence to employment rules and reduce abusive use of such contracts.

The very uneven and in some cases exceptionally low taxation of capital income and assets suggests a need for reform. Such reform could bring revenue increases that would be available to fund cuts elsewhere. Subjecting interest income to taxation, as has been proposed by the Ministry of Finance, would go some way towards a better balance between taxes on labour and capital. Eliminating the tax credit on voluntary pension contributions as well as on insurance premiums would also help. Taxes on property assets, which represent less than one per cent of GDP against 2 and 3 per cent of GDP in the European Union and United States respectively, could also be raised. While reforms by the Ministry of Finance have been proposed, concrete measures are yet to be implemented.[21] Property taxation is made at the full discretion of local authorities who decide whether or not to impose such a tax, at what rate and with what criteria. Typically only non-residential property is taxed. It is based on some measure of size of property, often relying on self-declaration and with an incomplete registering of properties. Thus, the tax may have only a weak link with the market value of the real estate. It may also generate limited revenues because of the narrow base, and does not ensure any vertical or horizontal equity (Paugam and Maurer, 2001). Reform towards an *ad valorem* tax would allow more revenues to be raised at the local level – an appropriate move especially in the perspective of European Union accession which implies heavy local infrastructure investment. An *ad valorem* tax would also increase land use efficiency and ensure more equity. While such a move may be politically difficult because this is a direct tax more visible than many other sources of local-government income such as government transfers, the authorities should follow up on the reform proposals for an *ad valorem* tax. This tax should also be applied to residential properties.

Business taxes

Corporate income tax

A low corporate income tax rate combined with various tax and non-tax investment incentives is the main basis of the authorities' strategy for investment promotion. From 2004 on, corporate profits are to be taxed at a rate of 16 per cent, reduced from 18 per cent in 2003. The reduction brings the rate to one of the lowest levels in Europe. In addition tax holidays, investment incentives and the accelerated depreciation regime for certain types of capital, make the effective corporate income tax rate considerably lower, around 10 per cent in 2002.[22] In 2002, corporate income tax expenditures amounted to about 0.5 per cent of GDP. To comply with European Union state aid rules, tax concessions for investment, which were the highest among European Union candidate countries, were changed in 2003 (see below).

The reduction in the corporate income tax rate by 2 percentage points has been accompanied by easing of criteria for tax breaks on investment (see below). While on the one hand such changes aim at keeping Hungary competitive in terms of attracting FDI, they will on the other hand further erode the tax base of the corporate income tax and its intake. They also add to the numerous changes in corporate income taxation since the transition, a process which is seen by some as having been a significant impediment to increased investment and growth.[23]

Simplified taxation for small enterprises

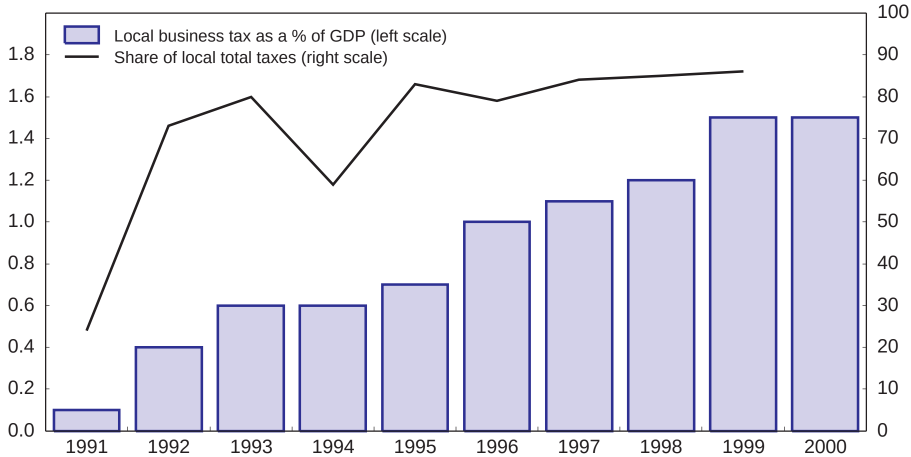
In 2003, a new tax system, the Simplified Entrepreneurial Tax (SET), was introduced for small enterprises with a cut-off for eligibility set at HUF 15 million annual gross revenue. Its aim is to reduce administrative costs and thus reduce incentives for tax evasion. The system applies a flat tax rate of 15 per cent to a base equal to the total revenue earned plus VAT with further corrections for some specific types of revenues. The SET replaces a range of taxes: VAT, the company-car tax, the personal income tax and dividend tax for the self-employed, or, for companies, the corporate income tax, and the dividend tax. Estimates suggest about 60 000 enterprises, or around 7 per cent of small enterprises, opted for the SET in 2003. The uptake is likely to increase in 2004. Enterprises had very little time to make a decision on their type of taxation for 2003 as the law was passed in mid-November 2002 and the choice had to be made before end December 2002. In addition, the gross-revenue cut-off for eligibility will be increased in 2004 to HUF 25 million. The appeal of the SET may lie more in saved tax bills than reduced paperwork. In terms of administration, it is clear that book-keeping costs are reduced for individual entrepreneurs, because in their case the SET is established on revenue records instead of double entry book-keeping. However, while recognising that this is the case, the Budapest Chamber of Commerce argues that the SET has not been successful at reducing paperwork.[24] One potential risk is that the SET may result in encouraging companies to stay below the gross revenue limit.

Local business tax

The local business tax, quite unique compared with business taxation in other OECD countries is widely criticised for being biased through discretionary exemptions and complex for businesses to administer. The tax is levied at a locally-determined rate of up to a maximum of 2 per cent on a base that resembles value added (sales revenues, excluding VAT, plus interest income less the acquisition cost of goods sold, material costs and the cost of subcontractors). Until 2003, local governments could grant exemptions from the local business tax at their discretion. It is by far the most important source of tax revenue for local governments, with revenues far outstripping those from community taxation as well as taxes on property, land and tourism. Estimates are that local business tax raised about 85 per cent of locally raised revenues in 2000. And, as a percentage of GDP, revenues have been increasing since the 1990s (Figure 3.5).

Figure 3.5. **Local business tax**

Per cent, 1999-2000



Source: Based on Balás and Hegedüs (2003).

One problem with the local business tax is that the base is quite distortive. It is particularly unfavourable to the service-sector where labour costs predominate. And, it may be contributing to the relatively large incidence of sub-contract employment in the Hungarian labour force, as sub-contracting expenses are not in the base whereas employee costs are. Second, the fact that the local government has full discretion on the rate as well as on exemptions makes for uneven effective rates across localities and complicates analysis for investors. Discretion over exemptions may also be a problem in localities where links between local business and local government officials are strong. A certain degree of discretion in local business taxation and competition for investment among local authorities is healthy. However, the reliance of such a large share of local government tax income on business-tax revenues creates undue imbalances in the resources available for local public goods and services as the local business tax tends to be highest in the richest regions, which raises the uneven distribution among regions and localities.[25]

Due to harmonisation with European Union rules, local governments are no longer allowed to provide new tax allowances from the end of 2003, and existing ones will be eliminated at the end of 2007. This is going to affect the profitability of a number of investors and will likely lead them to push for a reform in the tax. In anticipation of this, and awareness of the need for reforms in any case, the Finance Ministry's initial plans for the 2004 budget envisaged changes to local business taxation, rather than a reduction in the corporate income tax rate. However these were not included in the final budget submission. Despite the sometimes strong political difficulties in tackling fiscal policy at the local-government level, the authorities should renew efforts to improve the structure and incentives of local business tax in forthcoming budgets.

Indirect taxes

Taxation on consumption accounts for over 35 per cent of total tax revenue, a fairly high share in international comparison (Table 3.3). At 25 per cent, the normal rate of value added tax (VAT) is the highest in the OECD. However, the VAT "productivity" of the effective VAT over the standard rate – is below OECD average (OECD, 2000). This is because a large share of goods and services benefit from a zero rate or complete exemption, or are taxed at a preferential rate of 12 per cent.[26] Special provisions for small enterprises, agricultural producers and some professions further reduce the tax base. Rate differentiation and exemptions have been motivated by concerns for, competitiveness (such as for the tourism industry) and welfare (as indirect taxation on basic items can have a large impact on low-income households). As in other countries, the former is heavily influenced by lobbying activity from specific producers. The redistributive effects of reduced rates on "socially sensitive" goods can also be questioned. The implicit subsidy provided to the consumption of low-income households is only very slightly superior to that provided to those with high-incomes, and the latter receive most of the total subsidy amount, even when only food consumption is considered (OECD, 2000).

Due to European Union accession requirements and a desire to raise revenues as part of the fiscal consolidation, the VAT system is to be significantly changed in 2004. To conform to European Union directives, zero-rated goods are now taxed at 5 per cent. In addition, there is some significant re-rating. A number of services which were previously not taxed are taxed at the normal rate, such as travel agencies. Activities performed by general government institutions which do not strictly relate to their public service function will also be taxed over a certain limit (HUF 4 million). Beyond compliance with European Union regulation, changes include an increase in the preferential rate from 12 to 15 per cent, and the re-rating of a number of items to higher rates category. For example, VAT on households' electricity consumption will increase from the preferred to the normal rate. In addition, initial budget plans had included a decrease in the normal rate from 25 to 23 per cent but this was not included in the final budget submission to parliament. Some of the rate increases have provoked strong reaction among some groups, notably the tourist industry. Overall, the measures are likely to increase somewhat the productivity of VAT, but the persistence of rate differentiation will mean the effective VAT rate will remain below the normal rate, and economic distortions will remain relatively high.

Tax administration and collection

Ongoing efforts to improve the efficiency of tax administration and tax auditing appear to be paying off. According to the authorities' assessment, over the past three years, annual revenues rose by an average of some HUF 200 billion (1¼ per cent of GDP) as the result of audit and enforcement actions. Initiatives to strengthen the enforcement capacity include the completion in 2000 of the integration of social security contributions into the tax administration system (social contributions are now collected by tax authorities), which has improved the efficiency of tax collection and has been instrumental in reducing accumulated arrears. Other measures include improved staff training and increased use of computer systems. Electronic submission of tax declarations has been made possible, although it is not widely used as household internet penetration is low.

Enforcement capacity has also been strengthened by adding the responsibility for conducting tax investigations to the functions of the National Tax Administration Authority (APEH) in 1999. This is believed to have been a useful tool for making inroads on the informal economy, although no comprehensive impact assessments are available. Preventive audits and consistent sanctions towards infringement have high priority. Over the four years to 2003 the number of investigations has risen markedly; the 12 000 cases that were handled over this period represented more than HUF 10 billion of potential tax revenue and the number of sentenced individuals reached 13 000. The majority of cases were fraudulent bankruptcy and tax and social security contribution fraud.

The balance of evidence is that the informal economy has shrunk since the mid-1990s. In particular, the irregular activities of registered firms has diminished (Semjén and Tóth, 2002). While stronger economic growth and more favourable expectations about macroeconomic prospects have certainly contributed to this trend, increased effort and professionalism in the tax administration has also played a role (Semjén, 2001). Nevertheless, the hidden economy remains significant (see above), and considerable scope remains for better enforcement to generate higher tax revenue and provide room for cuts in tax rates. Given the need for fiscal consolidation, measures to this effect may be the best way to achieve further reductions of the size of the informal economy since, in contrast to *ex ante* tax cuts, better enforcement would improve the budget situation. In July 2004 the government plans to establish a central employment database for tax and social security purposes which would keep track of people's employment histories and thus allow the identification of undeclared workers. Measures to improve the efficiency of the tax administration should also be reinforced by reforms aimed at simplifying the tax code and promoting greater transparency. The numerous changes made in the tax system over previous years have not been in the direction of a more simple system, but rather the contrary. Indeed, tax rules are often changed within the calendar year.

Policies to attract foreign direct investment and support SMEs

Hungary continues to count strongly on attracting foreign direct investment (FDI) as a means to promote rapid economic development. This has been backed by attractive conditions offered to foreign investors, including lenient tax treatment. Not all the gains from FDI envisaged by some proponents have borne fruit. In particular, the degree of interaction between the FDI firms and the largely small and medium-sized domestic business sector has been disappointing. To this end, and also with a view to maintaining a healthy level of entrepreneurial activity in general, the authorities have been further developing their SME policies.

FDI *policy*

In the run-up to European Union accession, Hungary has had to make various adjustments to its policies attracting FDI. Accession to the European Union will mean the withdrawal of some incentives but the overall "package" that Hungary can offer is not judged to be diminished by this. The custom-free zones and customs tariff preferences have to be abandoned on accession. Also, certain aspects of tax incentives have had to be changed, though it is generally thought that the authorities managed to negotiate a reasonably favourable deal with the European Union on this issue.[27] Tax breaks on investments made before 2003 were capped at a certain percentage depending on the date of investment and the sensitivity of the sector. The privileged treatment of offshore companies, which has been listed by the OECD as potentially constituting a form of harmful tax competition, has also been abolished, with effect in 2005.[28]

In 2004, however, the reduction in corporate tax rates plus other measures to increase investment incentives go towards countering the relatively few potential adverse effects from European Union membership. The new European Union-compliant tax rules have been packaged together with a range of direct support and administrative measures into a new investment promotion strategy, *Smart Hungary*, that is aimed at attracting more high-value-added industries (Box 3.1). Corporate taxation remains a cornerstone of policy. In addition to the reduction in the corporate tax rate included in the 2004 budget submission (see above), the conditions for "tax holidays" have been made more favourable. The tax holiday has been extended to a maximum of ten years from five years.

Box 3.1. The principal headings of the *Smart Hungary* programme

Tax-related incentives

New development tax benefit. "Tax holidays" for relatively large investments (see main text).

Tax-free investment reserve. Under certain conditions, if firms set up an investment reserve, tax payment can be deferred to the year following the utilisation of the reserve.

Tax-base reduction for R&D expenditure.

Tax-related incentive for adult education.

Reduction of healthcare contribution.

Direct incentives

Infrastructure. For large investments, a business site can be provided.

Outbound infrastructure. Subsidies for infrastructure outside the business site boundaries for large investments of more than EUR 50 million. Non-refundable grants are available both for greenfield and non-greenfield investments.

Vocational training, adult education and employment subsidy. Various subsidies funded by the Labour Market Fund.

IT development.Support for investment in broadband Internet networks and internet activities.

Additional support for environment-friendly investment such as those that use renewable sources of energy, or reduce noxious emissions.

Additional support for high-value-added activities.

Additional support for international service centre.

Administrative support

Packaged investment promotion.Potential investors are offered investment promotion packages containing proactive elements.

Introduction of a "one-stop" shop system.

Other administrative support. Measures include:acceleration of the issue of work and residence permits, uniform positions on tax issues and faster customs procedures.

And, eligibility conditions have been relaxed. The minimum investment required has been reduced from HUF 3 billion to HUF 1 billion in disadvantaged regions and from HUF 10 billion to HUF 3 billion in others. Other eligibility

Table 3.5. **Tax incentives for investment**

Date and value of the investment	Tax credit	Disadvantaged region	Other conditions	Period
Before 2003[1]				
≥ HUF 3 billion	Max. 100 per cent	Yes	At least 100 employments created	10 years
≥ HUF 10 billion	100 per cent	No	At least 500 employments created	10 years
In 2003				
≥ HUF 3 billion	Max. 100 per cent	Yes	One of the 3 following is fulfilled: • At least 300 employments created • Annual wage costs increase by at least 900 times the minimum wage • More than 50 per cent of suppliers are Hungarian SMEs	5 years
≥ HUF 10 billion	Max. 100 per cent	No	One of the 3 following is fulfilled: • At least 500 employments created • Annual wage costs increase by at least 1500 times the minimum wage • More than 50 per cent of suppliers are Hungarian SMEs	5 years
In 2004				
≥ HUF 1 billion	Max. 80 per cent	Yes	One of the 3 following is fulfilled: • At least 50 employments created • Annual wage costs increase by at least 300 times the minimum wage • More than 30 per cent of suppliers are Hungarian SMEs	10 years
≥ HUF 3 billion	Max. 80 per cent	No	One of the 3 following is fulfilled: • At least 100 employments created • Annual wage costs increase by at least 600 times the minimum wage • More than 30 per cent of suppliers are Hungarian SMEs	10 years

1. As of 1 January 2003, companies cannot apply for a tax holiday under the old rules, but the same rules continue to apply to those who already got an arrangement under these rules. In conformity with the EU state aid rules, the new incentive scheme also includes a cap on the implied subsidy. For small and medium-sized enterprises the rules remain the same up until 31 December 2011.

Source: Ministry of Finance.

criteria have also significantly eased (Table 3.5). It is obviously difficult to evaluate the efficiency of such measures accurately. Recent OECD assessment of international practices suggests there is a tendency for excessive use of targeted FDI measures (Box 3.2). On this basis the authorities should perhaps consider making an overview of their current strategy to see if there are avenues to make FDI policy, and policy towards businesses in general, more effective.

Box 3.2. Targeted measures to attract FDI: some suggestions from international experience

A recent OECD assessment of policies and incentives for attracting foreign direct investment provides a useful checklist for assessing fiscal based FDI incentives (OECD, 2003b). Broadly speaking, the assessment of practice across countries voices concerns that while targeted FDI measures such as fiscal derogations, grants, job training, infrastructure subsidies and R&D support can play a useful role in growth strategies, targeted FDI incentives can be an expensive policy choice. General measures to improve regulatory environments for business can often be a cheaper and more sustainable result. The assessment also finds that targeted FDI measures often get chosen over alternatives because of insufficient broad economic assessment of the policy options through cost benefit analysis and evaluation. Inadequate cost benefit analysis is also cited as a problem among lower level choices about what specific areas and projects to target with FDI measures. The analysis suggests a number of measures to help tighten discipline in FDI policymaking and increase the use of economic criteria, such as the setting of output criteria, time limits for projects, and ex post assessment of policies.

SME *policy*

Small and medium enterprises (SMEs) account for about two thirds of business-sector employment in Hungary and one third of the business value added. SMEs are concentrated in the retail trade and consumer services. Compared with European Union countries, the number of SMEs is large and average size is very small, partly due to a large number of self-employed. Policy thus needs to focus more on helping existing SMEs to increase their performance and growth potential rather than on promoting the creation of new SMEs. The principal support is formulated under the *Szechenyi* Enterprise Development Plan, the most important aspects elements being grants for investment projects of SMEs allocated through tenders, state supported loan schemes improving access to finance, measures in tax policy, and help in preparing SMES for the European Union accession. Public spending relating to SMEs is estimated to have been close to HUF 110 billion in 2002 (0.5 per cent of GDP) (Hungarian Institute for Economic Analysis, 2002). In terms of tax policy, recent measures introduced and planned for 2004 include:

- The simplified tax regime (SET) for small enterprises (see above).
- A tax-exempt development reserve scheme aimed at providing incentives to plough profits back as investment.

– A possibility to reduce, under certain conditions, taxable profits to a tax base for companies with profits lower than EUR 160 000.
– A tax benefit on credit interest payments allowing a 40 per cent deduction up to an equivalent of EUR 20 000.

Assistance in access to finance is based on a series of programmes:

– M*icro credit programme*. An European Union Phare co-financed loan scheme for SMEs set up in 1992. The maximum amount for individual loans is EUR 12 000. The programme is run by the Hungarian Foundation for Enterprise Promotion and the network of local enterprise agencies.
– *Szechenyi* C*ard* introduced in September 2002, providing short-term credit at a subsidised interest rate. From July 2003 a new range of cards with limits from EUR 2 000 to 20 000 was made available. Also from this date, the interest subsidy was set at 5 per cent for cards up to EUR 4 000 and 3.5 per cent for other cards. The scheme will be continued in 2004 with a uniform interest subsidy of 3 per cent. One year after the launch of the scheme, around 6 000 cards had been issued and the total value of the loans was around EUR 44 million. The total subsidy was HUF 91 million in 2002.
– Medium-size loan scheme ("Midi-loan") launched in October 2003, offering micro- and small enterprises long-term development loans of up to HUF 10 million (EUR 40 000). The Ministry of Economy and Transport provides an interest subsidy of 4 per cent.
– Europa loan from the Hungarian Development Bank (MFB): a scheme launched in March 2003 in which the MFB, in collaboration with partner banks, offers loans with favourable interest rates and a state exchange-rate guarantee. Loans up to EUR 2 million are accommodated.

In addition, support is given to credit guarantees. The two major credit guarantee organisations (Credit Guarantee Co. and the Rural Credit Guarantee Foundation) provide a maximum 80 per cent guarantees to SMEs and are supported by a 70 per cent state counter guarantee. SMEs are entitled to a 50 per cent guarantee fee subsidy for their guaranteed loans not exceeding HUF 40 million (EUR 160 000).

There has been some change in the SMEs support policy over the recent years, with a shift from pure non-repayable grants to concession schemes aiming at a more efficient utilisation of public funds by increasing competition and transparency in the processes. However, the designs of these schemes still raise doubts as to their effectiveness. For instance in the *Szechenyi* C*ard* scheme, credit institutions grant the cards on the basis of their usual assessment criteria, and in this sense are not encouraged to widen their client base. In addition, little is known as to the interest-rate demand elasticity for credit among borrowers. As a result, there may be considerable dead-weight loss, the government giving interest-subsidies to borrowers who would be willing and able strike a deal with credit institutions at market interest rates anyway. Furthermore, the credit institutions may be appropriating part of the subsidy by charging high market rates, or, for example, through savings on fee waivers and so on that they would normally use to attract clients at market rates but which are not needed to attract subsidised customers. Similar concerns can be raised about the other loan support schemes and it is recommended that the authorities conduct a thorough examination as to whether there are serious problems in their efficiency and effectiveness as a means of supporting SMEs.

Transport policy

The current administration hopes to increase public investment in transport from the current level of approximately 1.6 per cent of GDP to around 2.7 per cent of GDP. The road network is the principal focus of transport policy. In spring 2003, as part of a road development programme aiming at catching up with western European road densities by 2015, a government resolution gave priority to further development of high-speed trans-Hungarian links, outlining plans to add 420km to the network and to have made preparations for a further 800km by 2006. In addition, it is planned to continue construction of the motorway ring around Budapest and for new bridges across the Danube and Tisza rivers. The 2004 budget submitted to Parliament earmarks spending of HUF 207 billion on construction and HUF 88 billion on maintenance, in total about 1.4 per cent of GDP, up considerably from approximately 0.4 per cent of GDP spending in 2003. Even with increased funding of this magnitude, the final transport network envisaged by planners will take a long time to complete. These investments, which will also be financed from EU structural funds, will contribute to reducing regional disparities. However, in this environment of accelerated spending, the authorities should also enhance the efficiency of investments by increasing the role of economic analysis in the decision making process. In particular, they should ensure that investments are not excessively biased towards large, high profile projects for new motorways over building and maintaining smaller roads. Recently, the Ministry of Economy and Transport published guidebooks for the evaluation of road development projects (including their environmental effects) in line with EU guidelines. The guidebooks will be used by all central governmental institutions.[29] To the extent that they contribute to unifying the terms of cost-benefit analysis, these guidelines may help to enhance the efficiency of decision making.

In a welcome move towards greater transparency in the public funding of transport infrastructure, the current administration included debts relating to road construction in the 2002 Budget – these were previously treated as off-budget items (see Chapter II). The adoption included the debt of the road construction and maintenance companies (the National Expressway Company (NEL) and the Expressway

Management Company (SEH)) and entailed the change of ownership to the state, with the Ministry of Economy and Transport exercising the ownership rights. As a result, all future funding will be budgeted and accounted for before Parliament. Under the previous structure, the funding was made *via* the Hungarian Development Bank (MFB) which at the time was not subject to standard government budgeting procedures and scrutiny. Changes in 2002 have significantly altered the role of the MFB, it now has no fiscal tasks to carry out and government guarantees are more restricted. In many respects it now more closely resembles a private-sector bank, playing a role for example in participating in the finance of European Union projects.

Financial sector issues

In Hungary, as in other transition economies, the financial sector remains in a process of structural change. The role of financial intermediation, while still low in international comparison, continues to increase, as the debt-taking capacities of households and domestic firms rise and various supply-side factors combine to make credit more readily available. These include improvements of risk management systems, intensifying competition and government subsidies notably for housing loans. The spread between corporate lending and deposit rates is close to levels in the European Union. Although spreads between households lending and deposit rates are well above levels in the European Union, they are declining in the case of mortgage loans and compare favourably with other CEEC countries. This is a sign that the costs of financial intermediation are coming down.

Some progress can also be seen in regulatory frameworks. Recent reforms which bring the regulatory framework closer to European Union norms include the establishment of a basic legal framework for mortgage lending (1997) and privatisation of the remaining government-owned banks (2003). The role of institutional investors is set to strengthen due to reforms in regulations on life insurance as well as the growing weight of pension funds; this should boost demand for securities with a long maturity, thereby making it easier for banks to hedge maturity risks and supply loans with a long duration at affordable interest rates. At end-October 2003, the government submitted a draft amendment to the law on state supervision of financial institutions to Parliament, that would significantly reform the Hungarian Financial Supervisory Authority (HFSA). Since April 2000, the HFSA has operated as the single supervisor of the financial sector. In January 2002, its independence was reinforced in legal and budgetary terms but not in regulatory terms.[30] The draft amendment proposes to re-structure the HFSA such that it comprises a five-member Board of Supervision elected by Parliament on the Prime Minister's proposal and a Financial Supervisory Office headed by a director general appointed by the Prime Minister. The Minister of Finance would approve the statute of the HFSA which, as usual, determines the organisation and operations rules, and oversee its operations. The legislation aims to strengthen the accountability *vis-à-vis* the Ministry of Finance. However, it remains to be seen how the operational independence required to supervise of financial institutions and markets autonomously will be implemented. In particular the draft amendment appears to introduce a complex structure of institutional governance relationships among the director general on one side and the Board and the Ministry of Finance on the other.

