Chapter 2

Sustaining the momentum of fiscal reform

Hungary has faced a considerable challenge to regain credibility following persistent and high fiscal deficits. Efforts during recent years have produced substantial results. The fiscal deficit has been brought down significantly and, despite the recession, fiscal consolidation has continued to help restore foreign investor confidence. Short-term fiscal adjustment needed to be accompanied by measures that can durably improve Hungary's fiscal position, however, and it has; the adoption in 2009 of a pension reform and a Fiscal Responsibility Act, creating a Fiscal Council and fiscal rules hold that potential.

These results should not lead to complacency. Some expenditure cuts, such as lower public salaries, may prove difficult to sustain. Fiscal consolidation in the past owed both to expenditure cuts and revenue increases. As a result, and despite an important tax reform starting in the second half of 2009 and extended from the beginning of 2010, marginal tax rates remain high, with adverse effects on the labour market and growth. Going forward, the government needs to contain public expenditure growth and improve public administration efficiency to reduce the public "footprint" on the economy and allow lower taxes. Key areas that warrant intensified efforts are public administration and health. The government should help secure a prominent role for the Fiscal Council and some experience needs to accumulate before considering any substantial changes in the fiscal rules. Finally, improvements to make taxation less distortive should continue by further reducing tax wedges, and increasing the role of wealth taxes, notably for local governments.

Beginning in the second half of 2006, the government faced several fiscal challenges. The most immediate was to take urgent measures to reduce the general government deficit, which had exploded to a record 9.4% of GDP due to pre-electoral fiscal profligacy, with the stock of public debt rising relentlessly. It had become clear, however, that short-term and somewhat *ad hoc* measures would not assure a sustainable fiscal position. More fundamental and enduring structural fiscal reforms would be needed to improve the quality of public finances and turn government into a catalyst for growth and prosperity rather than a hindrance.

This chapter examines Hungary's ongoing fiscal challenge from a structural and long-term perspective. Progress has been achieved on many fronts in recent years. On spending, steps have been taken to scale back social transfers, to contain the growth of pension outlays, to restrain operating costs and, to some extent, to improve the efficiency of public spending. Nevertheless, more durable reforms are needed. Tax policy has centred on reducing overall deadweight losses by shifting taxation from labour to consumption, a strategy aimed at improving prospects for employment growth and shrinking the size of the grey economy ("whitening"). At the same time, in the absence of a further reduction in the structural level of public spending to allow for a general lowering of the tax burden, the government will need to pursue base broadening to achieve reductions of the more distortionary taxes. Finally, institutional reforms, notably the adoption of fiscal rules in late 2008, hold the promise, but not the guarantee, of breaking Hungary's election-driven deficit cycle by imparting a medium-term orientation to fiscal policy.

Recent developments

Fiscal efforts have borne fruit

During the past several years, the government has significantly slowed the fiscal "bleeding" and initiated fundamental reforms, with effect both in the short run and over time. Despite having implemented one of the largest fiscal adjustments in the OECD during 2007-08, the measures that comprised an untimely (*i.e.* pro-cyclical) yet necessary stance were still not sufficient to arrest the upward momentum of the public debt in 2008 (Figure 2.1). Moreover, a substantial proportion of the adjustment resulted from measures having only immediate impact, notably revenue enhancements (*e.g.* higher value added tax rates and increased corporate taxes) and temporary spending restraint (*e.g.* a public sector wage freeze and cutbacks in public investment). Nevertheless, these were accompanied by some far-reaching reforms to lower structural spending, improve public administration, and revamp taxes to help reduce the scope and scale of the grey economy (OECD, 2008).

A gauge of the possible long-term fiscal gains achieved during the past few years can be gleaned from changes in the estimated sustainability gaps calculated by the European Commission (2006 and 2009a).[1] Reflecting both the improvement in the initial budget position and the decrease in projected long-term costs of ageing due to measures taken in 2006-07. The 2009 estimated sustainability gap for Hungary has improved considerably

Figure 2.1. **General government deficit and debt: history and goals**[1]
Per cent of GDP
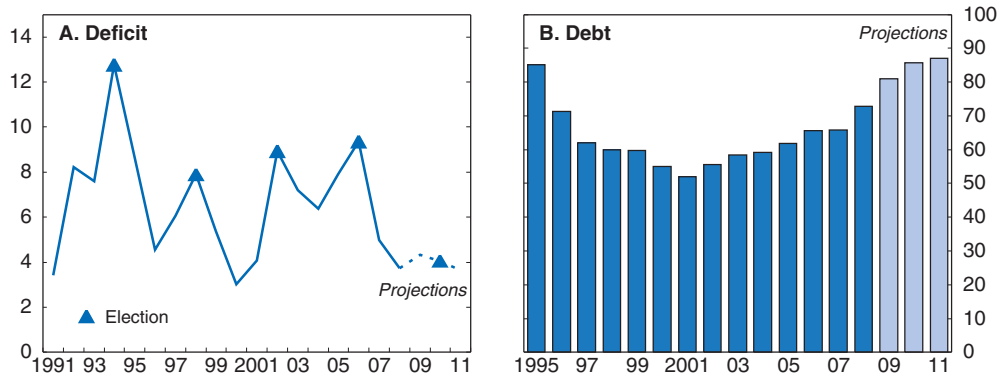
1. General government net lending/borrowing and gross debt Maastricht definition.
Source: OECD (2009), *OECD Economic Outlook: Statistics and Projections* (database), November.

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since 2006. The S1 sustainability gap, which is an estimate of the permanent adjustment to the general government primary balance needed to reach the 60% of GDP reference target under the *Stability and Growth Pact* by 2060, is estimated to have improved by 9 percentage points of GDP between the 2006 and 2009 Reports. Taking into account the pension reforms introduced in 2009, the long-term cost of ageing should decline considerably further. New government projections, which should be discussed by the Ageing Working group of the European Commission in early 2010, estimate the savings on pension expenditures to reach about 3% by 2060.

Notwithstanding Hungary's improved sustainability outlook, a number of considerations argue for a cautious perspective. First, much of the improvement can be traced to the higher structural balance achieved recently. However, some of the measures to reduce spending will have a less durable impact on outlays than implicitly assumed in the simulation. For instance, public sector wages may at some point have to be unfrozen. Barring significant reductions in public employment, the wage bill could again become a source of fiscal pressure if the pay gap between the public and private sectors is to be kept from growing (Figure 2.2). Also, in recent years cuts in public investment are of only short-term fiscal value. Moreover, some of the recent improvement in the structural balance is likely to be due to higher tax elasticities, which may have reversed during the crisis. Second, the baseline scenario assumes a return to trend (or potential) growth within a few years. Other considerations aside (for instance, slower emergence of the world economy from the current crisis), sustained progress on structural reforms will be needed. Indeed, a slower return to potential growth adds over 3 percentage points of GDP to Hungary's sustainability gap.[2] A faster catch-up in life expectancy could increase ageing further and thereby raise budgetary costs unless retirement ages are linked to life expectancy (see below). Caution is also warranted in view of evident risks that future governments might reverse some recent consolidation measures.[3]

The new fiscal responsibility framework is welcome

The risk of a repeat of Hungary's election-driven deficit cycle and a reversal of policy speaks favourably of the enactment of the *Fiscal Responsibility Act* in 2008 and the

Figure 2.2. **Trends in average wages in the public and private sectors**

Gross earnings of white-collar workers, thousand HUF
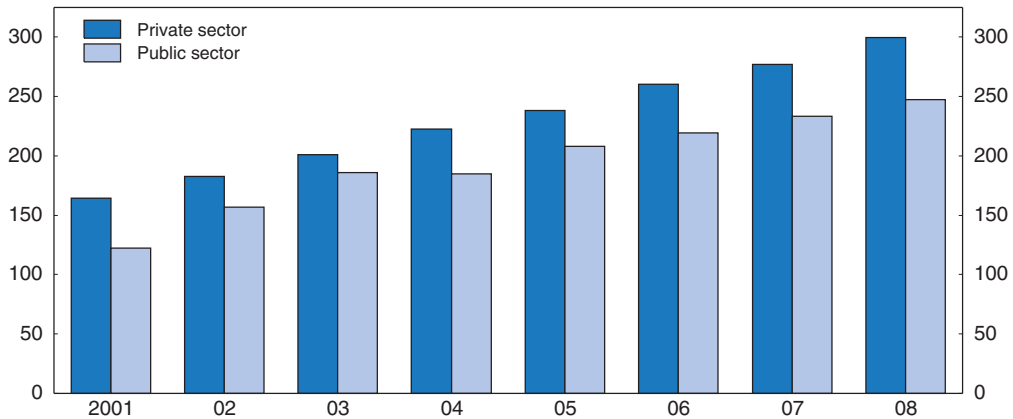
Source: HCSO (2009), *Stadat Tables*, Hungarian Central Statistical Office, October.

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establishment of a *Fiscal Council*. The decision to substantially reform budget formulation and implementation follows similar steps in a growing number of countries that have introduced rules-based fiscal responsibility frameworks designed to improve budgetary discipline (Kopits and Symansky, 1998; Poterba and von Hagen, 1999; and Kopits, 2004). Key features of a fiscal responsibility framework are: *i)* constraints on one or both of a specifically defined budget balance (*e.g.* overall cash, primary, current, etc.) and the stock of gross public debt; and *ii)* inclusion of procedural rules, transparency standards, and surveillance and enforcement mechanisms. Where discretionary fiscal policy has been plagued by time inconsistency and common pool problems, the public finances tend to be afflicted by deficit bias, pro-cyclicality and structural distortions, giving rise over time to problems of sustainability (Kopits, 2007).[4] There is preliminary evidence that a fiscal responsibility framework can reduce the risk premium on government debt through both its effectiveness in lowering the deficit and its credibility effects arising from greater assurances about future fiscal policies (Debrun and Bikas, 2008). Given its fiscal record during most of its post-transition experience, Hungary was a prime candidate for the introduction of a fiscal responsibility framework tailored to its circumstances.

Hungary's fiscal responsibility framework has teeth, and holds the promise of being an effective anchor for fiscal policy (Box 2.1). The framework includes numerical fiscal rules, along with procedural and transparency requirements. With a medium-term perspective, the rules include annual spending targets for each of the next three years, and an "error correction" mechanism that in effect constrains the government to correct, within the next three years, any deviation of debt from the targeted level. The rules are *operationally complex* (Annex 2.A1), however, and successful implementation will require extraordinary procedural clarity. To this effect, the Fiscal Council should prepare, as soon as possible, an operational manual describing the step-by-step process for implementing the rules, including key budgetary variables, dates and responsible government and parliamentary units. The Fiscal Council's considerable oversight authority, together with a governance structure (*e.g.* minimum qualifications for members, duration of terms, etc.) conceived to secure a maximum degree of political independence, hold promise for ending Hungary's election-deficit cycle.

Box 2.1. **Hungary's Fiscal Responsibility Law**

The Fiscal Responsibility Law of 2008 introduced a rules-based policy framework, whose main aim is to restore fiscal sustainability. Towards this goal, two policy rules have been set: the debt rule and the expenditure rule (see Annex 2.A1 for a more detailed presentation on rule implementation). In addition, the government is required to enforce a number of procedural rules, including the "pay-go" rule. The rules are applicable to the central government, including quasi-fiscal activities of state-owned enterprises, commencing 1 January 2010. Application of the rules is subject to a set of transparency standards and is monitored by the Fiscal Council.

The debt rule limits the stock of central government liabilities in real terms, *i.e.* that the stock of debt cannot grow faster than inflation. To this effect, starting three years in advance, the rule prescribes a sequential approach to derive a ceiling on the discretionary primary deficit, which serves as the binding operational target, consistent with the *ex ante* policy target, namely, the debt limit. Any excess above the debt limit due to an excess in the discretionary deficit must be corrected within three years. In sum, upon compliance with the rule, the ratio of public debt to GDP is envisaged to decline over time proportionally to real GDP growth. Following an initial three-year phase-in period, the debt rule will be fully effective for the 2012 budget.

