

Chapter 2

Increasing public sector efficiency

Given the deterioration in public finances, there is now very little scope for higher spending. Raising public sector efficiency would free up resources and yields better outcomes with the same inputs, helping to stimulate productivity and thus potential growth. Raising efficiency in tax collection (notably VAT) is urgently needed, plans to unify the collection of tax and social security contributions should be implemented swiftly and drawing on EU funds needs to become more efficient. In addition, raising the efficiency in healthcare should be a priority. This involves dealing with the high out-of-pocket payments and reforming the remuneration structure of doctors. Pharmaceutical spending is excessive and can be reduced, notably by further fostering generic substitution. Impediments to competition among health insurance funds should be reconsidered and the risk-equalisation system should be improved.

The deterioration of public finances, the budget deficit worsening by around 6 percentage points of GDP in 2009, requires significant consolidation. In such a situation, policies to increase the efficiency of the public sector – both on the expenditure and the revenue side – can be particularly helpful. Such measures not only improve the fiscal situation (thereby freeing up resources for other purposes, such as support for eco-innovation; Chapter 3) but also, by achieving better outcomes with the same inputs, help to stimulate productivity growth and thus potential growth. This in turn helps improving the sustainability of public finances.

Overall public sector efficiency in the Slovak Republic is about average among new EU member countries, other emerging markets and catch-up economies (Afonso *et al.*, 2009).¹ In part, this reflects past efforts to enhance the quality and efficiency of public sector service delivery, such as a significant improvement in budget procedures or the implementation of a medium-term fiscal framework (OECD, 2004). Also, government expenditures as a share of GDP are significantly below the OECD average. However, the output that is achieved with these expenditures could be substantially higher in some areas, notably in health care (Joumard *et al.*, 2010a). In addition, while efficiency in primary and secondary education is around average (Sutherland *et al.*, 2007), it is relatively low in tertiary education (St. Aubyn *et al.*, 2009) and reforms in this area are needed to boost the innovative capacity of the economy (Chapter 3).

This chapter focuses on selected aspects of public sector efficiency that seem most pressing in the case of Slovakia:

- The collection of tax and social security receipts needs to be enhanced, notably by improving VAT collection and by unifying the collection of taxes and social security contributions, as planned by the government,
- the drawing of EU funds has to become more efficient, and
- the efficiency of health care spending – which account for one of the highest shares of total government expenditures in the OECD (Table 2.1) – is weaker than in many other OECD countries (Joumard *et al.*, 2010a) and needs to be raised.

Table 2.1. **Government expenditure by spending category**

	General public services	Public order and safety	Education	Health	Social security and welfare	Housing and community amenities	Economic services	Other
Slovakia	10.8	5.7	11.5	18.7	30.6	2.2	12.4	8.2
Czech Republic	10.3	4.9	10.9	16.7	30.2	2.7	16.1	8.2
Germany	12.5	3.6	8.8	14.3	46.5	1.9	7.2	5.2
United States	13.7	5.7	16.9	20.7	19.0	1.8	9.8	12.3
Hungary	18.8	4.0	10.7	9.8	34.8	2.0	13.0	6.9
Poland	13.1	4.4	13.6	10.9	37.3	2.7	10.8	7.3
OECD	13.7	3.9	12.9	15.2	34.0	2.0	10.6	7.7

Note: OECD average is non-weighted.

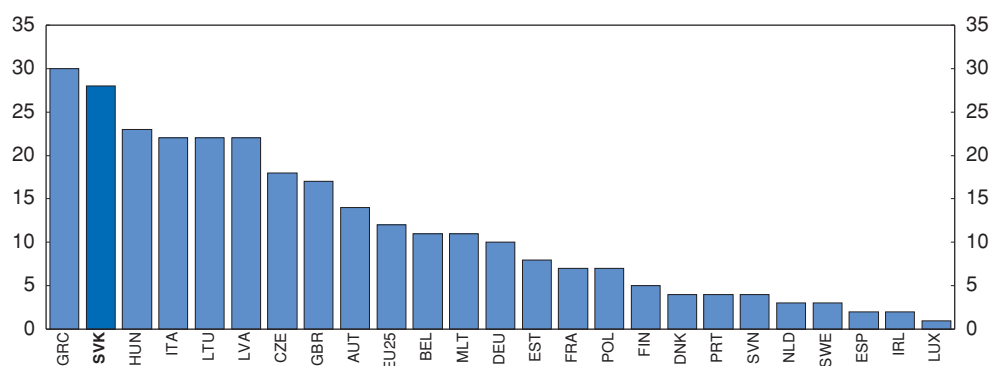
Source: OECD, National Accounts, except for Australia and Switzerland. IMF, *Government Finance Statistics Yearbook* for the others.

Improving efficiency in tax collection

The VAT gap is very high...


Consumption taxes play an important role in the Slovak tax system; the share of taxes on goods and services in total tax revenues reached 38.4% in 2007, around 10 percentage points higher than the EU19 average. Considering the different distortionary effects of taxes, such a tax structure which relies more on taxing consumption than on taxing income, is likely to be less harmful to growth (Johansson *et al.*, 2008). However, this positive assessment needs to be qualified. First, one factor behind the high proportion of consumption taxes in overall revenues is the low level of total tax revenues compared to other European countries.² Second, given that the standard VAT rate of 19% is around the EU19 average and the share of goods that are taxed with the reduced VAT rate is relatively low [the lost revenue due to the application of the reduced rate is estimated to be the lowest among EU countries (Copenhagen Economics, 2007)], Slovakia should get much more revenues from consumption taxes. This can be seen by looking at the VAT gap, which measures the actual VAT revenues as a ratio of the “theoretical” revenues that could be gained if all goods were taxed at their respective VAT rates (Figure 2.1). The smaller the gap, the more efficient a country is in collecting VAT.³

Figure 2.1. **Estimates of the VAT gap**
%, 2006



Note: The VAT gap is defined as the difference between the accrued VAT receipts and a theoretical net liability for the economy as a whole as a share of the theoretical liability in 2006.

Source: Reckon (2009), *Study to quantify and analyse the VAT gap in the EU25 member states*.

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... suggesting a lack of efficiency in tax collection

The VAT gap was estimated to stand at 28% in 2006, the second highest figure among EU25 countries and well above the EU25 average of 12% (Reckon, 2009). While no more up-to-date figures are available for the VAT gap, the continued decline in the VAT revenue ratio (which compares actual with theoretical tax revenues, but does not account for reduced rates or exemptions) is one indication that Slovakia's position is likely to have worsened further since then. One of the potential sources of decreased effectiveness might be the entry into the European Union in 2004. The existing rules concerning VAT payments in the single market (zero-rated exports and collection of VAT on imported goods at the time of the next periodic tax return [instead of at the border]) extend the possibilities for tax evasion and fraud.⁴ This view has also been mentioned in a study prepared by the Slovak Ministry of Finance (Krajcir and Odor, 2005).

Cross-country indicators on the operational performance of tax administration suggest that Slovakia could improve the effectiveness of tax collection (OECD, 2009b):

- The incidence of tax refunds, as measured by the share of refunded taxes to total tax revenues, is one of the highest among OECD countries, possibly related to inflated VAT refund claims (Harrison and Krelove, 2005).
- The share of unpaid taxes relative to annual tax revenues is the highest among OECD countries and has been increasing from 2005 to 2007 (last year available), suggesting that the effectiveness of debt collection is weak.
- The number of verification activities measures by the number of completed actions per taxpayer is lower than in many other OECD countries.⁵ However, the value of completed verification actions as a share of revenues, as well as a share of expenditures of verification staff, is relatively high, indicating that the return to verification activities could be large. Audits should be risk-based to be most effective and to keep administrative costs at a minimum.⁶

Against this background, increasing the effectiveness of VAT collection, as planned by the government, should be a priority. The potential gains from improvements in this area are large: hypothetically considering a decrease in the VAT gap to the EU25 average would increase revenues by more than 1% of GDP. By comparison, the temporary 1 percentage point increase in the standard VAT rate that will be introduced in 2011, while leaving the VAT gap constant, is estimated to yield an increase in revenues of 0.3% of GDP.