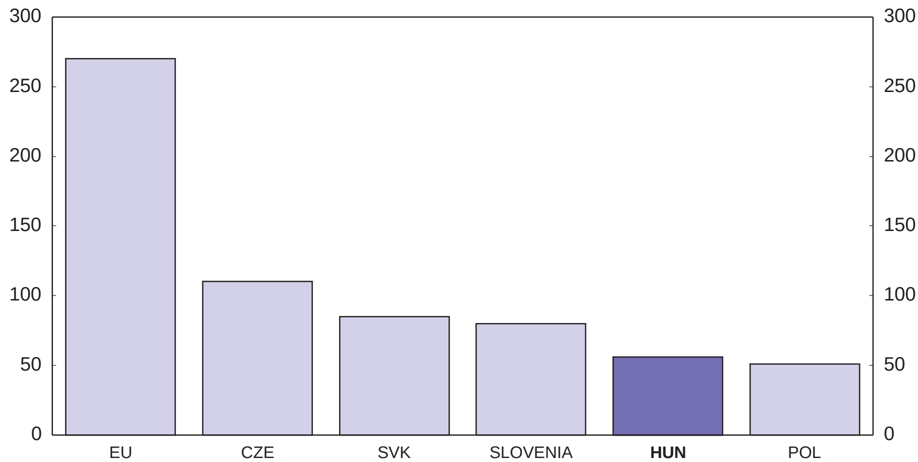
This issue aside, current trends are promising insofar as they testify to continued progress in developing a mature self-sustained financial system. On the other hand, using the financial sectors of the European Union countries as a yard-stick, there is obviously still a long way to go. Capital markets, more apt to diversify risks than the banking sector, remain underdeveloped, and the depth of financial intermediation is still fairly low. And the role of the government intervention (notably by issuing loan guaranties or providing subsidies) is higher than warranted in some segments. However, dealing with these issues is in large part an integral part of the organic development of the financial system.

Ongoing trends in the banking sector

As in most European Union countries the banking sector dominates Hungary's financial system, while capital markets play a small part. As a result the unwinding of the stock market bubble has had little direct impact on financial stability and macroeconomic developments at large.[31] The number of banks has decreased slightly in recent years, from 43 in 1999 to 39 in 2002, while the number of savings and credit co-operatives has declined from 209 to 189 over the same period. The fairly high number of banks might point to a certain degree of over-banking. However, the number of branches is fairly small, with access to bank services remaining much lower than in European Union countries, and the use of credit cards and telephone and internet banking is still limited. Moreover, given the large number of banks, the depth of financial intermediation, as measured for example by the ratio of total balance sheet to GDP is surprisingly low (Figure 3.6).

Recent trends in the efficiency and profitability of banks bode well for future financial stability. The annualised rate of return on equity for the banking sector as a whole rose from 6.4 per cent in 1999 to 15.7 per cent in 2001, while for the commercial bank sector it was stable at 18.7 per cent from 2001 to 2002. The capital adequacy ratio, *i.e.* banks' capital in per cent of their risk-weighted assets, has declined but still exceeds the regulatory minimum by a comfortable margin. The quality of the loan portfolio remains satisfactory, as the share of non-performing and doubtful loans is lower than in other CEEC countries; the incidence of non-performing loans has been stable at below 4 per cent of total assets in recent years. The rising proportion of mortgage loans in banks' loan portfolios has propped up the average quality of bank assets. In contrast, owing to the

Figure 3.6. **Balance sheet total to GDP ratio: an international comparison**
Per cent, 2001



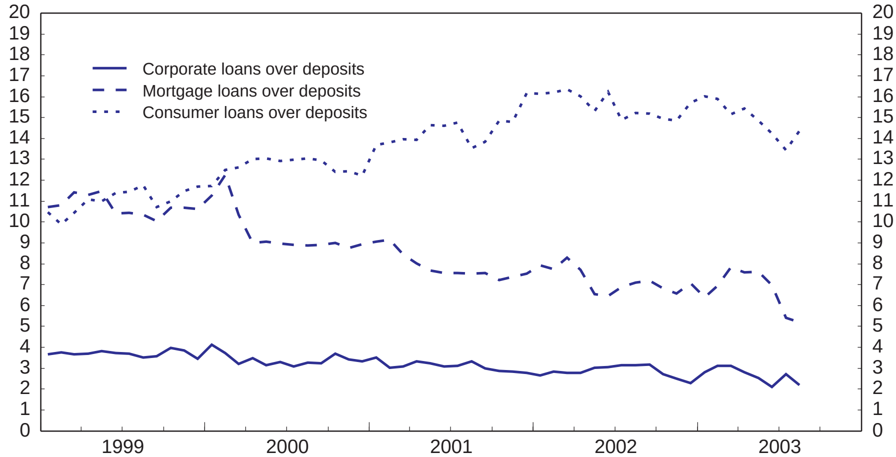
Source: Magyar Nemzeti Bank.

slowdown in the domestic and world economies and a shift towards SMEs, risks associated with lending to the corporate sector have increased in the past one to two years.

A possible concern about the level of profitability in the banking sector is that it may be reflecting inadvertent subsidy from the government as well as light taxation in many areas of capital income and in the use of financial services. The generous scheme of subsidised housing loans (see below) has brought additional business to the banks who may have been able to siphon off some of the subsidy as subsidised clients may bargain less aggressively for a lower rate or lower mortgage fees. This echoes concerns aired with regard to loan and credit support for SMEs (see above). While some "leakage" is inevitable in financial subsidies, the authorities are encouraged to look for weak spots in the design of the major programmes and take appropriate steps to remove them.

Foreign ownership is widespread in the banking sector.[32] This is partly because (foreign) strategic investors were preferred over portfolio investors during the privatisation process. This privatisation strategy has been conducive to competition amongst banks, as cross-ownership has largely been avoided. The privatisation of the three remaining publicly owned banks in autumn 2003, including Hungary's third largest bank for household deposits, Postabank, was concluded in a way that can hopefully strengthen competition further, notably in the retail segment where the

Figure 3.7. **Spreads between banks' lending and deposit rates**
Per cent, 1999-2003



Source: Magyar Nemzeti Bank.

incumbent OTP bank has successfully defended its dominant position. The competitive stance in the main segments of the banking sector may be summarised as follows:

– The market for large corporate banking services is highly competitive and margins between lending rates and the money market rate are minimal in this segment. This has led banks to focus increasingly on loans to SMEs.

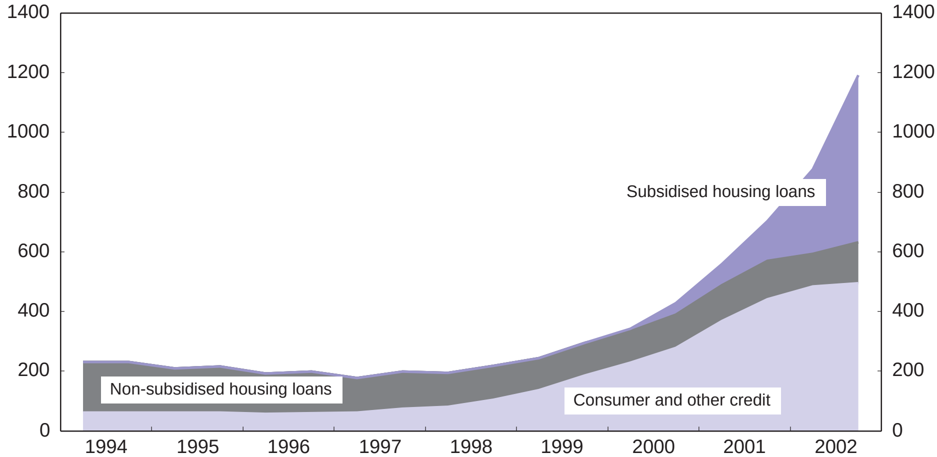
– The greater availability of credit for SMEs is a particularly promising trend. Competition is also intensifying in this segment, and spreads have declined steadily in recent years. Nevertheless, concentration is much higher in this market than on corporate loans, as the three largest banks' combined market share is around 50 per cent.

– The retail market for household loans – consumer credit and mortgage loans – has risen dramatically of late, but remains rather non-competitive with a limited the number of service providers and still high spreads (Figure 3.7). This is exacerbated by the high concentration of household savings with the OTP bank, which manages 44 per cent of all deposits.

The market for mortgage-based housing loans

Mortgage lending has ballooned in recent years; it rose by some 140 per cent in 2002 (Figure 3.8) and a further 80 per cent increase is expected for 2003.

Figure 3.8. **Bank lending to households**
HUF billion



Source: Ministry of Economics and Transportation and Magyar Nemzeti Bank.

The upsurge owes to the establishment of the basic legal framework for such lending and – notably – the introduction as from 2001 of generous government interest subsidies for housing loans based on mortgage bonds.[33, 34] The subsidy scheme implies that the nominal interest rate paid by the borrower is capped at 4 per cent for new houses and 6 per cent on loans to finance the acquisition of already existing dwellings. The difference between these rates (which are fixed for a period of five years) and the market rate is paid as a subsidy to the bond-issuing mortgage bank. Thus, fluctuations in the market interest rate are absorbed by the government budget. Furthermore, since a tax allowance is provided on 40 per cent of the amounts repaid on housing loans, the real after-tax interest rate facing borrowers is even lower.[35]

Since its introduction, the subsidy scheme has been changed on several occasions. Shortly before the 2002 general election, the then government extended the scope considerably, notably by including used apartments. In an effort to keep a lid on the increase in government liabilities, and to limit certain unintended practices, the generosity of the scheme was cut back in June 2003, by lowering the maximum amount of interest subsidies and limiting the eligibility to one dwelling per investor. Moreover, the government has lowered its maximum interest subsidies on mortgaged-backed certificates from 10 per cent to 6-7 per cent. The latter change in particular may affect the supply of mortgage loans considerably.

The take-off in mortgage lending was from an initially very low base, and the incidence of such loans remains low by international standards. The share of owner-occupied houses is as high as 90 per cent of the total housing stock, but only 10-20 per cent of real estate in Hungary is mortgaged, compared with 40-80 per cent in more developed European countries. In a similar vein, at 30-40 per cent the average loan-to-value ratio lags far behind the 60-80 per cent European Union average. These figures illustrate, that there is ample room for mortgage-type housing loans to expand further; at present, the stock of such loans amount to slightly more than 6 per cent of GDP. In the absence of government subsidies, the rate of expansion would be determined mainly by the speed of improvement in households' debt-taking capacity and by how rapidly the real interest rate on non-subsidised loans, currently double the average rate in European Union countries, would converge to European Union levels. It is obvious that the subsidies have been very important for the pace of increase on mortgage lending, but it is likely that there would have been an expansion anyway. In Poland, for example, mortgage lending has risen quite rapidly in recent years without similar subsidies.

The effect of the measures introduced in 2003 remains to be seen, but in its previous form, the housing loan subsidy scheme was unsustainable and highly distorting. More generally, the scheme raises several issues:

– When the housing stock was privatised in the early 1990s, it was offered to tenants at prices that were generally far below market levels. This has created a huge inter-generational imbalance, and is why the average loan-to-value ratio remains so low. For existing house owners, selling at market prices and financing 60 per cent of the purchase of a new house with loans that carry a negative real after-tax interest rate is an overly attractive way to free liquidity.
– The subsidies carry high budgetary costs. On a cash basis, the annual costs amount to ¼ per cent of GDP on the existing portfolio, but the full, accrued, costs of future commitments are some 1½ per cent of GDP and increasing.
– There may be significant repercussions on macroeconomic developments and policies. The sharp increase in household lending has already caused a swing from positive to negative in this sector's net financial saving. This may have some spill-over also on overall private sector net saving. Also, the interest subsidies are likely to impinge on house price developments. Finally, since the interest risk is assumed by the government, the subsidy scheme tends to weaken the leverage of monetary policy.

Notes

1. In 1993, the social contribution rate paid by employers and employees on wages was 64.5 per cent, against 46 per cent in 2003.
2. The statutory rate was raised from HUF 25 500 per month in 2000 to HUF 50 000 in 2002.
3. Financial support from the Labour Market Fund was provided to employers for which the reduction in employers social security contribution implemented in 2001 and 2002 did not offset the increase in labour costs resulting from the hike in the minimum wage. The sum was distributed to about 29 000 businesses and 12 000 self-employed. 18 per cent was allocated to sole proprietors, 24 per cent to companies with less than 20 employees and 58 per cent to companies with more than 20 employees.
4. In 2000, 26.5 per cent of the population was receiving an old age or early retirement pension or a disability benefit (source bazdaságilés szociaáis adattár, 2001). The main other types of social security pensions are widows and orphans pensions.
5. OECD calculation based on KSH data.
6. The United Nations latest population projections estimate that for 2000-2005 the life expectancy for males at age 60 is 15 years and 20 years for women. Though on the wane, heavy smoking and drinking, particularly among men, continue to contribute to a relatively high incidence of cardiovascular disease. Experts believe that environmental pollution and the increase in stress caused by the change in the system since 1989 have also contributed to health problems.
7. According an OECD review of disability schemes across 20 countries (Hungary is not included in the study), the average disability benefit in percentage of *per capita* wages in these OECD countries was about 42 per cent (OECD, 2003a).
8. Source: Joint Assessment of the Employment Policy Priorities of Hungary, carried out by the European Commission and the Government of Hungary, 16 November 2001.
9. The number of persons of working age receiving disability benefits has grown from 412 000 in 1998 to 461 000 in 2002.
10. While slightly above the OECD average in 2000, prime-age female labour force participation has been decreasing significantly in Hungary over the past two decades, more than in the other OECD central european countries. The decrease in participation rate for women has been slightly higher than for men over the 1990s.
11. Source: OECD Education Directorate.
12. These changes have also been described in some detail in previous *Surveys*.
13. The unemployment assistance benefit amounted to 80 per cent of the minimum old-age pension which was equal to of HUF 18 000 per month in 2001.

14. Cross-country comparison of the tax-to-GDP ratio is subject to a number of well-known caveats. These include differences across countries in the tax treatment of transfer income and different traditions for supporting families and economic activities *via* tax credits and subsidies, respectively.
15. An IMF study (Ligthart, 1999) estimated that tax credits narrowed the tax base by 10 per cent. Since this study this figure has probably increased due to the new employee tax credit and the increase in family tax credit.
16. The tax rate on dividends distributed by resident companies and not exceeding 30 per cent of the company's capital is 20 per cent and the remaining part of the dividend is taxed at 35 per cent. Dividends from non-resident companies which residence state has a tax treaty with Hungary are exempted from the withholding tax.
17. Employers and employees' contribution rates are 18 and 8.5 per cent, respectively.
18. Regulations are in place that require continuous capital repayments. If tax exemptions only on interest payments (and not capital) were introduced, this requirement prevents mortgages being designed such as to generate only interest payments during the mortgage period with capital repayment at the end.
19. For further details see, for example, Table 5 in the 2001/2002 edition of Taxing Wages.
20. The estimated APW wage level is around 2½ times the minimum wage level.
21. In the mid 1990s, the property tax represented 0.15 per cent of GDP in Hungary, compared to 0.55 per cent in the Central European countries and 0.92 per cent in the EU (Paugam and Maurer, 2001).
22. Source: Ministry of Finance of Hungary.
23. Dethier and John (1998) note that capital income taxation had gone through almost annual changes, and that Hungary tax policy has often been criticised for the frequency and ad hoc nature of its reform.
24. Hungary AM, August 12, 2003.
25. Regions like Budapest can afford to raise a 2 per cent local business tax because they offer other types of advantages to the companies, while poorer regions would need these revenue most to reduce their competitive disadvantage.
26. Only 52 per cent of goods and services were assessed at the standard rate in 1998 (OECD, 2000).
27. These new rules do not apply retroactively to January 2001, contrary to what was initially envisaged by the EC. The proposal for Hungary to move in line with European Union policy in granting tax breaks in proportion to the size of investment, rather than for a set period of time, was not followed either.
28. Offshore companies having at least 50 per cent of their staff of Hungarian nationality were subject to a 3 per cent corporate income tax rate.
29. Such a standardisation of cost-benefit evaluation procedures is required to successfully apply for support granted by the EU.
30. The Financial Supervisory Authority has its own budget and is legally independent, the legislation on prudential rules remains the prerogative of the Ministry of Finance.
31. Only some 50 companies are listed on the Budapest stock exchange, and total equity capital represents not more than 20 per cent of GDP. The stock market had a temporary boost in the second half of the 1990s from the privatisation of previously government owned enterprises, but following the privatisation a large number of firms have been de-listed.
32. In 2000, foreign companies held majority shareholdings in 33 out of 42 banks.

33. In Hungary, three specialised mortgage banks have a monopoly on issuing mortgage securities. Following the creation of the necessary regulatory framework, two such specialised institutions have been established, both of which are owned by domestic commercial banks. In addition the hitherto state-owned mortgage bank FHB (Land Credit and Mortgage bank Ltd.) can issue mortgage bonds; the FHB was privatised in the autumn 2003. According to the Central Bank's assessment it would not be recommendable to extend the right to issue mortgage bonds to commercial banks in the near term. The restriction of this privilege to a few specialised institutions is considered desirable on the grounds that it promotes transparency, facilitates regulatory supervision and helps boost market liquidity (Vas-Nagy, 2002).
34. In addition, so-called supplementary interest subsidies apply to housing loans originated by any credit institution provided that the borrower meets certain stricter criteria.
35. In addition to these provisions, a vast number (approximately 30) housing subsidy schemes can be identified in the central government's budget, which makes for an overly complex system. These other measures include housing-related support to local governments with a view to encourage the construction of rental housing. A particular idiosyncrasy is the possibility for young couples (below 35 years) to receive so-called advance social housing grants on the condition that they promise to have at least two children in the course of the next three to six years.

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IV. Product market competition and economic performance

Introduction

The establishment of competitive markets has been one of the cornerstones of Hungary's structural policy over the past decade, alongside a successful policy of attracting foreign investment in some sectors. In terms of privatisation, competition law, sector-specific regulation, subsidies and public procurement, the approach to competition in many respects now differs little from many OECD countries. However, certain sectors of the economy inevitably get left behind in the wake of such rapid structural change. Hungary has effectively developed a two-speed economy. On the one hand it has a highly competitive and technologically advanced export sector, largely foreign-owned and run. On the other hand it has a large number of relatively small-scale, low productivity domestically owned manufacturing and service industries that have been less exposed to competition in the course of the transition process. Also, in terms of network industries, significant efforts are still needed to create competitive markets in electricity, gas and telecommunications and the process of liberalisation in rail and postal services has barely begun. With much of the policy work to fulfil EU-accession guidelines over, policy-makers can now focus their attention on some of the fundamental issues the country needs to address to ensure its living standards continue to catch-up to those of leading OECD countries.

This chapter starts out with a short review of the key features of Hungary's product markets and estimates of the potential macroeconomic impact of further regulatory reform. This is followed by an evaluation of competition legislation and its enforcement and a sector-by-sector analysis of regulatory policy. The final section provides policy recommendations.

Key features of Hungary's product markets

Assessment of transition

Prior to the collapse of the Soviet Union, Hungary had a relatively market-based production system compared with other eastern bloc countries. Early on, steps had been taken to introduce some market-type mechanisms in the enterprise sector, even though production facilities were state-owned and governed by central planning. Furthermore, much of the economy was generally isolated from world markets because trade was principally with the COMECON countries. Since the collapse of the Soviet Union and the transformation of the political system, Hungary has made considerable advances in market-based production. State-enterprises in manufacturing and services have largely been sold off and operate in regular markets. For the network industries, the initial steps have been taken to open them up to competition. In many aspects of policy, including competition, Hungary is now comparable to most other OECD countries. And, its economy has experienced a period of strong growth and continues to catch up with other member countries (Table 4.1).

Table 4.1. **Output, employment and productivity**

1990-2000 average in international comparison

	Hungary[1]	Austria	France	United Kingdom	United States	Japan
Decomposition of growth						
Average GDP growth	2.3	2.5	1.9	2.2	3.1	1.8
of which:						
Productivity	4.2	2.1	1.3	1.8	1.7	1.3
Employment	–1.9	0.4	0.7	0.4	1.3	0.5
of which:						
Unemployment[2]	–0.4	–0.1	0.0	0.1	0.1	–0.2
Work force	–1.5	0.5	0.7	0.3	1.2	0.7
Demographics[3]		0.3	1.0	0.4	1.0	1.1
Participation rates[4]		0.2	–0.3	–0.2	0.2	–0.4
Labour productivity growth in selected industries						
Manufacturing	4.6	4.2	3.5	2.4	3.8	2.3
Electricity, gas and water	2.5	2.9	3.9	8.5	2.5	2.6
Construction	1.7	2.3	–0.4	2.5	0.1	–1.9
Distribution, hotels and restaurants	1.4	1.1	0.7	1.4	3.2	1.4
Transport and communication	5.3	2.1	3.0	4.3	2.8	0.6
Memorandum items:						
MFP growth[5]		1.5	1.1	1.0	1.3	2.3
GDP per capita[6]	37	78	74	72	100	75
GDP per hour worked[6]	27	102	109	85	100	76

1. 1992-2000.
2. A positive sign indicates that unemployment has declined and contributed to boost output growth.
3. The contribution from demographics comprises changes in the size and age composition of the working age.
4. Measures the effect from changes in age specific participation rates.
5. Business sector.
6. 2001 levels. PPP-based. United States = 100.

Source: OECD, Eurostat.

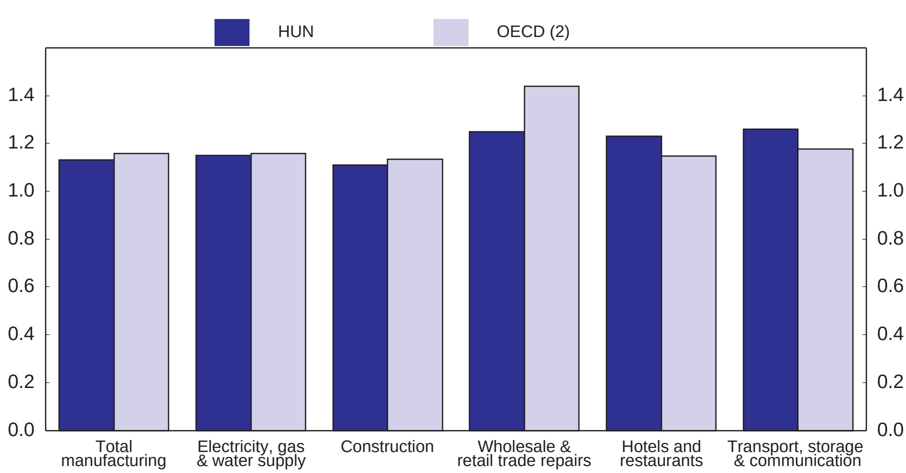
Standard competition indicators

A number of broad indicators of competition levels are used in international comparisons. It should be stressed that these measures are relatively crude and open to alternative interpretations. For instance price-cost margins may be misleading because price setting ability stemming from market power may be accompanied by rent dissipation resulting in normal mark-ups, but high input factor remuneration. Nevertheless, when taken together such indicators may convey useful insights or point to areas where further analysis is warranted.[1] In the case of Hungary none of the indicators suggest the level of competition is endemically weaker than in other OECD countries:

– Estimated price-cost margins are not significantly above the average of other OECD countries in most industries (Figure 4.1), giving no signal of widespread monopoly rents.[2] However, there are caveats. For instance the mark-ups in electricity, gas and water supply are more likely not reflecting intense competition but government intervention that keeps retail prices low to households.

– Concentration indices are generally low, reflecting the small size of enterprises. Exceptions lie in the sectors dominated by high exposure to foreign direct investment or where former state-owned enterprises

Figure 4.1. **Mark-ups by industry sector**[1]



1. Estimated sectoral mark-ups from 1981 to latest available year. For Hungary the period is 1991-2000.
2. Data refer to Belgium, Canada, Finland, France, Germany, Italy, Japan, Netherlands, United Kingdom and Australia.
Source: OECD (2003) STAN database.

still dominate (the development in the FDI sector is described in Chapter I and network industries in a separate section of this chapter). There is however some indication that there may be barriers to entry for small and medium-sized enterprises as new-firm establishment rates are comparatively low.

– Export intensity and import penetration are among the highest in the OECD (Nicoletti *et al.*, 2003), even in industry-by-industry comparisons (Table 4.2), suggesting that, overall, Hungary is not protecting domestic industry from competition. While re-exporting activities may be providing a generous view of trade exposure, Hungary's generally liberal policy stance on trade suggests there is no major issue in this quarter. For example, Hungary has today no parallel import restrictions under its "international exhaustion" import regime.[3]

– Another indicator of competitive pressure is the relative aggregate price level with respect to other countries. With appropriate adjustment for GDP per capita, such comparisons do not suggest any particular cause for concern.[4] Indeed Hungary, along with other transition countries (such as Poland, Slovakia and the Czech Republic), has relatively low prices, even allowing for its low purchasing power (*i.e.* it is positioned below the regression line in Figure 4.2). However, such price differences may also be driven, for example, by differences in indirect taxes and unmeasured quality differences in goods and services.

Standard indicators of long-run capacity to develop competitive domestic producers (and maintain international competition) through R&D activity suggest that there is perhaps room for improvement. Total R&D spending – at 0.8 per cent of GDP – is clearly below the OECD average and Hungary remains one of the lowest ranking countries in terms of R&D activity in the OECD (OECD, 2003a). Private R&D still only represented 0.3 per cent of GDP in 2000compared to 1.4 per cent in the OECD overall. In the manufacturing sector, the R&D gap is partly explained by the comparatively small high-tech sector and the high number of small and medium-sized enterprises. Given that there is plenty of room for further catch-up through the import of technology, a very weak level of domestic R&D activity may not be a problem. However, it may be so if low R&D reflects inadequate efforts to engage in research that adapts imported technologies and techniques to Hungarian production and market conditions. Indeed, international evidence does suggest a strong positive link between domestic R&D effort and the capacity to successfully adapt technological innovations from abroad.