According to the expenditure rule, the government will set a growth target of consolidated primary expenditures two years prior to the budget year. As a transitional arrangement, for 2010 and 2011, the rule limits the growth rate of expenditures to half of the GDP growth rate, in real terms.

Under the "pay-go" rule, all (budget and non-budget) legislative proposals involving an increase in primary expenditures or a revenue reduction (including through tax expenditures) must be offset with a commensurate expenditure cut or revenue increase, spelled out in the same proposal. This rule is effective for the 2010 budget.

The law has set up a new independent agency, the Fiscal Council. Assisted by a technical staff of about 40 people, the Council's main task is to promote the transparency and sustainability of Hungary's public finances. Toward that goal, the Council provides independent macroeconomic and fiscal forecasts, including assessments of the fiscal impact of government and/or parliamentary decisions. The Council also monitors compliance with the rules. Finally, the Council helps ensure transparency by making its assessments public.

Still in its infancy, the Fiscal Responsibility Act and accompanying rules will need to be given time to be tested and it would be best to allow some experience to accumulate before considering substantial changes. It is also essential to secure a prominent role for the Fiscal Council and for strong political will to achieve fiscal sustainability.[5] In the meantime, the authorities need to remain vigilant about some of the framework's potential weaknesses.

- *First*, the complexity of some aspects of the rule (*e.g.* the error correction mechanism, the definition of mandatory *versus* discretionary spending and revenue) should not be allowed to become a convenient means of circumvention. Similarly, ensuring consistency between accrual flow accounting of the fiscal balance and market based cash valuation of the debt stock could pose challenges in the implementation of the rule, potentially generating pro-cyclicality (Annex 2.A1).

● *Second*, as a Parliamentary Law, provisions can be changed with a simple majority, less than the two-thirds majority required for the alternative and stronger Constitutional Law. As such, considerable vigilance is warranted to avoid changes that reflect political expedience rather than analytical rigour, for example to circumvent the difficulty in achieving a significant primary surplus, as implicitly required by the rules as long as the debt ratio remains high (Annex 2.A1).

● *Third*, the law does not constrain sub-national governments. While municipalities in principle have to submit balanced budgets, they can benefit from a "deficit grant" if justified by unforeseeable developments. Pending eventual changes to the Fiscal Responsibility Law that would allow sub-national budgets to be formally folded into the fiscal rule, efforts are needed to strengthen the central government's disciplining role. Several measures would be helpful in this regard, including stronger sanctions against municipalities that break budget rules, and incentives to develop the use of multi-year budgeting by sub-national governments.

Addressing the structural fiscal challenges

Structural fiscal reforms must be pursued to fundamentally improve public finances

The government is committed to further reduce the public sector's "footprint" on the economy. The share of general government spending in GDP has been high, especially in comparison to countries with similar living standards (Figure 2.3). Cross-country comparisons of the scope and scale of the public sector based on general government spending are not without limitations. *First*, some countries rely more on tax expenditure than on direct spending to support specific expenditure.[6] *Second*, some countries rely more heavily than others on direct "social" mandates to the private sector. *Third*, social benefits are

Figure 2.3. **The relationship between government spending and per capita incomes: international comparison**

2008[1]
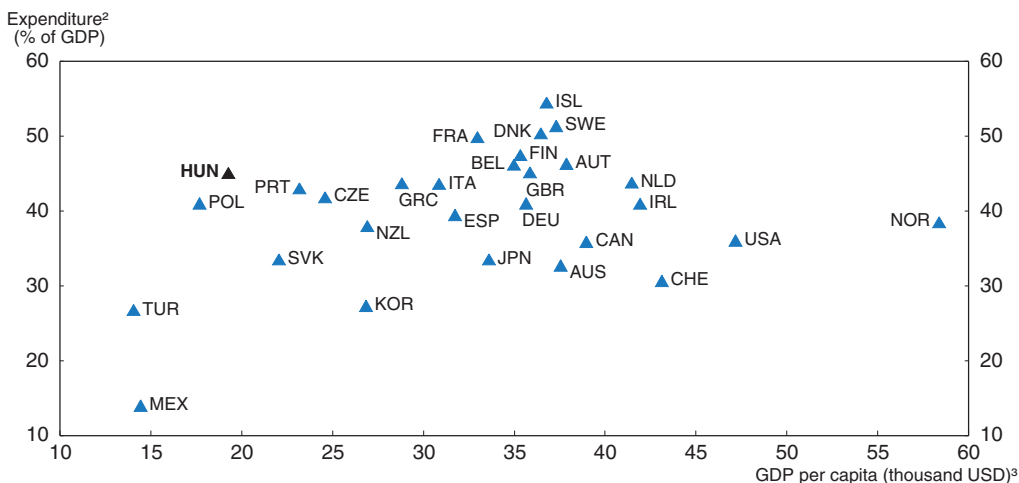
1. 2007 for Australia, Japan, Korea and New Zealand.
2. General government expenditure excluding interest payments except for Mexico and Turkey.
3. Calculated using current purchasing power parities.

Source: OECD (2009), *OECD National Accounts Statistics* and *OECD Economic Outlook: Statistics and Projections* (databases), December.

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taxed in some countries and not in others. However, Hungary's public expenditure remains high even by correcting for some of the difficulties mentioned above, especially compared to Visegrád countries (see for example Kiss and Szemere, 2009). Quite apart from the question of whether spending could be reduced without loss of public sector output (see below), financing Hungary's large public sector requires a higher overall rate of taxation. In practice, a higher average tax burden will imply high marginal tax rates. Absent lump sum taxes, an increase in the marginal tax rate causes a disproportionate increase in deadweight losses. Thus, large welfare gains could be achieved by reducing the size of the government. Until 2007, however, and in contrast to many partner countries pursuing expenditure restraint, Hungary's general government primary spending rose as a share of GDP during 1997-2008, to reach a level slightly above the EU15 average by the end of the period (Figure 2.4).

Figure 2.4. **Public expenditure in selected new EU countries**

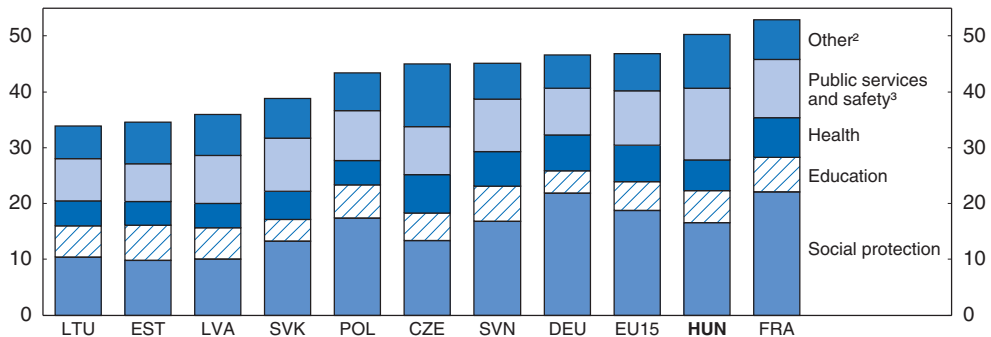General government primary expenditure by economic function
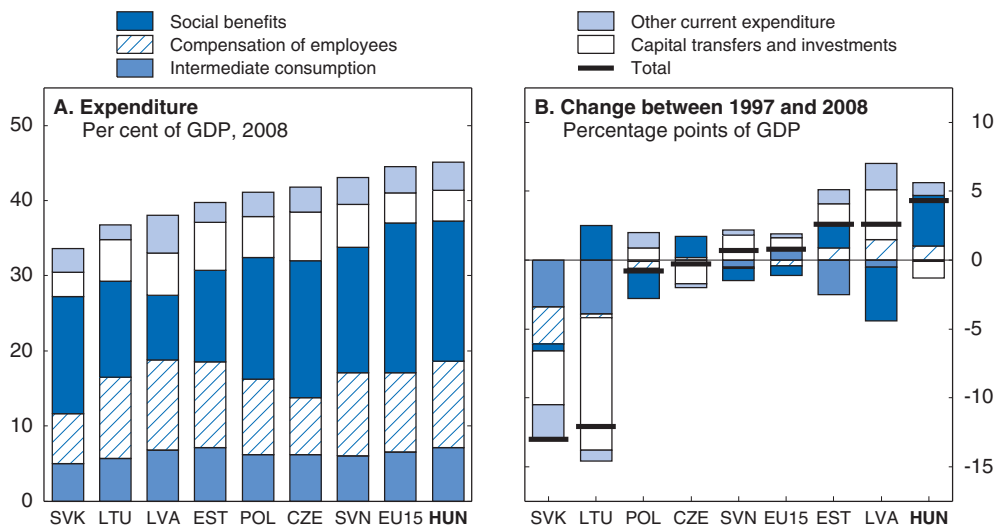
Source: Eurostat (2009), "Economy and Finance", *Eurostat database*, December.

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A comparison of the structure of Hungary's public expenditure by type of spending with that of other OECD countries is suggestive of the more promising avenues for achieving durable reductions. First, striking features in Hungary are the large share of outlays on public services and the fact that it did not decrease until 2007, in contrast to cutbacks in a majority of OECD countries (Figures 2.5 and 2.6). This suggests potential efficiency gains in public administration. Another feature of Hungary's public spending is the comparatively high level of outlays on social protection, reflecting generous social transfers and attractive incentives for early retirement.[7] Third, health-care spending, while lower than in most OECD members, is known for not delivering adequate outcomes by international standards (*e.g.* life expectancy is low). While some areas of waste have received the government's attention, stronger efforts are needed to achieve satisfactory improvements.

Figure 2.5. **Structure of public expenditure in Hungary and EU countries**

General government expenditure in per cent of GDP, average 2002-07[1]

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

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

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Figure 2.6. **General public service spending**

Excluding interest payments, per cent of GDP
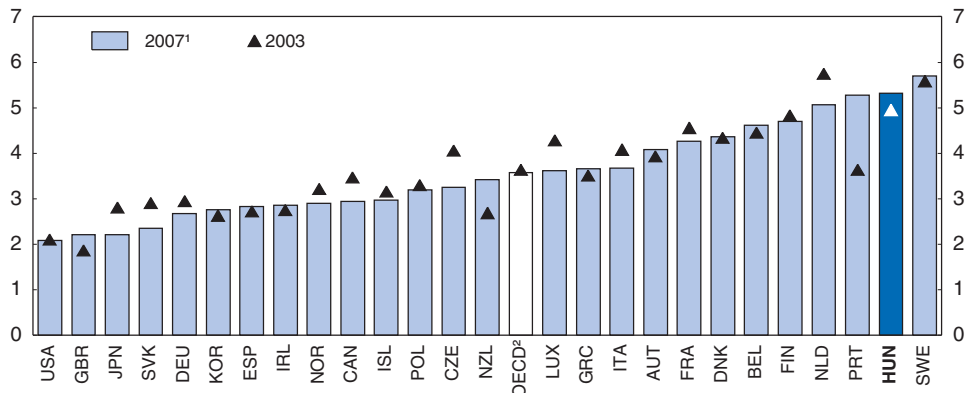
1. 2006 for Canada and 2005 for New Zealand.
2. Unweighted average excluding Australia, Mexico, Switzerland and Turkey.

Source: OECD (2009), *OECD National Accounts Statistics* (database), December.

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Early efforts to raise the efficiency of public administration are justified

Increasing the efficiency of the public sector is therefore an obvious source of potential budgetary savings. It is especially useful to examine the efficiency of Hungary's public administration because of the large weight of the public sector in the economy, and the fact that the efficiency of the public sector impacts on that of the private sector through taxation, spending and regulation. Improved efficiency alleviates the budget constraint by achieving the same public objectives with a lower level of spending, or increased value for money by achieving better outcomes with the same outlays.