Unifying the collection of taxes and social security contributions

While most of the OECD countries with separate social security regimes administer the collection of social security contributions through a separate social security agency, rather than through the main tax revenue body, some countries (*e.g.* Ireland, Italy, Sweden and the United Kingdom) have converted to an integrated collection system (OECD, 2009b; Barr and *et al.*, 2004). The economic rationale is based on synergies that could be gained by merging separate organisations, which have similar core processes and competencies related to revenue collection, thus leading to a more efficient use of resources and lowering administrative costs for the government and compliance costs for employers (Barr and *et al.*, 2004). In addition, such a reform may improve the monitoring of tax compliance, thus countering fraud and increasing the revenue base. Given that administrative costs of tax collection relative to net revenue collections in Slovakia are the highest among OECD countries, reforms to that end should be envisaged (OECD, 2009b).⁷

The Slovak authorities intend to increase the efficiency of the revenue system by moving to integrated revenue collection under the so-called UNITAS project. This was launched in 2008 and is expected to be fully implemented by 2014. The first stage, UNITAS I, is to merge the existing tax and customs administrations and to establish a new system for the management and organisation of the collection of government revenues via a newly founded organisation (the Financial Administration of the Slovak Republic). Along with organisational changes, an optimisation of specific processes is also planned. In particular, it will involve the concentration and unification of some processes at a central level. This phase is intended to be implemented by 2013.

UNITAS II will unify the collection of taxes, customs and social contributions (including health contributions) into one point of collection. As a prerequisite, the unification of the

assessment bases of social contributions and personal income tax is envisaged, which could facilitate the introduction of a single tax and contribution return statement. Furthermore, the introduction of a uniform identifier of persons and interconnection of information systems of general government entities is planned. The detailed concept of the second stage is to be prepared and approved by the Slovak government by December 2010. The Ministry of Finance estimates that over the period of 2008-17 the total benefits of UNITAS I will exceed the costs by approximately EUR 1.5 bn (2.4% of GDP) on a cumulative basis, accruing both to taxpayers and to the general government (Table 2.2).⁸ The plans for a unified collection scheme are highly welcome and should be implemented in full and as soon as possible. In order to prevent delays, the government should proceed quickly with approving the second stage of the reform (UNITAS II).

Table 2.2. **Cumulative impact of the UNITAS I revenue integration reform**

(EUR million)	2008-12	2008-13	2008-17
Benefits	280	601	1 892
Costs	190	250	409
Difference	90	352	1 484

Note: The estimated costs and benefits rest on the following assumptions: Reduction of the administrative burden of taxpayers by at least 25%, increase in the share of documents delivered to the tax administration office electronically from 12% to at least 50%, reduction of visits to the tax administration office by 50% by 2013, a gradual reduction of employees in tax administration amounting to 20% by 2014, overall wage increases of employees in the tax administration amounting to 20% by 2012 and 3% annual increases beyond that period, and a reduction in the size of the shadow economy by 10% after the implementation of the reform.

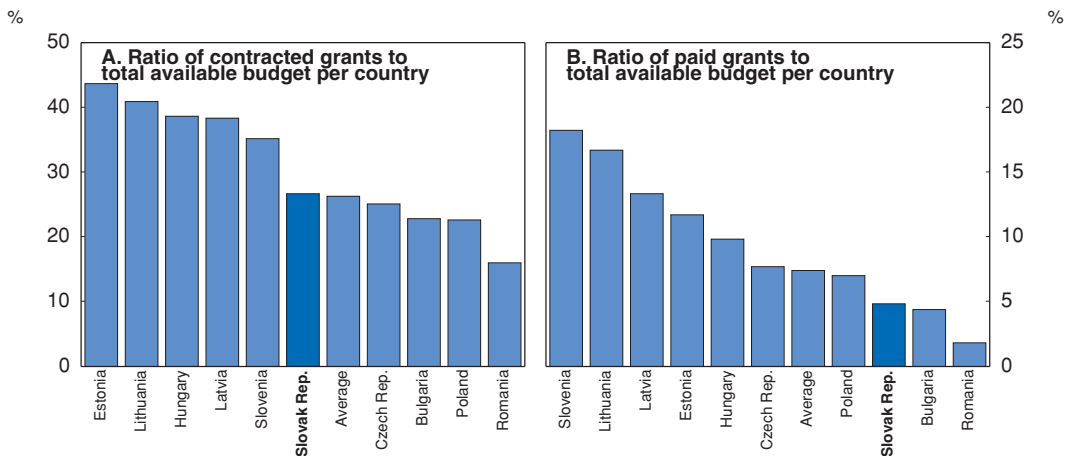
Source: Ministry of Finance (2008).

Improving the absorption of EU funds


The use of EU funds, which the EU allocates as part of its regional policy to reduce regional disparities, is an essential factor for development. For the implementation period 2007-13, the available budget for Slovakia amounts to close to 3% of GDP per year, including co-financing from the state budget, which in the case of Slovakia amounts to about 10% of the total.⁹ During times of fiscal consolidation, EU funds are a particularly important instrument for limiting the adverse effects on growth. In this regard, it is unfortunate that Slovakia lags behind in the absorption of these funds in relation to other CEE countries. The share of contracted grants (the amount for which the contract has been signed by the competent authority and the final beneficiary) relative to the total available budget is comparable to other CEE countries (Figure 2.2, Panel A).¹⁰ By contrast, paid grants (amount of grants, including advance payments, disbursed to the final beneficiaries by the paying agency) relative to the total available budget (absorption) is much lower than in those other countries (Figure 2.2, Panel B) (KPMG, 2010).¹¹

Low absorption of EU funds is a concern and while little is known about the reasons for this outcome, a number of factors could play a role. First, the low share of paid grants could reflect a different planned distribution of drawing EU funds (i.e. the use is not equally distributed over time), as in some countries the plans foresee that the bulk of the money will be spent in the later years of the programme period. Second, the pace of realisation of contracted projects may be slow. Third, contracted projects could be of low quality or selection procedures may lack transparency, leading to projects not passing audits or other control mechanisms at the certification authority (the Ministry of Finance). In Slovakia, there is some evidence that the quality and transparency of the selection process of certain

Figure 2.2. Drawing of EU funds in eastern European countries



Source: KPMG (2010), *EU Funds in Central and Eastern Europe*, Progress Report 2007-09.

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projects (social enterprises, procurement of certain goods and services at the Ministry of Construction and Regional Development) has been low, so that, despite being contracted projects, they did not pass control mechanisms at the national level. Fourth, the payment structure may be different among countries with some countries relying more on advance payments than others. Investigating further what is driving the low absorption of EU funds should be a priority for the government going forward.

Even though the overall share of contracted grants relative to the available budget looks more favourable, major operational programmes are lagging behind (Table 2.3). This may reflect that operational programmes (e.g. transport and environment) involve major projects which need a longer lead-time for their preparation so that their drawdown will be concentrated in the remaining part of the programme period. This explanation is consistent with the initial allocation of EU funds within the National Strategic Reference Framework. Transport and Environment are the only operational programmes which implicitly assume that the drawing of EU funds will continuously rise over the programme period, being concentrated mainly in 2010-13 (Table 2.4). At the same time, in a CEE-wide comparison, Slovakia is lagging behind in drawing EU funds related to the environment, while drawing funds in transport is roughly at the CEE average.

The underlying reasons for the low absorption should be investigated. Notwithstanding the need for co-financing, consideration should be given to accelerating the projects in order to get the maximum impact during the time of fiscal consolidation, thus damping the adverse growth effects of consolidation. Submission requirements for domestically funded capital projects should be transparent and simple and co-operation between ministries should be fostered in order to facilitate the certification process.

Improving efficiency of healthcare spending

Healthcare is one of the most important expenditure areas in Slovakia: public sector spending on health accounts for one-fifth of total expenditures and is expected to rise sharply over the next decades, in part because of rapid population ageing. Under a no-policy change scenario, the European Commission expects public health spending as a share of GDP to increase by 2.3 percentage points from its 2007 level by 2060.¹² This

Table 2.3. **Drawing of EU funds in Slovakia**

	Available budget 2007-13	Contracted grants 2007-09	Paid grants 2007-09	Contracted ratio	Absorption
	(mil. EUR)	(mil. EUR)	(mil. EUR)	(%)	(%)
I. National Strategic Reference Framework	13 392	3 312	613	25	5
Employment and Social Inclusion	1 135	479	88	42	8
Competitiveness and Economic Growth	908	381	50	42	6
Health	294	125	15	42	5
Education	727	232	6	32	1
Transport	3 705	869	246	23	7
Research and Development	1 423	327	39	23	3
Environment	2 118	387	38	18	2
Informatisation of Society	1 168	127	5	11	0
Regional	1 700	316	103	19	6
Bratislava Region	99	10	6	10	6
Technical Assistance	115	61	17	53	15
II. National Strategic Rural Development Plan	1 297	593	92	46	7
III. National Strategic Plan of Fisheries	19	4	1	23	3
Total	14 707	3 910	706	27	5

Source: KPMG (2010), *EU Funds in Central and Eastern Europe, Progress Report 2007-09*.