Although Hungary is quite strongly specialised in the production of ICT goods, domestic penetration of ICT technology is low. In 2000, value added in the ICT sector represented more than 10 per cent of business-sector value added, placing Hungary among the top ten OECD countries in this regard. Multinational

Table 4.2. **Import penetration in manufacturing**

Imports as a percentage of the sum of production and imports, latest year of data available[1]

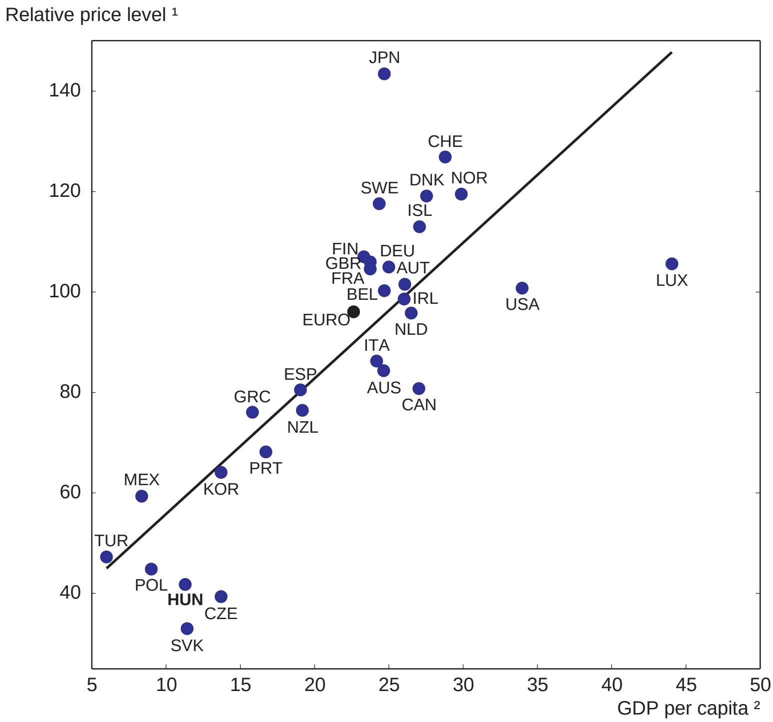
	ISIC Rev. 3 code	**Hungary**	Euro area[2] Total	Euro area[2] Excluding intra-zone imports	United States	Japan
Total manufacturing	15-37	42	29	17	20	9
Segmented, high R&D		46	38	23	28	9
Chemicals and chemical products	24	51	36	19	17	9
of which: Pharmaceuticals	2 423	. .	. .	. .	16	8
Office, accounting and computing machinery	30	46	74	66	47	21
Electrical machinery and apparatus, n.e.c.[3]	31	35	29	18	35	9
Radio, television and communication equipment	32	59	48	39	31	11
Motor vehicles, trailers and semi-trailers	34	39	31	13	32	3
Other transport equipment	35-351	. .	. .	. .	19	28
Fragmented, high R&D		61	30	19	23	9
Medical, precision and optical instruments	33	62	42	32	18	30
Machinery and equipment, n.e.c.[3]	29	65	28	16	21	5
Furniture; manufacturing, n.e.c.[3]	36	45	28	20	35	8
Segmented, low R&D		24	24	12	11	9
Coke, refined petroleum products and nuclear fuel	23	13	22	12	17	11
Basic metals	27	44	36	21	20	7
Building and repair of ships and boats	351	. .	. .	. .	6	1
Rubber and plastic products	25	48	24	11	11	3
Food products, beverages and tobacco	15-16	10	18	7	6	10
Fragmented, low R&D		41	21	12	15	10
Textiles	17	63	32	19	25	29
Wearing apparel, dressing and dying of fur	18	33	39	32	51	26
Leather, leather products and footwear	19	64	37	26	73	51
Wood and products of wood and cork	20	31	19	12	12	24
Pulp, paper and paper products	21	52	28	14	10	5
Printing and publishing	22	17	8	3	2	2
Other non-metallic mineral products	26	30	13	5	13	4
Fabricated metal products except machinery and equipment	28	39	13	6	8	3

1. 2000 for Hungary, the euro area and Japan, 2001 for the United States.
2. Calculated using 1999 data for Portugal, and excluding Ireland and Luxembourg.
3. n.e.c.: not elsewhere classified.

Source: OECD, STAN and ITCS databases and OECD calculations.

companies cover 70 per cent of the internal IT service market, but larger Hungarian-owned firms and innovative SME's are also prominent. However, fixed telephony penetration and Internet penetration is lagging behind other OECD countries, while mobile penetration is very high (more than 70 per cent). The

Figure 4.2. **Relative price levels and GDP per capita in OECD countries**
1999



1. Purchasing power parities (PPPs) divided by the exchange rate, OECD = 100.
2. In thousand USD, converted using PPPs.
Source: OECD.

internet penetration rate has been particularly low, partly due to the relative cost of computers and partly due to access costs. However, internet penetration is now on the rise. At the same time, other indicators of ITC are more encouraging. A Financial Times (2001) study based on OECD data examining the capacity of countries to develop knowledge-intensive economies ranked Hungary 6th out of the OECD countries.The government's commitment to IT resulted in 2002 in the creation of a separate Ministry of IT and Telecommunications. It has already implemented a number of policies aimed, *inter alia*, at increasing internet awareness and increasing internet penetration, particularly broadband.

The FDI *sector*

Hungary's strong economic growth from the mid-1990s has been fuelled mainly by the development of an FDI-funded, export-based manufacturing sector with a focus on component production and assembly for EU-based production chains. Annual industrial production rose through the 1990s, taking the share of manufacturing in gross output above 40 per cent by 2000.

Inward FDI is generally viewed as bringing positive benefits: it exposes domestic firms in the same line of business to new competition, acts as a catalyst for new technologies and techniques to diffuse through the economy, and strengthens international linkages and market access. The precise mechanisms and magnitude of these benefits for Hungary are difficult to gauge. Given that foreign firms do not typically compete in the same product markets as domestic firms, FDI does not have a large direct impact on competition.[5] Rather, foreign firms are likely to induce improvements in competition indirectly. For example, outsourcing to Hungarian firms by foreign firms is likely to encourage domestic competition. And evidence suggests that there are more complex spill-over effects at work.[6] Nevertheless, the range of these effects from FDI is limited to certain sectors, and regions, notably the western part of the country.[7]

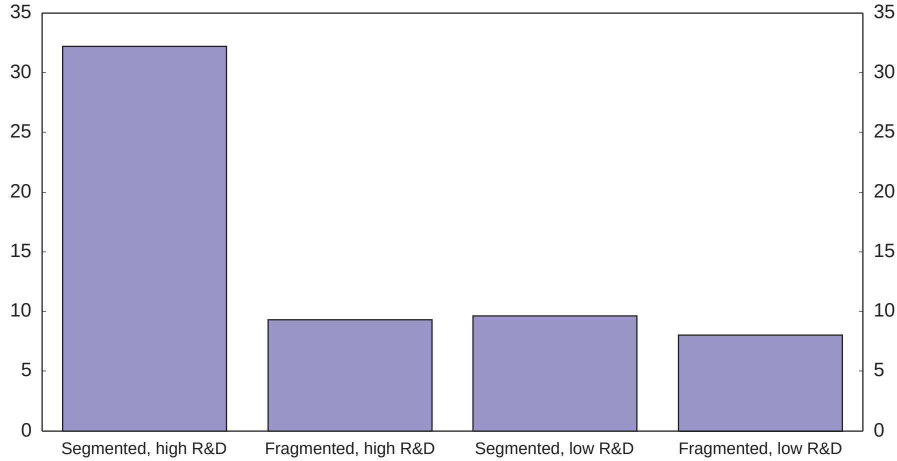
Given recent trends of slowing FDI to Hungary, the pace of such spillovers may slow down. At the same time, however, there may be further potential spill-over from existing FDI enterprises. And spillover in technology and "know-how" comes not only from FDI. Accession to the European Union, in particular, is likely to ensure that Hungary deepens its economic links with other countries. However, given that the transmission of technology and "know-how" is not automatic, the authorities should be vigilant to assure that domestic policies are as conducive as possible to such dynamic catch-up processes.

The domestic sector

The limited integration of Hungarian firms into the FDI production chain has contributed to large parts of the economy remaining in something of an economic backwater. A broad indication of this is the wide regional and sectoral dispersion in GDP per capita (see Chapter I). Also, productivity growth in some service sectors (where FDI typically is not present) is low. For instance there was roughly 1½ per cent productivity growth in the distribution, hotel and restaurant sector, a rate roughly similar, for instance to the United Kingdom (Table 4.1). At this pace catch-up in productivity to levels in other countries would appear at best slow. Also, mark-ups in the service industries are significantly higher than those in manufacturing where FDI is concentrated (Figure 4.1). The contrast between FDI and domestic production is also seen in Figure 4.3 where the "segmented, high R&D" sector which is largely foreign-owned has much higher productivity than other categories of manufacturing industry.

Figure 4.3. **Average labour productivity**

Per cent average annual growth, 1991-2000



Source: OECD (2003) STAN database.

Small-sized firms are another indication of the poor development of domestic Hungarian business. For example, over 60 per cent of firms are sole proprietors, compared with an EU average of 50 per cent and only 0.7 per cent of firms have more than 50 employees compared with 0.8 per cent in the European Union (Ministry of Economy and Transport, 2002). Statistics show that the enterprise creation rate in 1995-1998 was among the lowest of the CEC-10 countries, but has since picked up (Eurostat, 2002).

The authorities have recognised the need for better performance among domestic businesses. Some measures aimed at this issue were included in the *Szechenyi* Plan which included subsidies to enterprises and more recently the "Smart Hungary" programme also supports Hungarian business. However, direct subsidies that shelter firms from competitive pressure are hardly the way to go to boost performance sustainably. To-date the financial aid in these packages has not been strongly linked to performance, being generally in the form of direct subsidies. There are also moves underway to increase the use of subsidised credit arrangements. The authorities should evaluate carefully whether this is an effective way to foster firms that will be competitive in the long run (see Chapter III).

Infrastructure

Despite recent investment, the transport system remains sub-optimal. Notably, the fragmented and low-density highway network may hinder the development of markets, limiting opportunities and thus reducing competitive pressure. This may be particularly the case in retailing where a low density of high-speed road links may allow local market power to persist. International assessments echo the concern about infrastructure. For example OECD work ranks Hungary's infrastructure very low in international comparison (Nicoletti *et al.*, 2003). Also, the European Commission reports transport infrastructure in the whole central-European region is in a much worse situation than in western Europe, particularly in remote rural areas (European Commission, 2000). Even regional road networks planned for the future will have a lower density than in western Europe. Particularly important for the Hungarian regions is good transport connections to Budapest, which itself has good links with the rest of Europe. In this regard, the south-western and north-eastern regions are poorly served, although this problem should be reduced on the completion of the first elements of the recent road construction programme (see Chapter III).

Gauging the potential impact of reform

Although the channels through which regulatory reform affects economic performance are complex, calculations can be made that at least provide a rough indication of the impact of reform. Annex D shows the results of a simple exercise based on assumptions about the quantitative economic impact of reforms on price-cost margins, productive efficiency and performance. In this exercise, capital efficiency gains are assumed to be very small in transport and postal services because the need for investment will probably offset any efficiency gains in existing capital. The calculations are based on a re-alignment of practice with international norms and not with best practice, and are in this sense conservative. Following this approach Annex D presents estimates of the effects of reforms in network industries, distribution, professional and community services. The estimates suggest that regulatory reform in these sectors could increase aggregate labour productivity by 6-7 per cent and reduce producer prices by some 4-6 per cent. Competition legislation and its enforcement

OECD assessment of Hungary's competition legislation and enforcement has in the past generally been positive, underscoring that many features of the relevant law and its application compare favourably with other OECD countries. And, the authorities have proved to be open to explore areas of possible further improvements. It nevertheless appears necessary to investigate how far procedural and organisational changes can be implemented so as to free resources and improve the competition authority's ability to prioritise and increase the effectiveness of competition law enforcement.

Structure and institutional setting

Hungary's competition legislation is executed by an independent antitrust authority, the Gazdasági Versenyhivatal (GVH).[8] Independence in judging competition cases is reinforced by a strict separation between the decision making body (the Competition Council, *Versenytanács*) and investigative functions.[9] In 2002, the Competition Council took a decision in 174 competition supervision proceedings and fines were imposed in 33 cases. The GVH's resources are generally regarded as adequate.[10] However, European Union membership, including notably the move to decentralized enforcement of EU competition law, may entail additional workload. Decisions of the Competition Council can be appealed through the judicial system, the Metropolitan Court in Budapest, and from there to the Supreme Court. The appeal process can be long, and sometimes takes several years. Appropriate measures to further accelerate the appeals process should be considered.[11] Nevertheless about 50 per cent of competition law infringements are appealed, suggesting that oversight of the GVH appears to be effective in the parties' views.[12] In 2002, only three decisions were overruled by the Court while imposed fines were reduced on five occasions. In five further cases the Court annulled the decision and ordered new competition supervision proceedings.

In addition to regular enforcement of competition issues, the GVH also investigates certain cases of consumer fraud (which in 2002 represented nearly one-third of the case-related work-load). A representative of the GVH is a member of the Public Procurement Council.[13] In addition, co-operation between the GVH and regulatory authorities (Hungarian Energy Office, Communications Authority, Communication Arbitration Committee and Hungarian Financial Supervisory Authority) has been institutionalised. There has been discussion that the GHV's work on consumer fraud cases should be transferred to another government agency so it can focus more on competition law enforcement.[14] However, on balance, the GVH's expertise in certain areas suggests that this work should remain part of its remit.[15] Also, it should be noted that several other OECD member countries appear to successfully combine both consumer protection and competition law enforcement in the competition authority. If consumer fraud work indeed remains in the GVH there might be efficiency gains if a separate sub-unit were to be created. This would permit greater specialization of investigators and enable them to better focus on developments in their respective areas.

Key features of the competition legislation framework

Substantive law

Hungary's substantive competition law, which was established in 1984 with major revisions in 1990 and 1996, generally closely follows current European Union competition law rules. It might be advisable, however, to change certain aspects concerning the rules on restrictive agreements to avoid ambiguity when European Union rules will be changed in 2004.[16] The GVH considers that cartel activities are a problem in Hungary and has paid particular attention to this area. Revisions in 2001 aimed in particular at strengthening rules and enforcement tools concerning hard-core cartels. The GVH's means to investigate suspected cartels was strengthened, in particular through the possibility of dawn raids. In addition, prior to the 2001 amendments, *all* agreements were exempted from the Competition Act if the parties' combined market share did not exceed 10 per cent. This statutory exception has been removed for agreements among competitors that include hard core restrictions.

Coverage

Although the Competition Act in principle applies to all sectors of the economy, it can be overridden by other statutes, some of which are difficult to justify on economic grounds. There has been a welcome reduction in the scope of the Price Regulation Act which now only applies to a few areas such as utility and transport prices. But in other some other areas, notably in pharmaceutical products, statutes prevent price competition on the retail level. Regulations limiting the effectiveness of competition law continue to be pervasive in the liberal professions although the GVH has had some success in increasing competition in this area. For example, it successfully challenged the practice that "recommended minimum fees" for medical services were in effect obligatory prices.[17] The GVH has also been critical of a recent law that prohibits retailers from selling certain agricultural products below cost.[18] There are areas where enforcement of the Competition Act has not been very effective, notably in cable-TV services which are the subject of by far the largest number of complaints of abuse-of-dominance. Investigating these complaints absorbs considerable resources but there have only been a few successful cases, primarily because it is very difficult to establish "abusive" (excessive) prices.[19] This situation might be improved by the application of the new Electronic Communications Act (due to come into force on 1 January 2004). The Act implements the European Union Universal Service directive and will include tools based on EU guidelines for *ex-ante* supervision and regulation of retail telecommunications markets. If cable-TV services can be interpreted as retail telecommunications markets, then the "significant market power" (SMP) concept could be applied to them. In this way the Act could therefore strengthen the GVH's ability to control cable-TV services providers *ex post* for potential abuses of their dominant position. However, a final decision has yet to be reached in consultation with the European Commission as to whether cable-TV can be considered as retail markets for the purposes of the act.[20] At the same time, the authorities should also take a broad look as to why competition is weak in this area and whether there are areas of regulation that inhibit the development of robust competition for the delivery of programming and other use of these networks. For instance, it appears that satellite-TV is unable to provide strong competition to cable-TV, notably due to the low level of local content.

It should be noted that the GVH has the power to challenge anti-competitive decisions of other administrative agencies in court. This instrument has been used only once (the GVH successfully brought a case when a municipality denied a taxi licence for an entrepreneur who was not a local resident), but the mere threat of its use has been effective in several cases. Examples include the GVH's intervention when a municipality promised a retail chain that it would not issue new construction and establishment permits to the retail chain's competitors, and when another municipality which was a popular tourist venue tried to prevent entry of a new service provider who intended to operate an electric tourist train.[21]

Enforcement

There have been positive developments in the area of enforcement. In 2001, the GVH created a specialized cartel unit and obtained new investigative powers.[22] As part of the increased cartel enforcement, the GVH is developing a leniency policy which is expected to closely follow European Union guidelines. Also, the level of fines has increased significantly. Fines up to value of 10 per cent of a firm's annual revenues can now be levied and conform to European standards. Total fines imposed were up by 600 per cent from 2001 to 2002 (not taking into account the results of appeals proceedings). This is regarded as reflecting the end of a 12-year long "transition period", during which the GVH was willing to treat competition law infringements leniently to allow firms to adapt to the new legal requirements. However, the absence of a well documented fining policy based on objective factors that could be reviewed by the courts may also have contributed to the GVH's reluctance to impose stiff fines.[23] Guidelines concerning the GVH's fining policy are being developed. The new, higher fines have not yet been tested in court.

Further instruments of enforcement should be considered, in particular sanctions against individuals. Such sanctions can be highly effective in the deterrence and prosecution of cartels and can also increase the effectiveness of leniency programs. It would have to be ensured, however, that any new sanctions do not interfere with the current framework of enforcement.[24] Also, introducing the right of individual action before national courts to enforce claims based on competition law should be considered.[25] Such private suits would strengthen individuals' rights and might free up enforcement resources for the GVH. It could also reduce unnecessary jurisdictional disputes in the future. In particular, after Hungary's EU accession individual actions before national courts will be possible under EU law. Without parallel facilities in the Hungarian law there will be inevitable jurisdictional difficulties.[26] The current Competition Act gives the GVH an interesting and rather unique enforcement tool in the form of a 6 month suspension of decisions in cases initiated by the GVH. The Competition Council may terminate the proceedings if the infringement has come to an end. This "probation period" is designed to encourage defendants to cease infringements of a minor nature without the need to reach a formal decision. The suspension of proceedings appears to be a well functioning tool, and in 2002 nine cases were terminated in this way.

Procedures

Some aspects of competition-law procedure require attention. Despite some reforms in 2001, there is room for further improvement in the review period for merger cases. For example relatively simple cases are taking about two months to resolve.[27] The 2001 reforms also tried to make merger review proceedings more efficient. In particular, they allowed preliminary contact between the investigator and the Competition Council to enable the latter to provide initial guidance.[28] This reform, however, is not regarded as having hastened the review process and further possibilities should be explored. For example, case handlers could be required (within, say three weeks) to submit a preliminary report recommending whether a case should be cleared or pursued further. The Council could then be required to make a decision on the basis of this recommendation within a short period of time.[29] A revision of the notification thresholds should also be considered so as to reduce the number of notifications and expedite the review of remaining notifications.[30]

In other areas, greater flexibility in the application of review periods appears desirable. At present, an initial 180-day deadline applies in cartel investigations which can be extended twice by 180 days. The total review time has so far been sufficient for cartel investigations. While strict deadlines are generally in the public interest, this is generally not the case for cartels (where investigations can take a long time, especially in the international cases). Hence, current deadlines should be extended or, even better, eliminated.[31] In other areas, procedural rules are excessively hampering flexibility. In particular, fulfilling the 60 day limit for decisions on individual complaints adds to the already considerable cost of this area of the GVH's work. Extending the review period for such complaints would at least allow better prioritization of case loads. A more effective measure would be to increase the GVH's discretion to open a full investigation following a complaint. Any concerns that such reform would limit the ability of individuals to seek remedies when they are harmed by anti-competitive conduct could be met by introducing the right of individuals to bring a private action before courts as discussed above.

Regulatory policy

Hungary has gone a long way in the process of privatisation and reform towards best-practice market regulation. In many areas privatisation is completed or nearly so. And the privatisation program has picked up again after a slowdown in 2002. The state-owned Privatisation and Holding Corporation (APV), which had stakes in 167 businesses in December 2002, has seen its portfolio reduced to 157 in December 2003. Also, the classification of some units as "strategic" and not for sale has been dramatically reduced, from 93 companies to 23 in 2003. In the network industries, the state's shares are being steadily reduced. For example the state's share in the gas supplier and distributor, Magyar Olaj-és Gázipari Rt (MOL) is down to 22.7 per cent and the sale of a 13 to 17 per cent stake is currently under way. These moves are in line with recommendations made in the last *Survey*.

However, there are key areas where progress in reform has been slow. Incumbents have remained dominant in the reformed network industries, while some other network industries (notably rail transport) have not yet undergone any significant reform and remain as wholly state-run enterprises. In non-network sectors, there is debate about the impact on competition of large retail chains and certain retail sectors remain possibly over-regulated, such as pharmaceuticals. Also, as in other countries in the region, some of the rules and regulations of professional bodies seriously limit effective competition. EU accession has already initiated relaxation of some these constraints, and ongoing expansion of European law on the recognition of professional qualifications will erode them further.

The direction of some reforms is also disturbing. In particular, steps have been taken towards ensuring authorities have legal tools for cost-based price control, rather than measures to promote market-based prices. In a liberalised market, high prices relative to costs should be allowed to result in entry of new firms and/or expansion of supply, and low prices to reduce supply. While some access and interconnection prices may have to be regulated (such as third party access to networks), the authorities should be careful about regulating end user prices and should favour market solutions.

As in many other policy areas, ensuring conformity with European Union regulations is guiding many of the competition policy measures. In the case of network industries, regulation needs to conform to the European Union's *acquis communautaire* (Box 4.1), which has resulted in much of Hungarian regulation in the network industries being based upon blueprints from Brussels. While there are some outstanding issues with regard to the *acquis*, with accession nearly complete the authorities will increasingly have resources for further adjustment and refinement of regulation to provide the best framework for competition given Hungary's economic environment.

Selected network industries

Hungary has made reasonable progress in privatising and the first steps in liberalising the electricity, gas and telecommunications markets. This has been achieved by the same broad strategy implemented in many other OECD

Box 4.1. The role of the *acquis communautaire* in network industry regulation

The ***acquis communautaire*** is the set of European Union laws and practices that the European Union accession countries have to adopt, implement and enforce. For the negotiations prior to accession, *the acquis* was divided into several chapters and, where accession countries have difficulties, transition periods and exemptions are allowed. Negotiations on the chapter on competition were opened in 1999. The chapter is based on EC Treaty Article 31 (State monopolies of a commercial character), Articles 81-85 (Rules applicable to undertakings), Article 86 (Public undertakings and undertakings with special or exclusive rights) and Articles 87-89 (Rules applicable to State aid). Through the negotiations, the European Union requested the following:

- commitments to be mirrored in actual domestic legislation;
- evidence of an adequate administrative capacity to implement the commitments; and
- a record of day-to-day enforcement with a high degree of similarity with current enforcement practice in the European Union.

In addition, there are safeguards such as participation in the European Union-wide network of competition authorities and guidelines from the Community authorities. Agreement on the 31 chapters of the *acquis* was closed for all candidate countries by December 2002. The state and progress in each of the candidate countries are assessed in the European Commission's "Regular Report" (European Commission, 2002). The final issue of this report appeared in October 2003.

Both the telecommunications and the postal sectors are subject to the general competition rules contained in Chapter 19 of the *acquis*. For telecommunications, conforming to the chapter has involved the introduction in 2002 of additional elements to the major revision of the sector that was made in 1999 and in 2003 a new act on telecommunication aiming at full transposition of the 2002 *acquis* was adopted by parliament. The "Regular Report" of 2003 assesses that while the necessary administrative structures are in place, the role and the regulatory capacity of the Communications Authority need to be strengthened along with the capacity for economic analysis. For postal services, the *acquis* has prompted a policy of gradual liberalisation, with the objective of eventually opening up to an EU-wide single market for postal services within a regulatory framework that ensures a universal service. For this, candidate countries need to: adopt a national postal development policy consistent with Community policy; prepare market players for the pressure of competition when they join the Union; and transpose and implement Community legislation. In the 2003 "Regular Report", the European Commission concluded that some legislative alignment remained to be completed in postal services. For electricity and gas, the Energy Chapter requires the candidate countries to decide on an overall energy policy with clear timetables for restructuring the sector, including preparations for the internal energy market. In addition, measures on crisis handling, consequences of restructuring of mines, energy efficiency and diversification and nuclear power plant

Box 4.1. **The role of the *acquis communautaire* in network industry regulation** (*cont.*)

issues are included. The 2003 "Regular Report" assessed that considerable progress had been made through the adoption of the electricity law, which will pave the way for the liberalisation of the Hungarian market. Similar progress was made in the gas sector with the adoption of the new Gas Act in June 2003.