Hungary has a complex structure of public administration. It has three layers of elected government: *i)* the central government, with 14 ministries including the prime minister's office; *ii)* nineteen counties; and *iii)* over 3 000 municipalities, each of which is granted a large degree of autonomy. Major cities have a dual county-municipality status.

The county also has numerous so-called councils that interact with the elected governments and play an active role in initiating and co-ordinating activities on local and regional levels.[8] The councils have, to some degree, overlapping responsibilities with the counties, first and foremost on development, education and health care (OECD, 2007).

For policy makers, a pertinent question relates to how much gain can be potentially achieved through reforms of this complex structure of government? Efficiency analyses of other areas of public spending than general public services have revealed considerable scope for improvements in Hungary. In a recent OECD efficiency study of the health sector, Hungary ranked lowest among OECD countries (Figure 2.7) (OECD, 2009a). Hungary also ranked among the lowest among the new member states in a recent European Central Bank assessment of overall public sector efficiency (Afonso *et al.*, 2006).[9]

Figure 2.7. **Efficiency of the health system**

Output efficiency score: life expectancy in 2005
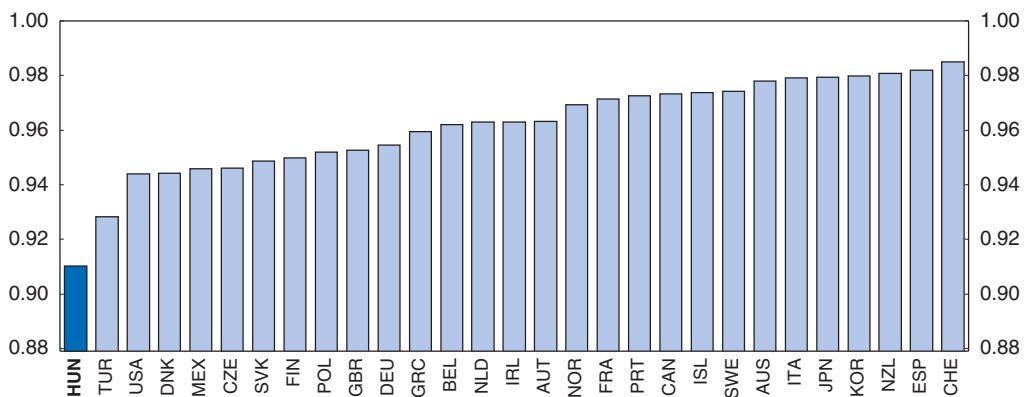
Source: OECD (2009), *OECD Economic Surveys: Mexico 2009.*

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Hungary's poor comparative performance with regard to the efficiency of public administration, however, begs the question: how large is the efficiency gap? The scale of inefficiency in the provision of public services can be estimated using Data Envelopment Analysis (DEA), which consists of constructing an efficiency frontier using the share of general public service outlays (net of interest payments) in GDP as an input, and performance indicators as an output (Table 2.1). A deviation from the estimated efficiency frontier provides a measure of a country's public sector inefficiency. Specifically, the estimate shows the extent to which a country could reduce its public service input without loss of output (Annex 2.A2).

On the basis of this analysis, Hungary's public administration appears to be one of the least efficient among OECD countries and accession countries, and the shortfall is large. The data envelopment analysis suggests that Hungary could obtain the same outcome with roughly half the level of public administration resources currently used (Figure 2.8 and Table 2.1) and raises the question whether taxpayers are getting value for money.[10] However, Hungary's substantial fiscal consolidation efforts and implemented reductions in public employment in 2008 and 2009 hold promise of improving the results.

Table 2.1. **Public administration DEA scores and input and outcome variables**

Normalised variables with average equal to one, 2008

	Input	Output				World Bank government efficiency index	DEA input efficiency score[3] (scale 0-1)
	Public service spending (% of GDP)[1]	Global competitiveness report		Product market regulation indicator (inverted)	Performance indicator[2]		
		Corruption	Justice				
Hungary	**1.40**	**0.62**	**0.86**	**1.01**	**0.83**	**0.47**	**0.50**
Austria	1.05	1.15	1.15	1.00	1.10	1.22	0.69
Belgium	1.20	1.01	1.04	0.98	1.01	0.98	0.58
Canada	0.86	1.09	1.09	1.08	1.08	1.39	0.83
Czech Republic	1.02	0.62	0.82	0.94	0.79	0.77	0.68
Denmark	1.03	1.36	1.19	1.06	1.20	1.57	1.00
Finland	1.14	1.34	1.19	1.03	1.19	1.40	0.82
France	1.06	1.00	1.04	0.97	1.01	1.10	0.66
Germany	0.82	1.14	1.14	1.00	1.09	1.18	0.88
Greece	0.94	0.74	0.86	0.83	0.81	0.40	0.74
Iceland	0.85	1.27	1.15	1.07	1.16	1.13	0.94
Ireland	0.83	1.03	1.07	1.00	1.03	1.16	0.85
Italy	1.06	0.65	0.74	0.99	0.79	0.28	0.66
Japan	0.70	0.92	1.01	1.05	0.99	1.05	1.00
Korea	0.78	1.02	0.95	0.97	0.98	0.90	0.89
Luxembourg	0.87	1.22	1.10	0.95	1.09	1.18	0.82
Netherlands	1.32	1.27	1.09	1.08	1.14	1.33	0.55
New Zealand	1.02	1.21	1.11	1.02	1.11	1.26	0.71
Norway	0.73	1.26	1.15	1.04	1.15	1.40	1.00
Poland	0.96	0.67	0.69	0.78	0.71	0.34	0.72
Portugal	1.32	0.90	0.96	0.98	0.95	0.75	0.53
Slovak Republic	0.83	0.64	0.77	0.94	0.78	0.55	0.84
Spain	0.91	0.93	0.92	1.05	0.97	0.71	0.77
Sweden	1.35	1.31	1.13	1.00	1.15	1.43	0.54
United Kingdom	0.90	0.93	0.94	1.11	0.99	1.25	0.77
United States	0.80	1.00	1.00	1.11	1.03	1.18	0.88
Estonia	1.01	0.89	0.98	1.00	0.96	0.82	0.69
Slovenia	1.21	0.83	0.88	0.97	0.89	0.78	0.58
Average	1.00	1.00	1.00	1.00	1.00	1.00	. .
Standard deviation	0.19	1.05	0.23	0.77	0.14	0.36	. .

1. 2007 or latest year of data available. Spending on general public services (excluding interest payments) and public order and safety.
2. A composite indicator for public administration outcome based on international surveys on the quality of justice and the level of corruption, both taken from the Global Competitiveness Report, and the levels of bureaucracy in the economy measured by OECD's Product Market Regulation indicator.
3. DEA: Data Envelopment Analysis.
Source: OECD calculations based on OECD (2009), *OECD National Accounts Statistics* (database), October; WEF (2008), *The Global Competitiveness Report 2008-2009*, World Economic Forum; OECD (2009), *International Regulation* (database), July; Kaufmann, D., A. Kraay and M. Mostruzzi (2009), "Governance Matters VIII: Aggregate and individual Governance Indicators, 1996-2008", *Policy Research Working Paper*, No. 4978, World Bank.

Gains can be achieved in a number of areas

Against this background, the government's ongoing efforts to improve public administration are welcome. Indeed, in the 2008 *Convergence Programme* (Government of the Republic of Hungary, 2008) the government has committed to reducing administrative burdens on market and non-market participants by 25% by 2012. There are many areas of

Figure 2.8. **Estimated public service efficiency frontier in OECD countries**
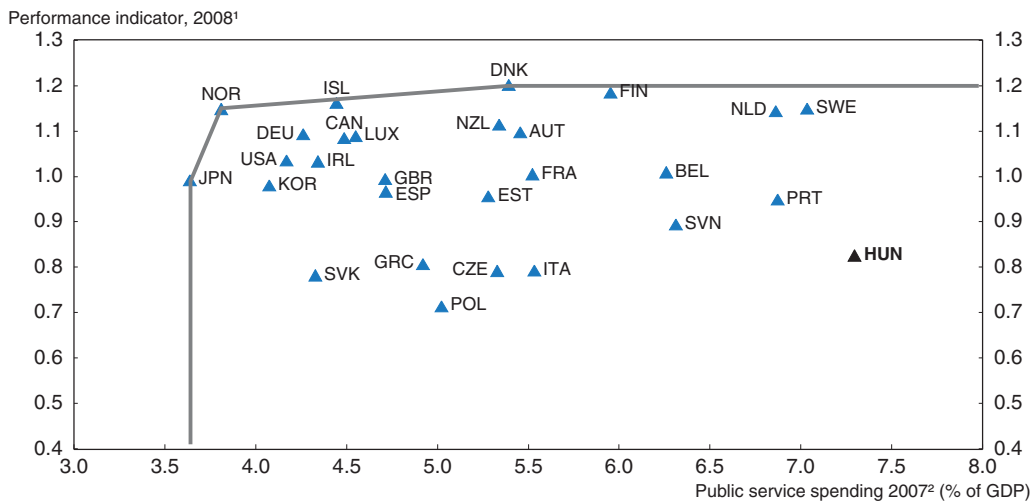
1. A composite indicator for public administration outcome based on international surveys on the quality of justice and the level of corruption, both taken from the Global Competitiveness Report, and the levels of bureaucracy in the economy measured by OECD's Product Market Regulation indicator.
2. Spending in 2006 for Canada and Slovenia, 2005 for New Zealand. Spending on general public services (excluding interest payments) and public order and safety.

Source: OECD calculations based on OECD (2009), *OECD National Accounts Statistics* (database), October; WEO (2008), *The Global Competitiveness Report 2008-2009*, World Economic Forum; OECD (2009), *International Regulation* (database), July.

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public administration where substantial gains in value for money are possible and where efforts should be concentrated.

For instance, public employment is substantial and could be reduced. With 685 000 public sector employees in 2009 (roughly 7% of the population), central and sub-national workers account for almost 20% of total domestic employment, which is high in comparison with other OECD countries (Figure 2.9).[11] Although health and education workers represent a large proportion of public employees, Hungary still ranks high after netting out those sectors. While the government has no firm plans to target specific mandatory staff reductions, it does intend that a decline in personnel be a by-product of streamlining and rationalisation of the public sector. Functional reviews could be instructive in this regard, since these can help revise mission statements and agency personnel requirements. In any event, at a minimum, progress in achieving employment cuts indirectly should be regularly assessed, and corrective action taken if excess staffing remains.

Despite Hungary's fragmented sub-national government structure, it is a relatively centralised country compared to other countries with a relatively large public sector. Nevertheless, almost half of civil servants are employed by sub-national governments, health and education employment excluded (Table 2.2). Numerous tasks are provided at the central level, such as public order and safety services and, in particular, infrastructure, although segments of these areas are endowed to local councils. In 2006, the government started a head-count reduction at the central level, as previously mentioned, that went hand in hand with a general simplification of the central government's organisation (60 units of government were abolished or merged). While these measures reduced the central government's share of general government employment from 47% in 2006 to 45% in 2007, with a further decline expected in 2008, the relatively large share of central

Figure 2.9. **Government employment**

Per cent of domestic employment, 2006[1]
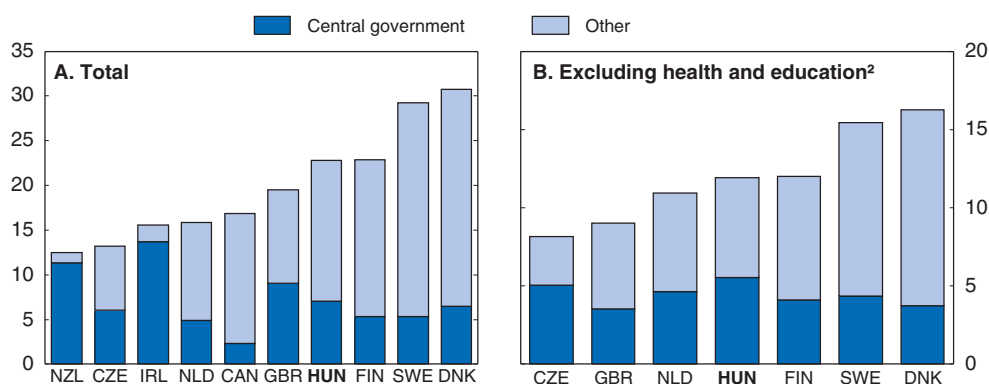
1. 2004 for New Zealand; 2005 in panel A and 2003 in panel B for the Netherlands.
2. Data in full-time equivalents.