Table 2.4. **EU funds allocation in Slovakia over time (% shares in total allocation)**

	2007	2008	2009	2010	2011	2012	2013	2007-13
I. National Strategic Reference Framework	11.2	12.1	13.2	14.3	15.4	16.5	17.3	100
Employment and Social Inclusion	14.2	13.8	13.3	12.3	13.3	14.6	18.4	100
Competitiveness and Economic Growth	14.2	13.8	13.3	12.3	13.2	14.6	18.5	100
Health	14.2	13.8	13.3	12.3	13.2	14.6	18.5	100
Education	14.2	13.8	13.3	12.3	13.3	14.6	18.4	100
Transport	7.8	10.2	13.0	16.6	17.8	18.6	16.0	100
Research and Development	14.2	13.8	13.3	12.3	13.2	14.6	18.5	100
Environment	6.5	9.5	12.9	17.5	18.8	19.4	15.5	100
Informatisation of Society	14.2	13.8	13.3	12.3	13.2	14.6	18.5	100
Regional	14.2	13.8	13.3	12.3	13.2	14.6	18.5	100
Bratislava Region	13.5	13.7	14.0	14.3	14.6	14.9	15.1	100
Technical Assistance	14.2	13.8	13.3	12.3	13.2	14.6	18.5	100
II. National Strategic Rural Development Plan	15.4	14.5	13.6	13.0	13.4	14.0	16.1	100
III. National Strategic Plan of Fisheries	14.6	14.0	13.3	12.1	13.0	14.4	18.6	100
Total	11.8	12.5	13.2	14.1	15.1	16.1	17.1	100

Note: The table shows the relative planned breakdown of allocation of EU funds into each year of the programme period in Slovakia. These figures are not fully comparable with the data on drawdown presented before as they represent commitments that can be drawn in a period of $n + 2$ or $n + 3$ years (depending on the type of fund and the year of programme period), n meaning the year of commitment.

Source: National Strategic Reference Framework of the Slovak Republic.

expected increase is one of the highest among the EU27 and compares with an average expected rise in this country group of 1.7 percentage points (European Commission, 2009). Among OECD countries, the increase is expected to be the second-highest after Korea (Oliveira Martins and De la Maisonnette, 2006).

Aware of this issue, policymakers have implemented ambitious reforms of the healthcare system in the past, notably in 2004, which have profoundly changed its structure from a command-and-control system to a market system, notably at the insurance level (Box 2.1). Some of these reforms have been rolled back since 2006 – for

Box 2.1. The Slovak health care system and the 2004 reform

The 2004 healthcare reform

Since 1993, the Slovak health care system has consisted of a mandatory social health insurance system with multiple non-profit insurers (Colombo and Tapay, 2004). In 2004, Slovakia implemented a major healthcare reform as the deficit in the social security funds had increased since the mid-1990s to reach around 0.8% of GDP by 2002 (this led to the accumulation of debt at the level of healthcare providers as health insurances delayed payments).¹ The main aim was to replace the state-driven health system with a more market-oriented one and the main contents of this reform were:

- Health insurance funds were transformed from non-profit institutions into joint stock companies and two types of health insurance were permitted: mandatory basic coverage and voluntary private cover (for over-the-basic services). User fees for doctor visits, emergency room visits, drug prescriptions and hospital stays were also introduced.
- On the provider level, several hospitals (mainly small and medium sized ones) were transformed from self-managed government institutions into not-for-profit organisations in the ownership of cities and regional governments (while large hospitals remained the property of the state). Health insurance funds were instructed to implement structured contracts with in- and outpatient providers.
- The benefit package was reworked; some treatments were de-listed from the package of benefits reimbursed by compulsory health insurance and the basic benefit package was changed so as to rely on a positive list encompassing all preventive activities, diagnostic activities and all treatments for defined diagnosis.

Changes since 2006 and the current status quo

Some of the measures introduced by the 2004 reform were modified again after a change in government in 2006. This included the cancellation of the fees for doctor visits and a lowering of the fees for drug prescriptions as well as tighter regulation of health insurance funds. Today, the main features of the health care system are as follows:

Coverage and entitlement

All Slovak citizens are covered by compulsory public health insurance. The basic insurance package entitles everyone to free healthcare with the exception of only a few treatments (e.g. cosmetic surgery), and partial payments for pharmaceuticals and selected healthcare related services (e.g. emergency room visits). Prices of pharmaceuticals are regulated by the Health Ministry which bases the prices on international referencing which compares the lowest prices for the same or similar drugs across EU countries.

Insurance market

Citizens have a choice for the compulsory health insurance package between three insurers. They are the publicly owned VSZP and the privately owned ZP *Dovera* and ZP *Union*, which had market shares respectively of 69%, 25%, and 6% in 2009. Insurers are required to accept any applicant. For the basic insurance package, insurers have no influence over the benefit basket, level of coverage or premiums and in 2009, as much as 95% of insurance contributions were redistributed according to a risk-equalisation system based on age, gender and economic activity of the insurer.² An over-the-basic insurance market does not exist, even though private health insurance is allowed (Verhoeven et al., 2007).

Box 2.1. The Slovak health care system and the 2004 reform (cont.)**Sources of financing**

Insurance for employees is financed from health insurance contributions, which amount to 14% (10% are paid by employers and 4% by employees) of gross wages, up to a ceiling of three times the average wage of the penultimate year (in 2010 the ceiling is EUR 2 169, three times the 2008 average wage of EUR 723).³ The minimum contribution is based on the minimum wage. Self-employed pay contributions themselves with the minimum contribution base amounting to 44.2% of the average wage. Insurance for the majority of non-working persons (over half of the population) including children, unemployed and pensioners is paid for by the government at a rate of 4% (the assessment base is the average wage of the penultimate year). The rate for 2010 is 4.78%, for 2011 it was lowered to 4.32%. Out-of-pocket (OOP) payments are relatively high, amounting to 26.2% of total expenditures, the fourth highest in the OECD. Anecdotal evidence suggests that informal payments (which may partly be included in measured OOP payments) play an important role in affecting access to healthcare and health inequality (Murthy and Mossialos, 2003).

Market for provision

Users can choose between different providers of health care (in- and out-patient care) with gate-keeping restrictions for out-patient care, particularly on access to specialists. Insurers are allowed to select healthcare providers, and to negotiate contracts with physicians and individual hospitals. However, in 2007, the government defined a network of minimal health services providers which insurers have to sign contracts with. These include all GPs, a minimum number of specialists and all state-owned hospitals.

1. The debt accumulation of the social security funds was apparently also fuelled by delayed contribution payments by employers as well as by the government for the inactive population.
2. Risk-equalisation schemes attempt to adjust for the different risk structures of members in different health insurance funds to avoid that insurers compete for high-income members with low morbidity risk (cream skinning). The aim is for competition to lead to increased cost-effectiveness among insurers rather than risk selection.
3. Contributions are paid monthly. An annual clearing payment compares the total annual contributions paid with the annual income ceiling, i.e. employees who receive a high income in one month that exceeds the ceiling but otherwise remain below the ceiling may have to pay an additional contribution. The contribution rate for the severely disabled amounts to 7%.
4. Diagnosis related group systems relate types of patients treated to the resources they consume with the aim of determining the reimbursement from medical insurance according to a diagnosis on a prospective basis.

example, competition in the insurance market has been curtailed and some co-payments have been abolished. Nevertheless, their potential impact on health outcomes and on costs may not yet have been fully realized. In any case, even after the reforms, significant challenges remain to improve the efficiency of the healthcare system.