Rail transport is covered by the chapter on the transport sector. The *acquis* in this chapter is based on Articles 70-80 of the EC Treaty. Hungary has a number of reform plans including gradual phasing in of access to the Hungarian rail market and complete access by 31 December 2006.* In its 2003 "Regular report "the European Commission advised that transposition of the *acquis* is taking place according to schedule, with some additional restructuring needed for full implementation. In addition, the report underscores that institution-building efforts have to be further enhanced in this sector.

* Other transitional arrangements in transport are related to road networks and aircraft traffic.

countries: progressive selling-off of state shares, establishment of regulatory authorities; separation of the ownership and operation of the "network" component of the industry (which is generally a natural monopoly); opening up of supply and distribution to new entrants; and deregulation of pricing. As elsewhere, there are a number of trade-offs in deciding on how to schedule privatisation and liberalisation processes. For instance governments have often to take into consideration that moves towards greater competition for incumbents are likely to reduce privatisation cash revenues.

However some steps have not been successful in certain important respects, and there is room for further reform. In broad terms, there has been reluctance by the authorities to relinquish control. In particular:

- The state has retained strong rights to intervene in the activities of the network regulators. The most prominent example is retail price setting for gas and electricity where the government has the final word on pricing decisions. As a result, pricing has often been influenced more by political than by economic motives.
- The state has maintained strong influence in the incumbents' activities and allowed them to remain as significant or even dominant players in many network markets. For instance, the state retains special rights in its remaining shareholdings. These "golden" shares include veto rights

over capital decreases, changing shareholders' or ownership rights, and special rights of representation. For the oil and gas company, MOL, the State has special rights in issues related to so-called "strategic" interests. In September 2003, the Economic Cabinet judged that compliance with EU legislation did not require the abolition of these arrangements, though changes in detail would be required.

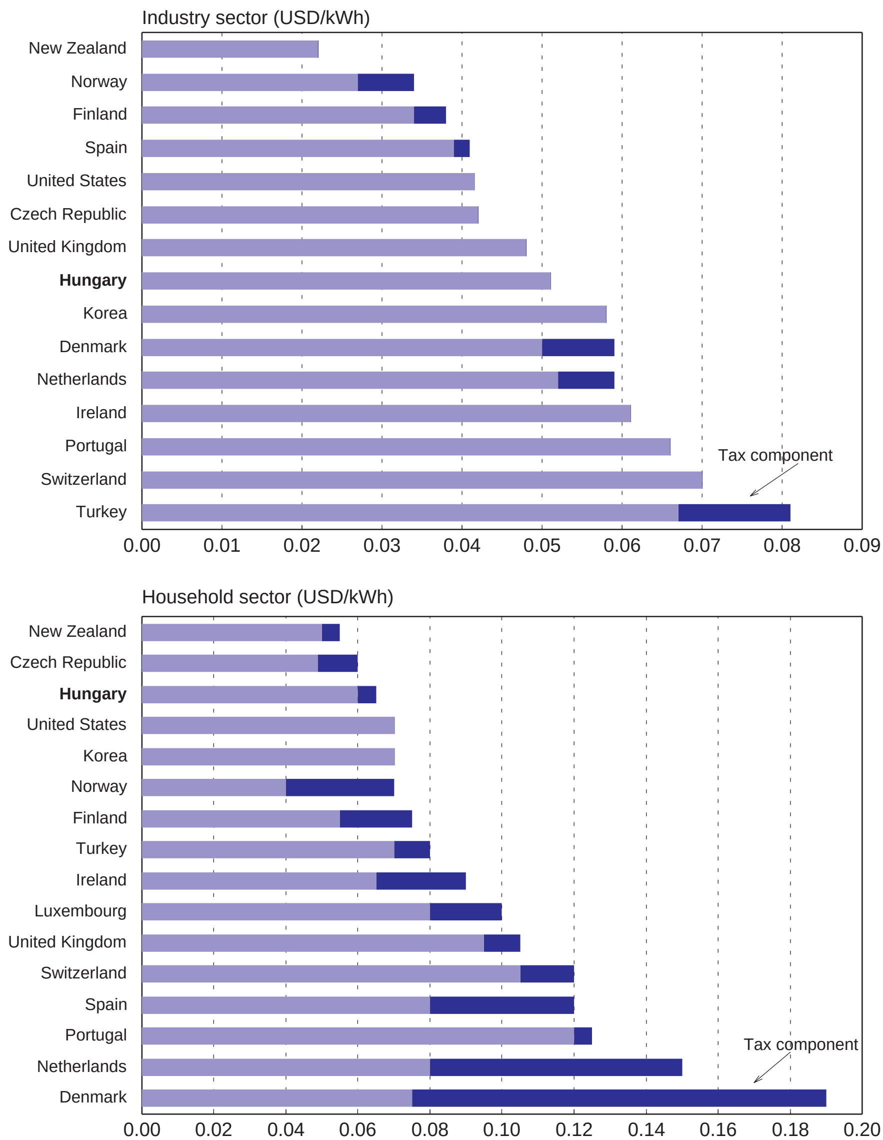
– Only few steps towards reform have been taken in some network industries. Notably, rail and postal services have remained as entirely state-owned enterprises with overstaffing problems and inefficient infrastructure.

Electricity

In the electricity sector, Hungary has begun price liberalisation (see Figure 4.4 for an international comparison of prices).[32] The Electricity Act (passed in December 2001) allows for gradual opening of the market by giving large customers the option (but not the obligation) to go outside the regulated area from 2003 on. Prices will, however, continue to be regulated (they are based on costs and are below market prices) for small users (principally households) for longer. The option for large customers will cover 30 to 35 per cent of the market in 2003. In line with the relevant EU Directive, Hungary is dedicated to liberalize the electricity market in 1 July 2004 for all consumers except households, for whom market will be liberalized in July 2007. Thus, progress at ending household-price subsidisation looks set to be slow and will be further hampered by the maintenance of the option to buy at the regulated price level. This approach is partly due to obligations that ensure security of supply and the protection of captive consumers. Preferably, such welfare concerns should be resolved *via* general transfer arrangements rather than through these price regulations. Furthermore, with rising living standards, justification for maintaining low retail prices in these activities on the basis of welfare is weakened and the authorities should look towards making households face the true market prices (IEA, 2003); this would also help achieving environmental objectives (see Chapter V).

The government is also influential in determining network access charges for new entrants to the electricity market ("third party" access charges). A greater degree of independence of the regulatory institutions would help in this area, as it would limit the influence of government pricing and also that of business interests (so-called "regulatory capture"). The only partial privatisation of the incumbent, Magyar Villamos Mvek Rt. (MVM), has also slowed the liberalisation process. Furthermore, the six distribution companies that are responsible for network operation and supply of electricity to end-users have exclusive supply areas. And, ownership is concentrated among some of the large well-known European energy companies (EDF, E.On, and RWE).

Figure 4.4. **International comparison of electricity prices, 2001**



Source: IEA (2003).

Good progress has been made in installing a separate transmission operator and there are now competing providers in generation and distribution. While electricity transmission is very much a natural monopoly, generation and distribution are potentially competitive areas. Thus an industry structure that promotes competition needs to dismantle certain types of vertical integration. In particular effective separation of transmission from the other activities is required to avoid cross-subsidisation. International experience indicates that accounting separation does not suffice, pointing to the need for legal or ownership unbundling. Legal unbundling was introduced in the 2001 Electricity Act. Similarly, for small-scale customers to benefit from liberalisation, retailing and distribution activities should be separated out. While in 2000 there was virtually no such separation, there were thirteen generation companies, one transmission company and six distribution companies in 2003. The operation of the grid is carried out by a public company (MAVIR), while the network itself is still owned by MVM (IEA, 2003). The ownership of the grid (and previous experience of operating) almost certainly gives MVM some degree of competitive advantage in distribution activities, as it has a greater understanding of the system and possibly greater means to influence the grid operator. MAVIR's responsibilities in the management and operation of the physical network should be strengthened along with the arrangements for monitoring the cross-border transmission network capacity. Current international connections are approaching capacity and the authorities should look for options to establish new lines and upgrade the existing ones. This may also contribute to increasing competition. The authorities should facilitate MAVIR's role and arrangements for monitoring the cross-border transmission network capacity.

Steps have finally been taken to prevent long-term contracts signed prior to liberalisation from stifling the development of the electricity market. Since they fix generation companies' prices and quantities, such long-term supply contracts with distributors limit the available supply and demand and thus restrict competition and the development of the market. This issue was raised during the development of the new Electricity Act but was deemed less important than the necessity to uphold the existing contracts. However, recently some measures have been taken to force the incumbent (MVM) to auction off some of its contracts, leading in June 2003 to the sale of its excess supply capacity for the second half of 2003 to six electricity-trading companies.[33] Further to this encouraging development, long-term contracts should be followed closely and more measures should be considered if necessary.

Gas services

The development of competitive markets in gas services faces a number of problems, and is a particularly crucial issue as it is an important energy source in Hungary. One problem is a lack of supply possibilities. Hungary's capacity for domestic production is limited and approximately three quarters of the gas consumed is imported from the Russian supplier GAZPROM. The structure of the international pipeline network combined with engineering limitations means that there is little prospect in the near future of competition between international suppliers (IEA, 2003). Furthermore, state-ownership in the dominant supplier, MOL, is still substantial, and the government has, at times, covered a significant part of MOL's losses through *ad hoc* payments. Indeed, the previous government backtracked on the privatisation of gas. However the new government is back on course and the political discussion is focused on when the next tranche of MOL will be sold. In September 2003, MOL initiated the examination of the possibilities and consequences of the sale of its gas business.

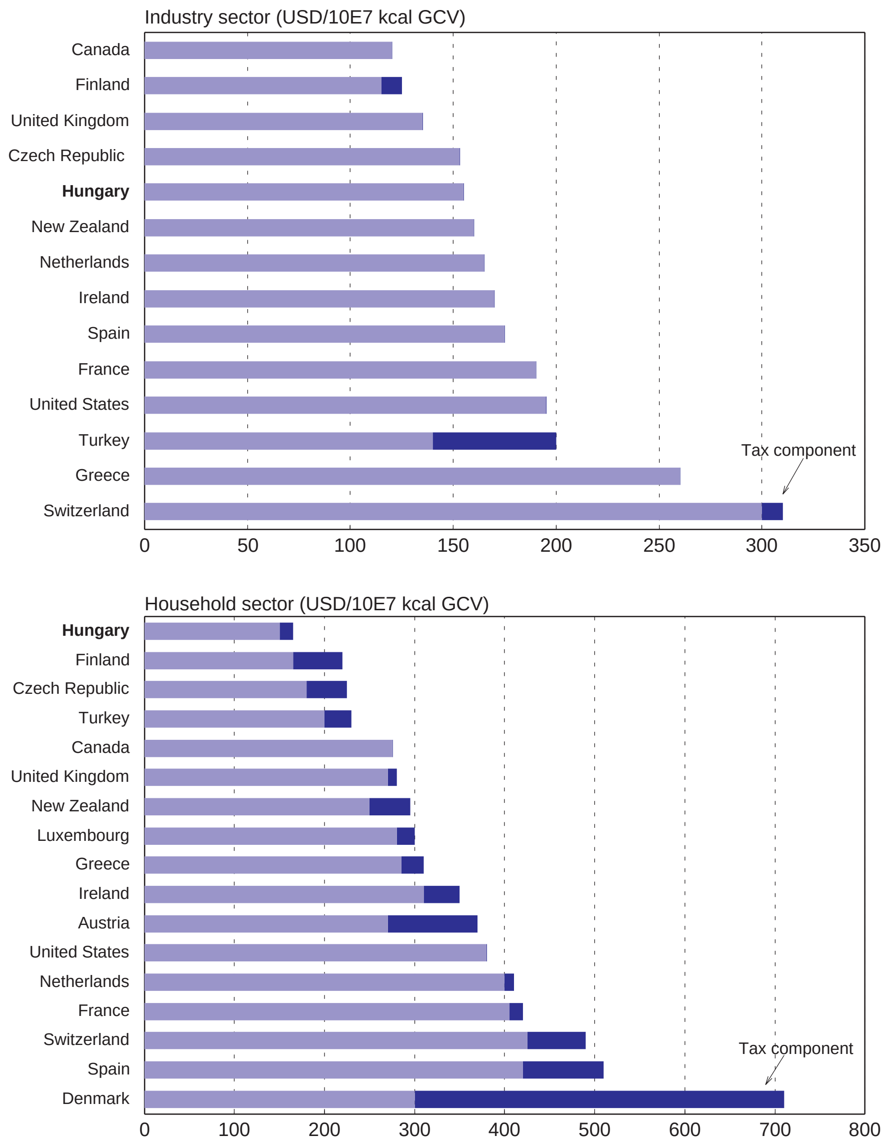
In a welcome move, a partial liberalisation of gas pricing is scheduled (see Figure 4.5 for an international comparison of prices). This has been partly prompted by the conclusion of the European Commission that alignment with the membership *acquis* in this regard has not been completed, and that legislative needs in this area need to be urgently addressed (European Commission, 2002). At present gas prices to all consumers are regulated through a system introduced in July 2002. The Energy Office proposes prices annually, based on "expected price developments and according to the principles of asset and cost-based pricing" (*op. cit.*). However, as in the electricity sector, the government plays a decisive role in price-setting, sometimes overriding pre-agreed formulas if the resulting price increases are deemed too large. New legislation, passed in June 2003, schedules an opening of a market to large consumers from January 2004 and all non-domestic consumers from July 2004.

The issue of cross-subsidisation has been tackled by stronger enforcement of separation between production, transmission and distribution functions. There are now several companies operating in the distribution market. However, there remains ground for concern about vertical integration, as MOL, the dominant gas supplier to distributors, itself operates as a distributor. MOL now supplies imported and domestically produced gas at regulated wholesale prices to six gas distribution companies, which sell to end-users at regulated prices. Unfortunately, competition between these distribution companies is likely to be diminished because of ownership structures: a handful of major European operators are key shareholders (with complex cross ownership) in five of the six gas distribution companies, along with MOL.[34] Hungary also has, along with many other European countries, a problem of ensuring that entrants have access to pipelines and storage facilities. The authorities should set up conditions that facilitate the decision by MOL and other companies to install additional gas storage facilities, *inter alia* by allowing tariffs to reflect storage costs (IEA, 2003).

Telecommunications

With technological progress making greater competition increasingly feasible in the domestic and international telephony markets, many governments

Figure 4.5. **International comparison of gas prices, 2001**



Source: IEA (2003).

are encouraging such competition to develop. Independent regulatory agencies have been established with a mandate to open markets to competition, prevent incumbents from abusing their position and avoid collusion between operators. In Hungary, gradual liberalisation started with the amendment of the 1992 Telecommunications Law, but its pace has not been satisfactory. The main fixed line telecommunication market was opened in December 2001 with some temporary exceptions, notably delay in the expiry of local telephone concessions to 2002.[35] In the run-up to EU membership, the Commission has stressed that Hungary should focus on ensuring an affordable universal service and on continuing the enforcement of the regulatory framework for telecommunications (Box 4.1). Modernisation of the fixed network is complete, but market penetration has peaked at a low level.[36] In contrast, the mobile network market has several players and high penetration. It has been acknowledged that the Telecommunication Act of 2001 is ripe for replacement and new EU-compliant legislation will be implemented from 1st January 2004.

One reason why the telecoms-sector reforms have not been very successful is because the incumbent operator, MATAV, is a significant, and often dominant, player in many of Hungary's telecommunications markets. MATAV was privatised in 1994 and is owned in majority (just below 60 per cent) by Deutsche Telekom. The monopoly of MATAV expired on 23 December 2001, and a number of large international players have since entered the Hungarian telecommunications markets (*e.g.* BT, Pantel, Vivendi). Nevertheless, MATAV remains an important, and sometimes dominant, player in certain activities. And, as mentioned above, the share retained by the government entails some considerable preferential rights. MATAV dominates the fixed telephony market. In particular, it is the dominant player in international telephony services and in long-distance domestic services. Though the regional operators also operate in national markets (including internet services and data communication services) their focus is on operating local networks. In addition, some foreign competitors in fixed-line markets pulled out from the Hungarian market, though market shares have generally passed on to other international service providers. MATAV is also the market leader in the mobile telephony market through its subsidiary Westel, although the two other mobile service providers together now have a market share over 50 per cent.

MATAV's strong position partly reflects a tilting of regulations against new entrants. Indeed, an international index of restrictions on domestic telecoms distributors developed for the Australian Productivity Commission (Findlay and Warren, 2000) suggests that the Hungarian regulatory regime to be (at least at the time of analysis) far more restrictive for domestic operators than in the European Union, where it is itself more restrictive than in the United States and Japan. For foreign distributors the study scores Hungary as even more restrictive than for domestic operators, and again markedly more than in the European Union, the United States and Japan (where the scores do not differ markedly between domestic and foreign providers).[37] The legislative changes since this analysis are likely to have improved some aspects of the outlook on the Hungarian regulatory regime. Nevertheless, recent OECD work (Golub, 2003) finds that restrictions in fixed-line services continue to be much higher than in the mobile telephony sector in Hungary, and higher than in most other OECD countries. Also, the dominant fixed-line network operator seems to be able to restrict end users' ability to choose the services of other operators, including alternative internet services. To-date, third party access to the fixed-line network has been granted through individual approvals based on cost-based assessments, and this system is to be augmented by a ministry-based negotiation committee.[38] The authorities should consider evaluating other arrangements as other countries seem to be moving away from this approach. Notably all EU-15 countries have abandoned negotiated access for regulated access (OECD, 2003c).

Actions that facilitate the liberalisation of telecoms markets have often been late-coming and steps have often been incremental, mainly because of terms of exclusive rights given in concession contracts made at the time of privatisation but also because of technical and market considerations.[39] For these, and other reasons, progress in some key aspects of telecoms markets has been limited. In particular, number portability was approved by the Act of 2001, but not implemented until January 2004 in the fixed-line segment and will be implemented in May 2004 for the mobile segment. In addition, carrier pre-selection has been given legislative backing but its market appears underdeveloped.[40] To-date, access charges and interconnection fees have remained relatively high, with the latter resulting in price squeezes on new entrants and helping the incumbent retain market share.[41, 42] Unbundled access to the local loop is provided by law, but is not used in practice, partly because of price squeezes. One factor holding back progress in these areas is that even though there is a close working relationship between the telecommunications regulator (the Communications Authority), the Ministry of Telecommunication and the Competition Office, the regulator's powers seem to have been both weak and too carefully used. The new Telecommunication Act will increase powers of the regulatory authority. In particular these powers include the possibility to apply sanctions against operators that are hampering the process of number portability and carrier selection. The new Telecommunications Act also includes measures aimed at reducing price-squeezing.

However, not all of the poor record of new entry into the fixed-line markets should be blamed on regulation.At the end of the 1990s, rapid double-digit market growth was widely projected worldwide but these expectations have since proved over-optimistic. Partly as a result of this, borrowing has been excessive in telecommunication companies. Investment was cut sharply back after 2000, but the restructuring of the telecommunication sector worldwide is now well underway (Lenain and Paltridge, 2003).

In purchasing-power-parity terms, telecommunications services are expensive relative to other countries (Table 4.3), notably mobile services

Table 4.3. **Telecommunication prices in Hungary**

Based on an OECD basket[1] of telephone charges and measured in a common currency (USD) and in Purchasing Power Parities (PPP)

Measured in	Prices compared to:[2] Euro area (USD)	Prices compared to:[2] US (USD)	Ranking[3]	Prices compared to:[2] Euro area (PPP)	Prices compared to:[2] US (PPP)	Ranking[3]
Residential	0.89	0.79	11	1.51	1.66	28
Business	0.84	0.76	11	1.02	1.24	26
Composite residential	1.03	0.88	21	1.76	1.84	26
Composite business	1.08	0.94	19	1.85	1.95	25

1. Composite baskets include international calls and calls to mobiles.
2. Ratio of prices in Hungary compared with either euro area or United States.
3. Ranking reflects the position within the OECD in 2002; a high ranking number indicates a relatively high price.

Source: OECD *Economic Communication Outlook* (2003).

(especially for high volume users) (OECD, 2003b), though this is partly because some costs (*e.g.* equipment) are independent from purchasing-power-parity terms. The seemingly weak price competition in telecommunications is affecting internet penetration which is about 18 per cent. The Hungarian central statistical office (KSH), estimates there were about 70 internet service providers servicing some ½ million subscribers at the end of March 2003, most of them using dial-up connections rather than broadband cables, though use of the latter is increasing rapidly. By autumn 2003 about one thirds of all internet connections were broadband. The penetration rate is also influenced by a low rate of computer ownership. However, increased computer and internet awareness and use are goals for the current government, and a number of policy measures are being implemented, such as tax rebates to companies who invest a minimum of HUF 100 million into broadband internet services and are profit-making at the same time. MATAV, which is set to spend some HUF 7.6 billion in the coming years and thus is the only company that comply with these requirements, will thus be entitled to deduct up almost HUF 3.2 billion from its taxes. An additional HUF 1.3 billion is available for other companies to support the development of broadband internet as well as measures to encourage households to purchase computers.

Hungary should encourage new telecommunications technologies and the development of markets given the widening possibilities of competition through competing networks in this sector. The government should press ahead with providing appropriate regulatory environment for additional new technologies, such as Universal Mobile Telephone System (UMTS), or 3G networks.[43] In a welcome move, draft plans for sale of licences have recently been presented, though services could be offered at the earliest some 18 months after tenders are submitted. The authorities should consider introducing transferability in radio-spectrum licenses, as this would facilitate market entry, spur competition and speed up the launching of this new type of network (Lenain and Paltridge, 2003).

Rail services

In rail services, Hungary has followed international trends by separating train operation from track infrastructure, though only on an accounting basis. Thus, competing operators have not yet been introduced and rail services are still exclusively provided by the state-owned railway company, MAV (OECD, 2002). The accounting separation of MAV was made in January 2003, with a division of its operations into five independent profit centres (freight services, passenger services, hauling services, rolling stock maintenance, track maintenance, infrastructure management and property management) and a cost centre (financial administration). In contrast, full ownership separation has been carried out in a number of countries while others have presented plans to conduct such a separation. The authorities should take stock of developments in these systems, particularly those that have gone a long way towards privatisation, in planning further steps towards separation and competition. EU accession will force some competition in rail services as Hungary will be obliged to begin opening them to competition.

Reform of the Hungarian rail operator needs to take into account that the current system operates at a loss and that heavy investment is required in both trains and tracks if Hungary is to have a modern network.[44] Currently MAV is accumulating losses and financing operations with government-backed loans, which are compensated on an *ad hoc* basis. This procedure does not guarantee the evolution of transport services which offers the highest value for the money invested. Some countries, where privatisation is not evident as a first best solution, have had good experiences with clearly defined service contracts, including small public-private partnerships for infrastructure.

Postal services

Liberalisation in postal services is proceeding in line with the competition *acquis*, but progress is slow and should be accelerated. Only those services which are permitted by the EU Directive remain in the category reserved for public provision (*i.e.* letters and other paper mail). The Communications Act of December 2001 is also aimed at ensuring universal service funding for postal services. The incumbent operator, *Magyar Posta* (Hungarian Post), which provides universal services and is entitled to the provision of reserved services, has started to introduce a cost-based price system and separate accounts. In its Regular Report (European Commission, 2002), the European Commission assessed the progress to be good, but stressed that Hungary needs to speed up the process in order to complete the transposition and implementation of the *acquis*. Hungary has adopted a new Act on Postal Services in compliance with the relevant 2002 EU Directive. In accordance with the timing prescribed by the directive the Act includes measures for further liberalization taking place in 2006. Hungarian Post will implement home delivery of parcels according to the requirements of the universal postal services till the date of the EU accession.

Rationalisation and outsourcing in the postal network is proceeding slowly. For example, EU-induced reforms do not have to be completed before 2009.[45] In particular, progress in rationalising services in rural areas has been limited. There has been some experimentation with mobile postal services, but attempts to close down post offices serving small communities have been successfully resisted by village councils.[46] The reform process also included measures that strengthen the incumbent: extra grants were provided where its activities were exposed to competition. And, there is still a telegraph service within the postal service, for which termination has long been explored (the main reason for maintaining the telegraph service is that telegrams are recognised as official notification documents besides official letters). Also there are no strongly proactive plans to reduce the workforce in the sector, which currently numbers over 40 000. There are no direct measures envisioned on the staff issue, but an out-placement service is operated and early retirement is used. In addition, technical and organizational developments are foreseen in order to reduce the workforce. There is no direct state aid (as "subsidies are prohibited") and prices in the universal service area are set by ministerial decree. The plan is for prices to grow to the average for Europe and then to be capped there. The authorities should rather follow the approach taken in other countries, that is, state clearly the aims of the service, calculate the cost of the public service obligation, and then finance it through a fiscal transfer.

Competitive industries

While the broad indicators of competition discussed earlier in this chapter do not suggest there is a widespread problem of weak competition, there are inevitably some sectors that generate concerns. In particular, there is ongoing debate about the development of the retail sector. And, as in other countries in the region, widespread and highly regulated professional organisations raise doubts as to the strength of competition in some activities.

