



OECD Economics Department Working Papers No. 681

Achieving Fiscal Flexibility
and Safeguarding
Sustainability: The Case of
Slovakia

Isabell Koske

<https://dx.doi.org/10.1787/226231818862>

Unclassified

ECO/WKP(2009)22

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

06-Mar-2009

English - Or. English

ECONOMICS DEPARTMENT

ECO/WKP(2009)22
Unclassified

**ACHIEVING FISCAL FLEXIBILITY AND SAFEGUARDING SUSTAINABILITY -
THE CASE OF SLOVAKIA**

ECONOMICS DEPARTMENT WORKING PAPERS No. 681

by Isabell Koske

All Economics department Working Papers are available through OECD's Internet webiste at
www.oecd.org:eco/working_papers

JT03260697

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format

English - Or. English

ABSTRACT/RÉSUMÉ

Achieving fiscal flexibility and safeguarding sustainability - the case of Slovakia

Euro area entry calls for more fiscal flexibility to absorb cyclical shocks that cannot be dealt with by the common monetary policy. At the same time fiscal consolidation must not be put at risk, especially given rising ageing related costs. The current fiscal framework could be improved by introducing multi-year expenditure ceilings and by removing pro-cyclical elements in fiscal rules. An adjustment account that serves to register breaches of fiscal rules and eliminates them over time could help in coping with projection errors. To ensure long-term sustainability of public finances it is essential not to dilute the substantial improvements in the long-term balance of the defined-benefit pillar associated with past pension reforms. The government should consider making participation in the defined contribution pillar mandatory for new labour market entrants or, at the very least, make it the default option. For current workers the pillars should remain closed. Moreover, further parametric changes such as increasing the retirement age in line with life expectancy gains and reducing unsustainable elements in the pension formula would improve the balance of the defined benefit pillar.

This Working Paper relates to the 2009 *OECD Economic Survey of the Slovak Republic* (www.oecd.org/eco/surveys/slovakia).

Keywords: Fiscal rule ; fiscal sustainability ; pension system ;Slovak Republic
JEL classification: H62 ; H63 ; H55 ; G32

Introduire plus de flexibilité budgétaire et préserver la viabilité des finances publiques – le cas de la Slovaquie

L'entrée dans la zone euro exige plus de flexibilité budgétaire pour absorber les chocs cycliques auxquels ne peut remédier la politique monétaire commune. Mais, dans le même temps, il ne faut pas compromettre l'assainissement budgétaire, surtout avec l'augmentation des dépenses liée au vieillissement. On pourrait améliorer le cadre budgétaire actuel en introduisant des plafonds pluriannuels de dépenses et en mettant fin aux éléments procycliques des règles de politique budgétaire. Un compte d'ajustement enregistrant les écarts par rapport aux règles de politique budgétaire et les éliminant à terme pourrait être utile pour corriger les erreurs de prévision. Pour assurer la viabilité à long terme des finances publiques, il est indispensable de ne pas remettre en cause la nette amélioration à long terme de l'équilibre du régime de retraite à prestations définies, rendue possible par les réformes antérieures. Le gouvernement devrait envisager une participation obligatoire des nouveaux entrants sur le marché du travail au régime à cotisations définies ou, au moins, faire en sorte que ce régime soit l'option par défaut. Il ne faudrait pas que les travailleurs actuels puissent changer de régime. De plus, de nouveaux ajustements paramétriques - notamment le relèvement de l'âge de la retraite en fonction de l'allongement de l'espérance de vie et la correction d'un certain nombre d'éléments non viables de la formule de calcul des retraites - amélioreraient l'équilibre du régime à prestations définies.

Ce Document de travail se rapporte à l'*Étude économique de l'OCDE de la République slovaque 2009* (www.oecd.org/eco/etudes/slovaquie).

Mots clés : cadre budgétaire ; viabilité budgétaire ; système de pension ; République slovaque

Classification JEL : H62 ; H63 ; H55 ; G32

Copyrights OECD, 2009

**Application for permission to reproduce or translate all, or part of, this material should be made to:
Head of Publications Service, OECD, 2 rue André-Pascal, 75775 Paris Cedex 16, France.**

TABLE OF CONTENTS

ACHIEVING FISCAL FLEXIBILITY AND SAFEGUARDING SUSTAINABILITY IN SLOVAKIA	5
Fiscal consolidation has proceeded rapidly	5
Adapting the fiscal framework to life in a monetary union.....	6
The current fiscal rules	6
... could be strengthened	7
Automatic stabilizers need more breathing space.....	7
Improving the pension system to ensure fiscal sustainability	10
Past pension reforms significantly improved the sustainability of the pension system.....	11
The contribution rate was increased and redistribution was lowered	11
... the retirement age was increased	11
... and a defined-contribution pillar was introduced	13
... resulting in a significant reduction in future pension costs.....	13
Reforms are rolled back	14
... putting sustainability at risk.....	15
Making participation in the DC pillar mandatory.....	15
Increasing the sustainability of the DB pillar through further parametric reforms.....	16
Improving the framework conditions for pension funds.....	18
Bibliography.....	24