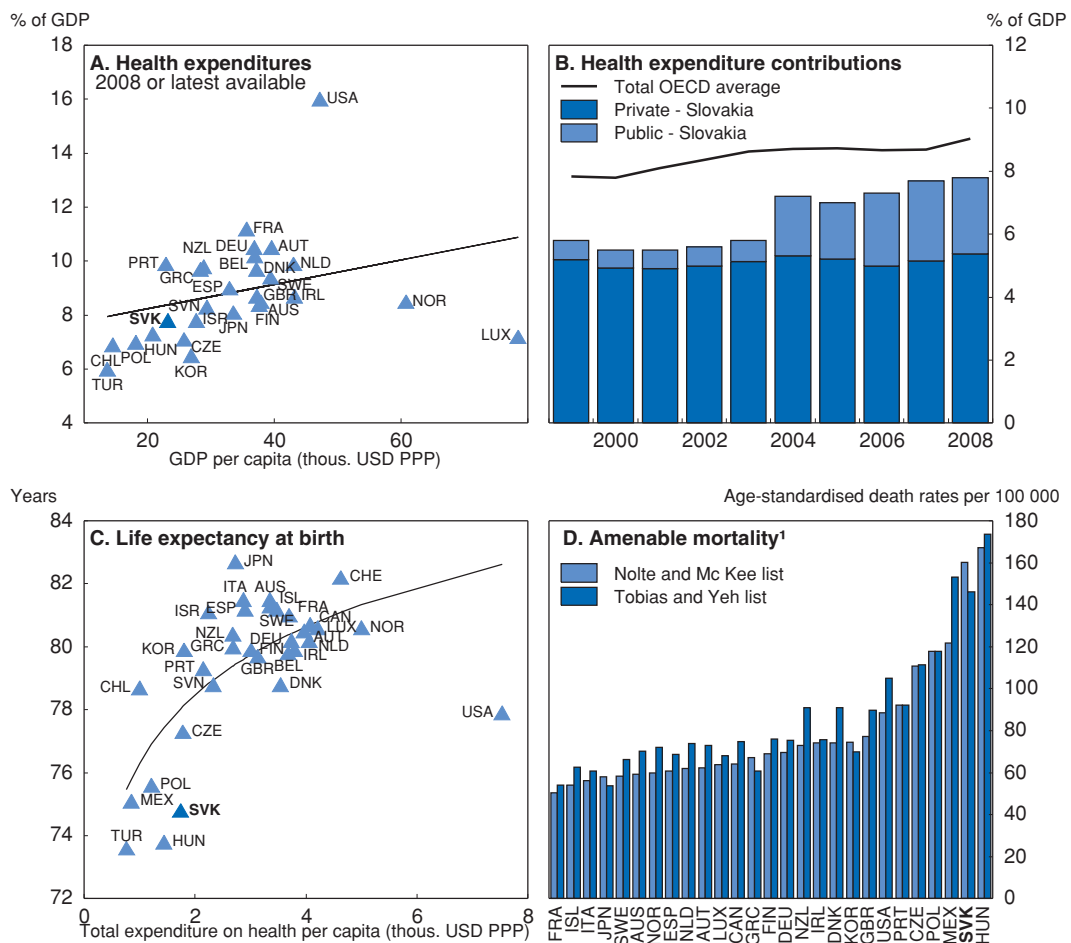
Expenditure levels are low but rising fast...

At 7.4% of GDP (in 2008), total expenditure on health in Slovakia is below the OECD average of around 8½ per cent.¹³ The lower level may be explained by lower GDP *per capita* (Figure 2.3, Panel A). However, expenditures are rising very fast, even compared with countries that have a similar GDP *per capita* level; over the period 2000-07, expenditures increased by 2.2% of GDP, compared with growth of less than 1% in Poland, Hungary and the Czech Republic and an OECD average of 1.2%. This high spending growth in Slovakia reflects primarily a steep increase in spending since the major health reform in 2004.

... while outcomes lag behind

Despite the rapid growth in expenditures, health outcomes have not improved as much as in many other OECD economies, although outcome improvements tend to show up with some lag. Over the period 1995-2007, life expectancy increased by less than two years compared with an OECD average of more than three years. Amenable mortality (those deaths that are potentially preventable by timely and effective medical care) is the second-highest in the OECD (Figure 2.3, Panel D). While the health status of a population is affected by several factors other than health spending (such as education, pollution and lifestyle), estimates by Joumard *et al.* (2010a) suggest that health spending is the single most important factor explaining differences across countries.¹⁴ In addition, health inequality, measured as the standard deviation in mortality rates for the population older than 10, is higher in Slovakia than in a number

Figure 2.3. Health status and health care spending



1. Amenable mortality lists specify both causes of death and age-specific limits for each cause. Various lists exist. Results shown here are based on those developed by Nolte and Mc Kee (2008) and by Tobias and Yeh (2009).
Source: OECD Health Database and Joumard *et al.* (2010), "Health care systems – Efficiency and institutions", *Economics Department Working Papers*, No. 769.

of OECD countries (Joumard *et al.*, 2010a). Among CEE countries, inequalities are much higher in Hungary and Poland but slightly lower in the Czech Republic compared with Slovakia. Overall, the Slovak public seems less happy with the available health care than citizens in other countries.¹⁵

The weak efficiency of Slovak health spending is even more worrying as health expenditures usually have decreasing returns to scale; thus, a country which starts from a lower level of expenditures should normally experience more rapid improvements in outcomes than a more advanced economy. Given this background, there seems to be significant room for improvement in health outcomes in Slovakia given the level of health spending. The issue is whether money is spent efficiently, not whether more money should be spent (which is a societal preference). Even though such estimates are surrounded by considerable uncertainty, results by Joumard *et al.* (2010a) indicate that health reforms which generate a better use of the current money expended in line with best performers, could increase life expectancy in Slovakia by several years. Alternatively, the same outcomes could be achieved with significantly lower spending. For example, the same gains in life expectancy, that were reached over the period 1997-2007, could be realized in the future by a more efficient system at costs which are estimated to be more than 2% of GDP lower (Joumard *et al.*, 2010b). This analysis is based on comparisons of policies in a grouping of countries that share broadly similar institutional features, given the difficulties of comparing significantly different institutional arrangements (Figure 2.4). Slovakia is in a group with Germany, Netherlands and Switzerland. This group is characterized by extensive market mechanisms to regulate basic insurance coverage, a large role for private providers, mostly fee-for-service payment, a large choice among providers, gate-keeping and little reliance on prices paid by third-party payers to control public spending growth.

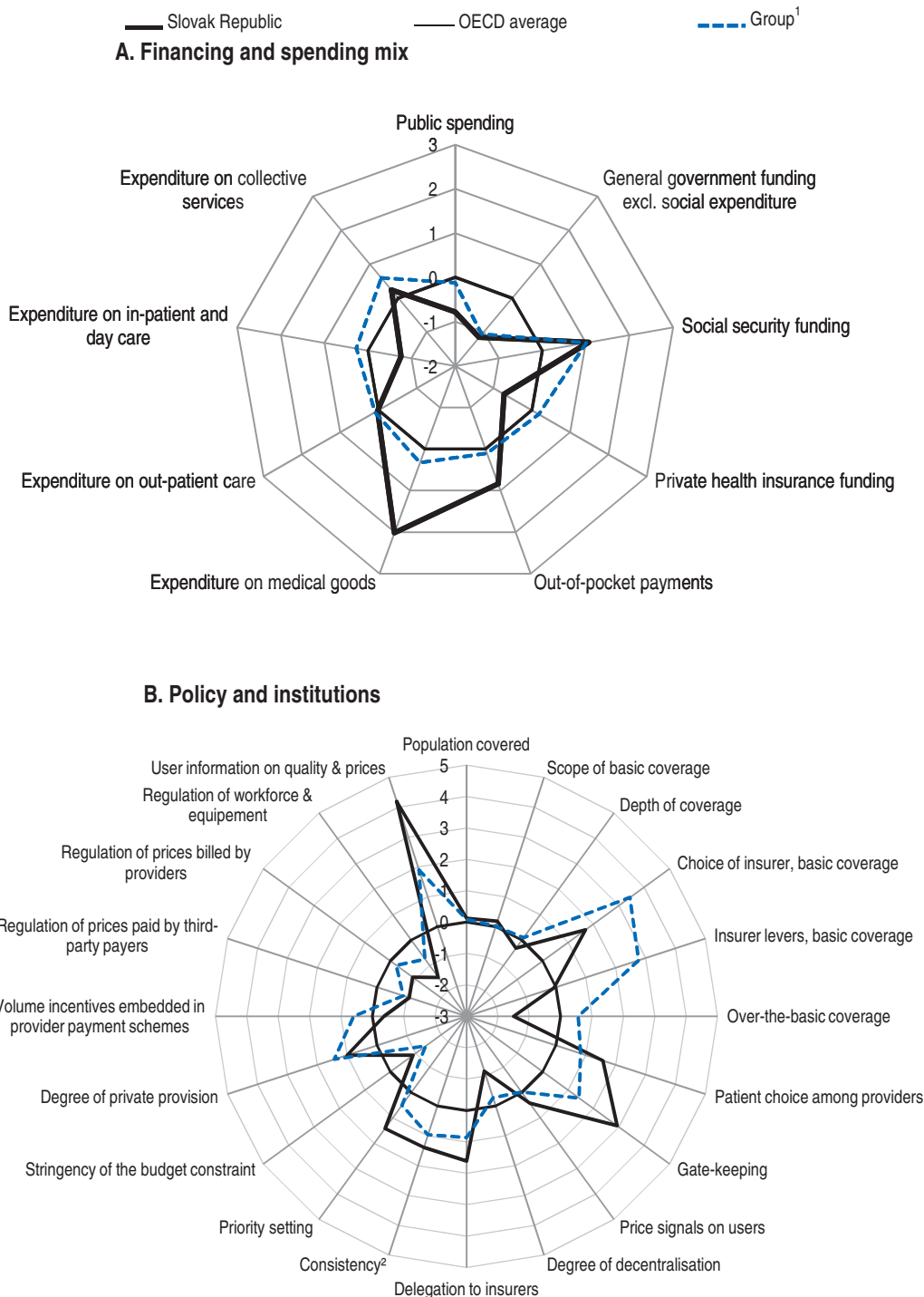
The main areas policy reform should focus on are:

- The increase in spending is driven by private expenditures as out-of-pocket health spending has risen to very high levels. This has led to increased inequality, as low-income households are most affected, but is not reflected in better health outcomes.
- Inefficiencies at the provider level are large. The state-owned hospitals have soft budgetary constraints and generate significant debts. In addition, many health professionals migrate abroad, not least due to their low pay, notably in the hospital sector.
- Expenditures on drugs are high, potentially indicating that measures to curb drug consumption are not used sufficiently effectively.
- Competition among health insurance funds is comparatively weak due to strict regulation of health insurance funds and high and growing market concentration, suggesting that not all the benefits of the institutional set-up that was chosen for the Slovak healthcare system are used.