Retail distribution

As in many other countries, there has been debate in Hungary on the economic and social consequences of the development of large retail chains (GHV, 2000). The debate has been prompted by the very rapid development of supermarkets over the 1990s, although the ten largest chains even now only

Table 4.4. **Outlet density in Hungarian retail shopping centres**

	Hungary	USA	Europe
Number of inhabitants per centre (thousand)	408	6.3	108
Area of shopping centres per capita	0.03	1.99	0.15
Average area (m^2)	14 000	12 198	15 673
Share from the turnover of the retail sector (per cent)	7.8	53	14.2
Weekly turnover (USD/m^2)	110	37	90

Source: GVH, 2000 (Competition, Office Bulletin, No. 3, Office of Economic Competition August, 2000).

occupy about 20 per cent of the market (40 per cent in the case of foodstuffs) and the number of large shops per capita is relatively low (Table 4.4). Hence, despite this rapid development, the market concentration is very low by international standards, and, as yet, there is little reason for concern that the retail market is becoming dominated by a few players (GVH, 2000).[47] Also, operating surpluses have been consistently lower than in neighbouring Austria. Generally there are relatively light retailing regulations in Hungary by international standards. For instance rules on shop-opening hours are liberal, as are the regulatory steps for opening new hypermarkets.

Nevertheless, it is clear that there are political pressures to protect the large number of traditional retailers and suppliers. Recently, proposals for tighter regulation of hypermarket opening hours have been presented. While these were turned down, regulation preventing sales below costs has been introduced for agricultural products. Officially, the policy justification behind this move was the need to protect suppliers such as farms and wholesalers from the strong negotiation position of big customers such as foreign retail chains. In principle, however, this measure also protects traditional retailers because it restricts the capacity of large enterprises for strategic cross-subsidisation to cut out small-scale competitors (through such measures as using agricultural products as "loss leaders"). However, the welfare gains from protecting inefficient retailers are questionable at best. Along with this protective measure, a rule has been introduced, specifying that supplier's credit in the case of agricultural products cannot exceed 30 days; this might to some extent protect small suppliers, but at the same time constrain rather than support traditional retailers.

Cross-border shopping also raises some issues for the development of retailing. Austrian shoppers are attracted by low-priced foods products and traditional Hungarian manufactures, but steady reductions in the price-difference have resulted in a decline in this activity.[48] Cross-border shopping expeditions by Hungarians to Austria has in the past been motivated by a wider variety of products and, in some cases, lower prices (notably in electronics and clothes), partly due to VAT refunds. Since 2002 there has been an increase in the volume of Hungarian shopping in Austria, possibly reflecting exchange rate movements, but also increased purchasing power due to wage increases. However this is unlikely to be a long-term trend, not least because the VAT-exemption will end with EU accession, but also because choice comparable to that in Austria is developing. In general cross-border shopping has probably helped competition in Hungarian retailing, and the levelling of the playing field with the upcoming removal of VAT exemptions will provide a healthier basis for this activity.

Turning to other areas of retail distribution, there would appear to be some room for liberalisation in the wholesale and retail markets for pharmaceutical products. Production, wholesale and retailing of pharmaceuticals is privately owned, but subject to a number of special regulations. The conditions on opening up new pharmacies are particularly strict. For instance, there are fixed limits to the number of pharmacies permitted to operate for a given population.[49] Over-the-counter medications were liberalised in July 2002, but the Ministry of Health continues to set ceilings on wholesale and retail prices margins of prescribed and non-prescribed drugs.[50] While the intention of the regulations on margins may have been to protect customers from local monopoly and to lower the cost of medical care, it has in fact often resulted in financial difficulties for pharmacies. This can affect the quality of pharmacy services, particularly in rural areas.

Professional services

Hungary has a long tradition of official professional bodies, similar to those in neighbouring Austria. And, as elsewhere, some of the rules and regulations of these bodies go beyond objectives such as consumer protection or quality guarantee and are essentially rent-seeking. While regulation in this sector in other countries typically includes some statutory frameworks, in Hungary it contains significant elements of self-regulation. A number of professions organise themselves through chambers either on a legal or voluntary basis, and membership is mandatory (Table 4.5). The chambers keep registers of members, and it is usually necessary to be on the register to act within the profession. In other professions (*e.g.* tax-experts, real-estate salesmen) membership in such associations is voluntary. Codes of conduct are widespread, and there is a proliferation of chambers that often generates restrictive practices among their members, including rules regarding prices and bids for contracts. Some of these codes probably have anti-competitive goals and effects. A reduction in requirements and specifications regarding exams, experience, nationality etc. will take place with EU accession.[51] However, restrictions are set both by decree and by the chambers, and are unlikely to be completely removed.[52] As discussed in the section on competition legislation, the competition authority is very attentive in this area.

Indeed, even organised fee setting is not illegal in all areas due to legislation that overrides competition legislation. The chambers for veterinarians and also security services, set recommended minimum prices for their members, while

Table 4.5. **Regulation of entry and conduct: professional chambers**

	Qualification	Experience	Mandatory association membership	Membership fee	Insurance	Further training requirements	Restrictions on other occupational activities	Legal authorisation: fee setting controls	Nationality	Residence	Branch office
Physicians	Higher degree	No	Yes	Yes	No	No	Yes	Recommended minimum prices	No	Yes	No
Pharmacists	Higher degree	No	Yes	Yes	Yes	No	Yes	No	No	Yes	No
Lawyers	Higher degree	3 years	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes
Notaries	Higher degree	3 years	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
Patent lawyers	Higher degree	3 years	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes
Auditors	Higher degree	3 years	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Engineers	Higher degree	2 or 5 years	Yes	Yes	No	No	Yes	Recommended minimum prices	Yes	No	No
Architects	Higher degree	2 or 5 years	Yes	Yes	No	No	Yes	Recommended minimum prices	Yes	No	No
Veterinary surgeons	Higher degree	1 year	Yes	Yes	Yes	Yes	Yes	Recommended minimum prices	No	Yes	Yes
Phyto-chemestry experts	Higher degree	No	Yes	Yes	No	Yes	Yes	No	Yes	No	No
Judicial executors	Intermediate degree	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes
Judicial experts	Higher or intemediate	5 or 10 years	Yes	Yes	No	Yes	No	Yes	No	No	No
Security services	Professional exam.	No	Yes	Yes	Yes	Yes	Yes	Recommended minimum prices	Yes	Yes	Yes

Source: GVH.

engineers and architects operate with recommended prices. For the legal professions, such as notaries, bailiffs and some legal experts, there are also fee-setting controls. While regulations may be necessary to ensure quality, they may also have the less desirable effect of eliminating or restricting competition. Price co-ordination is inappropriate, especially when it goes against the intentions in the general competition legislation, and a better balance needs to be struck between the interests served by regulation and the need to ensure competition. To increase competition in these areas, measures should focus on removing exemptions from the competition law and on the forceful application of the law.

Other policies affecting competition

Accession to the European Union alters the landscape of Hungary's structural policies in many ways. In particular, subsidies and state aid (particularly in agriculture) and regulatory mechanisms such as parallel imports will change, sometimes dramatically. Hungary was an early starter on establishing a system for increasing the efficiency of public procurement, especially on making sure that competitive bidding took place. But while procurement as a share of GDP is now very high by international standards, the current system has not succeeded in raising the share of procurement advertised in the market above the average for EU countries.

The overall level of targeted support to industry in the form of tax expenditures and subsidies is high but not exceptional by international standards. However it is quite broad ranging. Tax expenditures have been the main instrument used to attract foreign investment while subsidies and other forms of aid are common for domestic industry. As a result, the landscape of incentives determining what is produced and by whom departs dramatically from the relatively neutral stance implied by the standard corporate tax system. It is difficult to get an overall gauge of the level of targeted support. It appears the level of state-sourced subsidies ("state-aid") is not exceptional by international standards, although there is a need to bring certain aspects of aid policy in line with EU guidelines.[53] Sectoral and *ad hoc* state aid was estimated to represent 0.66 per cent of GDP in 2000, just below the European Union level average of 0.69 per cent (Eurostat structural indicators).

As a consequence of the accession *acquis* and EU rules on state aid, legislative changes became effective in January 2002 that include a general prohibition of state aid with exemptions containing the basic principles of state aid control. The legislation also provides for increased control and monitoring of aid granted by local authorities, since 1 January 2003 the state aid control has applied to the local authorities as well. Staff levels in the State Aid Monitoring Office within the Ministry of Finance have been increased and additional training activities implemented. Despite these reforms the European Commission remains critical, in particular because of Hungary's fiscal aid policy (European Commission, 2002).[54, 55] In particular, the Commission argues that increased awareness of the rules on fiscal aid is needed, especially among government aid grantors, the business community and the judiciary. The commission also criticised state aid policy for having legislation that does not allow for full control of fiscal aid and does not include a regional aid map with acceptable maximum aid intensities. An immediate closure of incompatible fiscal aid schemes was required, and a conversion of the "tax holidays" that attracted foreign investors (most of them lasting until 2011) into aid arrangements that are compatible with the *acquis*. A number of measures have been taken towards these goals, including changes in the tax incentives (see Chapter III) and the development of a regional aid map. The latest assessment by the Commission on state aid concludes that both the implementing structures and enforcement record are generally satisfactory, but underlines the need for further amendments to fiscal legislation regarding individual fiscal benefits to large companies to fulfil the *acquis* (European Commission, 2003a).

Tax expenditures and subsidies

While much effort is being put into making sure state aid measures conform to EU rules, less attention is being paid to broader questions of cost efficiency and long term impacts. Hungary has state aid schemes, and is receiving aid from the European Union's central funds. It is evident that these funds are not always being used in the best possible way. For example, Phare-supported installation of gas connections to develop tourism in areas was carried out without ensuring that other essential services such as water or electricity services are also available. To make better use of these schemes, it is clearly important to look beyond the formal issues raised by the need to conform to EU legislation and assess their efficiency. Also, there should be more investigation as to whether the policy objectives of state aid could be attained in less costly ways, for example by introducing evaluation procedures.

Agricultural support

Agriculture remains a significant, though declining, part of the economy and also has a high profile in policy debate. The share of the workforce in agriculture has fallen from 20 per cent in 1985 to a little over 5 per cent, close to the European Union average of 4.4 per cent, while about one third of the population lives in rural areas. The OECD Producer Support Estimate shows the percentage of public support in the total value of production at farm gate prices is 24 per cent in Hungary, compared with 35 per cent for the EU and 31 per cent for the OECD. But the share of producer support arising from strongly production-distorting or trade-distorting policies is estimated by the OECD at about 90 per cent in Hungary for 2000-02, compared with about 70 per cent in the European Union.[56] The final agreement on the Common Agricultural Policy (CAP) reached at the end of June 2003 aims to increase de-coupling and cross-compliance, but it contains clauses that allow the maintenance of payments linked to acreage and livestock numbers so that restructuring of Hungarian agriculture might not be rapid.[57] However, this will depend on the attitude of the Hungarian authorities to decoupling. On balance, Hungarian farmers are expected to receive a higher producer price for cereals than before (despite a small reduction in the average intervention price). The authorities have chosen to introduce the CAP's Simplified Area Payment Scheme rather than the classical direct payment scheme. Analysis from the Commission (European Commission, 2003b) suggests that CAP reform will likely secure income gains in the new member States. While farmers' income from market activities is estimated to increase by 17 per cent in real terms between 2002 and 2009, the total real income increase, including direct payments and rural development payments, could be more than 45 per cent.

Parallel imports

Competition in Hungary is enhanced by the absence of restrictions on parallel imports on a global basis.[58] EU membership will, if anything, reduce the discipline that parallel imports bring to markets. Exemptions to parallel imports within the European Union area and parallel import restrictions on non-EU imports, for example *via* the European Union's trade mark law, will apply. While the impact of these restrictions on competition and other aspects of the economy is complex to evaluate, negative effects are likely to be limited as only branded goods are affected.

Competition in publicly funded services

Public procurement is a substantial part of the economy, with one of the highest ratios of public procurement to GDP at close to 30 per cent against an OECD average of 20 per cent (Table 4.6).[59] Hungary has been one of the first countries to set-up an independent public procurement council (*Közbeszerzések Tanácsa*), comprising members from the national competition authority (representing "public interest"), purchasers and suppliers (18 members in total). The Council issues a weekly journal that contains procurement tender invitations and guidelines. There is also an independent body handling appeals and complaints on procurement (the Procurement Arbitration Committee). About 80 per cent of the advertised procurement is made through open bids (alternatives are invitation and negotiated bids). While this structure is commendable, the ratio of advertised procurement to total procurement of about 16 per cent is about the same as the European Union average (see Kozbeszerzes, 2003, and OECD *Economic Survey of the Euro Area* 2003).

Table 4.6. **Total expenditure (consumption and investment)**

(% of GDP)	Total expenditure (TE)				TE less compensation				TE less compensation. and defence	
	General	Central	Local	Social	General	Central	Local	Social	General	Central
Canada	25.8	4.6	22.3	0.0	11.5	1.7	8.8	0.0	10.4	0.6
United States	19.5	6.9	12.6	0.0	8.8	3.7	5.1		6.2	1.1
Australia	20.0	5.7	14.8	0.0	8.9	2.1	5.8		7.6	0.9
Japan	16.8	3.5	13.0	0.2	9.4	1.9	7.6	0.1	9.0	1.3
Korea	16.2	6.8	9.0	0.2	9.1	3.9	5.1	0.1	7.2	1.9
New Zealand	18.1									
Austria	24.7	7.7	12.6	4.4	12.2	2.8	5.7	3.7	11.7	2.3
Belgium	17.2	10.1	5.6	0.9	5.4	2.5	2.0	0.3	4.8	2.0
Czech Republic	24.9	9.3	8.4	5.3	17.0	4.5	6.5	5.2	15.7	2.7
Denmark	28.3	8.7	19.3	0.3	10.6	3.3	7.2	0.1	10.0	2.8
Finland	25.6	8.6	18.8	1.5	9.6	4.2	7.4	1.2	9.0	3.6
France	23.1	11.0	7.3	4.7	9.1	3.2	4.2	1.6	7.6	1.8
Germany	17.8	2.9	13.8	1.1	7.3	1.5	5.4	0.4	6.7	0.8
Greece	18.6	13.0	1.6	3.2	7.3	4.3	0.8	1.3	6.7	3.8
Hungary	**29.8**	**13.5**	**13.8**	**2.2**	**18.3**	**8.6**	**7.4**	**2.1**	**16.8**	**7.0**
Iceland	25.8	14.0	8.2	2.7	12.9	4.8	5.1	2.1	11.8	3.6
Ireland	20.8	8.7	11.7	0.3	10.1	2.7	7.1	0.1	9.9	2.6
Italy	20.0	10.0	9.7	0.7	8.0	2.7	4.9	0.4	7.4	2.1
Netherlands	18.7	7.7	10.2	0.9	9.0	3.7	4.9	0.4	8.0	2.7
Norway	25.4	9.6	16.1	0.0	11.4	5.6	6.1		9.7	3.8
Poland	22.6									
Portugal	21.0	16.4	4.4	0.5	7.2	4.8	2.6	0.1	6.2	3.8
Slovak Republic	25.1	18.1	3.7	3.3	15.3	9.5	2.8	3.0	14.1	8.2
Spain	20.5	7.1	8.9	4.5	8.7	2.6	4.4	1.6	8.1	2.0
Sweden	33.2	10.7	23.1	0.0	14.6	6.3	9.0	0.0	13.0	4.7
Switzerland	19.6	3.4	15.7	0.3	8.6	2.1	6.2	0.1	8.0	1.5
Turkey	17.7	14.8	2.1	0.0	7.5	5.6	1.1		6.8	5.0
United Kingdom	25.2	14.6	9.7	0.2	13.1	9.0	3.3	0.1	10.0	5.9
OECD simple average	**22.2**	**9.8**	**11.0**	**1.7**	**10.3**	**4.2**	**5.2**	**1.1**	**9.2**	**3.1**
OECD weighted average	**20.0**	**7.1**	**12.1**	**1.2**	**9.2**	**3.4**	**5.4**	**0.5**	**7.6**	**1.8**
EU weighted average	**21.5**	**8.9**	**10.8**	**1.8**	**9.2**	**3.8**	**4.7**	**0.7**	**8.0**	**2.5**

Note: These ratios were calculated on the basis of data submitted by OECD member countries. The observation year differs between the individual countries. Estimates were made for missing national data. Please refer to assumptions and methods used in the source.
Source: Audet (2002).

Exemption from tendering rules, notably for utility companies and large-scale public works, has undoubtedly contributed to some of the widely published instances of unscrupulous behaviour in the tendering and management of public sector contracts. Notably scandal surrounding motorway construction led to amendments in the tendering rules for this activity in July 2002.[60] Generally, information on the winning bid is not publicly available and fines for misconduct arguably remain too low (OECD, 2002). Further, some observers argue that there are other problems in public procurement, *inter alia* lack of control regarding fulfilment of contracts, lack of supervision of relations between contractor and sub-contractor, weak regulation of cases of combined interests between purchaser and provider, and lack of legal competence in pre-qualification assessment (Open Society Institute, 2002). In addition, off-budget procurement through, *inter alia*, the Hungarian Development Bank and the State Privatisation Agency (APV), has been a cause for concern in the past. However, recent changes to these institutions appear to have reduced this problem. Public procurement rules also feature among the complaints of foreign investors along with other aspects of red-tape.

Following rather mixed experiences in the 1990s, arrangements for public-private partnerships (PPPs) are now being further developed. One of the first motorway concessions arrangements, the building of the motorway between the Austrian border and Gyor, had to be re-nationalised in 1999. A major problem was that projects were not sufficiently submitted to competitive pressures. In other cases, the government had (implicitly or explicitly) underwritten the projects, and ended up bailing them out. Within the framework of recent efforts to introduce PPPs an inter-ministerial PPP committee was set up in June 2003, comprising the Prime Minister's Office, the Ministry of Economy and Transport, the Finance Ministry, the Justice Ministry and the Central Statistics Office. This committee has been working on establishing a new legal and administrative framework for PPP projects. The establishment of a clear framework would be welcome and should be combined with building experience, through both small projects in various sectors (*e.g.* prisons, student hostels, cultural centres, etc.) and large infrastructure works.

Conclusion

Hungary has made considerable progress in establishing competitive markets, especially considering its starting position in the early 1990s. It has liberalised a considerable number of markets and differs very little from other OECD countries in terms of broad measures of competition. Indeed, there are no grounds for concern about widespread monopoly or cartel practices and the government has not sheltered industry through standard protectionist measures. However, it is clear that problems remain in specific sectors. In particular, the reform of network industries has been sluggish in some important respects. The small size and low productivity of much of Hungarian industry also implies low exposure to forces of change, through competition or other means. Box 4.2 summarises the policy recommendations that would help to resolve these issues.

Box 4.2. Recommendations to enhance competition

Competition legislation and enforcement

- Introduce the **right of individuals** to enforce Hungarian competition law before the courts. This would avoid differences between EU and Hungarian competition laws that could result in unnecessary jurisdictional disputes. Such a move could also free up some capacity for the GVH by reducing the number of individual complaints.
- Consider introducing **sanctions** against individuals as a mean of increasing the power of competition law to deter hard-core cartels.
- Create a separate unit within the GVH for **consumer fraud** cases. This would make case-handlers more productive by allowing them to specialize and would make enforcement of competition and consumer fraud cases more effective.
- Transfer the rate setting authority in the area of **cable television** to a regulatory authority, such as the telecommunications regulator. This would relieve the GVH from a large number of excessive-price cases that require significant resources and are difficult to win with competition law instruments.
- Introduce a number of **procedural reforms**: *i*) accelerate decision making, particularly in merger cases that do not raise substantial competition concerns; *ii*) review the monetary notification thresholds to ensure that small transactions that are unlikely to create competitive harm are not subject to a notification requirement; *iii*) review the time allowed for cartel investigations; and *iv*) give the GVH greater flexibility to deal with individual complaints by extending the statutory review periods, or by increasing the GVH's discretion to open a full investigation following a complaint (preferably accompanied by a right of individuals to enforce Hungarian competition law before the courts).

Regulation policy in network industries: general recommendations

- Increase the strength and efficiency of **industry regulators**: *i*) insulate their decisions (particularly pricing decisions) from political and budgetary interference and capture by interest groups; *ii*) modernize the regulatory institutions by ensuring that they make their decisions based on market information rather than technical regulation.
- Phase out the maintenance of low regulated **retail prices for households** in gas and electricity, and allow the retail price to reflect market rates. This would be helped by making regulators more independent. Answer welfare concerns by alternative means.
- Further reduce the role of government in determining **network access charges.** Again, a more independent role for the regulator would help in this regard.

Box 4.2. Recommendations to enhance competition (*cont.*)

- Continue to reduce the size of **government shareholdings**, and remove some of the preferential rules on the shareholding.
- Strengthen the independence of **network operators** in particular in the electricity and gas sectors.

Regulatory policy in network industries: sector-specific recommendations

- **Electricity.** Monitor long-term contracts and take steps to dismantle them if they are preventing effective markets from developing. Increase connection to the international grid so as to increase the capacity for competition.
- **Gas sector.** Assess the gains from reducing vertical integration through the break up of MOL. Facilitate the installation of additional storage facilities.
- **Telecommunications sector.** Reduce the power of the incumbent, particularly in fixed-line services, by better enforcement of competition legislation in carrier selection, prices squeezes and interconnection fees. Encourage the development of competing networks, for example by introducing radio spectrum licences for 3-G phone networks.
- **Rail services.** Advance further towards privatisation and liberalisation, *inter alia* introduce a fully independent network operator, and set-up mechanisms to allow competition on train operation.
- **Postal services.** Address more rigorously the problem of over-staffing and non-viable rural post offices.

Regulatory policy in competitive industries

- **Retailing.** Abandon the policy of regulated minimum prices for certain food products.
- **Professional services.** Reduce entry restrictions and price-setting by chambers.Allow competition law to operate in the professions with less overriding legislation.

Subsidies and state aid

- Bring fiscal aid in line with EU recommendations.
- Engage in more comprehensive evaluation of the costs and potential benefits of subsidy and aid programmes.

Public procurement

Strengthen the tendering process with the aim of moving provision away from incumbent providers, particularly in local and regional government.

Notes

1. See the OECD's framework paper on competition issues for further discussion on competition indicators, OECD (2002).
2. Comparisons of mark-ups across industries are potentially affected by differences in the treatment of sunk costs. In some cases they are included in the total cost, in others not (see Oliveira Martins *et al.*, 2002 for more detail).
3. Under a national exhaustion regime, parallel importing is prohibited. In contrast, parallel importing is in principle unregulated in jurisdictions applying an international exhaustion regime. Community (or regional) exhaustion is the intermediate case, where parallel importing is allowed between the countries that make up the community but prohibited from countries outside it.
4. Adjustment for GDP per capita is made because of a tendency for higher service-sector prices in high-income countries. For example, wages in low-productivity service sectors may be determined by wages in high-productivity manufacturing sectors, resulting in relatively high prices for services. Since the relative demand for services tends to rise with per capita income, higher income countries will tend to have systematically higher price levels than lower income countries.
5. Interestingly, Schoors and Van der Tol (2002) find that while domestic producers specialising in exports tend to have responded positively to FDI-based competition, those selling in the domestic market tend to be negatively affected by the presence of FDI-based competitors, suggesting that the latter are unprepared for foreign competitors and easily loose market share.
6. For instance, Schoors and van der Tol (2002) find that quality enhancements among local input suppliers to FDI-based firms seem to affect other users of these inputs positively.
7. Based upon a large database of Hungarian enterprises, S*gard* (2001) finds that productivity spillovers are much stronger in the north-western part of country (between Budapest and the EU border) than elsewhere. The paper also finds that foreign and Hungarian firms share the same volume of externalities in the north-western region whilst elsewhere the benefits are reduced by 30 per cent for foreign firms and appear to be very low for Hungarian firms.
8. The GVH it is not subject to government instructions, and reports only to the Parliament.
9. The investigating sections of the GVH are responsible *inter alia* for: the investigation of complaints, decisions whether to initiate cases, case file preparation, the submission of a report to the Competition Council, and compliance review. Decisions are adopted by the Competition Council (which by law has full independence within the GVH) after a trial-type public procedure, although the trial may be omitted if all parties consent.

10. The GVH's staff has slightly increased in the recent past and currently consists of approximately 120 employees. Compared with similarly situated countries in the region, the number of employees is about the same in the Czech Republic and but half the size in the Slovak Republic.
11. OECD (2003b), p. 6. and OECD (2001) p. 187.
12. Courts in the first and second instance reversed several decisions by the Competition Council in 2002, reduced fines in others, and remanded other cases for further proceedings to the GVH (GVH, 2003, p. 5). The launch of appeal procedures used to entail the suspension of decisions on fines, thus adding incentive to appeal. Since the reforms in 2001, however, decisions imposing fines are immediately effective.
13. The Public Procurement Council is independent of the GVH.
14. See, *e.g.*, OECD (2001) p. 184 and p. 204.
15. As in competition law, consumer fraud can be unlawful only if it has an "effect on competition". Another agency with no experience in the enforcement of general competition law might more willing to adopt a softer approach and apply the law in situations where competitors complain about aggressive business practices, but no harm to competition can be found.
16. Following EU demands during the accession process, Hungarian legislation provides that provisions in agreements that appreciably restrict competition are prohibited and unenforceable, unless exempted by way of individual decision following notification, or by compliance with the terms of a block exemption. The EU's approach to restrictive agreements, however, will change in 2004. Agreements will be valid and enforceable, unless the Commission, a court, or a competition authority finds the contrary. The possibility of obtaining individual exemptions following notification will be abolished. To maximize harmonization between the two systems and minimize disputes as to which of the two systems applies to a specific agreement, it appears advisable that Hungary follows the example of other EU Member States and consider implementing the same changes in Hungarian competition law.
17. Hungary's EU membership may facilitate the GVH's task in these types of cases. To the extent that certain practices are shielded from the application of competition law by Hungarian statutes and regulations, the GVH would be able to apply EC competition law to challenge practices that restrict competition and are capable of affecting intra-Community trade.
18. The GVH opposed the law on retail agricultural produce prices because of its anti-competitive effects. It also considered the law unnecessary because, despite increased concentration on the retail level, there was no evidence that the level of concentration already had reached levels that could have negative effects on competition (see main text on the retail sector). Even though it opposed the law, the GVH has indicated that its enforcement practice concerning vertical restraints will in the future focus on buyer power and the economic effects of restraints imposed on suppliers. It has emphasized, however, that enforcement action would be justified only in cases where buyer power actually has harmful effects on competition, and not in those where the size of a company worries a competitor or supplier.
19. Moreover, in the long term it cannot benefit the GVH's standing if there is a group of cases where it consistently fails to solve problems that affect a great number of consumers.
20. Because the new Telecommunications Act implements a European Union directive, it must be ensured that its interpretation is consistent with Community law.