Source: OECD (2009), "OECD Efficiency Study", Public Governance Committee, Document GOV/PGC/SBO(2009)4, May and OECD calculations.

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Table 2.2. **Centralisation and outsourcing without health and education**

2006

	Ratio of central to general government employment			Rates of central intermediate consumption		
	Average[1]	**Hungary**	Czech Republic	Average[1]	**Hungary**	Czech Republic
Collective goods in kind						
Central governance services	0.34	**0.34**	0.38	0.50	**0.40**	0.44
Basic research	1.00	**1.00**	1.00	0.51	**0.33**	0.37
Defence	0.99	**1.00**	1.00	0.57	**0.61**	0.52
Public order and safety	0.68	**0.86**	0.92	0.39	**0.12**	0.19
Infrastructure and network services	0.52	**0.91**	0.79	0.78	**0.70**	0.92
Environmental, development and community services	0.22	**0.14**	0.34	0.65	**0.82**	0.90
Service regulation	0.35	**0.40**	0.52	0.58	**0.46**	0.54
Individual goods in kind						
Non-market recreation, culture and religion	0.22	**0.36**	0.28	0.53	**0.53**	0.53
Social services	0.10	**0.04**	0.24	0.50	**0.51**	0.35
Total	0.34	**0.47**	0.62	0.54	**0.38**	0.41

1. Average of Denmark, Finland, Netherlands (2003 for employment), Sweden and United Kingdom.

Source: OECD (2009), "OECD Efficiency Study", Public Governance Committee, Document GOV/PGC/SBO(2009)4, May and OECD calculations.

government employment implies that efficiency efforts at the central level should be continued. In addition, the combination of an immense central government and a fragmented sub-national government structure raises questions about the division of labour between the central and sub-national governments.

On the central level, there is a possibility of outsourcing more services. While a clear case may exist for the government to fund certain goods and services, this does not require that it must provide all of them. Many OECD countries rely increasingly on sub-contracting and competitive tendering to obtain the provision of constant quality services at lower costs. Indeed, empirical studies generally find that competitive tendering results in lower

costs than uncontested public provision. The estimated savings vary greatly across countries and services, but tend to be concentrated in the 10% to 30% range (Joumard *et al.*, 2004). Nevertheless, outsourcing has produced significant long-term savings only when it is based on sound economic analysis. In Hungary, the degree of outsourcing is rather low at the central government level compared to other countries (measured as the share of intermediate consumption in current operational expenditure) (Table 2.2). Greater use of market solutions to obtain efficiency gains should be pursued, although these efforts must be accompanied by enhanced public procurement.

Public procurement in Hungary is a large portion of public expenditure, and is one of the highest in the OECD as a share of GDP (Figure 2.10). Public procurement is known to be a major source of potential corruption and additional taxpayer burden.[12] According to the State Audit Office of Hungary, 21% of the audited local governments failed to comply with the required procedures. A new law that came into force in April 2009 strengthens the legal framework and transparency requirements. In the meantime, Transparency International refers to an unreleased study by the Public Procurement Council in autumn 2009 alleging that more than 50% of public procurement is affected by corruption in Hungary. Given Hungary's poor showing with respect to government waste and corruption indicators, the large volume of procurement is a cause for considerable caution and potential concern. The government should therefore strengthen monitoring of procurement procedures, and the oversight and enforcement authority of the reviews by the State Audit Office. Recently, a reform of the Public Procurement Office has enhanced its control mechanisms and whistleblower protection, which is a step in the right direction. More generally, the State Audit Office, as the main institution tasked with ensuring that the will of the elected parliament is respected by the executive branch, and with controlling and assessing the performance of the public administration, ought to be generally strengthened. Specifically, its findings of misuse of public funds need follow-up which, in turn, requires strong political will and support.

Figure 2.10. **Public procurement**[1]
Per cent of GDP, 2006
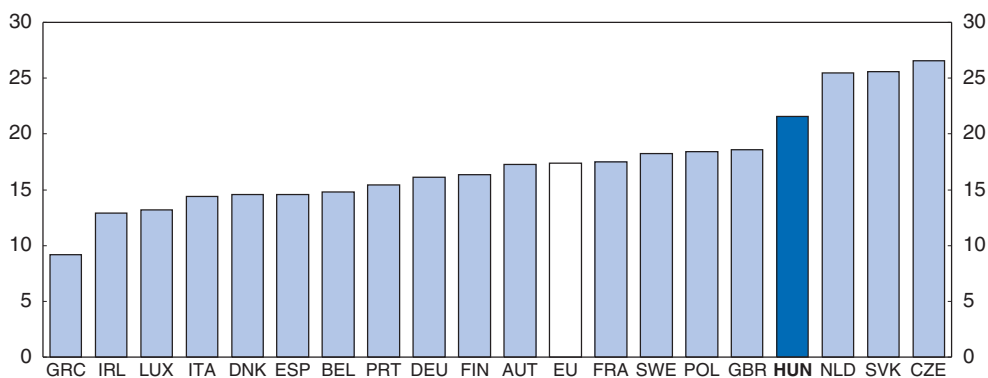
1. The EU aggregate covers the 19 member countries that are also members of the OECD.
Source: OECD (2009), *Government at a Glance 2009.*

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Spending reductions could be achieved by streamlining tasks within ministries and government agencies. In 2006, the State Reform Council compiled a comprehensive matrix of 10 000 tasks undertaken throughout government. It offered 200 recommendations for

abolishing or changing these tasks, mostly due to overlapping tasks between government agencies. Successful achievements include the headcount reduction recently implemented in public administration and a reduced number of budgetary institutions. However, the government could send a strong signal of commitment to fundamental reform by taking forward the State Reform Council's recommendations on removing overlapping tasks. Public administration reform is a huge challenge for any government, but success is more likely when a single ministry, agency or task force is empowered to monitor and assess progress. To this effect, the government should establish a unit, preferably in the office of the Prime Minister, tasked with tracking progress in all key areas of public administration reform and judging progress against specific milestones.

The public sector needs to be a catalyst for growth

The Hungarian public sector is large, and is a hindrance rather than a catalyst to growth; hence, the government's inclination toward structural reforms. Reforming key programmes that are having adverse impacts on economic performance should remain a central objective. The government has made significant changes to the public pillar of the pension system, to a large degree satisfactorily, albeit with some exceptions. Other areas, in particular health care, remain a serious challenge, and should be given high priority. Indeed, health-care reform will require the building of a still lacking political consensus, lest the already low quality of health services decline even further. On the tax side, the government has taken important steps to broaden the tax base and reduce key marginal tax rates, but further reductions are still needed.

Pensions

In 2009, the government made several parametric changes to the public pillar of the pension scheme that should significantly reduce the system's future liabilities. These are the latest in a long series of reforms and measures that started more than a decade ago. A major overhaul of the old-age pension system was introduced in 1998. The system comprises three pillars: i) a public defined-benefit pillar financed mostly from earnings-based contributions and providing earnings-related old-age, survivors and disability pensions; ii) a mandatory private defined-contribution pillar; and iii) a voluntary pillar introduced in 1993. New entrants to the labour force in 1998 were automatically enrolled in both mandatory pillars, while mid-career workers were given the option of participating in both mandatory pillars or to remain in the first pillar only. Participants opting into the mixed public-private scheme were given the right to reverse their decision at any time before 2013, as long as they have less than 10 years of work experience.

The pension contribution rates are high. After falling early in the decade, pension contribution rates rose by a cumulative 7 percentage points to 33.5% of gross income, including 8 percentage points paid into the second pillar. Most of the increase, however, is explained by the shift of a portion of health-care contributions to the pension fund, since these contributions had always been used, indirectly, to finance disability pensions. There has always been a minimum contribution. Since 2007, it is presumptive and based on twice the minimum wage, in part to reduce under-reporting earned wages.[13] Earnings subject to contributions are capped at roughly three times the gross average income, which is not binding for many participants.

A number of parametric reforms to benefits have been introduced over the years, with differing impacts on the financial strength of the system. Key measures through 2008 that

made the system more generous include the provision of a 13th month pension and a change in the indexation of earnings histories for the calculation of the pension base. At the same time, some measures reduced benefits, including the elimination of the deduction of unemployment and social security contributions from the earnings base for computing new pensions, a strengthening of penalties and bonuses to discourage early retirement, a tightening of eligibility for disability benefits, and a capping of the value of the 13th month pension benefit. The authorities took further actions in 2009: pensions are now indexed to the consumer price index (CPI) (rather than by the "Swiss" method of 50% wages, 50% prices) unless real GDP growth exceeds 3%; the 13th month pension has been abolished; and increases for certain disability pensions planned for 2010 have been revoked. Finally, starting in 2012, the statutory retirement ages for early and full pensions will be increased by six months each year to reach progressively 65 (see Annex 2.A3 for details on recent and past parametric changes to the public pension system).

There is little doubt that these measures, if sustained, will reduce the growth of public pension outlays. The European Commission's 2009 *Ageing Report* is informative on this question (European Commission, 2009b). In 2006, expenditures on public pensions in Hungary were projected to grow by close to 6½ percentage points of GDP to reach 17.3% of GDP by 2050; by early 2009, the projected increase over the same period had been reduced to just under 2½ per cent of GDP. To the extent that the parametric reforms could be incorporated in the Commission's projection, the decomposition of the sources of change in the ratio of pension outlays to GDP is revealing (Table 2.3). The reduction in the growth of pensions is attributable to changes in all four factors affecting outlays, the single largest impact coming from reduced benefits. Whereas the benefit ratio contributed to an increase in the public pension expenditure/GDP ratio as of 2006, changes in prospective benefits since then contribute to a lowering of the expenditure to GDP ratio, and to a lowering of public benefit ratios (Table 2.4). All the recent 2009 measures will clearly reduce further the growth of public pensions.

Table 2.3. **Projected change in public pension expenditure/GDP ratio and contributing factors**

Per cent of GDP, 2007-50

	Public pension expenditure, 2007 (% of GDP)	Contributions (% points) – impact of changes in:				Change (%)
		Dependency ratio[1]	Coverage ratio[2]	Employment rate[3]	Benefit ratio[4]	
2006 Ageing Report	10.9	10.5	−4.5	−1.1	2.0	6.4
2009 Ageing Report	10.9	9.5	−4.7	−0.7	−0.8	2.4

1. Population aged 65 and over/population aged 15-64.
2. Pensioners/population aged 65 and over.
3. Population aged 15-64/number of employed persons (inverse employment rate).
4. Average pension/average income.

Source: European Commission (2009), *2009 Ageing Report: Economic and Budgetary Projections for the EU-27 Member States (2008-2060)*, European Economy, No. 2, provisional version.