Dealing with the rise in out-of-pocket payments...

The overall increase in expenditures is almost solely due to an increase in private expenditures, which rose from 0.7% of GDP in 2003 to around 2½ per cent of GDP in 2008; by contrast, public expenditures remained almost unchanged at around 5% of GDP

Figure 2.4. **Health care indicators in Slovakia compared to other countries**




Note: In both panels, data points outside the average circle indicate that the level of the variable for the group or the country under scrutiny is higher than for the OECD average. In Panel A, data represent the deviation from the OECD average and are expressed in number of standard deviations. In Panel B, data shown are simple deviations from the OECD average.

1. Germany, Netherlands, Slovak Republic and Switzerland.

2. Consistency in responsibility assignment across levels of government.

Source: OECD Health Data 2010 and Jourard et al. (2010), "Health care systems – Efficiency and institutions", Economics Department Working Papers, No. 769.

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(Table 2.5). Private expenditures as a share of GDP are now around the OECD average while public expenditures are still among the lowest. The rise in private spending reflects sharply increasing expenditures for personal health, both for medical services (in- and out-patient care) and to a smaller extent for pharmaceuticals. As financing through private insurance is non-existent, these expenditures are cash out-of-pocket payments (OOP) by households that affected households in the lowest income quintiles the most (Kiss, 2007).

Out-of-pocket payments have more than tripled since 2002 and now amount to 2% of GDP, compared with 1.6% of GDP in the average OECD country. Few details on the exact composition of these payments are known, notably to what extent they include informal payments. However, since they rose sharply around 2004, the increase probably relates to the health reform measures taken then. OOP expenditures on pharmaceuticals increased due to the introduction of equal reimbursement for chemically identical substances and fixed co-payments for all drugs while previously some drugs (such as antibiotics) were free of charge (Kiss, 2007). In addition, the categorization of pharmaceuticals was adjusted and the portion of the costs paid by patients for partially reimbursed drugs was fixed, helping to explain the rise by 0.3 percentage points of private expenditure on pharmaceuticals since 2002. Another contributing factor seems to be an increase in expenditures on medical services, notably on out-patient care. But also the share of OOP in inpatient curative care as well as in basic medical and diagnostic services has risen to among the highest in the OECD (Paris et al., 2010). A range of measures may be behind this development. First, a fee per practitioner visit and per drug prescription as well as a fee per night in hospital was introduced. However, as these fees were set at very low levels, their introduction was more of symbolic significance and the number of doctor visits declined only marginally from 13 *per capita* in 2002 to 11.2 in 2007 (still close to twice the OECD average).¹⁶ Second, outpatient physicians were allowed to charge patients for skipping the queues in waiting rooms and for other extra services from 2005. The latter was part of the spirit of the reform to formalise informal payments and make hidden phenomena,

Table 2.5. Evolution of current healthcare expenditures in Slovakia

	% of GDP							
	2002	2003	2004	2005	2006	2007	2008	OECD 2008
Total current health expenditures	5.6	5.6	6.6	6.7	7.0	7.4	7.4	8.6
... public	5.0	4.9	5.1	5.1	4.9	5.1	5.3	6.3
... on medical services	2.9	2.7	2.8	2.9	2.7	3.0	3.2	4.9
... in-patient	2.0	1.8	1.7	1.9	1.2	1.4	1.4	2.7
... out-patient	0.9	0.9	1.2	1.0	1.4	1.6	1.8	2.1
... on medical goods	1.9	2.0	1.9	1.8	1.8	1.7	1.7	1.0
... private	0.6	0.7	1.5	1.7	2.1	2.3	2.1	2.3
... on medical services	0.1	0.2	0.5	0.6	0.9	0.9	1.0	1.4
... in-patient			0.0	0.0	0.3	0.3	0.3	0.5
... out-patient			0.5	0.5	0.7	0.7	0.7	1.0
... on medical goods	0.5	0.5	0.9	1.0	1.0	1.1	1.1	0.8
... on pharmaceuticals	0.3	0.4	0.5	0.6	0.6	0.7	0.6	0.7
... on therapeutic appliances	0.1	0.1	0.3	0.4	0.4	0.4	0.4	0.2
<i>Memorandum: out-of-pocket payments</i>	0.6	0.7	1.4	1.6	1.9	2.0	2.0	1.6

Note: Current health expenditures equal total expenditures minus investment. OECD 2008 refers to the un-weighted OECD average for 2008. Private spending on medical services comprises in-patient (including day care) and out-patient expenditures (including expenditures on home health care and ancillary services (such as laboratory, diagnosis imaging and patient transport). Therapeutic appliances comprise a wide range of medical durables, such as glasses, hearing aids or wheelchairs.

Source: OECD Health Data 2010.

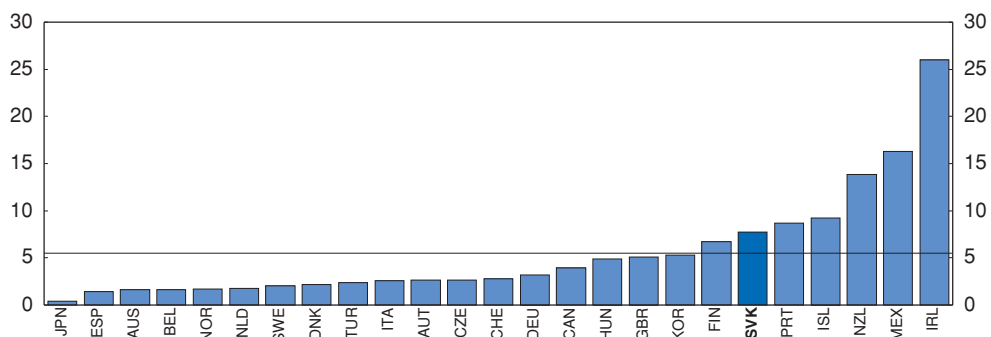
such as waiting times, more visible. Under-the-table payments (which may be widespread as anecdotal evidence suggests [Murthy and Mossialos, 2003]) would be substituted by open queues, transparent fees and open rationing as a mechanism to equilibrate supply and demand.¹⁷ Third, insured persons were forced to see the dentist at least once a calendar year; otherwise they would not be reimbursed for dental services in the following year (in this case they would be obliged to pay for them out-of-pocket).

In an effort to address the rising OOP expenditures, a number of changes to the reforms were enacted in 2006. In particular, some of the fees for healthcare services were abolished again, those for drug prescriptions were reduced and the VAT rate for drugs was lowered from 19% to 10%; but patients still co-pay for pharmaceuticals. These measures did not reverse the trend of rising OOP expenditures, suggesting that the payments to healthcare providers for extra services account for a large or perhaps rising, share of the spending increase (Table 2.5). In fact, even though data on the breakdown of OOP are only available for the years 2004 and 2005, in these years, cost-sharing accounted for only a negligible amount of it. In contrast to many other OECD countries (16 out of 29 OECD countries, including the Czech Republic and Hungary), there is no upper limit for OOPs per household income. Given the extent of OOP payments in Slovakia, an upper limit for OOP payments in terms of annual individual or household income should be introduced.

... and the inefficiencies at the provider level


The organisation of healthcare provision also needs to become more efficient. Rankings of providers as published by health insurers show big differences in the quality of care between various providers. Part of this may be due to a lack of co-ordination in primary care as clinical guidelines promoting disease management are absent, often leading to unnecessary induced care. For example, the average number of doctor visits *per capita* in Slovakia is around 12 per year, one of the highest among OECD countries. Furthermore, incentives for General Practitioners (GPs) to work in Slovakia are low as evidenced by the emigration of doctors and nurses which is more prevalent in Slovakia than in many other OECD countries. The number of health personnel working abroad amounts to around 8% of the domestic workforce in the health and social work sector, against the (un-weighted) OECD average of around 6% (Figure 2.5). As emigration often concerns younger doctors, the age

Figure 2.5. **Health care personnel working abroad**
% of all employed in health sector in the country of origin



Note: The figure shows the origin of migrant employees in the health and social sectors as a share of employees in that sector in their home country. For example, employees of Slovak origin working in the health and social sectors in OECD countries (outside Slovakia) account for 7.7% of employees working in this sector in Slovakia.