21. The GVH can also bring action against acts and regulations before the Constitutional Court and in two cases has successfully used the threat of such an action to prevent anti-competitive measures (preferential customs duty regime for Ford Transit; discriminatory fee by the Hungarian Post for the establishment of newspaper kiosks by new entrants).

22. The new investigative powers of the cartel unit include the right to conduct dawn raids to secure incriminating evidence, investigate private premises of corporate officers, and take oral testimony. This was among the recommendations of the OECD Report (OECD, 2001 p. 189). To ensure that the message about basic principles of competition law as well as effective competition law enforcement reaches all market participants, the new cartel unit has prosecuted several smaller, local cartels, in addition to national cartels. The elimination of the statutory exemption of agreements of minor importance that contain hard core restrictions was another element in the effort to prosecute cartels more aggressively.

23. Drawn-out proceedings in a coffee cartel case may have also made the GVH cautious in its fining policy. In 1994 the GVH imposed a very significant fine of almost HUF 400 million on participants in a coffee cartel. The appeal process in this case has continued for many years and in the latest development the Metropolitan Court ordered that the entire case be re-examined. The GVH has appealed this decision to the Supreme Court.

24. There would be a risk that anti-cartel enforcement could become more difficult if the current system of administrative corporate fines was replaced with sanctions against corporations and individuals that are exclusively based on criminal law, in particular because of higher standards of proof that apply in criminal cases. Various options could be considered to avoid such a risk: first, certain sanctions against individuals could be included in the current enforcement system, thus enabling the competition authority to impose sanctions against corporations and individuals in the same procedure, second, criminal sanctions, including imprisonment, could be introduced in parallel to the current system of corporate sanctions. Such sanctions would have to be enforced by the institutions involved in criminal law enforcement, with a possible supportive/advisory role of the GVH and coordination between the two enforcement systems.

25. At present, individual enforcement of competition law claims before courts is not possible. Nor can courts grant interim relief. Individuals can bring actions for damages resulting from violations of competition law, but must first obtain a decision by the GVH finding an infringement.

26. As of 2004, a private party will be able to assert in a contract dispute before a Hungarian court that restrictions in an agreement are invalid because they infringe EU competition law, provided it can demonstrate that the agreement in question is capable of affecting intra-Community trade (the same principles will apply in cases concerning abuses of a dominant position.). Depending on the facts of the case, the party also might claim damages. In contrast, in the absence of effects on intra-Community trade, only Hungarian law will be applicable to restrictive agreements. Courts will have no jurisdiction to decide the competition aspects of a case, and a plaintiff first will have to obtain a decision by the GVH before it can sue for damages in court. Disputes about jurisdiction appear unavoidable in those circumstances, even though the substantive rules are largely harmonized. The ability of Hungarian courts to treat claims under EU and Hungarian competition laws alike would greatly facilitate enforcement efforts by individuals. If a right of individual action were introduced, giving the GVH the right to appear before Hungarian courts in an advisory role ("*amicus curiae*") should be considered to ensure consistent application and development of Hungarian competition law.

27. The Competition Act initially provided for a set of firm, and generally rather short review periods. The 2001 reforms introduce some changes, but the current experience suggests that the mix of different review periods could still be improved. The Act currently allows for a 45 day review period which can be extended by 60 days for cases that do clearly not raise competitive issues. However, the average review period for these cases was 57 days in 2002. This suggests that several relatively simple cases were decided after a review period that exceeded two months. This is long by international standards. The International Competition Network (ICN) recently adopted Recommended Practices for Merger Notification Procedures that address review periods. The Best Practices suggest that the review of cases that do not raise material concerns should be concluded within six weeks or less. In many other European jurisdictions, the first phase review must be completed within one month or thirty days. While the statutory deadlines in Hungary are reasonably close to the ICN's suggested review periods, the review periods are considerably longer in practice.
28. GVH (2001), p. 22.
29. A more radical solution would be to give investigators the power to terminate merger review procedures after (say) a one month review period if the case raises no material concerns, without need to obtain a decision by the Council. This power could be modified by requiring a decision by the Competition Council if the investigator and the parties have agreed on a remedy to resolve competition concerns during the initial review period.
30. Hungary has not revised its notification thresholds since the current Competition Act was adopted in 1996 which suggests that today the thresholds capture a larger number of small transactions than was intended when the thresholds were initially adopted. See GVH (2001), p. 14.
31. For example, investigations of international cartels by the European Commission typically take several years before the Commission is available to issue a decision.
32. The government is able to influence prices because although the sector regulator, the Energy Office (MEH) calculates and proposes prices, the final decision is made by government (the Ministry of Economy and Transport).
33. For this auction, MVM set up an 85 MW "Virtual Power Plant" and auctioned the 85 MW of capacity, or the 375 GWh of electricity it could produce. Electricity purchased at the auction cannot be exported directly or indirectly. The starting price was Ft 7/kWh and deals were struck around Ft 8/kWh.
34. Out of the six companies, GdF has a majority in two (DÉGÁZ and ÉGÁZ), Ruhrgas and RWE own one together (DDGÁZ) while RWE has also holds large parts of the equity of two others (FGÁZ and TIGÁZ, which is dominated by Italgas). The remaining company (KGÁZ) is dominated by E.ON Hungariá and EVN. MOL owns around a third of DÉGÁZ and ÉGÁZ.
35. In its 1997 Opinion, the Commission concluded that Hungary should have little difficulty in adopting the EU model of telecommunications liberalisation in the medium term because it had already implemented most of the *acquis*. It added that if foreign investment continued at its current pace and if a tariff-rebalancing scheme was introduced, the sector should be able to face full competition.
36. About 40 per cent of the population and about 70 per cent of households subscribe to fixed telephony services. The number of mobile subscribers reached nearly 8 million by autumn 2003, implying a penetration rate exceeding 70 per cent. About 15 per cent of households are estimated to be internet subscribers.

37. The index of restrictiveness on telecoms companies summarises the nature and extent of restrictions on establishment and on ongoing operations. Scores range from 0 to 1, with greater stringency of a restriction raising the score. Among domestic operators the study scored Hungary at 0.28, the euro area at 0.15, the United States at 0.03 and Japan at 0.04. For foreign operators the index for Hungary is even higher at 0.53, against 0.26 in the euro area. In the United States and Japan the index does not differ between domestic and foreign providers.
38. Fixed-line approvals for new entrants were based on a fully distributed cost methodology in 2002 and from 2003 onwards on a long-run incremental cost methodology. Legislation to provide a cost-based system for calling mobile phones to fixed-line phones and vice-versa is under way.
39. Exclusive rights were included in the first wave of the privatization process in 1993 and 1994. The exclusive rights expired in December 2001 for MATAV, and November 2002 for local telephone operators.
40. One of the targets missed by the current Telecom Law was the stipulation that number portability in the fixed-line segment should be in place by January 1, 2003. In July 2003, the cabinet approved a proposal by the IT and Telecommunications Ministry for a decree on number portability.
41. Before 2002 user tariffs and interconnection fees had been controlled by the State and as such they had not been subject for competition legislation and competition authority. The Act of 2002 liberalized interconnection fees, however, because of market externalities, only a gradual price decrease can be achieved by a series of regulatory measures.
42. If the margin between the consumer tariff that the incumbent is charging and the interconnection tariff (procurement cost) that other providers have to pay, is too low, the new entrants cannot offer their services profitably. This is referred to as a price squeeze.
43. Among the range of new technologies, some such as MMS have already been introduced in Hungary. MMS services were introduced in May 2002.
44. Inadequate financing of public service obligations and a sharp reduction of demand and revenues has resulted in a huge backlog of development and maintenance of the national railway company.
45. The latest step taken in the EU was the adoption of the New Postal Directive in June 2002, which liberalises (from January 2003) the delivery of letters weighing more than 100 g (or costing more than three times the price of a standard letter) and all outgoing cross-border mail (except for Member countries that prefer not to), to be followed three years later by letters weighing more than 50 g (or costing more than two and a half times the price of a standard letter). The new Directive sets 1 January 2009 as a possible date for the creation of an internal market for postal services, but this will require later confirmation (or can be changed) by co-decision procedure. See OECD *Economic Survey* of the euro area, 2003.
46. The Magyar Posta originally planned to close all of its unsuccessful offices in 200 villages with a population of less than 600, but due to pressure from village councils this has been postponed.
47. The link between concentration and competitive pressure is complex in retail distribution and differs from other industries. Dobson *et al.* (2001) argues that greater concentration may benefit consumers through lower retail prices owing to increased monopsony power of the retail sector *vis-à-vis* manufacturing producers with (otherwise) dominant positions. The scope for anti-competitive behaviour is also often limited by the threat of entry and by increasingly mobile consumers.

48. The number of Austrians coming to Hungary had decreased by 8 per cent in January 2003 compared with the previous year.
49. Ownership of pharmacies is restricted to limited companies, where all active partners have to be pharmacists (and at least one must hold a "personal right to operate a pharmacy"). Pharmacies must serve at least 5000 inhabitants and may not be closer than 250 meters from another pharmacy in cities and 300 metres in towns.
50. While the ex-manufacturer prices were liberalised, wholesale and retail prices are still matter of regulation; there is a maximum margin of wholesale and retail prices of drugs, and retailers can competes inside this limit. In the case of subsidized pharmaceutical products, part of the price to the retail customer is reimbursed by the Health Care Fund. The prices are negotiated between the National Health Insurance Fund, the Ministry of Finance and the manufacturer. In case of non-reimbursed products, there is only an information obligation by the manufacturer or the importer to the Ministry of Health and Social Affairs.
51. The free flow of goods and people across the Europe was one of the bases for the original Rome Treaty. In addition to existing directives, this will also be strengthened by the Directive on the recognition of professional qualifications and the Directive on services in the Internal Market. The Commission's upcoming extension of the screening mechanism for draft national technical legislation to cover services (European Commission, 2003) will also reduce the possibilities of operating national barriers.
52. In some sectors, notably health, there will be full recognition of qualifications and in principle no restrictions to qualified EU nationals working in Hungary.
53. "State-aid" is a term with specific meaning in EU policymaking. Importantly, it comprises subsidies (in the form of grants, subsidised loans etc) that are provided by the state and not by other authorities. For example, funds provided through the EU's Common Agricultural Policy (CAP) are not counted as state aid. Hungary has already been receiving pre-accession aid from the EU. Over the period 2000-2002, Hungary's annual allocation is € 96 million for Phare, € 38.1 million for SAPARD (agriculture and rural development) and between € 72.8 and 104 million for ISPA (infrastructure: environment and transport).
54. In its 1997 Opinion, the Commission concluded that more needed to be done to achieve the degree of transparency required and that the role and powers of the monitoring authority had to be clearly defined to ensure the compatibility with the Community rules of the aid granted. Furthermore, the Commission noted that a considerable effort would be necessary to fulfil the requirements in the field of state aid over the medium term.
55. Hungary's annual state aid report for 2000 was presented to the European Commission in April 2002.
56. The OECD's most recent publication on agricultural policies estimates that annual average direct and indirect support for agriculture was 2.7 per cent of GDP in the period 2000-2002 (OECD, 2003, p. 243). The calculation of the share of producer support that is strongly distorting is based on the sum of market price support, payments based on output and payments based on input use (see OECD, 2003, p. 219).
57. De-coupling involves the separation of payments from specific activities (notably production of food products) and cross-compliance involves the compliance to minimum standard requirements across all areas receiving payments (*e.g.* production, set-aside, environment). The CAP reform includes a shift towards a single farm payment independent from production, linked to the "respect for environmental, food

safety, occupational safety and countryside stewardship". At the same time, countries are allowed to keep part of the support as payments linked to current planted area and livestock numbers. Other aspects of the reform include the reduction of direct payments according to farm size and the establishment of a stronger rural development policy.

58. Parallel imports refers to imports in products which take place outside the official distribution system set up by a particular firm, exploiting the differences of prices in different countries.

59. Audet (2002) estimates that one third of total public procurement (consumption and investment) is potentially open to international trade. In most Member countries, procurement by sub-central government is larger than procurement by central government by about two to three times, but in Hungary this split is even. The Hungarian overall ranking in the OECD is stable, whether measured as total expenditure (consumption and investment), as total expenditure less compensation, or as total expenditure less compensation and defence.

60. Problems with motorway construction began with severe conflicts of interest. The construction projects were not subject to standard public procurement procedures and the sub-contracts were severely criticised. The new government has brought motorway construction under public procurement rules. However, even since then, these construction projects have been criticised for cost overruns, as well as for other problems.

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V. Sustainable development

There is growing concern that long-run sustainable development may be compromised unless measures are taken to achieve balance between economic, environmental and social outcomes. This section looks at three specific issues of sustainable development that are of particular importance for Hungary: climate change, air pollution and sustainable retirement incomes. In each case, indicators are presented to measure progress and the evolution of potential problems, and an assessment is made of government policies that affect the issue in that area. The section also considers whether institutional arrangements are in place to integrate policy-making across the different elements of sustainable development (see Box 5.1).

Climate change

Main issues

Hungary is participating in international efforts to contain climate change through its Kyoto Protocol commitment to lower greenhouse gas (GHG) emissions by 6 per cent from the 1985-87 base period in the 2008-2012 period. This target looks set to be attained. However, while GHG emissions per capita are relatively low, Hungary is releasing high levels of GHG into the atmosphere relative to the size of the economy, partly due to inefficient use of energy throughout the economy. This is well recognised by the authorities and plans are underway to improve energy efficiency and thereby reduce such emissions. The main issues in this regard are to ensure that the most cost efficient means are used for abatement and that the target for emission reductions is based on economic criteria.

Performance

The economy-wide GHG intensity has been falling at a fast rate compared with the OECD average since 1990 (see Table 5.1). However, this good performance has been partly offset by a very high starting point and by rapid increases in traffic volumes. As a result, the amount of emissions per unit of GDP remains well above the OECD average. The decoupling of sectoral emissions from output trends occurred at different speeds in different sectors. In manufacturing, the

Box 5.1. The integration of policies across sustainable development areas[1]

The principal framework for the integration of environmental policies with other policies is contained in the six-yearly N*ational* E*nvironmental* P*rogramme* that was first prepared in 1997 and then in 2003. This programme is designed to balance sectoral or economic interests with environmental concerns in the setting of quantitative targets for environmental policy. The associated action plans are prepared by the Ministry of Environment and adopted by the cabinet, thus ensuring some measure of integration at the highest level of policy making. In decisions concerning environmental projects, the Ministry of Finance is closely involved in determining funding arrangements. An important forum for policy co-ordination and integration is the National Environmental Council, a government advisory body consisting of representatives from academia, business and environmental non-governmental organisations. The government is committed to preparing a national strategy for sustainable development by the end of 2004 that should provide an opportunity to strengthen integration of policies across the different areas.

Environmental impact assessment has been mandated by law since 1993 for certain projects and activities (such as power plants, oil refineries, highways and waste management facilities) and its scope was extended in 2001. However, some large scale projects that do not fall under these categories have caused concerns over their possible lack of environmental sustainability, such as in the case of plantation forests which get subsidies under the climate change strategy.[2] An environmental assessment is required for some nationwide and regional economic and social plans. These assessments do not include a monetary valuation of environmental impacts, which implies that they cannot be compared with economic benefits, thus limiting their use in policy integration. Also, some of the impact assessments may not be comprehensive enough to give a full picture of the environmental consequences (Palerm, 1999). For EU sponsored projects, it is obligatory to prepare cost-benefit analysis.

1. The sections in this report dealing with climate change, air pollution and retirement income policies are inputs into the Organisation's follow up on Sustainable Development as mandated by the Ministerial Council decision in May 2001.
2. Environmental NGOs consider that these forests, which are based on a very limited number of – often exotic – species, may threaten biodiversity and destabilise soils.

closing down of old emission-intensive industries resulted in a fall in carbon dioxide emissions per unit of industrial production at one of the fastest paces in the OECD area. The decrease in emission intensity was also comparatively strong in residential heating and in vehicle use, two sectors where initial levels were particularly high. In contrast, the starting point was low for the electricity generating sector thanks to the use of nuclear power and the amount of emissions per

Table 5.1. **Main indicators: climate change**

Indicators of greenhouse gas (GHG) emission intensity,
grams of CO_2 equivalent per $PPP of GDP, in 1995 prices

	Total GHG emissions	CO_2 emissions, electricity	CO_2 emissions, transport	Other GHG emissions	Total GHG emissions	CO_2 emissions, electricity	CO_2 emissions, transport	Other GHG emissions
	Level, 2000				Average annual percentage change 1990-2000			
Australia	1 061	360	159	542	–1.82	–0.46	–1.52	–2.70
Austria	403	66	96	241	–2.05	–3.20	–0.02	–2.42
Belgium	600	105	97	398	–1.47	–1.27	–0.19	–1.81
Canada	888	156	183	549	–0.94	0.24	–0.85	–1.28
Czech Republic	1 082	468	100	514	–2.77	2.54	6.33	–6.58
Denmark	501	171	88	242	–2.38	–2.73	–0.84	–2.64
Finland	597	178	99	321	–2.56	–0.17	–1.83	–3.84
France	402	30	102	271	–2.00	–2.60	–0.02	–2.57
Germany	519	168	91	260	–3.92	–3.57	–1.05	–4.95
Greece	819	275	122	422	–0.16	0.07	–0.02	–0.34
Hungary	**747**	**192**	**79**	**476**	**–2.60**	**–1.30**	**–0.24**	**–3.40**
Iceland	398	0	84	314	–1.82	. .	–2.47	. .
Ireland	643	152	98	392	–4.63	–2.97	0.23	–6.03
Italy	432	108	89	235	–1.06	–0.43	0.01	–1.70
Japan	441	132	81	229	–0.34	0.13	0.89	–0.99
Luxembourg	314	6	249	59	–12.47	–27.09	0.62	–23.13
Netherlands	553	138	80	335	–2.49	–0.95	–1.09	–3.34
New Zealand	1 078	82	179	817	–2.21	2.87	0.80	–3.12
Norway	454	3	97	354	–2.91	–1.57	–2.86	–2.93
Poland	1 109	458	74	576	–7.12	–6.48	–1.39	–8.08
Portugal	516	129	111	276	–0.06	0.85	3.47	–1.51
Slovakia	846	249	70	526	–5.21	0.98	1.98	–7.60
Spain	536	130	127	278	0.35	1.21	0.97	–0.28
Sweden	340	35	110	195	–1.91	–1.52	–0.77	–2.56
Switzerland	267	2	78	187	–0.94	–3.82	–0.40	–1.11
United Kingdom	512	137	106	268	–3.58	–4.30	–1.41	–3.94
United States	779	273	192	315	–1.86	–0.73	–1.30	–3.04
OECD total	639	201	137	307	–1.88	–0.79	–0.58	–2.90
EU	491	120	100	272	–2.43	–2.36	–0.40	–3.10

Source: Greenhouse gas emissions: national submissions to the UNFCCC and national publications. Carbon dioxide emissions for electricity and transport: IEA (2001). GDP: OECD, SNA database.

KWh decreased over the 1990s at a slower pace than in the EU area, all the more since fuel substitution from coal to natural gas occurred only to a very limited extent (see Table 5.2). Nonetheless, overall GHG emissions in 2000 were some 20 per cent below the Kyoto ceiling, and they are most unlikely to test these limits in the coming ten years.

Table 5.2. **Emissions and sectoral indicators**

	Total GHG emissions		CO_2 emissions per Kwh electricity	Manufacturing CO_2 emissions per unit of output	Residential CO_2 emissions per unit of private consumption	Road transport CO_2 emissions per vehicle-kilometre	Electricity use per unit of GDP	Manufacturing output per unit of GDP
	Level million tonnes CO_2 equivalent 2000	Annual average percentage change						
		1990-2000	1990-2000	1990-2000[1]	1990-2000[2]	1990-1999	1990-2000	1990-2000[1]
Australia	502	1.7	0.1	–0.7	–1.1	–0.8	–0.6	–1.6
Austria	80	0.3	–3.3	–1.7	–2.4	–1.8	0.1	0.3
Belgium	152	0.7	–1.1	–0.2	–1.1	–0.8	–0.2	–0.5
Canada	726	1.8	0.7	–2.6	–2.0	–0.4	–0.5	1.0
Czech Republic	147	–2.7	–0.2	–7.7	–15.4	4.1	2.8	0.2
Denmark	69	–0.1	–3.4	–1.7	–4.0	–0.2	0.7	–0.6
Finland	74	–0.4	–0.9	–7.2	–7.0	–1.4	0.7	3.2
France	550	–0.2	–3.2	–2.4	–1.7	–0.5	0.6	0.3
Germany	991	–2.1	–1.5	–1.1	–4.0	0.7	–2.1	–1.8
Greece	130	2.2	–2.0	–0.4	2.6	–4.4	2.1	–1.7
Hungary	**84**	**–1.8**	**–1.5**	**–12.7**	**–5.4**	**–3.3**	**0.2**	**5.3**
Iceland	3	0.7	–4.9	. .	–7.7	0.3	2.6	. .
Ireland	67	2.2	–1.1	. .	–6.2	4.8	–1.8	. .
Italy	547	0.5	–1.2	–2.0	–1.4	–1.1	0.8	–0.2
Japan	1 386	1.1	–0.9	–0.8	0.1	0.3	1.0	–0.2
Luxembourg	6	–7.8	–24.6	–13.0	–2.3	3.8	–3.4	–2.2
Netherlands	218	0.4	–2.7	–1.8	–2.9	–0.1	1.8	–0.6
New Zealand	77	0.5	3.7	. .	–3.2	–2.1	–0.8	. .
Norway	55	0.6	0.5	0.8	–8.8	0.5	–1.9	–2.7
Poland	386	–3.7	0.5	–5.8	–6.7	–6.4	–6.9	4.4
Portugal	85	2.7	–0.9	0.7	–1.0	–0.4	1.8	–0.6
Slovakia	49	–4.0	0.8	–4.7	–7.4	2.3	0.2	2.4
Spain	386	3.0	0.0	–0.6	0.4	–0.3	1.2	–0.1

Table 5.2. **Emissions and sectoral indicators** (*cont.*)

	Total GHG emissions		CO_2 emissions per Kwh electricity	Manufacturing CO_2 emissions per unit of output	Residential CO_2 emissions per unit of private consumption	Road transport CO_2 emissions per vehicle-kilometre	Electricity use per unit of GDP	Manufacturing output per unit of GDP
	Level million tonnes CO_2 equivalent 2000	Annual average percentage change						
		1990-2000	1990-2000	1990-2000[1]	1990-2000[2]	1990-1999	1990-2000	1990-2000[1]
Sweden	69	–0.2	1.0	–4.7	–4.1	–1.4	–0.5	2.5
Switzerland	53	–0.1	–4.7	. .	–1.7	–0.3	1.1	. .
United Kingdom	649	–1.3	–3.6	–2.1	–1.9	–0.5	–0.7	–1.6
United States	7 001	1.3	–0.3	–4.0	–1.9	–0.2	–0.4	0.4
Total of above OECD countries	14 543	0.6	–0.8	–2.2	–1.8	–0.3	–0.2	0.0
OECD excluding US	**7 542**	**–0.1**	**–1.2**	**–1.5**	**–1.7**	**–0.4**	**0.0**	**–0.3**
EU countries	4 073	–0.3	–2.0	–1.8	–2.4	–0.4	–0.2	–0.7

1. 1991-2000 for Germany and Hungary; 1992-2000 for Poland; 1993-2000 for Slovakia; 1990-1999 for Portugal; no data for Iceland, Ireland, New Zealand and Switzerland.
2. 1991-2000 for Czech Republic; 1993-2000 for Slovakia.

Source: GHG National submissions to UNFCCC, national sources and UNFCCC; carbon dioxide data, IEA; manufacturing output, private consumption.

Policy

Although Hungary is likely to attain the Kyoto target with unchanged policies, the authorities have established a climate change mitigation programme. The strategy states that the Kyoto target will be attained by domestic measures only, and emphasises the importance of innovations to curb future emissions. A concrete goal of the strategy, motivated by the pending accession to the European Union, is to increase the share of renewables in primary energy consumption from 1½ per cent in 2000 to 5 to 6 per cent by 2010, although this seems likely to entail unnecessary costs (see below). Another policy that will impinge on GHG emissions is the subsidy-based program to reduce energy consumption in selected sectors by 7 to 8 per cent each year until 2010, an ambitious target that has been met so far. The liberalisation of the electricity market could also play a role in reducing emissions because of the competitive advantage of natural gas over coal.

Continuing the process of eliminating energy subsidies offers the possibility of a "win-win" strategy, reducing GHG emissions and strengthening the output capacity of the economy. As in other transition countries, energy prices have risen substantially since the early 1990s as subsidies implicit in regulated below-cost prices have been scaled back. Since 1999, energy prices have been generally regulated on the basis of full-cost recovery plus a margin. As a result, businesses now face prices on electricity, natural gas and fuel that are comparable to those in western Europe, encouraging them to switch to lower-cost, cleaner fuels and to use energy more efficiently. The new energy tax on electricity and natural gas will reinforce the incentive for businesses to improve energy efficiency.[1] However, cost-plus pricing has not been applied to households, with prices set at levels that are only half of those in western Europe. Households have also been exempted from the new energy tax. These arrangements have been motivated by concerns over the social implications of higher energy prices and the impact energy price rises might have on the inflation rate. By using energy prices for households as an anti-poverty device or as a tool for inflation management, the authorities risk creating shortages in the long run as private providers will in the long run reduce supply if prices do not cover total costs. In this respect, the recent increase in the VAT rate on household electricity use is a step in the right direction.