While the reform measures have positive effects on the long-run outlook for pension spending, they also carry some risks. On the one hand, the government did not fully follow the previous OECD recommendation (OECD, 2008) of an exclusive indexation of post-retirement pension benefits to inflation. While the government choice has the benefit of making pensions partly benefit from overall productivity gains, it weakens fiscal

Table 2.4. **Benefit ratios and replacement rates**[1]

Per cent

	2007	2060	% change
Benefit ratio[2]			
Public pensions	39	36	−8
Public and private pensions	39	38	−3
Gross average replacement rate[3]			
Public pensions	49	38	−23
Public and private pensions	49	43	−13

1. Due to differences in wage concepts used for calculating these two indicators, they are not strictly comparable and should be interpreted with caution.
2. Average benefit as a share of the economy-wide average wage, as calculated by the European Commission.
3. Average first pension as a share of the economy-wide average wage as reported by the Hungarian authorities.
Source: European Commission (2009), *2009 Ageing Report: Economic and Budgetary Projections for the EU-27 Member States (2008-2060)*, European Economy, No. 2, provisional version.

sustainability. On the other hand, the reduction in the projected average replacement rate, other things equal, reduces the rate of return on contributions. In a context of still very high contribution rates pertaining to the first pillar, this could reduce incentives to participate in the system. The contribution rate reduction beginning in mid-2009 mitigates some of this effect, but the net impact on pensioners' rates of return on lifetime contributions will depend on the number of years remaining until retirement at the higher age. Also, from a life-cycle perspective, a 5 percentage point increase in the value added tax (VAT) rate in 2009, if sustained over time, reduces current (not so much the future) retirees' consumption possibilities. Moreover, the relatively near-term and rapid increase in the legal retirement age will not give many participants approaching retirement much time to plan. Leaving aside the question of whether or not this is fair, political support for sustaining implementation may weaken.

With prospective falling replacement rates of public pensions, the authorities need to remain mindful of the negative effects of high contribution rates and uncertain returns. With very high contribution rates earning low rates of return, workers still have incentives to under-declare earnings, reducing the future pension base used to calculate their initial pension. This could lead over time to inadequate pension income for growing portions of the future retired population, requiring additional social assistance to prevent rising poverty.[14] Thus, the authorities' attention ought to be directed at enhancing the mandatory second pillar. Financed by a contribution rate that is only about a third of the pay-as-you-go (PAYG) rate, contributions to the second pillar are barely adequate to cover the higher fixed costs incurred in managing defined contribution pension funds. Moreover, greater lifetime contributions will be needed to maintain replacement rates in the face of rising life expectancy.

Health

Despite previous health reform efforts, it is widely recognized that Hungary's health-care system does not deliver satisfactory outcomes, and that serious reforms are needed. The government achieved some success, principally in the pharmaceutical market, which contributed to fiscal consolidation. But by and large, the reform agenda spelled out in OECD (2008) remains valid. Efforts to tackle the thorny issues of introducing formal patient co-payments and devolving the payer function from the Social Security Fund to a mix of private/public insurance schemes have encountered strong political

resistance. The opposition was successful in marshalling enough support to defeat a referendum on the former, and in halting progress on the latter by threatening another referendum. A consensus clearly needs to be built to support meaningful reforms, with the single most important objective being the improvement of health outcomes for Hungary's population.

The poor health results the system delivers speak to the urgency of the need to reform. The health status of the Hungarian population is the poorest in the OECD (OECD, 2008). Male life expectancy at birth is the lowest, while that of women is second lowest. Despite some improvements in life expectancy since the early 1990s, the gap *vis-à-vis* "old EU" has not narrowed, in contrast to other transition countries in the region such as the Czech Republic and Poland. A particularly disconcerting development is the widening gap between the life expectancy of 40 year-old Hungarian males and men of the same age in the EU15. Although Hungary's public expenditure on health care (as a share of GDP) is below both the OECD and EU15 averages, the share of private spending on health (including the traditional under-the-table payments) is estimated to be the highest in the EU, at around 30% of total spending on health. There is thus an obvious need to raise "value for money" in the health sector, all the more so in light of impending ageing-related growth in demand for health services.

Efforts need to be concentrated on those aspects that adversely impact most seriously both the demand for and supply of health services. First, co-payments, a well-established and almost universal practice, are critical to limiting frivolous and excessive use of the health system's resources, and to introducing minimal cost-consciousness. It has also been suggested (OECD, 2008) that enforcement of a mandatory system of co-payments would be effective in winding down the highly unfair and inefficient (but well-known) habit of making under-the-table payments to physicians. A practice that provides higher income patients preferential access to physicians' services relative to the less well off. Thus, the government should strive to re-introduce a system of co-payments. Second, the gatekeeper role of general practitioners needs to be strengthened. This, however, will require a more comprehensive approach that enhances the co-ordinating role of general practitioners, including by promoting multi-doctor practices and performance-based remuneration.

Reform is also crucial in order for the government to be in a position to manage the financial impact of ageing-related increases in health-care spending. Reflecting in part a more moderate projected ageing (*i.e.* the population 65 years and older relative to the working age population) than in many other EU countries, Hungary's public spending on health care is projected to increase comparatively modestly, from 5.8% of GDP in 2007 to 7.5% in 2060 (Figure 2.11). This baseline scenario assumes constant age-specific morbidity rates and unchanged age-related spending on health care. But these assumptions may not be the most realistic. First, it is reasonable to assume that life expectancy will increase over time. Coupled with the positive correlation of health spending and age, such an improvement in longevity would be accompanied by higher public spending. Second, health care is generally considered to be a "luxury" good, with an income elasticity of demand greater than one. In turn, income convergence in Hungary should be accompanied by more rapid per capita demand for health care than in the base case (the "elastic growth of demand" scenario). Finally, there is ample empirical evidence that increased use of medical technologies contribute significantly to the rise in health-care costs (Newhouse, 1992; and Culyer, 1990).

Figure 2.11. **Impact of demographic change on public expenditure on health care**
Per cent of GDP
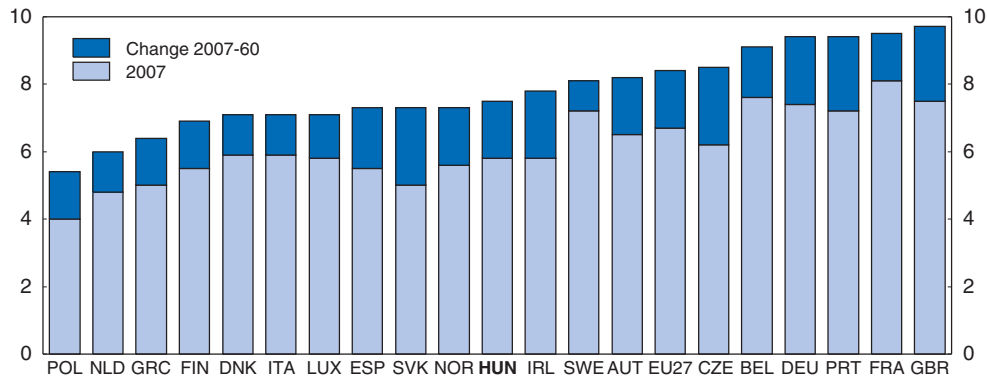
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These alternative and generally more realistic scenarios paint a potentially different picture of the outlook for public health-care spending in Hungary. Under the rising life expectancy and "elastic growth of demand" scenarios, public spending on health care as a share of GDP would grow by about 2 percentage points between now and 2060. While these are manageable increments to the baseline rise, the potential impact of the rising use of new medical technologies could greatly strain public finances. Although the budgetary impact is larger for the EU27 (Table 2.5), the increase in public health-care outlays in Hungary would be three times greater than in the baseline scenario. Creating fiscal space for such spending underscores the need for improved efficiency of public spending overall, but also of public health spending in particular.

Table 2.5. **Alternative scenarios for public health spending**

	2060 (% of GDP)		Change 2007-60 (% points of GDP)	
	Hungary	EU27	Hungary	EU27
Baseline (pure demographic scenario)	7.5	8.4	1.7	1.7
High life expectancy[1]	8.3	8.9	2.5	2.2
Income elasticity[2]	8.0	8.8	2.2	2.1
Higher use of technology[3]	11.0	13.0	5.2	6.3

1. If mortality rates evolve in a way that life expectancy at birth at the end of the projection period is one year higher.
2. Assuming an elasticity coefficient of 1.1 evolving to unity over the projection period.
3. Ageing Working Group standard methodology with an extra increase in per capita health-care expenditure due to non-demographic drivers (about 2% per year) and an income elasticity equal to 0.7. The impact of technology is assumed to disappear completely at the end of projection period.
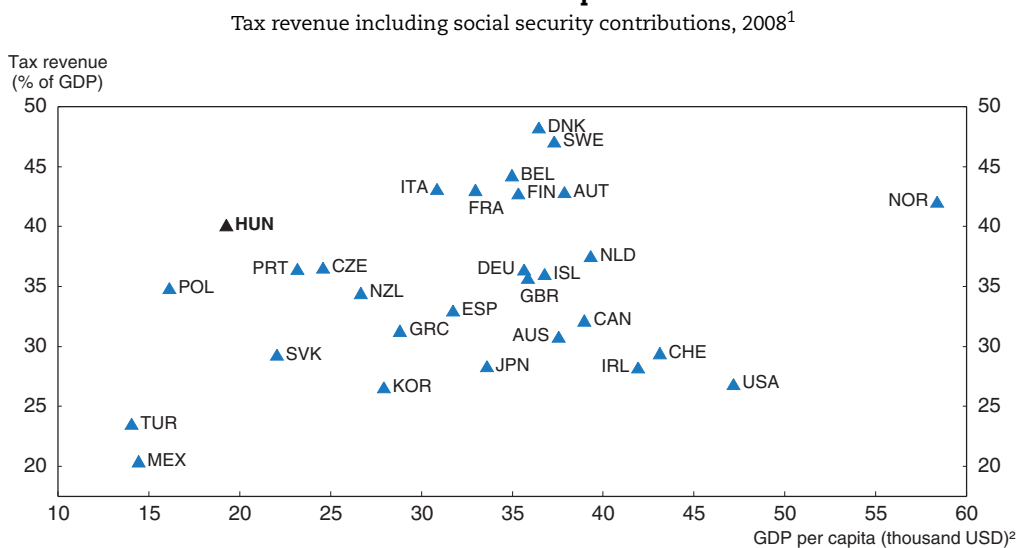
Tax reform

The tax burden is too high and unfavourable to labour supply and demand

Hungary is a high tax country. Constrained though it is by the ongoing stabilisation required by years of fiscal laxity, the government has been concentrating on reforming the tax system to improve efficiency, through cuts in direct tax rates financed by

base-broadening, coupled with increases in indirect taxes. The 2009-10 tax reforms currently underway should have important economic repercussions.

At close to 40% of GDP in 2007, Hungary's tax burden is well above the levels observed in countries with similar incomes (Figure 2.12). Much of this excess is due to very high combined employer-employee social security contributions, which account for a larger share of tax revenue than on average in both the EU and OECD (Figure 2.13), while corporate income tax rates are relatively low.[15] In 2008, the combined social security contribution rates rose to 44.5% of wages, including contributions for both pension pillars and the health fund. Together with a minimum statutory marginal income tax rate of 18%, the marginal tax rate on labour has been exceedingly and comparatively high. Of the countries shown in Figure 2.13, only the tax wedge of Belgium exceeds that of Hungary.

Figure 2.12. **General government revenue and per capita incomes: international comparison**

Tax revenue including social security contributions, 2008[1]

1. 2007 for Australia, Japan, Netherlands and Poland.
2. Calculated using current purchasing power parities.

Source: OECD (2009), *Revenue Statistics* and *OECD National Accounts Statistics* (databases), December.