Source: OECD, Database on Immigrants in OECD countries (DIOC) and Labour Force Statistics Database.

StatLink  <http://dx.doi.org/10.1787/888932358523>

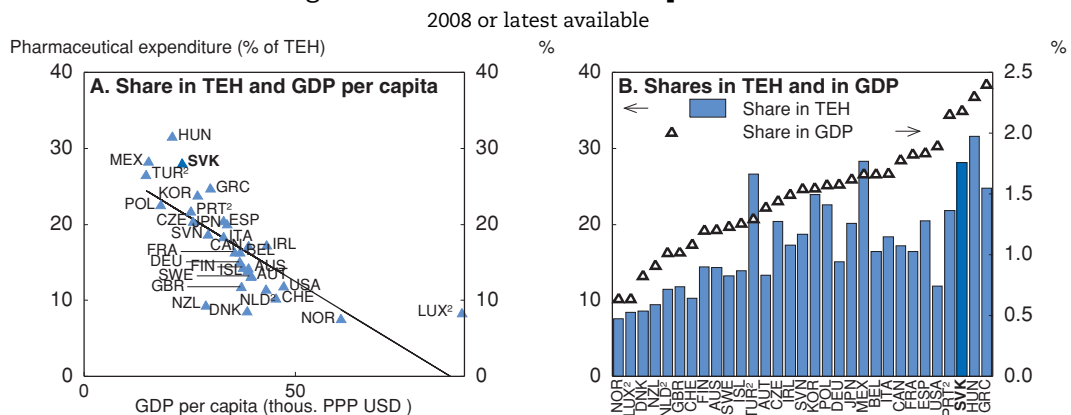
structure of GPs in Slovakia is skewed towards older cohorts. The countries with the largest shares of Slovak employees in health care are the Czech Republic, Austria, Hungary and the United Kingdom. Partly, this may reflect low salaries, notably of hospital nurses, whose income relative to the average wage is one of the lowest among OECD countries. It may also be due to the remuneration structure of doctors, which is based on capitation only. The way physicians are compensated should thus be reviewed, possibly complementing capitation with a fee-for-service component, as it is done in many other OECD countries (Paris *et al.*, 2010).¹⁸ Simoens and Giuffrida (2004) argue that such a combination of payment methods may produce a more desirable mix of incentives than relying on just one.

Furthermore, performance in the hospital sector could be improved, which accounts for around one-third of all health expenditures. The lack of efficiency concerns notably the state-owned institutions which operate under a soft budget constraint, lack corporate governance rules and are heavily indebted (Verhoeven *et al.* (2007)). This has been a long-standing problem: already in 2004/05 the hospital sector was heavily indebted and the government took over debt in the amount of EUR 640 million (1% of GDP). Although it was planned in the 2004 reform to transform all hospitals into joint stock companies, only five of them were transformed before the process was stopped in 2006. Performance in the hospital sector remains weak and their debt levels have risen again to around ¼ of GDP. The benefits and risks of restructuring the hospital sector by transforming the state-owned institutions into joint stock companies should be further explored. Furthermore, implementing a system of disease-related groups would motivate cost-effective treatment.

Lowering expenditures on pharmaceuticals

Expenditures on pharmaceuticals account for 28% of all health expenditures, the second-highest in the OECD (the highest is Hungary; the OECD average is 17%). In relation to GDP, Slovakia is also among the highest (Figure 2.6, Panel B). One important factor behind this outcome is a relative price level effect: the difference between the price level of pharmaceutical goods (a traded good) and the domestic price level of health expenditures (a non-traded good) is higher in a catch-up country like Slovakia. This may explain why countries with a lower level of GDP *per capita* have a higher share of pharmaceutical spending in total health expenditures (Figure 2.6, Panel A).¹⁹ In addition, the relatively low

Figure 2.6. **Pharmaceutical expenditure**



1. TEH = total expenditure on health.

2. Pharmaceutical expenditure: 2006 for Portugal, 2005 for Luxembourg, 2002 for Netherlands and 2000 for Turkey.

Source: OECD, Health Database.

StatLink <http://dx.doi.org/10.1787/888932358542>

salary of health care professionals compared to other professions in Slovakia contributes to a low share of hospital expenditure, helping to explain the low proportion of non-pharmaceutical spending.²⁰ According to the Slovak Ministry of Finance, the relative price level effect may account for around one-third of the share of pharmaceuticals in total health expenditures.²¹

In terms of price levels, pharmaceutical products seem to be broadly in line with comparison countries (OECD, 2008) although there is some evidence for over-pricing in selected products in the recent past (Kaló et al., 2008). According to estimates by the Slovak Ministry of Finance, the effect of overpriced drugs accounts for 3 percentage points of the higher share of pharmaceutical spending in total health spending. In terms of volumes, drug consumption is above the OECD average for many drug categories. This may be related to the relatively poor health status of the population. For example, mortality rates for ischemic heart disease and cancer are among the highest in the OECD and the perceived health status of Slovaks is the second-worst among OECD countries.²²

Co-payments for pharmaceuticals are low

However, growth of drug volumes is also above average, suggesting that consumption is likely to reflect also other factors than health status. Between 2000 and 2008, expenditures on medical goods as a share of GDP rose by 0.3 percentage point, almost twice the OECD average. One factor may be a lower level of co-payments for reimbursed drugs which encourages spending on higher priced products relative to other countries and/or gives incentives to consume more drugs (Kaló et al., 2008). Private spending on pharmaceuticals and other medical non-durables at 140 USD PPP is well below the OECD average of 211 USD PPP.²³ The share of private expenditures in overall pharmaceutical spending at 27% is one of the lowest among OECD countries (OECD average is 45%). In order to increase the price awareness of consumers, the level of co-payments for partially-reimbursed pharmaceuticals should be raised. While this may contribute to increasing the level of OOP payments, introducing a cap on such payments as recommended before would limit the underlying adverse effects.

Generic substitution should be encouraged further

Reimbursement of drugs is based on categorization whereby the Ministry of Health (assisted by an advisory body called the Categorisation Committee) determines which drugs are reimbursed and at what rate (Kaló et al., 2008). In general, the amount reimbursed is oriented at the cheapest available generic drug. For innovative products, the maximum retail price that is reimbursed is based on a submission by the manufacturer (which is usually based on other European prices in case the drug has been introduced there; Box 2.2). For all other (non-generic or more expensive generics) drugs, patients have to pay the difference, giving them an incentive to request prescription of generics from the physician or substitution by the pharmacist whenever possible (even though the low level of co-payments somewhat limits the incentive).²⁴ Overall, the use of generic drugs is stronger in Slovakia than in many other European countries, but greater savings from generic drug utilisation are possible by further raising the incentives for generic substitution.²⁵ For example, in practice the incentive for using generic drugs is circumvented at the level of the prescription. Often, doctors prescribe the more expensive drug, thus forcing pharmacists to provide the more expensive drug and patients to pay the co-payment.²⁶ In this regard, the government plan to require doctors to only prescribe the drug substance, thus leaving open the choice of specific drug to the patient, is a step in the

Box 2.2. Reference pricing in catch-up countries¹

International benchmarking to determine the (maximum) price of a pharmaceutical product (i.e. looking at the prices in comparator countries) is used in 24 OECD countries. If a pharmaceutical firm wants to introduce a new product in the retail pharmacy market in Slovakia, it has to submit an application indicating a proposed retail price as well as a request for determination of the reimbursement level to the Categorisation Committee (an advisory body for the Ministry of Health, comprising representatives from the Ministry of Health, the Slovak Medical Chamber and health insurance funds). In determining the price threshold for imported pharmaceuticals, reference is made to the ex-factory price in the remaining 26 European Union countries. The price threshold is defined as the maximum of 10% above the average of the six lowest prices (countries where a price has not (yet) been established are excluded).² Prices of all publicly reimbursed drugs are then checked semi-annually against this rule by a joint Ministry of Health/Ministry of Finance task force. Recently, the Ministry of Health proposed a law that would set the maximum price to the level of the second lowest price of a drug in the European Union.