In the presence of below-cost prices that stimulate energy use in the household sector, government subsidies aimed at improving energy efficiency have been concentrated on this sector. Official estimates suggest that supported projects in 2001 could reduce total annual energy consumption by 0.2 per cent. The corresponding fiscal cost per tonne of saved carbon could range from EUR 20 to EUR 110, whereas the price of permits on the international market is forecast to be lower than EUR 17 (IEA, 2002).[2] Other means to encourage energy saving include energy efficiency standards for appliances and building codes, which have been modelled on EU standards. While important for energy efficiency and other reasons, these standards are apparently neither effectively implemented nor enforced.

The planned expansion of renewable energy is likely to imply high abatement costs in terms of saved carbon. Renewable energy, mostly biomass energy, is promoted through investment grants, which can be as high as 50 per cent of the investment cost in large plants and up to 65 per cent in small and medium sized plants. Within the given budget frame and the above-mentioned ceilings on public aid going to each project, the allocation is based on competitive bidding, the grants going to those that can offer the greatest renewable energy at the lowest cost. Since the 2001 Electricity Act, large renewable electricity producers (*i.e.* with capacity over 100 KW) can sell their output at guaranteed tariffs which increases the implicit subsidy. On the basis of proposed tariffs for 2003, the associated abatement costs for GHG emissions are very high, ranging from EUR 280 to EUR 860 per tonne of saved carbon in the case of peak electricity (depending on whether the displaced fuel is coal or natural gas) and from EUR 170 to EUR 540 in the case of off-peak electricity. These estimates suggest that the promotion of renewable energy is a very inefficient means to reducing GHG emissions in Hungary as in most other OECD countries.

The planned EU emission allowance trading scheme will introduce an efficient instrument to reduce domestic GHG emissions. The scheme will establish a price on emissions from large plants, and hence give them an incentive to save on emissions as long as the associated costs are lower than the allowance price. Moreover, as the same allowance price will apply to all the large emitters, the system ensures that abatement is concentrated in those with the lowest cost. However, as 95 per cent of all allowance shall be allocated free of charge to current emitters under the EU cap-and-trade directive, most affected businesses will reap rents from the allowance trading scheme if these rents are left untaxed.

Conclusions

Although the Kyoto target is set to be attained, Hungary, as a net seller of permits, stands to gain from implementing those policies that further reduce GHG emissions at a cost below the international price of carbon. Conversely, domestic programmes with costs exceeding the price of carbon on international markets come at a net loss to the economy. The current and future emissions trading price should be used as a benchmark for the evaluation of the cost-effectiveness of greenhouse gas mitigation measures. However, in doing so, costs and benefits that flow from meeting other policy objectives should also be taken into account. For instance, renewable energy programmes, which are designed to reduce greenhouse gas emissions, can also improve air quality to a certain extent. The alignment of electricity prices for businesses to economic costs in the past have allowed emissions to be reduced without any adverse effects for the economy. Removing the still sizeable gap between energy prices for households and costs should be a priority for policy as this will strengthen the environmental and economic pillars of sustainable development at the same time. To the extent that this will have serious consequences for poorer households, the social safety net should deal with these. Nonetheless, if concerns with income distribution act as a barrier to this policy reform, it may be considered to introduce use-targeted and strictly time-limited social policy instruments to compensate for the higher energy prices. Finally, the 90 per cent grandfathering of emission allowances under the EU trading scheme amounts to giving away rents to the affected enterprises and should as a minimum be accompanied by the taxation of these rents.

Air pollution[3]

Main issues

Air pollution is a threat to health and quality of life, and damages ecosystems and structures. The economic costs, which are often indirect and appear with a long lag, are estimated to be substantial in highly polluted environments.[4] The air quality in Hungary still suffers from the legacy of the past but has considerably improved since the early 1990s, and international commitments should reinforce this trend. Indeed, the accession to the European Union will imply major further reductions in the emissions of air pollutants. In this context it is important to ensure that this improvement of the environmental pillar of sustainable development is not bought at an excessive cost in terms of a weaker economic pillar.

Performance

The pace of reduction in emissions of traditional air pollutants relative to GDP in the 1990s was significantly slower than in the EU area, and the economy-wide emission intensity remains very high in relative terms (see Table 5.3). Sulphur dioxide emissions per unit of GDP declined much more slowly than in other central and eastern european countries in the course of the 1990s and, at the end of the decade, the emission level was higher than anywhere else in the OECD area and almost six times the EU average. The fall in nitrogen dioxide emissions relative to GDP during the 1990s was even more modest, and the emission-GDP ratio was almost twice that in the EU area on average. In contrast to the comparatively weak decoupling of sulphur and nitrogen dioxide emissions from economic growth, the discharges of volatile organic compounds per unit of GDP evolved much in line with trends in the EU, and the emission intensities were similar in both areas. Thanks to the reduction in domestic emissions, as well as to the sharp fall in transboundary air pollution, the concentration of the pollutants has fallen since the early 1990s, with the exception of nitrogen dioxide that has been stable. As a consequence of these trends, the number of regions classified as seriously polluted fell significantly in the latter part of the 1990s.

Table 5.3. **Main indicators: air pollution**

	Change in emissions per unit of GDP, 1990-99[1]			Level of emissions, 1999[2]		
	Sulphur dioxide	Nitrogen dioxide	VOCs	Sulphur dioxide	Nitrogen dioxide	VOCs
	Per cent per year			Grams per dollar of GDP		
Australia	3.1	–1.9	–2.9	3.9	5.5	4.1
Austria	–10.2	–3.5	–6.5	0.2	0.9	1.2
Belgium	–9.2	–3.6	–4.8	0.8	1.2	1.1
Canada	–5.3	–2.8	–2.9	3.2	2.6	3.5
Czech Republic	–19.1	–6.6	–5.7	2.1	3.0	1.9
Denmark	–14.2	–4.9	–5.2	0.4	1.6	1.0
Finland	–13.0	–3.8	–4.1	0.7	2.1	1.4
France	–8.3	–3.8	–5.1	0.5	1.2	1.4
Germany	–20.1	–7.1	–8.8	0.4	0.9	0.9
Greece	–1.4	–0.3	–0.2	3.6	2.5	2.6
Hungary	**–6.1**	**–1.1**	**–3.8**	**5.5**	**2.1**	**1.4**
Iceland	–1.1	–1.7	–4.9	3.7	3.9	1.4
Ireland	–8.1	–6.3	–7.9	1.7	1.3	1.0
Italy	–7.6	–4.3	–4.4	0.8	1.2	1.4
Japan	–1.7	–1.3	–2.4	0.3	0.5	0.6
Korea	–8.9	–3.3	–9.7	1.6	1.9	0.2
Luxembourg	–18.7	–9.1	–7.9	0.2	0.9	0.9
Mexico	–0.4	–0.9	–9.3	1.6	1.6	1.4
Netherlands	–10.1	–6.5	–8.8	0.3	1.1	0.7
New Zealand	–0.4	–0.5	–1.6	0.7	3.0	2.6
Norway	–9.7	–2.8	–1.8	0.2	2.0	3.0
Poland	–10.0	–6.6	–4.8	5.1	2.8	2.2
Portugal	–2.1	–0.9	0.1	2.4	2.3	3.1
Slovakia	–13.7	–7.4	–5.6	3.3	2.4	2.0
Spain	–5.8	–2.1	–3.5	2.2	1.7	3.6
Sweden	–8.3	–4.3	–3.9	0.3	1.3	2.1
Switzerland	–6.0	–5.4	–6.3	0.1	0.5	0.9
Turkey	3.2	1.0	0.0	3.4	2.3	1.6
United Kingdom	–13.9	–7.9	–6.6	1.0	1.3	1.4
United States	–5.5	–2.5	–4.7	2.0	2.7	1.9
European Union	–11.1	–5.0	–5.3	0.8	1.2	1.5
OECD Europe	–10.1	–4.8	–5.0	1.2	1.4	1.5
OECD	–6.7	–2.9	–4.4	1.5	1.9	1.6

Note: For the OECD average data for countries with missing data for either 1990 or 1999, data for the latest year has been substituted. Estimated data for 1999 represents about 5 per cent of the area total. GDP is measured in 1995 prices. Cross-country aggregations use 1995 purchasing power parity exchange rates.

1. Australia: 1995-99 for sulphur dioxide; New Zealand: 1990-98; Mexico: 1994-98 for sulphur dioxide and VOCs and 1990-98 for nitrogen dioxide; Slovakia: 1990-98 for sulphur dioxide and nitrogen dioxide and 1990-97 for VOCs.
2. 1998 for Mexico, New Zealand and sulphur dioxide and nitrogen dioxide in Slovakia; 1997 for VOCs in Slovakia.

Source: Cooperative Programme for Monitoring and Evaluating of Long-Range Transmission of Air Pollutants in Europe (EMEP); World Health Organisation; OECD (2002*a*).

Policies

Hungary is committed to reducing the emission of selected air pollutants in the Convention on Long-Range Transboundary Air Pollution[5] (CLRTAP), and has also set standards for ambient air quality in urban areas. The emission targets established in protocols to the CLRTAP agreement call for a significant additional abatement from actual 1999 levels for nitrogen dioxides and, to a lesser extent, (non-methane) volatile organic compounds by 2010. By contrast, the sulphur dioxide emission target for 2010 had been met in 1997, notwithstanding the exceptionally high emission intensity of the economy. In line with EU requirements, standards of air quality have been made identical to those recommended by the World Health Organisation.

The new EU Large Combustion Plant Directive will play a key role in determining future emissions of air pollutants from stationary sources. Past efforts to curb stationary emission have been based on emission limits set by government regulation, that were in many cases accompanied by subsidies. The new Directive sets stringent emission limit values based on currently best available technology applicable to all energy-intensive plants. The authorities had the possibility to exercise an opt-out clause to achieve the same abatement through other means, but the Directive was transposed in Hungarian law in July 2003. The full implementation of the Directive will result in dramatic reduction in sulphur-dioxide emissions, estimated at close to 90 per cent in the older power plants[6] or around 30 per cent of current total emissions. Over the period 2002-2015, complying with EU directives in the area of air pollution will cost industry an estimated HUF 190 billion (or 1.6 per cent of annual GDP). Although the benefits may outweigh the costs, this approach is unlikely to deliver the lowest abatement cost for the economy as a whole. Indeed, by imposing different emission limits and/or technologies on different emitters unrelated to their abatement costs, it does not ensure that abatement efforts are concentrated in activities where they can be obtained at the lowest cost.

Economic instruments have been used recently, though to a very limited extent, to reduce emission of air pollutants from diffuse sources. The main objective has been to speed up the renewal of the car fleet and hence benefit from better emission standards embodied in new vehicles. For this purpose, import duties for passenger cars less than four years old have been reduced by 60 per cent, and the annual vehicle tax is at least halved for cars with catalytic converters and trucks meeting EUR1 norms. The retrofitting of old cars is also encouraged by a 50 per cent reduction of the VAT. The difference in tax rates between diesel and petrol is small compared with many other member countries. In 2004, the government is also starting to introduce a charge on emissions of sulphur dioxide, nitrogen oxides, carbon monoxide and particulates by stationary point sources. The rates will be increased progressively until 2008, but even then, their levels will remain below the estimated damage associated, indicating that it is used more as a revenue-raising tool than as an internalisation measure aimed at reducing emissions.[7]

Conclusions

Hungary has achieved some improvement in air quality in the past, and already decided policies are likely to result in a significant abatement in the future. However, the command-and-control regulations embedded in the EU Large Combustion Plant Directive are unlikely to deliver the lowest abatement cost. Set at higher levels, the recently introduced emission charges could have been used to achieve the targets embedded in the LCP at least cost. For diffuse sources of air pollution, the differentiation of the car tax according to the emission characteristic of the vehicle is a useful device to speed up the renewal of the car fleet, hence ensuring that tighter standards on new car vehicles will show up rapidly in lower emissions. The introduction of road pricing could also help to reduce diffuse emissions at low economic costs.

Providing a sustainable income for the elderly[8]

Main issues

In 1998 Hungary introduced a major reform of its old-age retirement income system with a view to limiting the adverse fiscal consequences of ageing, without excessive reductions in retirees' incomes or the production capacity of the economy. The new system comprises of a gradual phasing out of the pre-existing PAYG pension system and its replacement with a two-pillar pension that has PAYG and private mandatory components (see Annex E, Table E.1). Tax privileges on contributions to private voluntary pensions (effectively a third "pillar" of the system) introduced in 1994 were maintained. Since its introduction, the system has been altered in a number of important ways and is still in flux. The main issues for the near future are to bring more stability to the system, as people must know where they stand over the long term, and to ensure that any alterations will not compromise fiscal sustainability, the income adequacy of retirees or economic efficiency.

Performance

On current policies, the ratio of old-age public pension spending to GDP is likely to rise less in Hungary compared with the OECD-average over the coming fifty years. Official projections, based on the rules of the reformed system soon after it was introduced, suggest that the increase in the share could be contained to 1¼ per cent of GDP (see Table 5.4). This comparatively modest increase also reflects that Hungary is expected to face a relatively muted increase in the old-age

Table 5.4. **Performance indicators: sustainable retirement income**

	Projected increases in old age pension spending	Low income rate of the elderly[1]	Relative disposable income of the elderly[1]	Private pension funds 1999	Age of withdrawal, 1994-1999		Participation rate, 2001, per cent		
								Aged 55-64	
	Change in per cent of GDP 2000-2050	Per cent of the elderly with income less than 50 per cent of median disposable income	Per cent of the disposable income of all individuals	Per cent of GDP	Male	Female	Aged over 65	Male	Female
Australia	1.6	16.1	67.6	63.8	59.7	61.3	6.0	60.0	36.9
Austria	2.2	14.9	86.6	3.6			2.8[1]	42.1[1]	17.5[1]
Belgium	3.3	13.8	77.9	6.1			1.3	36.6	15.7
Canada	5.8	2.5	97.4	45.7	62.6	61.1	6.0	61.3	41.7
Czech Republic	6.8			3.8			4.0	55.0	24.5
Denmark	2.7	9.2	73.0	24.4	62.4	61.5	4.6	65.5	51.8
Finland	4.8	7.5	79.0	10.7	59.8	60.0	3.7	51.2	49.5
France	3.9[2]	10.7	89.7	6.3	59.3	59.8	1.2	43.8	34.1
Germany	5.0	10.4	85.6	3.2	60.5	60.8	3.0	50.6	32.4
Greece		29.2	76.8	4.6	61.7	62.2	5.0	57.0	23.6
Hungary	**1.2**	**6.0**	**85.2**	**2.2**	**60.0**	**57.6**	**3.1**	**36.3**	**15.4**
Iceland				86.0			19.9	92.8	81.7
Ireland		16.7	74.6	57.8			7.9	66.1	29.5
Italy	–0.3	15.3	84.1	3.0	59.3	58.4	3.4	57.8	26.6
Japan	0.6			18.7	69.1	66.0	21.8	83.4	49.2
Korea	8.0			3.2	67.1	67.5	29.6	71.3	47.9
Luxembourg		6.7[3]		. .			0.0	38.1	14.3
Mexico		32.9	85.3	2.4			30.5	80.5	27.6
Netherlands	4.8	1.9	86.3	119.3	61.6	60.1	3.1	52.0	26.9
New Zealand	5.7			. .			8.6	74.6	51.7
Norway	8.0	19.1	74.1	7.4	64.2	64.7	13.2	73.6	63.2
Poland	–2.5	8.4[3]		. .			7.5	41.5	24.1
Portugal				11.4	65.3	66.5	19.0	63.7	41.9
Slovak Republic							1.1	43.0	11.2
Spain	8.0	11.3[3]		2.3	61.1	61.1	1.6	61.4	23.6

Table 5.4. **Performance indicators: sustainable retirement income** (*cont.*)

	Projected increases in old age pension spending	Low income rate of the elderly[1]	Relative disposable income of the elderly[1]	Private pension funds 1999	Age of withdrawal, 1994-1999		Participation rate, 2001, per cent		
								Aged 55-64	
	Change in per cent of GDP 2000-2050	Per cent of the elderly with income less than 50 per cent of median disposable income	Per cent of the disposable income of all individuals	Per cent of GDP	Male	Female	Aged over 65	Male	Female
Sweden	1.6	3.0	89.2	. .	63.3	61.8	9.4	73.5	67.4
Switzerland		8.4[3]		97.3[4]			11.4	82.4	56.1
Turkey		23.1	92.7	. .			18.1	50.8	18.4
United Kingdom	–0.7	11.6	77.8	84.1	62.0	61.2	4.8	64.4	44.6
United States	1.8	20.3	91.7	74.4	65.1	64.2	13.1	68.1	53.0

1. Förster and Pellizzari (2000).
2. Secretariat estimate in OECD (2001). Official reports suggest a 4.4 per cent increase on unchanged labour market policies for the period 2000=2040 (COR, 2001).
3. Smeeding (2002).
4. 1998.

Source: Förster and Pellizzari (2000); Jesuit and Smeeding (2002), OECD Labour Force Statistics, Scherer (2002).

dependency ratio, an expected increase in the share of the working-age population in employment and a reduction in the share of the elderly that will be eligible for a PAYG public pension. Pensions from the recently introduced mandatory defined contribution system that is managed by private funds (see below) are expected to amount to 1½ per cent of GDP in 2052.

While, on average, retirement income among the elderly suggests reasonable living standards, some retirees are at risk of poverty. For instance, data for 2000 indicates that the mean monetary disposable income of people aged 65 or more was close to nine tenths of that of the working age and suggests that the average full income of the elderly, including implicit rents for home – owning retirees, exceeds that of younger generations (Statistical Office, 2001). However, in the same year, around 6 per cent of the elderly population received less than 50 per cent of median disposable income, a level generally regarded as indicating serious poverty problems. The group at the highest risk of poverty in old age are small-scale farmers, who are not obliged by law to contribute to public pensions and in many cases appear to have exercised this right without making alternative provision. Very low income in old age is also relatively common among the Roma minority which accounts for 5 to 10 per cent of the population. The Roma suffer from multiple disadvantages that prevent them from building up sufficiently long contribution histories to be entitled to normal pensions. A notable feature of the structure of income for the older age groups in general is the small contribution of earned income, which reflects the very low participation of this group in the labour market. Indeed, the participation rate in the 55-64 age group is the lowest in the OECD area.

Policy

The 1998 pension reform was strongly motivated by recognition that the incumbent system would pose serious fiscal problems in the long term.[9] The key measures included in the 1998 pension reforms were (see Annex D for more details):

- The establishment of a second pillar of mandatory contributions from labour market entrants (and older workers who chose to do so) to private pension funds that invest in the capital market.[10] At retirement, accumulated contributions and returns are transformed into an annuity which is expected to amount to at least a quarter of the first pillar pension. In the original 1998 reform, the authorities *guaranteed* that second pillar pensions should amount to at least a quarter of the first pillar pension, a provision abolished since then.
- A 25 per cent reduction in first-pillar public pension replacement rates to reflect the switch of part of pension contributions from the PAYG system to the funded system and the indexation of benefits in payment to the average change in wages and prices (Swiss indexation) rather than to wages alone.

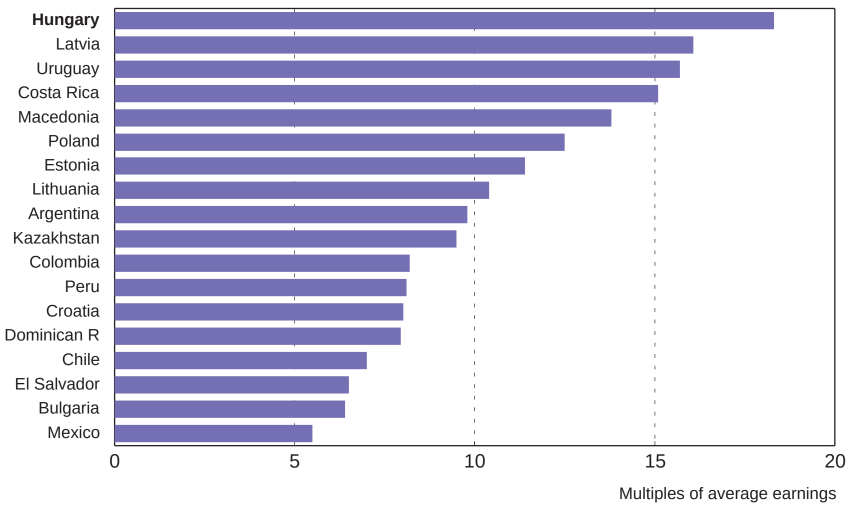
– An increase in the standard retirement age for men and women from 60 and 55, respectively, to 62. And reduction in the disincentive to work at older ages in the PAYG public pension system through: an increase in the number of years of service to qualify for an early pension at the full rate, and increased penalties and rewards for early and late access to pensions.
– A means-tested income supplement with the aim of guaranteeing minimum income for those aged 62 and above.

These changes were to be phased in at different speeds, for example the new indexation arrangements were introduced quickly while there is slow adjustment to the new standard retirement ages. The mixed system should apply to all new entrants to retirement by the end of the 2040s. When fully phased in, the higher standard retirement age and the Swiss indexation mechanism were expected to generate savings on pay-as-you-go (PAYG) public pensions that could be as high as 4 per cent of GDP compared with situation where parameters were kept unchanged. However, the potential for savings has been diminished by a decision to add a "13th month" to first-pillar pensions. This measure is estimated to increase public pension outlays by 0.8 per cent of GDP when the measure is fully implemented in 2006. At the same time, the removal of pension guarantees on the second pillar of the system reduces fiscal obligations.

The introduction of the mandatory funded system is likely to reduce the cost of retirement provision in terms of loss of economic output. Individuals now anticipate future benefits that are firmly linked to accumulated contributions and their returns and are more likely see their contributions as saving rather than taxation as was the case with the defined benefit scheme. Therefore, the allocation of 7 percentage points of the 8.5 per cent employee pension contribution rate (2003 rates) to individual accounts should diminish the negative effect of the tax wedge on labour supply. This link between contributions and pensions, together with private ownership of individual accounts, has made the second pillar popular among older workers that had the choice to remain in the old system or join the new one. Indeed, as early as 2000 around half of all economically active persons participated in the second pillar. However, the attitude of the authorities towards pension accumulation in the second pillar has been ambivalent because of the transitional fiscal cost of switching contributions away from the first pillar to private funds. Originally, it was foreseen that contribution rates to these pension funds would rise from 6 per cent in 1998 to 7 per cent in 1999 and 8 per cent in 2000. In the event, the contributions only rose to 7 per cent in early 2003 and are scheduled to rise to 8 per cent in 2004. By holding down contributions to the second pillar, the authorities limit the extent to which this pillar can deliver retirement income in the future.

Looking beyond the issue of fiscal affordability, some recent OECD simulations (Whitehouse, 2003) suggest that Hungary's new pension system

Figure 5.1. **Simulation of pension wealth on retirement as a multiple of average earnings**



Source: Whitehouse (2003).

involves too much compulsory saving by households. Particularly due to the design of the second pillar, calculations point to a high rate of saving, a high level of pension wealth and high pension replacement rates. For instance, the simulations show that on retirement at age 62, average Hungarian pension wealth under the new system will be equivalent to about 18 times the average salary. This is large by international comparison. For instance, the simulations show Hungary's pension wealth to be much higher than that implied by the pension systems introduced in other middle-income countries (Figure 5.1). Furthermore, this high pension wealth, in combination with Hungary's relatively low life expectancy, means high pension replacement rates. In these simulations net replacement rates are found to be close to one for those earning less than twice average earnings. These simulations would suggest considering scaling back the mandatory pension system for wealthier Hungarians.

The recent removal of public guarantees for second pillar pensions has heightened the importance of regulations and supervision of the private pension funds. As noted above, previously the authorities guaranteed that second pillar pensions should amount to at least a quarter of the first pillar pension. Moreover, if a pension fund could not obtain a government-mandated floor on investment returns, it would be closed down and its members transferred to other pension funds. In the future, the disciplining role will have to lie more with individuals who have a large element of discretion in shifting their pension assets between individual funds and thereby respond to what they perceive as unfavourable combinations of risk and return. In practice, investors may not all take advantage of this option and underperformance may persist with adverse effects on eventual annuities, unless the regulatory and supervisory framework helps to provide an adequate discipline on the private funds.

While measures introduced in the 1998 reform are likely to improve labour force participation of those aged 50 and over, thereby helping ensure fiscal sustainability and raising potential output, the average effective age of retirement is set to remain lower than in most OECD countries. Early retirement programmes will still be open to older workers, most notably to those with a long length of service (ranging from 33 to 38 years) who can retire five (women) or two (men) years before the standard retirement age. In addition, both men and women can retire five years ahead of the standard age if the employer pays the pension until public pensions become available. Also, the availability of other benefits allowing early retirement discourage employment of older workers. For example, it is uncertain to what extent already implemented measures will succeed in containing the use of the disability system as an early retirement route (see Chapter III). These measures have reduced the inflow into the disability system in the 1990s, but around a fifth of all individuals aged between 50 and 60 were still supported by the programme at the end of the decade.