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### The government's tax reforms will help

Well aware of the negative effects of high marginal tax rates, especially on Hungarian workers, the government introduced measures in May 2009 aimed in large part at reducing the labour tax wedge. The reforms concentrate on restructuring the personal income tax, lowering the employer's social security contribution by 5 percentage points and eliminating the lump-sum health contribution while simultaneously reducing household transfers (see Chapter 1), abolishing some personal income tax preferences, and increasing consumption taxes (specifically, a 5 percentage point increase in the VAT rate from 20 to 25%, and higher excise taxes) and wealth taxes.[16] The personal income tax threshold for the initial 18% rate was increased on 1 July 2009, retroactive to the beginning of the year. Beginning on 1 January 2010, tax rates are lowered, and the thresholds raised (Table 2.6). The rebalancing of taxes toward indirect taxation has been calibrated to be revenue neutral on an *ex ante* basis during 2009-10.[17]

Figure 2.13. **Components of the labour tax wedge**[1]

Per cent of total labour costs, 2008
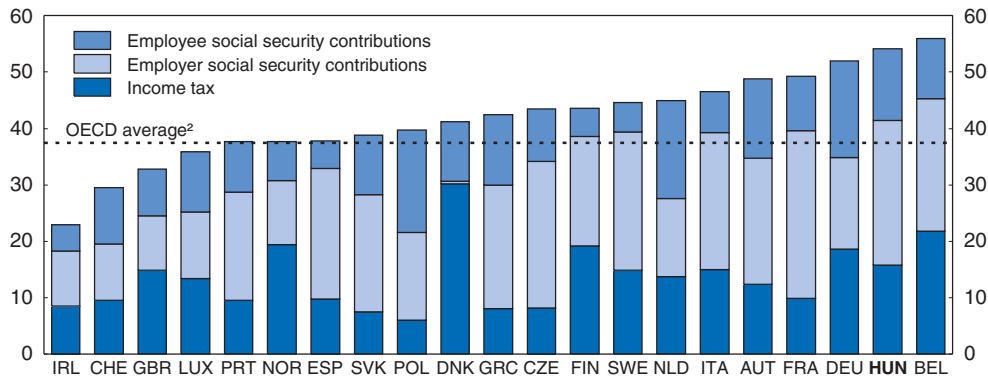
1. For a single individual without children at the income level of the average worker.
2. Average total tax wedge.

Source: OECD (2009), *Taxing Wages 2007-2008.*

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Table 2.6. **Restructuring of the personal income tax system**[1]

2008		2009		2010	
Annual wage (thousand HUF)	Tax rate (%)	Annual wage (thousand HUF)	Tax rate (%)	Annual wage (thousand HUF)	Tax rate (%)
0-1 700	18	0-1 900	18	0-5 000	17
1 700-7 448.1	36	1 900-7 449.65	36	5 000-7 657.7	32
Over 7 448.1	40	Over 7 449.65	40	Over 7 657.7	32

1. The tax base is the gross wage for 2008-09 and the "supergross wage" in 2010 (gross wage multiplied by 1.27 to take into account the employer's social security contribution).
Source: Ministry of Finance.

The government's reform strategy fits the mould of reforms being considered or implemented elsewhere, notably in countries with high taxes on labour (including social security contributions) and low employment rates, and is inspired by new empirical evidence that hints at the existence of a ranking of taxes in terms of their impacts on growth (OECD, 2009b). With high marginal tax rates on personal income in practice creating, *ceteris paribus*, greater distortions than taxes on consumption and property, the strategy consists of shifting taxes from the narrower base of labour taxes to the broader bases of consumption and property.[18] Thus, in the first instance, lower tax rates on labour reduce the size of the tax wedge (between the gross cost of labour to enterprises and the net-of-tax wage received by the worker) that adversely affects both the demand for and the supply of labour. In practice, of course, consumption is not taxed directly, but instead through indirect taxes, most often VAT, retail sales and excise taxes. In turn, if there ensues over time a VAT-generated higher domestic price level that feeds through to higher wage demands, some or all of the initial gain (from a reduced wedge) will be dissipated.

The new personal income tax and social contribution rates have a measurable impact on the labour tax wedge (Table 2.7). The reform reduces the estimated tax wedge, albeit to different degrees across the earnings scale and more so in 2010 than the second half of 2009. However, at income levels below the average wage, the tax wedge decrease is comparatively low, reflecting the proportionately smaller incidence of changes in personal

Table 2.7. **Development of labour tax wedges**

For single earners with no children at different wage levels, per cent of total labour cost

|	Minimum wage[1]	Double minimum wage[1]	Average wage	167%	300%	500%
2007	39.7	47.4	54.8	58.8	61.5	61.5
2008	40.3	47.4	54.5	59.2	61.7	61.3
2009-I	40.6	47.7	54.0	58.8	61.4	61.1
2009-II	38.4	45.7	52.8	58.1	61.1	60.9
2010[2]	36.2	44.2	47.0	53.4	59.2	59.4
Change 2009-I to 2009-II (% points)	–2.3	–2.0	–1.2	–0.7	–0.3	–0.2
Change 2009-I to 2010 (% points)	–4.4	–3.5	–7.0	–5.3	–2.2	–1.7

1. In 2008, the minimum wage was 35% of the average wage and the double minimum wage was 69%.
2. No minimum wage increase is taken into consideration.
Source: Calculations based on Ministry of Finance data.

income tax provisions at the lower end of the income scale. In effect, the largest reductions in statutory marginal personal income tax rates occur in the range of roughly 75-110% of the average wage, while the marginal effective tax rate actually rises slightly at the low end of the earnings distribution.

The static labour market impacts of the reform depend, *inter alia*, on the elasticities of demand and supply of labour with respect to wages, and on the extent to which the reforms reduce employers' labour costs. Empirical evidence on the sensitivity of Hungarian labour supply to changes in wages is scarce. Galasi (2003) reports a low average elasticity, while Bakos *et al.* (2008) find a comparatively high elasticity (exceeding 0.3%) among higher wage earners, but the current reform has not significantly changed the marginal effective tax rates of high earners (Figure 2.14). Besides, owing to the relatively large size of the grey economy in Hungary, an increase in labour supply in the statistics following the reduction of the marginal rates may also reflect a "whitening" of the economy.

Figure 2.14. **Recent changes to the effective marginal tax on labour income**
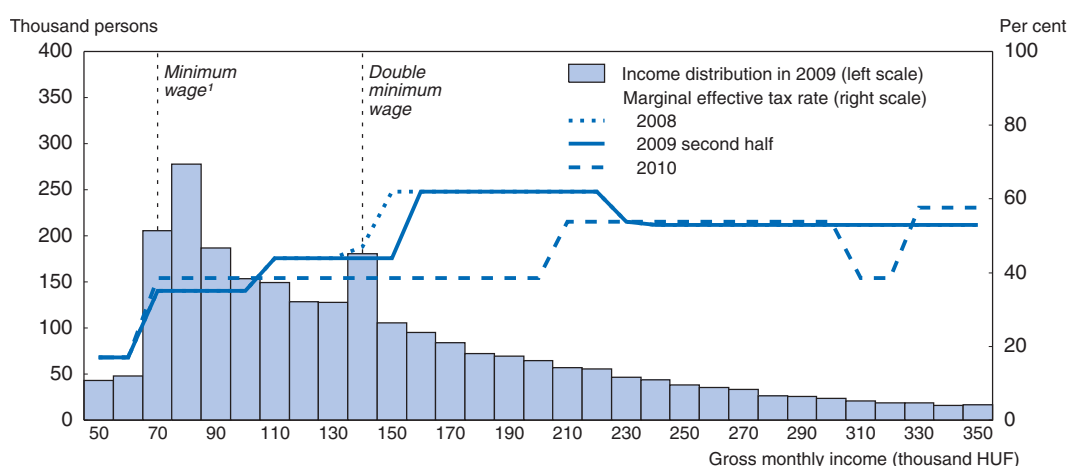
1. The (general) minimum wage was HUF 71 500 in 2009. However, there is a spike in the data for the wage bracket above the minimum wage. This is due to the granted minimum wage for skilled workers which is higher than the (general) minimum wage.
Source: Ministry of Finance.

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Box 2.2. **Structural fiscal policy recommendations**

Fiscal rules

- Allow some experience to accumulate before considering substantial changes in the Fiscal Responsibility Act and accompanying rules.

- To increase public ownership of the rule, prepare, as soon as possible, an operational manual describing the step-by-step process for implementing the rule, including key budgetary variables, dates and responsible government and parliamentary units.

- Begin to consider ways of complementing the current fiscal rules with ones regulating local governments' budgets, including tougher sanctions for breach of budget rules, and incentives to develop the use of multi-year budgeting.

Public administration

- Establish a unit with mandate to monitor and assess reforms in public administration.

- Pursue staff reductions in the public sector.

- Strengthen the government's public procurement monitoring capacity and the State Audit Office, and enhance the political will in support of the Office's enforcement.

- Make greater use of outsourcing for public services via competitive bidding.

- Revisit and pursue recommendations of the 2006 State Reform Council's comprehensive stocktaking of overlapping tasks in government agencies.

Pensions

- Monitor changes in effective retirement age and eventually take steps, as needed, to increase incentives to retire later.

- Give consideration to increasing the statutory retirement age in line with increases in life expectancy.

Health

- Re-introduce patient co-payment to instill patient cost-consciousness and help eliminate under-the-table payments.

- Continue to strengthen the gate-keeping role of general practitioners while also promoting multi-doctor practices and performance-based remuneration.

- Begin to plan for possible long-term budgetary impacts of rising demand for greater use of improved medical technologies. In effect, long-term fiscal policy needs to anticipate this source of growth in health-care spending.

Taxation

- Consider further cuts in labour taxes, financed through higher property taxes (accompanied by improved property registry) and/or emissions taxation.

- Improve revenue collection through better inter-agency data sharing, harmonising the personal income tax and social security bases, and introducing a single taxpayer ID for both personal income tax and social security contributions.

Further reductions in the tax wedge should be targeted

Taxation is but one of the reasons for growth of the underground economy, but it is an important one when marginal effective tax rates become excessive. Although the government's tax measures, along with other "whitening" efforts made in recent years are steps in the right direction, the tax wedge remains exceedingly high and needs to be

reduced further. Indeed, Hungarian revenue mobilisation suffers from a classic vicious circle of burdensome taxation that induces evasion and participation in the grey economy. This reduces the visible tax base, in turn requiring yet higher, compensatory, tax rates. Reversing this to achieve a virtuous circle requires a concerted programme, including tax reforms, regulatory reform, improved public service, streamlined processes and reduced red tape, etc. Resort to such methods as using presumptive tax bases (*e.g.* the double minimum wage for calculating social security contributions) invites collusive behaviour between employer and employee to avoid or evade compliance. This of course reduces revenue, but it also lowers the employee's eventual pension.

Given the fiscal constraint of revenue-neutral reforms, and against the backdrop of the major steps recently taken, there are limited options available barring a durable and substantial cut in the size of government. Significant increases in company taxation are not an option in view of corporate mobility and the low competitive rates of other OECD countries. Further increases of VAT are not conceivable, given the already high rates in Hungary and the *de facto* EU agreement that members should treat 25% as a desirable ceiling. A couple of options for financing further reductions in labour taxes present themselves, however. *First*, albeit politically sensitive and requiring improvements in property registration, further increases in the national property tax, preferably through a widening of its tax base, mainly could be economically efficient. *Second*, emissions taxation (or, equivalently, receipts from auctioning off emissions rights) needs in any event to be implemented in the context of meeting climate-change obligations. At the same time, increased collections are achievable from solid improvements to revenue administration, in turn enabling lower direct tax rates. A number of administrative and compliance measures come to mind, including: *i)* harmonising the personal income tax and social security contribution bases; *ii)* reducing enterprises' reporting requirements for the payment of employment taxes; *iii)* improving the exchange of taxpayer data between the Tax and Financial Control Administration and the Social Insurance Agency; and *iv)* introducing a single taxpayer identity number for both personal income tax and social security.

Notes

1. Note that the 2009 sustainability gap estimates for Hungary do not incorporate parametric changes adopted in May 2009 that would reduce further pension spending over time. In addition, the estimates are based on gross pension costs, which is not a proper indicator for Hungary. Whereas pension benefits are currently not subject to tax, beginning in 2013 onwards, they will be calculated on the basis of gross earnings and will subject to taxation.

2. This estimate is taken from the European Commission's alternate scenario that allows (in all countries) for a slower recovery (the European Commission's so-called "lost decade" scenario) from the current crisis.

3. Indeed, the opposition has hinted that it would, if elected, reverse the recently implemented reductions in several social transfers.