This approach of international reference pricing is influencing the behaviour of manufacturers. This concerns in particular the ordering of launches in different countries, as international reference pricing is rarely repeated after the initial market-entry price determination. For example, they are more likely to launch products in high-price countries and delay or compromise launches in low-price countries in order to try to avoid lowering the market-entry floor. At the same time, given that the Ministry of Health allows a launch price that is 10% higher than the average of the three lowest-price reference countries, companies may choose to launch their product in Slovakia before the price determination in other low-price countries in order to keep the Slovak price higher than elsewhere. However, due to the fact that Slovakia reviews also the prices of drugs already on the market, it may limit the extent by which manufacturers can benefit from such strategies.

1. This box draws on Kaló *et al.* (2008) and OECD (2010b).

2. The 10% mark-up allowance is not used for hospital-only drugs.

right direction. As one element in its campaign to foster generic substitution, the Ministry of Health has set up an electronic calculator on their website that allows patients to search for the drug with the lowest co-payment. These efforts are welcome and should continue, for example by obliging pharmacists to always supply the cheapest generic drug. The savings by always dispensing the least expensive drug by the pharmacist are estimated to amount to around 35% of co-payments in Slovakia (Filko *et al.*, 2010). In addition to these changes, measures to increase transparency in pharmaceutical marketing and distribution and to reduce induced consumption of drugs should be introduced. Also, benefit-cost ratios of newly entering as well as already marketed substances should be reviewed using standard international methodology and inferior products should no longer be reimbursed.

Increasing competition in health insurance markets

The organisation of the Slovak health insurance system is based on a multiple insurance system with competition, funded primarily by social security contributions. Among the new EU member states, only the Czech Republic and the Slovak Republic have moved to such a system. It is akin to the (Bismarckian) system of other Western European countries, such as Germany, the Netherlands and Switzerland. However, the market is highly concentrated with only three funds providing primary health coverage – fewer than

in the other OECD countries that offer consumer choice of insurers (Paris *et al.*, 2010).²⁷ In addition, the levers for competition on the market for the basic primary coverage are much more limited. Therefore, the system does not benefit much from the main advantage of a plural model, namely higher satisfaction of consumer preferences through high competition, while being exposed to many of the disadvantages of such a system, such as higher administrative costs and potential for oligopolistic rents (Filko *et al.*, 2010).

Regulation of insurance funds should allow for some room for competition...

Competition in the insurance market has effectively stalled due to a number of regulations and increasing market concentration. While health insurance funds have to charge the same contribution rates (and 95% of all contributions are redistributed through a risk equalisation scheme), they are allowed to select and contract with providers. Thus, insurees may have an incentive to choose a certain insurance fund because it offers reimbursement for a particular provider. At the same time, the scope for such behaviour is limited by the fact that the government has issued a minimum network of providers for in- and out-patient providers with whom insurers have to contract. These include all General Practitioners (GPs), a minimum number of specialists and all publicly owned hospitals. While in principle insurance funds could compete on marketing strategies and customer service, the incentives to do so are very limited due to a law the government passed in 2008 forcing health insurers to reinvest all future generated profits into healthcare provision (rather than paying dividends to their shareholders), effectively banning profit-making for health insurers.²⁸ In addition, the level of administrative costs was restricted to 3.5% of revenues, which provided an incentive for concentration-increasing consolidation of insurers, thus decreasing competition. Overall, it is of no surprise that competition under such circumstances is feeble.²⁹

The benefits of competition in insurance markets are still highly debated. Notably, it is not clear whether having a multi-payer system with competition is generally preferable to a single-payer system. However, given that Slovakia has opted for a system that favours competition, reforms within that system are needed to make it more coherent with countries with more efficient health spending. Thus, to increase competition in the insurance market and thereby raise efficiency and cost containment, the strong regulation of insurance funds should be streamlined. Insurance funds could be allowed to vary their contributions, maybe by combining tax financing with nominal insurance premia as in the Netherlands. Also, the profit ban should be lifted, selective contracting with providers should be allowed and any barriers to entry, such as the upper limit on administration costs of health insurance funds, should be reviewed. In addition, a split up and partial privatization of the dominant public insurance fund should be considered. At least, better performing companies should be allowed to refund some of the contributions back to insurees. However, in order for healthy competition to take place, a number of conditions need to be ensured.

... while improving the risk adjustment mechanism...

The risk adjustment mechanism is meant to provide a level playing field for health insurers thereby reducing the incentives for them to select lower-risk individuals.³⁰ Within such a mechanism, insurers receive risk-adjusted amounts for each insured individual that reflect their likely health expenditures. Risk-adjustment models that are mainly based, as in Slovakia, on demographic variables, can predict only about 5% of the variation in the expenditure of individuals. Models that in addition take health parameters directly into account, such as the Dutch system, can predict up to 22% of the variation (World Bank, 2009).

... and raising competition among providers

In 2009, quality indicators for healthcare providers have been collected and were published online. The aim is to increase transparency, thus allowing insurance funds to better choose providers and patients – who have the free choice among all providers – to choose doctors and hospitals. Such quality measurement is a critical ingredient into a functioning competitive market, but the list of quality indicators needs to be further improved, notably by regularly publishing the information set in full detail. Currently, it is planned that they are published only every three years and there is a lack of differentiation between providers. However, for this effort to fully bear fruit, competition among insurance companies needs to be increased, including by allowing them to more selectively contract with providers. Currently, the extensive minimum network of providers limits such choice and some redefinition of this network should be considered. Using the list, insured persons can make an informed decision about which insurance fund to choose, depending on which providers they have contracts with. *Defining the minimum network on the basis of the newly collected quality indicators should be considered.* As a consequence, competition among providers, which currently is very low in some segments, like hospitals (Filko et al., 2010), would be raised.

Box 2.3. Recommendations for increasing public sector efficiency

Raising the efficiency of tax administration

- Improve the performance of VAT collection, as planned by the government. For example, expand the number of verification activities and better enforce the collection of unpaid tax arrears.
- The plans for a unified collection scheme are highly welcome and should be implemented as soon as possible. In order to prevent delays, the government should proceed quickly with approving the second stage of the reform (UNITAS II).

Increasing the absorption of EU funds

- Increase the potential to absorb EU funds. The underlying reasons for the low absorption should be investigated. Consideration should be given to accelerate projects in order to get the maximum impact during the time of fiscal consolidation. Submission requirements for domestically funded capital projects should be transparent and simple, and co-operation between ministries should be fostered to facilitate the certification process.

Improving efficiency of the healthcare system

Dealing with high out-of-pocket payments and the low supply of general practitioners

- Given the extent of out-of-pocket payments in Slovakia, the authorities should consider introducing an upper limit for such payments in terms of annual household income.

Improve outcomes on the provider level

- Increase co-ordination in primary care by introducing clinical guidelines promoting disease management. Review the way doctors are compensated, possibly introducing a hybrid system of capitation and fee-for-service.
- Further explore the benefits and risks of restructuring the hospital sector through a transformation of state-owned institutions into joint stock companies. Implement a system of disease-related groups.

Box 2.3. Recommendations for increasing public sector efficiency (cont.)**Lowering pharmaceutical expenditures**

- Encourage physicians to prescribe the substance of a drug, thereby stimulating consumption of generics, as planned. Consider obliging pharmacists to always supply the cheapest generic drug.
- Consider raising the level of co-payments for partially-reimbursed pharmaceutical products.

Raise competition in insurance markets

- Increase competition among insurance funds by allowing the distribution of profits, lifting the strict upper level on administrative costs, allowing selective contracting with providers, and allowing contributions to vary. Consider splitting up or partially privatising the dominant public insurance fund.
- Improve the risk-equalisation formula by including health parameters.
- Further improve the list of quality indicators for healthcare providers and consider using the list to define the minimum network of providers with which insurers have to contract.