Conclusions

The 1998 Hungarian pension reform established a system that significantly reduced ageing-related pressures on public finances, provided safeguards against old-age poverty and encouraged longer working lives. Changes since then have compromised some of these goals. Most importantly, the programmed introduction of pensions for the "13 month" and additional moves to increase the generosity of pensions could destabilise public finances in the long term in the absence of countervailing measures. While the increase in outlays could be met by increased pension contribution rates, this would undermine economic efficiency and should be avoided. A significant hike in effective retirement ages would help to pay for the future pension bill, and would be warranted in the light of the very low participation rates of workers above the age of 50. In this context, the analysis and recommendations on early retirement and the disability scheme in Chapter I are relevant. In addition, the standard age of retirement could be de-emphasized with strengthened incentives to continue work beyond it or, alternatively, it could be raised. As for private pension funds, the authorities need to be vigilant in ensuring that the regulatory and supervisory framework is adequate.

Notes

1. The energy tax enters into force as of January 2004 with rates of HUF 186 per MWh for electricity and of HUF 56 per GJ for natural gas.
2. Background data for this calculation is contained in a table on page 25 in IEA (2003). The additional power plant that is avoided due to a reduction in energy demand is assumed to be a gas-fired station.
3. Air pollution is discussed in greater detail in OECD (2000).
4. For example, the cost of air pollution in the EU countries was estimated to be as high as 5 per cent of GDP in the early 1990s.
5. UNECE (United Nations Economic Council for Europe) is the secretariat for the Convention on Long-Range Transboundary Air Pollution. It addressed some environmental problems of the UNECE region and has been extended by eight protocols which identify specific obligations or measures to be taken by Parties and so lays down the general principles of international cooperation for air pollution abatement.
6. See Cofala and Amann (2001).
7. In 2008, the charge will be equivalent to EUR 215 per ton of sulphur dioxide, EUR 515/t for nitrogen oxides, EUR 129/t for particulates and EUR 64/t for carbon monoxide (using the 2003 exchange rate of the OECD *Economic Outlook* No. 74), while the external costs estimated in an extensive study sponsored by the European Commission (Holland and Watkiss, 2000) for the three first type of emissions are EUR 5 200/t, EUR 4 200/t, and EUR 2 100/t respectively.
8. Burns and Cekota (2002) discuss the ageing challenge in Hungary in greater detail.
9. Rocha and Vittas (2001) estimate that an unreformed pension system would have been in deficit of close to 7 per cent of GDP after 2050. To eliminate this deficit by 2070 would have required an increase in the contribution rate from 30 to 55 per cent or a reduction in the replacement rate from 60 per cent to less than 35 per cent.
10. Mandatory contributions for labour market entrants were suspended in 2002 but then re-introduced in 2003. Older workers were given the option to join the mixed system until 2000 and a further option to revert back to the old system in the 2001-2002 period. The time limit for going back to the old system has been extended.

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Annex A

Balance of payments tables

Table A.1. **Current account of the balance of payment**

EUR million[1]

	1998	1999	2000	2001	2002
I. Trade balance	–1 685	–2 044	–3 180	–2 496	–2 203
Exports	21 057	24 059	31 278	34 697	36 821
Imports	22 742	26 102	34 457	37 193	39 024
II. Services, net	1 058	834	1 230	1 643	636
Receipts	5 095	5 282	6 592	8 366	8 237
Expenditures	4 037	4 448	5 362	6 724	7 600
Construction services, net	8	–85	42	12	–4
Merchandising and other trade-related services, net	–17	43	3	67	148
Transportation services, net	–51	–147	–204	–180	–369
Travel, net	1 934	1 909	2 245	2 596	1 629
Business services, net	–150	–149	158	–168	–158
Technical and cultural services, net	–648	–705	–697	–683	–589
Government services, net	–17	32	1	–1	–21
III. Income, net	–2 111	–2 831	–3 540	–3 608	–3 782
Receipts	1 120	863	1 217	1 457	1 294
Expenditures	2 684	2 328	2 762	2 970	2 972
Compensation of employees, net	119	96	163	117	151
Direct investment income, net	–1 367	–2 176	–2 865	–2 985	–3 223
Reinvested earnings, net[2]	–546	–1 367	–1 995	–2 095	–2 103
Portfolio investment income, net	–616	–530	–523	448	–491
Other investment income, net	–246	–220	–315	–351	–219
IV. Current transfers	215	372	343	399	475
Current account balance	–2 523	–3 668	–5 147	–4 062	–4 874
Items not adjusted for reinvested earnings					
III. Income, net	–1 565	–1 464	–1 545	–1 513	–1 679
Direct investment income, net	–821	–809	–870	–890	–1 120
Current account balance	–1 977	–2 301	–3 152	–1 967	–2 771

1. Not seasonally adjusted.
2. OECD estimate.

Source: OECD and Magyar Nemzeti Bank.

Table A.2. **Financial account of the balance of payments**

EUR million[1]

	1998	1999	2000	2001	2002
Financial account	3 123	6 232	6 202	3 899	2 141
Direct investment, net	1 959	3 025	3 210	4 613	2 736
Reinvested earnings, net[2]	546	1 367	1 995	2 095	2 103
Portfolio investment, net	1 786	1 851	–429	1 737	1 598
Other investment, net	–621	1 356	3 420	–2 450	–2 193
Short-term capital	–144	–136	512	–1 895	–555
Change in reserves (minus means increase)	–760	–2 241	–1 158	60	1 965
Items not adjusted for reinvested earnings					
Financial account	2 577	4 865	4 207	1 804	38
Direct investment, net	1 413	1 658	1 215	2 518	633
Memorandum item:					
Net errors and omissions	–11	–354	–197	–255	577

1. Not seasonally adjusted.
2. OECD estimate.
Source: OECD and Magyar Nemzeti Bank.

Table A.3. **Capital flows in the balance of payments**

EUR million[1]

	2001				2002			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Investment income, net	–197	–841	–361	–282	–699	–331	–227	–322
Non-debt financing (1 + 2)	910	2 484	187	673	2 106	564	530	474
1. Foreign direct investment, net (a + b)	594	677	482	765	764	600	671	36
a) Abroad, net	–326	–49	–27	31	–28	–39	20	–58
b) In Hungary, equity only	920	726	509	734	792	639	651	94
2. Portfolio investment, net	316	1 807	–295	–92	1 342	–36	–141	438
Memorandum items:								
Short-term liabilities, stock	13 770	16 349	16 548	15 826	17 034	15 800	15 850	14 759
Reserves, stock	35 882	39 122	39 784	37 912	40 122	39 241	36 677	33 414
Reserves/short-term liabilities (ratio)	3	2	2	2	2	2	2	2
Reserves/goods imports (ratio)	4	4	4	4	4	4	4	3

1. Not seasonally adjusted.
Source: Magyar Nemzeti Bank.

Annex B

Economic convergence criteria for participation in the euro area[1]

The four convergence criteria are set out in Article 121 of the EC Treaty and reflect the degree of economic convergence that member States must achieve. Each member State must satisfy all four criteria in order to be able to participate in the euro area.

Price stability

The Treaty stipulates: "The achievement of a high degree of price stability [...] will be apparent from a rate of inflation which is close to that of, at most, the three best-performing member States in terms of price stability."

In practice, the **inflation rate** of a given member State must not exceed by more than 1½ percentage points that of the three best-performing member States in terms of price stability during the year preceding the examination of the situation in that member State.[2]

Government finances

The Treaty stipulates: "The sustainability of the government financial position [...] will be apparent from having achieved a government budgetary position without a deficit that is excessive [...]".

In practice, the Commission, when drawing up its annual recommendation to the Council of Finance Ministers, examines compliance with budgetary discipline on the basis of the following two criteria:

The annual government deficit: the ratio of the annual government deficit to gross domestic product (GDP) must not exceed 3 per cent at the end of the preceding financial year. If this is not the case, the ratio must have declined substantially and continuously and reached a level close to 3 per cent (interpretation in trend terms) or, alternatively, must remain close to 3 per cent while representing only an exceptional and temporary excess;

Government debt: the ratio of gross government debt to GDP must not exceed 60% at the end of the preceding financial year. If this is not the case, the ratio must have sufficiently diminished and must be approaching the reference value at a satisfactory pace (interpretation in trend terms).

Exchange rates

The Treaty stipulates: "the observance of the normal fluctuation margins provided for by the exchange-rate mechanism of the European Monetary System, for at least two years, without devaluing against the currency of any other member State."

The member State must have participated in the exchange-rate mechanism of the **European monetary system** without any break during the two years preceding the examination of the situation and without severe tensions.

In addition, it must not have devalued its currency (*i.e.* the bilateral central rate for its currency against any other member State's currency) on its own initiative during the same period.

Long-term interest rates

The Treaty stipulates: "the durability of convergence achieved by the member State [...] being reflected in the long-term interest-rate levels".

In practice, the **nominal long–term interest rate** must not exceed by more than 2 percentage points that of, at most, the three best-performing member States in terms of price stability (that is to say, the same member States as those in the case of the price stability criterion). The period taken into consideration is the year preceding the examination of the situation in the member State concerned.

1. Text reproduced from the European Union website, September 2003 [*www.europa.eu.int/scadplus/leg/en/lvb/l25014.htm*].
2. For example, the OECD's autumn 2003 projection estimates that for 2003 the three lowest inflation countries in the euro area are Austria, Finland and Germany with an average inflation of 1.1 per cent. So, if a country were being assessed during this period, the inflation limit would be 2.6 per cent.

Annex C

Fiscal indicators for Hungary

Table C.1. **Consolidated general government accounts, ESA95 basis**

	1998	1999	2000	2001	2002
			HUF billion		
Primary revenues	4 454.8	5 014.3	5 876.3	6 495.0	7 325.9
Primary expenditures	4 557.5	4 908.6	5 632.7	6 563.7	8 256.0
Primary balance	–102.7	105.7	243.6	–68.7	–930.6
Interest revenue	104.5	99.2	102.2	97.5	51.7
Interest expenditure	812.6	843.7	740.6	726.4	688.7
Interest balance	–708.1	–744.5	–638.3	–628.9	–636.9
Total revenues	4 559.3	5 113.5	5 978.5	6 592.6	7 377.6
Total expenditures	5 370.1	5 752.3	6 373.3	7 290.1	8 945.1
Overall balance	–810.8	–638.8	–394.7	–697.5	–1 567.5
Memorandum items:					
GDP (HUF billion)	10 087	11 393	13 172	14 849	16 980

Source: OECD.

Table C.2. **Consolidated general government accounts, OECD adjusted-cash basis**

	1998	1999	2000	2001	2002
	HUF billion				
Primary revenues	4 327.3	4 876.2	5 705.0	6 408.0	6 961.8
Primary expenditures	4 559.3	4 830.6	5 452.3	6 509.2	8 218.3
Primary balance	–232.0	45.6	252.7	–101.2	–1 256.5
Interest revenue	191.7	99.2	183.1	143.8	42.5
Interest expenditure	807.0	854.5	758.4	640.7	679.2
Interest balance	–615.3	–755.3	–575.3	–496.9	–636.8
Total revenues	4 519.0	4 975.4	5 888.1	6 551.8	7 004.3
Total expenditures	5 366.3	5 685.1	6 210.6	7 149.8	8 897.5
Overall balance	–847.3	–709.7	–322.6	–598.0	–1 893.3
Memorandum items:					
GDP (HUF billion)	10 087	11 393	13 172	14 849	16 980

Source: OECD.

Table C.3. **Consolidated general government accounts**
Difference OECD cash-adjusted basis – ESA95 basis

	1998	1999	2000	2001	2002
	HUF billion				
Primary revenues	–127.5	–138.1	–171.3	–87.0	–364.1
Primary expenditures	1.8	–78.0	–180.4	–54.6	–37.7
Primary balance	–129.3	–60.1	9.1	–32.4	–325.9
Interest revenue	87.2	0.0	80.9	46.3	–9.3
Interest expenditure	–5.6	10.8	17.8	–85.7	–9.5
Interest balance	92.8	–10.8	63.0	132.1	0.1
Total revenues	–40.3	–138.1	–90.4	–40.8	–373.4
Total expenditures	–3.8	–67.2	–162.7	–140.3	–47.6
Overall balance	–36.5	–70.9	72.1	99.5	–325.8
Memorandum items:					
GDP (HUF billion)	10 087	11 393	13 172	14 849	16 980

Source: OECD and Ministry of Finance.

Table C.4. **Consolidated general government accounts**
Percentage difference OECD cash-adjusted basis – ESA95 basis

	1998	1999	2000	2001	2002
	Percentage				
Primary revenues	–2.9	–2.8	–3.0	–1.4	–5.2
Primary expenditures	0.0	–1.6	–3.3	–0.8	–0.5
Primary balance	55.7	–131.9	3.6	32.1	25.9
Interest revenue[1]	45.5	0.0	44.2	32.2	–21.8
Interest expenditure	–0.7	1.3	2.3	–13.4	–1.4
Interest balance	–15.1	1.4	–11.0	–26.6	0.0
Total revenues	–0.9	–2.8	–1.5	–0.6	–5.3
Total expenditures	–0.1	–1.2	–2.6	–2.0	–0.5
Overall balance	4.3	10.0	–22.4	–16.6	17.2
Memorandum items:					
GDP (HUF billion)	10 087	11 393	13 172	14 849	16 980

1. Interest revenue in the OECD adjusted accounts includes payments from the central bank in a legal form of dividend.

Source: OECD and Ministry of Finance.

Annex D

Gauging the potential impact of regulatory reform enhancing competition

Pro-competitive regulatory reforms affect performance within industries through several channels. First, reforms may reduce output prices directly *via* lower price-cost margins. This, in turn, may put downward pressure on wages, diminishing the scope for rent-sharing and allowing for a shift to more labour intensive technologies. Second, reforms may force firms to reduce slack in the use of input factors (*i.e.* boost X-efficiency). In addition to these static gains, a more competitive environment could elicit greater efforts to innovate and adopt new technologies, and thus raise long-run productivity growth.

Quantification of the effects of reform on industry performance, let alone their timing, is bound to be subject to considerable uncertainty. Assessing the possible effects in a macroeconomic context adds further complications. For example, reduced rent sharing (stemming from lower mark-ups) might have favourable spill-over effects on wage formation more generally. Furthermore, in order to facilitate increased labour productivity it is crucial to have flexible labour markets. Rigid labour market structures can slowdown adjustment process, thereby leaving aggregate employment at a lower level than prior to reforms. Therefore, economy-wide effects of product market reforms cannot be seen independent of the structural settings in the labour market.

The estimates in the table below are subject to a number of caveats. Importantly the impact of greater labour market flexibility was not included. Such flexibility would lower the NAIRU and increase real wages and labour supply. In addition, the estimates do not incorporate the effects of increased long-run dynamic efficiency through increased adoption of new technologies and innovation. Hence it is quite possible that they underestimate the potential gains by a considerable margin. On the other hand, it is clear that the full exploitation of these gains would require rather far-reaching reform measures, providing an important challenge for the Hungarian authorities.

Table D.1. **A calculation of the effects of pro-competitive regulatory reform in selected industries**

	Energy	Post and telecommunications	Road transport and railways	Retail distribution	Professional services[1]	Community social and personal services[2]	Total economy
Assumptions (per cent change)							
Costs of intermediate inputs	0	–5	0	0	0	–5	
Labour costs							
Labour productivity	–20	–25	–25	–20	–10	–10	
Wages	–10	–5	–10	0	–20	–10	
Capital costs	–15	–10	0	–10	0	–10	
Profits	0	–10	–10	–10	–25	0	
Price elasticity of demand	–0.5	–0.5	–0.2	–0.5	–0.5	–0.2	
Sectoral effects (per cent)	–80.2	–13.5	–10.6	–7	–10.4	–12.3	
Direct price effect	4.1	6.8	2.1	3.5	5.2	2.5	
Price-induced output effect	–15.9	–18.2	–22.9	–16.5	–4.8	–7.5	
Employment, price-induced effect[3]							
Economy-wide effect on (per cent)							
Producer prices, direct effect	–0.4	–0.3	–0.5	–0.8	–0.5	–1.1	–3.6
Producer prices, total effect[4]	–0.7	–0.6	–0.9	–1.4	–0.8	–1.1	
Labour productivity (weighted by share in aggregate output)	0.9	0.6	1.3	2.2	0.5	0.9	6.3
Output							6.3
Memorandum items:							
Share in aggregate employment	2.6	1	7.1	16.1	4.4	27.4	
Share in aggregate value added	7.0	4.5	11.0	7.9	20.1	15.1	
Share in aggregate output	4.4	2.5	5.1	10.8	4.6	9.0	36.4

1. ISIC74, Other business services.
2. Effects from improving public procurement policies and greater use of competitive tendering.
3. Resulting from the direct effect *via* productivity and the induced effect (offsetting effect *via* higher output).
4. Combines the direct effect of the fall in prices of the sector being deregulated with that resulting from the fall in prices in other sectors due to lower input costs.

Source: OECD.

Annex E

Key features of the PAYG and two-pillar pension systems

Table E.1. **Key features of the PAYG and two-pillar pension systems**

Scheme	Coverage	Funding	Eligibility	Pension amount
PAYG (Disability pension runs along similar lines but with different coverage and eligibility criteria).	• Not open to new entrants to the labour market as of July 1998 (except in 2002).	• Employer contribution of 18 per cent gross wages. • Employee contribution of 8.5 per cent gross wages with a ceiling of 2½ time the average wage. • Deficits form part of the general government balance.	• Statutory retirement age is gradually being increased to 62 years for men and women from previously 60 and 55 years. • Early retirement is possible up to 5 years before the statutory retirement age. • 20 years of participation for a full pension, partial pension begin at 15 years contribution.	• Pensions are based on contributions but with significant adjustment to raise the pension of low-income workers and lower those of high-income earners. • Pensions indexed to a weighted average (50-50) of wage and price indices. • Pensions are not taxable and do not form part of tax base when defining marginal rates. • The PAYG payout formula is scheduled to change in 2013 to constant accrual rates.
Two pillar system (first pillar). "Defined benefit" component.	• Compulsory for new labour market entrants since July 1998, (except for those entering the labour market in 2002). • Optional until October 1999 for those entering the labour market before July 1998. In 2003 it was opened up again for those below 30.	• As PAYG except employee contribution is 1½ per cent of gross wages. This contribution is due to be reduced to ½ per cent.	• As PAYG both with regard to statutory retirement age, early retirement possibilities and contribution conditions.	• Pension is calculated as ¾ of that under the PAYG scheme. This will remain the case after the change to constant accrual rates in 2013. • In 2013 all two-pillar pension income will be taxable.
Two pillar system (second pillar). "Defined contribution" component.	As first pillar.	• Compulsory employee contribution to an approved private-sector fund of 7 per cent of gross wage, due to rise to 8 per cent. • Employees (or their employers) can top-up their contribution up to 10 per cent of gross wage into their fund. • The funds deposit roughly ¾ of contributions, ¼ goes to the PAYG system. • Minimum-return requirements for the pension funds were removed in 2002.	• Rules on retirement age are the same as the PAYG. • There is no minimum length of contribution. Accumulated contributions can be inherited or transfer to PAYG in the event of disability or death (for full PAYG survivors benefits).	• After 15 years, contributions are vested as a pension (annuity). Prior to this they can be withdrawn as a lump sum or annuity. • The guarantees on secondpillar benefit level were withdrawn in 2002. The government-backed insolvency guarantee is still in place.

Source: OECD.

Table E.2. **Financial flows of the main institutions in the pension system**

	Sources of financing/Revenue implications	Financing commitments
Central administration of Pension Insurance (included in the General Government Budget)	• Employer contributions from for all employees (18 per cent gross wage). • PAYG contributors (8.5 per cent gross wage). • Two-pillar contributors (1.5 per cent of gross wage, to be phased out by ½ per cent annually from 2004). • ¼ of all contributions to the second pillar. • Deficits covered by central government.	• PAYG and Disability pensions (partly financed by the State Health Insurance Fund). • First pillar of two-pillar system.
Central government	• Currently central government does not get revenue because pensions are not taxed nor included in calculation of taxable income. • Direct revenue from 2013 as all two-pillar pension income will then be taxable. • When taken up before retirement age, all voluntary private pension income is taxable.	• Covers deficits of the Social Security Funds. • For second pillar benefits, central government-backed guarantees were removed (2002) but a means-tested income supplement for those aged over 62 years remains.
Pension funds	• Part of the compulsory employee contributions (7, due to rise to 8, per cent of gross wages). • Voluntary "top-up" contributions.	• Second pillar pensions, annuities and lump-sum payouts. • Subject to portfolio rules. Minimum benefit rules were scrapped in 2002.

Source: OECD Secretariat and Hungarian authorities.

Table E.3. **Tax treatment of pension contributions and tax benefits**

	Tax treatment of employee contributions	Tax treatment of employer contributions	Tax-treatment of benefits
PAYG (Disability pension runs along similar lines but with different coverage and eligibility criteria).	• Fully counted as taxable income (since, as of 2004, the tax credit will be abolished).	• Not taxed.	• Not included in taxable income.
Two pillar system (first pillar). "Defined benefit" component.	• fully counted as taxable income (since, as of 2004, the tax credit will be abolished).	• Not taxed.	• Not included in taxable income.
Two pillar system (second pillar). "Defined contribution" component.	• Fully counted as taxable income (since, as of 2004, the tax credit will be abolished).	• Not taxed.	• Fully counted as taxable income, but tax credit can be applied (as of 2004, will not be included in taxable income).
"Third pillar": voluntary private pensions.	• Fully counted as taxable income but a tax credit can be applied	• Not taxed (with limitation).	• With limitations, not included in taxable income.

Source: OECD Secretariat and Hungarian authorities.

Annex F

Calendar of economic events

2002

January

The statutory minimum wage is increased by 25 per cent to HUF 50 000 per month.

The Hungarian Post Office takes over full control of Postabank.

The government increases prices of electricity by 5 per cent.

Prime Minister announces that the government intends to purchase the money-losing natural gas division from the privately owned MOL energy group, operate it as a fully state-owned company and allow the Hungarian gas prices to converge to world market levels within eight years.

The MNB cuts its base rate in two steps to 9 per cent.

Second round of large pay increases in the public sector (public order officers and army officers).

February

MOL energy group announces that it would lead exclusive talks on the sale of its money-losing gas division with the state-owned Hungarian Development Bank.

The MNB cuts its base rate to 8½ per cent.

May

General elections leading to the formation of a centre-left coalition government.

MNB increases base rate to 9 per cent.

June

Pensions raised by 4½ per cent and the increase is back-dated to January.

July

MNB increases base rate to 9½ per cent.

One-off supplement to pensions (HUF 19 000).

September

Third round of large pay increases in the public sector (public servants).

Minimum wage becomes tax-free.

Increase of child benefit (20 per cent) and scholarship (30 per cent).

MNB cuts base rate to 9 per cent.

December

MNB cuts base rate to 8½ per cent.

Copenhagen EU-Summit: EU welcomes 10 new Member States.

2003

January

MNB cuts base rate in two steps to 6½ per cent in response to an attack on the strong edge of the 15 per cent intervention band. Authorities fended off the speculative attack.

Accounting separation of the state rail company (MAV) into five divisions.

Legislation on increased control and monitoring of state aid for local authorities comes into effect.

Market system opened to large electricity consumers.

May

New legislation on gas services passed.

June

MNB increases base rate in two steps to 9½ per cent following market reaction to a decision to devalue the exchange-rate band by 2.25 per cent.

Legislation passed scheduling an opening of a market to large gas consumers in January 2004.

July

Forth round of large pay increases in the public sector (civil servants and employees in the judiciary system).

October

Draft amendment to the law on state supervision of financial institutions proposing changes to the HFSA submitted to Parliament.

November

MNB increases base rate to 12½ per cent in response to depreciation of the currency below the "preferred" narrow exchange rate band of 250-260 forints per euro.

Minimum wage increase for 2004 agreed at 6 per cent, from HUF 50 000 to HUF 53 000.

Cabinet announces 6.3 per cent increase in pensions for 2004 in addition to the introduction of the 53rd and 54th week pension payments.

Fifth, and final, round of large pay increases in the public sector (employees in the judiciary system).

December

Sale of remaining government stake in MOL postponed.

2004

January

Finance Minister Csaba Laszlo hands in resignation, the prime minister announces that Tibor Draskovics, the cabinet chief, will take over the position.

New Telecommunications Act comes into force.

Market system opened to large gas consumers.

New gas price system based on EU directives introduced.

Glossary of acronyms

ALMP	Active labour market policies
AETR	Average Effective Tax Rate
APEH	National Tax Administration Authority
APW	Average Production Worker
CAP	Common Agricultural Policy
CEEC	Central and eastern European countries
CLRTAP	Convention on Long-Range Transboundary Air Pollution
CPI	Consumer Price Index
CSO	Central Statistical Office
ERM II	Exchange Rate Mechanism II
ESA95	European Standard Accounts '95
FDI	Foreign direct investment
GFS	Government Finance Statistics
GFS86	Government Financial Statistics '86
GHG	Greenhouse Gases
GVH	Hungarian Competition Authority
HFSA	Hungarian Financial Supervisory Authority
ICN	International Competition Network
IEA	International Energy Agency
KSH	The Hungarian central statistical office
MATAV	Hungarian Telecommunications Company
MAV	Hungarian railway system
MAVIR	Hungarian Electricity Grid Operator
METR	Marginal Effective Tax Rates
MFB	Hungarian Development Bank
MNB	Hungarian Central Bank (*Magyar Nemzeti Bank*)
MOL	Hungarian Oil and Gas Company
MVM	Hungarian Electricity Company
NEL	National Expressway Company
NRC	National Reconciliation Council
PAYG	Pay-As-You-Go System
PEP	Pre-accession programme
PIT	Personal Income Tax
SAPARD	Agricultural and rural development
SEH	Expressway Management Company
SET	Simplified Entrepreneurial Tax
SME	Small-and-medium enterprise
SNA93	System of National Accounts '93
VAT	Value-added tax

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