4. The problem of common pooling is especially prevalent in countries with significant decentralised fiscal policy, when sub-national levels of government engage in "free-rider" behaviour, adopting budgetary policies that negatively impact the general government budget balance, with potential risks to macrostability.

5. Indeed, governments able to demonstrate strong political will are most likely not to require binding rules, while binding rules will be ineffective restraints on governments that lack political will.

6. Tax expenditures are revenue losses that result from granting special tax benefits to certain kinds of taxpayers or certain activities. It is considered that such provisions are the economic

equivalent of a direct budget outlay to the benefited taxpayers that could have been financed by the forgiven tax liability.

7. It should be noted that the government has recently cut such expenditures. These cuts are not fully reflected in this *Survey* due to the time frame.

8. The regional level is not a local governmental level, but a territorial development unit having statistical planning and development tasks.

9. However, capturing efficiency of health spending is a difficult task. By taking into account environmental variables (such as GDP per capita, smoking and obesity), two studies ranked Hungary's health system within the two middle quartiles of a sample of OECD countries (European Commission, 2008). Nonetheless, some of these environmental variables are not fully disconnected from health policy since better prevention could reduce smoking habits or obesity factors.

10. Replacing the performance indicator with the World Bank Government Efficiency index, the DEA analysis still ranks Hungary as the least efficient country obtaining roughly the same score. Changing the technology assumption to constant returns to scale puts Hungary last in the OECD sample and increasing efficiency discrepancy. Hungary is in the bottom league of the least efficient countries using an output-orientation (how much outcome could have been increased with unchanged spending).

11. The government has, admittedly, effected some reductions in staffing that are not reflected in this number.

12. Transparency International (2009) estimates that corruption increases the cost of procured goods and services by over 25%.

13. A reduced contribution is allowed if proper tax documentation is presented.

14. It should be noted, however, that the immediate increase in VAT adversely affects *current* retirees, a reminder that policy changes such as those adopted recently have intergenerational redistributive impacts.

15. Companies have to pay a corporate income tax rate of 16%, to which is added a 4% solidarity tax. Based on 2006 data (OECD, 2009c), Hungary was among OECD countries with both the lowest statutory and effective corporate income tax rate.

16. Besides the 8% health insurance contribution, employers had paid, prior to the reform, a HUF 1 950 flat rate monthly health insurance premium per employee.

17. The government also introduced a national property tax in 2008.

18. In theory, a uniform lifetime tax on wages is equivalent to a uniform lifetime tax on consumption. See, for instance, Stiglitz (1986).

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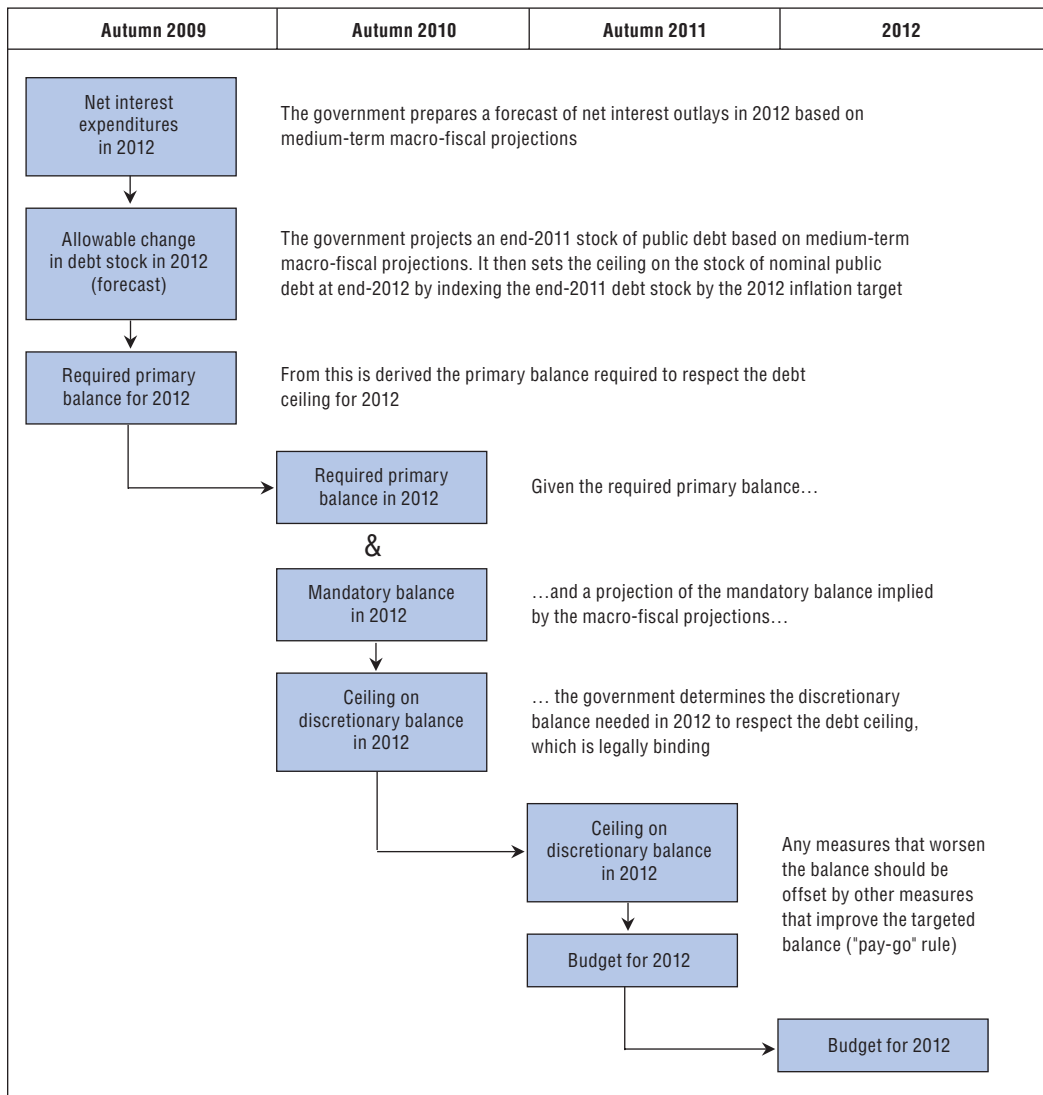
ANNEX 2.A1

Implementing the fiscal rules

As specified in Box 2.1, the core principle of the fiscal rule framework is to ensure the sustainability of public debt. Towards that goal, the stock of public debt cannot increase faster than inflation over the medium term. Enforcement of the debt rule is supported by a number of procedural and disclosure rules: a "pay-go" rule, rolling three-year indicative budgetary planning, preparation of budgetary impact assessments, accounting rules for public-private partnership projects, and comprehensive profit/loss accounts for state-owned enterprises. Finally, an error correction mechanism is provided to avoid permanent increases in the real debt stock. The actual functioning of the rule and its actual implications for the primary surplus balance to be achieved for the years to come is described below.

Several variables are the key to the operation of the rule, including:

- *Public debt*: the stock of gross liabilities of the central government (including social security); real public debt is the level of nominal debt deflated by the consumer price index.

- *Mandatory primary spending and revenues*: defined as beyond the scope of the annual budget legislation, because they are determined by specialised statutes or by macroeconomic and demographic developments (*e.g.* pensions, tax revenues). At present, approximately 78% of non-consolidated primary revenues and 34% of non-consolidated primary expenditures are mandatory.

- *Discretionary primary spending and revenue*: non-mandatory items amenable to discretionary change under the annual budget law (*e.g.* one-off investment projects, non-tax revenues).

In practice, Figure 2.A1.1 tracks the derivation of the rule beginning in the autumn of 2009, specified in the 2010 budget, through the first year of implementation, in the 2012 budget.

- Autumn 2009: the government determines (in the 2010 budget) the minimum primary surplus required for 2012, consistent with: *a)* the debt level at the end of 2012 should not exceed either the level of 2008, or the projected level for 2011, in real terms; and *b)* the 2012 projected interest payments.

- Autumn 2010: the government prepares (in the 2011 budget) an estimate of mandatory items for 2012, to calculate the discretionary balance in line with the minimum primary surplus for 2012, set in the previous year. The resulting discretionary primary balance is legally binding for 2012. Once the discretionary balance requirement is set, the "pay-go"

Figure 2.A1.1. **Implementation framework**

Autumn 2009	Autumn 2010	Autumn 2011	2012

Net interest expenditures in 2012 → The government prepares a forecast of net interest outlays in 2012 based on medium-term macro-fiscal projections

Allowable change in debt stock in 2012 (forecast) → The government projects an end-2011 stock of public debt based on medium-term macro-fiscal projections. It then sets the ceiling on the stock of nominal public debt at end-2012 by indexing the end-2011 debt stock by the 2012 inflation target

Required primary balance for 2012 → From this is derived the primary balance required to respect the debt ceiling for 2012

Required primary balance in 2012 → Given the required primary balance…

&

Mandatory balance in 2012 → …and a projection of the mandatory balance implied by the macro-fiscal projections…

Ceiling on discretionary balance in 2012 → … the government determines the discretionary balance needed in 2012 to respect the debt ceiling, which is legally binding

Ceiling on discretionary balance in 2012 → Any measures that worsen the balance should be offset by other measures that improve the targeted balance ("pay-go" rule)

Budget for 2012 → Budget for 2012

rule applies for mandatory items in the sense that no law or amendment may worsen the balance of mandatory items in the following two years. Or, any measure that worsened the balance should be offset by other measures.

● Autumn 2011: the government presents the 2012 budget proposal, incorporating the discretionary primary balance requirement, set in the previous year.

An error correction mechanism is provided to avoid permanent increases in the real debt stock. As described, in the autumn of year t (as part of the budget proposal for $t + 1$), the primary balance target is determined for year $t + 3$, to ensure that debt level at the end of year $t + 3$ would exceed, in real terms, neither the debt level at the end of year $t + 2$, nor the debt level at the end of year $t - 1$, plus the difference of the actual and required value of the discretionary balance – to eliminate the effect of any noncompliance with the discretionary balance requirement – according to the latest estimates. If the debt level at the end of year $t + 2$ is higher than the original limit set, for example, because of deteriorating macroeconomic conditions resulting in a worse than projected mandatory

primary balance, then the excess will not be rolled on to year $t + 3$, because the level of year $t - 1$ is still the basis for comparison. However, if, based on the baseline projection, the actual primary balance is expected to be more favorable in the current year and in the four subsequent years than the required primary balance, then the difference is imputed in the Stability and Tax Reform Fund, which may be earmarked for future tax cuts.

In practice, the rule is set to require a significant primary fiscal surplus as shown by a simple simulation of the rule below. The yearly change in the debt level originates both from net borrowing requirement and stock-flow adjustments. The stock-flow adjustement mainly relates to net flows of financial assets that reflect the patrimonial policy of the government *(e.g.* sales of assets to buy back debt, or use of cash instead of borrowing to finance expenditure). It also reflects the valuation impact on the debt since liabilities are priced at market value, as well as the discrepancy between the accounting in accrual basis (for the fiscal balance) and in cash basis (for the debt).

Let us define D_t the outstanding level of the central government debt, PB_t the primary fiscal balance, r_t the average interest rate of debt, and SF_t the stock-flow adjustment. The debt accumulation equation is:

$$D_t = D_{t-1} + r_t \cdot D_{t-1} - PB_t + SF_t \qquad [1]$$

By dividing by GDP and writing all ratios in small letters (g_t nominal GDP growth), we obtain:

$$d_t - d_{t-1} = \frac{r_t - g_t}{1 + g_t} d_{t-1} - pb_t + sf_t \qquad [2]$$

Assuming that stock-flow adjustments are nil on average, we can derive from [2] the primary fiscal balance required to abide by the Hungarian debt rule (*i.e.* to keep debt constant in real terms). Noting pb_t^* the primary balance that stabilises the debt in real terms, and p_t inflation we obtain:

$$pb_t^* = \frac{r_t - p_t}{1 + g_t} d_{t-1} \qquad [3]$$

If the primary balance is equal to pb_t^*, *and based on the assumption of no stock-flow adjustment* (which is not true on a yearly basis), the debt will remain constant in real terms.