Notes

1. Afonso *et al.* (2009) use four different methodologies to estimate total public sector efficiency scores. In their composite PSE indicator, Slovakia ranks 11th, their input oriented Data Envelope Analysis (DEA) yields rank 20 and the output oriented DEA rank 12 while on their two-step correction estimate (correcting for non-discretionary factors such as trade openness), Slovakia ranks 9th.
2. This can be shown by decomposing the share of taxes on goods and services in total tax revenues into three factors: 1) the implicit tax rate on private consumption, 2) the weight of private consumption in GDP and 3) total tax revenues as a percentage of GDP (OECD, 2010a). The larger the first two factors are, the more reliant a country will be on consumption taxes. In contrast, the third factor works in the opposite direction: a higher overall tax burden tends to decrease the ratio of consumption taxes to total revenues through a denominator effect. The difference in the share of VAT in total revenues between Slovakia and the EU19 is almost solely due to the total tax revenues-to-GDP ratio, which is 9.8 percentage points lower in Slovakia.
3. The theoretical net liability is estimated by applying the existing legislative framework in the country, thus it can capture various exemptions in the system. The VAT gap does not capture only VAT frauds but also it might include legitimate tax avoidance measures and VAT not collected due to insolvencies arising as a result of business activity. In addition, the estimation of the VAT gap depends also on the accuracy and completeness of data used. The VAT gap is similar to the VAT revenue ratio which compares actual VAT revenues with the “theoretical” revenues that could be gained if all goods were taxed at the standard rate (*i.e.* the fewer the exemptions in the system, the closer the VAT revenue ratio should be to unity). However, the main difference is that the VAT gap takes into account reduced rates and zero-rating.
4. One example is the “Missing trader intra-EU fraud”. Typically, a fraudster registers for VAT in an EU country, purchases goods VAT-free from another EU member state, sells those goods at VAT-inclusive prices within the country, and then ceases operations and disappears without paying the VAT due. Another variant is “carousel fraud” where, instead of being sold within the importing country, goods are sold through a series of contrived transactions before being sold to a trader in another EU member state, who then sells the goods back to the importing country. This allows the fraudsters to carry out the fraud repeatedly using the same goods (Harrison and Krelove, 2005; Keen and Smith, 2007).
5. Verification is defined as comprising all activities typically undertaken by revenue bodies to check whether taxpayers have properly reported their tax liabilities (OECD, 2009b).

6. See Harrison and Kr elove (2005), OECD (2009c) and K een and Smith (2007) for an overview of measures to detect, prevent and investigate VAT fraud.
7. The revenue base for this ratio excludes social security contributions (as for all countries with separate collection of taxes and social security contributions) and, after 2004 excise taxes. However, even prior to 2004 the ratio was among the highest in the OECD.
8. Concerning the second stage of UNITAS, given the lack of existing details, no cost-benefit analysis is available.
9. The ratio of financing from EU funds differs per project and depends for example on the type of fund, EU member states' average *per capita* GDP in a defined period, and the objectives for which the funds are used.
10. See KPMG (2010). The analysis covers the following Central and Eastern European countries: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. Included here are structural funds (European Regional Development Fund, European Social Fund), the Cohesion Fund and rural development and fisheries funds (European Agriculture Fund for Rural Development and European Fisheries Fund). The European Agriculture Guarantee Fund (EAGF), Interreg programmes and other community initiatives are not covered. The EAGF is primarily used to provide direct payments to farmers, which are paid regularly and thus the nature of these funds differs from the other funds. Interreg programmes and other community initiatives form a relatively minor part of the EU budget. Their exclusion from the analysis should not distort the overall picture.
11. There is some evidence that performance has improved recently. Based on updated figures for Slovakia, drawdown of EU funds related to the National Strategic Reference Framework (i.e. total available funds minus rural development and fisheries funds) has improved over the first five months of 2010. The ratio of contracted grants to total available budget increased from 25% to 42% and the ratio of paid grants to total available budget increased from 5% to 7%. Funds related to the National Strategic Reference Framework form 85% of total EU funds available.
12. The projection methodology combines population projections with a ge-related expenditure profiles and developments of unit costs. The 2.3 percentage points increase in spending is the reference scenario which incorporates the changing population structure, a shift in age-related expenditure profiles (i.e. assuming that the number of years spent in bad health during a lifetime remains fairly constant, implying a shift in the age-related expenditure profile somewhat outwards) and assumes that unit costs evolve in line with GDP *per capita*, while income elasticity is assumed to converge from 1.1 to 1 by 2060. Taking into account the real convergence of the new EU member states (cost convergence scenario), i.e. assuming that the individual age-related expenditure profiles of catch-up countries will progressively converge to the average profiles of the EU15 by 2060, EC (2009) estimates that the increase in the Slovak Republic could amount to as much as 4.1 percentage point.
13. This includes spending on long-term care.
14. Their analysis is based on a panel estimation which explains life expectancy at birth by health spending, education, tobacco and alcohol consumption, diet, pollution and GDP. Slovakia was not in the estimation sample due to data constraints, such as a too short time series for healthcare spending.
15. When confronted with the question: "Do you have confidence in health care or medical systems in your country?" only 40% of respondents said there were satisfied, against an OECD average of 66% (Source: Gallup World Poll; Data refer to 2006 for Slovakia and up to 2009 for other OECD countries).
16. The user fee per practitioner visit and per drug prescription was set at 20 SKK (0.66 EUR) and the user fee per night in hospital was 50 SKK (1.66 EUR). The fee for prescribed drugs was lowered to 5 SKK (0.2 EUR) in October 2006. The co-payments for drugs rose from SKK 2.1 bn (0.16% of GDP) in 2003 to SKK 3.1 bn (0.21% of GDP) in 2005 (Kiss, 2007).
17. The data for OOP excluding cost-sharing is taken from Household Surveys. Thus, they may include also informal side payments although it is obviously not clear to what extent this is actually the case. While precise and up-to-date information on informal payments is not available for Slovakia, Murthy and Mossialos (2003) report (based on a World Bank/USAID survey in 1999) that 71% of GP visits and 59% of specialist visits involved informal payments. 60% of patients reported to have been required to make a payment for a service. However, according to Filko *et al.* (2010), the frequency of informal payments is gradually decreasing.
18. Under a capitation system, healthcare service providers (physicians) are paid a set amount for each enrolled person assigned to that physician or group of physicians, whether or not that person seeks care, per period of time. The amount of remuneration is based on the average expected

health care utilization of that patient (more remuneration for patients with significant medical history). Other factors considered include age, sex, type of employment, and geographical location, as these factors typically influence the cost of providing care.

19. However, the pharmaceutical price at the retail level also differs significantly across OECD countries with Slovakia accounting for 70% of the OECD average in 2005 (OECD, 2008). But the pharmaceutical price level and GDP *per capita* are only weakly correlated (OECD, 2008, Figure 1.10).
20. Nurses in Slovakia earn less than half the OECD average in USD PPP terms (15 290 vs. 38 103 in 2008) and their salary amounts to only 0.8% of the average wage compared with 1.1 in the average OECD country.
21. Another factor is that countries with higher *per capita* incomes tend to spend a lower share of total income on pharmaceuticals, contrary to the share they spend on health expenditure as a whole. This is consistent with the idea that pharmaceuticals are considered a necessity, for which spending will rise with income, but not as fast as income does. There is as well a tendency of poorer countries to under-report a portion of health expenditure consisting of informal or under-the-table payments to health care providers (OECD, 2008).
22. When asked about their health status, only 34.4% of Slovak adults perceive themselves to be in “good health”, compared with 69.1% in the average OECD country and 89.7% in New Zealand (OECD, 2009a).
23. The price sensitivity of patients with regard to the co-payments for drugs differs widely by geographical region with sensitivity being relatively small in the higher income regions like Bratislava and higher in the rural areas (Kaló, Docteur and Moïse, 2008).
24. There is no direct cost-sharing for hospital-only drugs – they are fully covered in hospital’s budget and some of the new drugs are reportedly only used in hospitals.
25. The generic market share (in 2006, the latest year for which numbers are available) in volumes was below 60%, down from 65% before, and lower than in Poland, Latvia, Denmark and the UK. In value terms, the share was stable around 37%, down from 49% in 2000 (see www.egagenerics.com/doc/fac-GxMktEur_2006.pdf).
26. However, according to the Act on Scope of Healthcare, physicians and pharmacists are required to inform patients about co-payments and options for less expensive drugs and are supposed to prescribe the cheapest alternative drug. However, there is no incentive to do the latter and doctors reportedly were given “do not substitute” stamps from pharmaceutical manufacturers (Kaló, Docteur and Moïse, 2008).
27. When the social health insurance system was introduced in 1994, 12 public non-profit insurers operated in the system. Until 2004, these were reduced to five as several of them closed down due to growing debts (Colombo and Tapay, 2004). In 2009, mergers of health insurers led to market consolidation and a decrease from five to three insurance providers.
28. In January 2009, Dutch shareholders of the health insurance company Doversa filed a lawsuit against this profit ban before the European Court of Justice, due to alleged breach of agreement on protection of investments. The sum they claim to have lost is EUR 500 million.
29. One indication for a lack of competition is the low switching rate of the insured population, which at around 3% is half the rate that prevails in Switzerland (Paris et al., 2010). The switching rate was 2.9% in 2007, 3.4% in 2008 and 2.4% in 2009. In 2006, when new insurance companies came to the market, the rate jumped temporarily to 11.8%. Switching insurance companies is possible once a year.
30. In multiple insurance systems with open enrolment and equal distribution rates per individual, insurers have an incentive to choose predominantly healthier persons for which the contributions that the insurer receives exceed the expenses he needs to pay for the individual.

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