Using [3], we can simulate the required primary balance based on OECD projections (Table 1.1) and different hypothesis on projected growth, inflation and average debt interest payments from 2012. Assuming an average interest rate of 5%, a real growth of 2% and an inflation of 3%, primary surplus should reach more than 2% in the years following 2011 and will slowly decrease to 1½ per cent by 2030. Assuming higher growth and inflation (respectively 3% and 4%), the required surplus would still be around 1% up to 2030. In both scenarios, the debt ratio will progressively decrease to below 60% of GDP by 2030.

ANNEX 2.A2

Measuring the efficiency
of Hungary's public administration

Data Envelopment Analysis (DEA) provides a means of measuring "efficient" outcomes of the public administration using monetary inputs. The method uses linear programming techniques to construct a frontier from the most efficient observations, which "envelop" the less efficient ones (see Figure 2.A2.1). Points on the frontier represent the technically most efficient use of inputs in generating each level of output, under an assumption of variable returns to scale. Thus, a government operating at a point such as D could either: *i*) raise output considerably without any additional inputs (*i.e.* move from D to E); or *ii*) provide the same level of output with fewer inputs (*i.e.* a move from D to A).

Figure 2.A2.1. **Efficiency frontiers**

Variable returns to scale
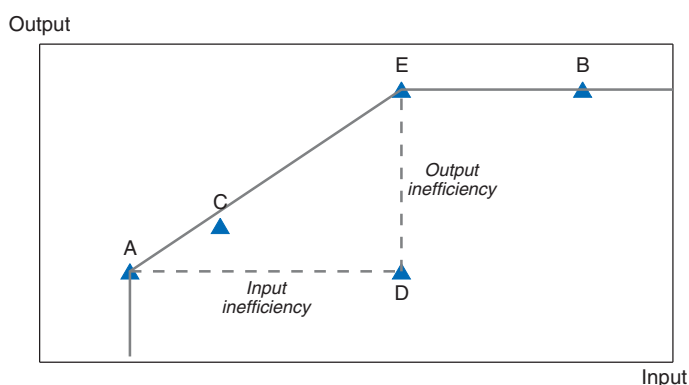
The method distinguishes between input and output efficiency, and technical and allocative efficiency. The purpose of an input-oriented example is to study how much input quantities can be reduced without changing the output quantities produced. With an output-oriented example, the aim is to assess how much output could be increased without changing the input quantities used. The two methods provide the same results under constant returns to scale but give different values under variable returns to scale (Afonso *et al.*, 2006). As Hungary needs fiscal consolidation in order to restore the confidence in the economy, the input-orientation is reported, assuming variable returns to scale technology. While the DEA analysis provides a neat summary measure of efficiency

of spending, it has a number of drawbacks that have to be addressed in its practical implementation (Sutherland *et al.,* 2007):

● *Sensitivity to outliers and small samples.* A country that has an atypical combination of inputs and outputs is likely to be classified as efficient because there are no appropriate comparator countries in the sample. If the sample is small, the efficiency level is likely to be overestimated because the most efficient country is likely to be excluded from the sample. The sample in this survey did not give reason to exclude countries due to atypical combinations of inputs and outputs or particularly high efficiency score.

● *Composite indicators.* Composite indicators can be used to summarise complex and multidimensional issues. Aggregation methods may have a non-negligible impact on results. An undesirable feature of additive aggregation is the implied compensability – poor performance in some indicators can be compensated by sufficiently high values for other indicators. A consensus has gradually emerged that equal weights have key advantages over other weighting schemes when building composite indicators. For example, equal weights are more transparent and provide a weighting scheme that is insensitive to change in period and country coverage. Thus, equal weights are applied in the composite indicator for public administration.

Measuring outcome or output in the public sector is difficult, however. In turn, estimating an efficiency frontier requires the use of proxy variables or indicators. Partly following an approach used by Afonso *et al.* (2006), an indicator of public administration outcome is constructed from international surveys on the quality of justice and the level of corruption in OECD countries, both taken from the *Competitiveness Report* of the World Economic Forum (WEF, 2008), and the level of bureaucracy in the economy as measured by the OECD's Product Market Regulation (PMR) Indicator. An alternative proxy for outcome is the World Bank's Government Effectiveness Indicator (Kaufmann *et al.*, 2009), which is restricted to measuring the competence of bureaucracy (*i.e.* bureaucratic delays, administrative and technical skills of civil servants, etc.), but incorporates neither corruption nor quality of justice (the indicators are shown in Table 2.1). These variables can serve as proxies or indicators of outcome because both affect the well functioning of the economy and, therefore, the efficiency of public administration. *First*, corruption in the public sector distorts allocation of public funds by diverting public investment into projects launched thanks to bribes rather than favourable cost-benefit analysis. Corruption may also lower compliance with construction, environmental or other regulations, and affects the private sector through increased costs of doing business in several ways as the payment itself, negotiation costs and the risk of breached agreements or detection. *Second*, several empirical studies have shown a negative relationship between the level of regulations or bureaucracy and economic growth (OECD, 2009). *Third*, public administration plays an important role in ensuring the quality of the justice system, and therefore also the protection of property rights and enforcement of the rule of law.

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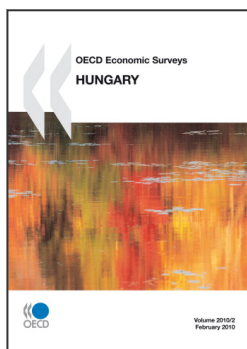
ANNEX 2.A3

Key recent parametric changes to public pension systems

	1997-2006 system	Changes 2006-08	2009 parametric changes
Law	Act LXXXI of 1997	Act CVI of 2006	Act XL of 2009
Full regular retirement pension	Age 62. Age 55 – women born before 1940. Age 55-61 – women born 1941-46. Age 60 – men born before 1938. Age 61 – men born in 1938.	. .	The retirement age will be increased from 62 to 65 by 6 months each year. For those born before end 1951, it will still be age 62, but then increases proportionately (*e.g.* age 62.5 for those born in 1952, 63 for those born in 1953, up to age 65 for those born in or after 1957).
	Minimum contribution period 20 years (10 years for women turning 55 before 1991 or men turning 60).	. .	Minimum contribution period 20 years.
Non-full regular retirement pension	Age 62.	. .	Age 62 increasing to 65 at the same pace as the full regular retirement pension.
	Minimum contribution period 15 years for those reaching the retirement age between June 1993 and 2009. (Minimum contribution period of 10 years for women turning 55 or men turning 60 between 1991 and June 1993).	. .	Minimum contribution period 15 years.
Advanced retirement pension (with full pension benefit)	Minimum age 55 for women and 60 for men.	Age 57 for women and 60 for men. In 2009-12 – age 59 for women and 60 for men. In 2013 – age 60.	Up to 31 December 2012 – age 60 for men (born in 1950) and age 59 for women (born in 1952-53). From 2013 (2011 for men) – only reduced advanced retirement pension available.
	Minimum contribution period from 34 years for women born before 1943 up to 38 years for women born in or after 1946. Minimum contribution period of 37 years for men born in or before 1939, 38 years thereafter.	Minimum contribution period 38 years, 40 years in 2008-12. From 2013 at least 41 years of contribution for full pension benefit. *November 2007 amendment:* only reduced advanced pension benefit available from 2013.	Up to 31 December 2012 – minimum contribution period 40 years.
Work or pension	. .	*2007 Reform:* persons entering early retirement will be allowed to take up regular employment with earnings above the minimum wage only if they simultaneously suspend their pensioner status. The new rule is applicable to persons retiring after 1 January 2008 and will be extended to all persons in early retirement from 2010.	

	1997-2006 system	Changes 2006-08	2009 parametric changes
Reduced advanced retirement pension	. .	Minimum age 59 in 2009-12, increasing to age 60 thereafter.	Up to 31 December 2012 – age 60 for men (born in 1950) and age 59 for women (born in 1952-53). From 2013 (2011 for men) – only reduced advanced pension will be acquirable. For men born after 1950 and women born after 1958 it can be obtained 2 years before retirement age for full pension. Age 60.5 for women born in 1954, age 61 for women born in 1955, increasing by 6 months for every year up till 1958 (3 years before the retirement age for full pension). Age 60 for men born in 1952-53, age 60.5 for men born in 1954. Until 2021 the advanced retirement age will increase to a uniform age 63.
	Contribution period can be a maximum of 5 years below the required years for advanced retirement pension. The decrease is 0.1% monthly for minus 1 year up to 0.5% for minus 5 years.	Minimum contribution period 40 years for 2009-12, 41 years thereafter (minimum 37 years). From 2013 modification of the *malus* rules governing the reduction of old age pension in the case of early retirement. Rate of reduction, depending on the time remaining until retirement age, would be 0.1% per month if minus 1 year up to 0.4% per month if minus 4 years. *November 2007 amendment:* from 2013 the rate of reduction, depending on the time remaining until retirement age, would be 0.3% per month for age 61-62 and 0.4% per month below age 61.	Minimum contribution period 37 years up to 31 December 2012. Monthly reduction: 0.1% for minus 1 year, 0.2% for minus 2 years and 0.3% for minus 3 years. Same minimum contribution period from 2013 (2011 for men) but reduction will be irrespective of contribution years: 0.3% monthly if 1 year is missing from the retirement age (3.6%), 3.6% + 0.4% monthly if more than one year is missing. Maximum reduction 8.4%, so for those with 3 years advance it is still 8.4%. Minimum contribution period 42 years for men born in 1952-54 retiring at age 60.
Disability	. .	Reformed 1 January 2008. In June 2007, Parliament adopted the Act on rehabilitation benefit, which also provides for the reform of the disability pension system (the rehabilitation benefit will be separated from the disability pension). From 2008, persons who have a good chance of returning to the labour market (based on their health) will be eligible for the rehabilitation benefit rather than the disability pension. The benefit will be payable for a given period as its primary objective is the re-integration of persons with altered working ability into the labour market (rehabilitation services will also play a part in achieving that goal). The National Rehabilitation and Social Expert Institute will be responsible for examining health status, assessing working capacity and the potential for rehabilitation, and it will provide personalised rehabilitation advice to assist labour market reintegration. The Public Employment Service will expand its active employment services (job seeking assistance, incentives for taking up employment, etc.) to recipients of the disability benefit.	
Indexation	Swiss pension indexation, *i.e.* 50% consumer price index (CPI) – 50% net average wage growth.	. .	From 2010 based on GDP growth: < 3%: CPI. 3% < 4%: 80% CPI, 20% net average wage growth. 4% < 5%: 60% CPI, 40% net average wage growth. 5% ≤: Swiss.

	1997-2006 system	Changes 2006-08	2009 parametric changes
13th month pension	50% in 2004, 75% in 2005, 100% from 2006. Paid in two instalments and amounts to given year November pension. In 2008, the benefit was capped at HUF 80 000.	. .	Abolished from July 2009. If GDP growth is above 3.5% a pension premium will be provided, amounting to the minimum of either 0.25 * November pension or HUF 20 000, multiplied by the minimum of either GDP growth −3.5 or 4, *e.g.* the maximum with 7.5% GDP growth would be 4 * 20 000 = HUF 80 000.
Valorisation	. .	From 2008, for income earned in previous years, full valorisation (instead of the current partial valorisation) will be applicable in pension calculation (to the level of the year directly preceding retirement). Also calculated tax will be deducted from earnings reduced by the contributions payable by the individual. As a combined effect, the replacement ratio of initial old-age pensions may decline from 85% to around 80%.	. .
Bonus	. .	0.5% monthly, 6% per extra year worked.	. .

Source: Hungarian authorities.

OECD