Table

1. Net pension replacement rates by earnings	12
--	----

Figures

1. Government finances	5
2. Output gap and government budget balance	8
3. Population ageing in the Slovak Republic	10
4. Projected change in public spending on pensions	14
5. Revenues and expenditures of the DB pillar	14
6. Life expectancy and retirement age	17
7. Returns of pension funds.....	18
8. Rates of return of the DB and DC pillars	19

Boxes

1. Fiscal policy rules in selected OECD countries.....	9
2. Comparing the returns of the two pension pillars	19
3. Recommendations for fiscal policy.....	21

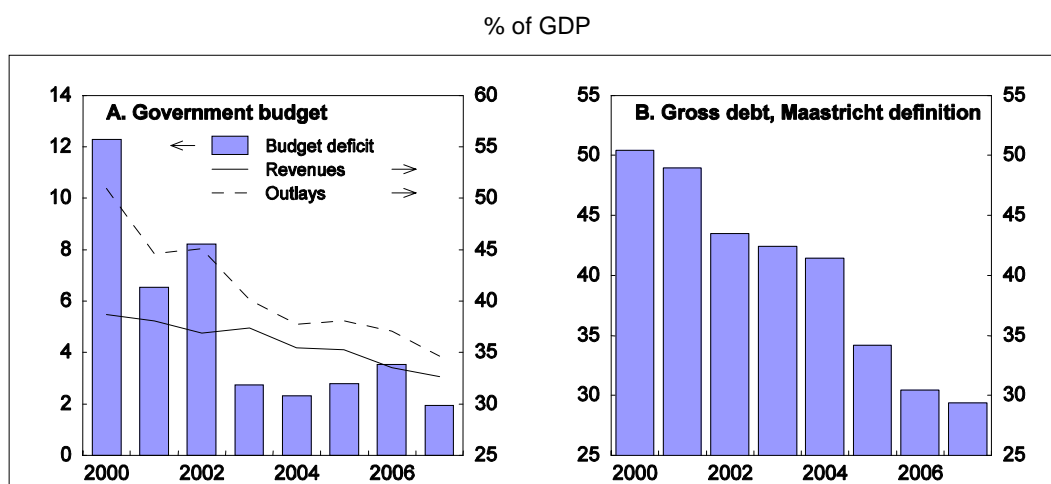
ACHIEVING FISCAL FLEXIBILITY AND SAFEGUARDING SUSTAINABILITY IN SLOVAKIA

By Isabell Koske¹

Fiscal consolidation has proceeded rapidly

Government finances have improved markedly over the past years with the budget deficit coming down from levels as high as 12% of GDP in 2000 to slightly above 2% of GDP in 2007 (Figure 1, panel A). In 2006, the deficit was still above the 3% limit of the *Stability and Growth Pact* (SGP) and the country therefore remained under the *Excessive Deficit Procedure* (EDP) which had been opened in 2004.¹ The EDP was closed in spring 2008 after the deficit had fallen below the threshold in 2007 and the country fulfilled the Maastricht criteria for entry into the euro area in the examination in mid-2008. Reflecting the positive developments in the budget balance, gross debt as a share of GDP (according to the Maastricht criterion) also declined noticeably, falling from around 50% of GDP in 2000 to below 30% of GDP in 2007 (Figure 1, panel B).

Figure 1. Government finances



Source: OECD, *Economic Outlook* database.

1. Economist in the Economics Department. This paper was originally prepared as Chapter 3 for the OECD's 2009 Economic Survey of the Slovak Republic published under the responsibility of the Economic and Development Review Committee. The author is grateful for the valuable comments received on earlier drafts of this text from Andrew Dean, Robert Ford, Felix Hüfner and Andreas Wörgötter, as well as for discussions with officials from the Slovak government. Special thanks go to Béatrice Guérard of the OECD Economics Department for statistical assistance.

The fiscal consolidation was expenditure-driven with the GDP share of general government expenditures falling from more than 50% in 2000 to 35% in 2007. Although the fall in the expenditure-to-GDP ratio benefited from buoyant economic growth and an associated significant decline in unemployment, expenditure restraint and reforms such as substantial restrictions on social and unemployment benefits, tightening of conditions for early retirement and a gradual increase in the retirement age played a key role. The authorities also made major efforts to improve the tax structure by introducing a flat tax of 19% on personal income, corporate revenues and consumption, and by eliminating many exemptions. As a result, the tax system became simpler and more transparent. The tax burden declined for many workers and companies, strengthening the incentives for work and entrepreneurial activity.

Fiscal policy in the Slovak Republic faces two major challenges going forward. *First*, euro area entry calls for more flexibility to deal with cyclical shocks that cannot be dealt with by the common monetary policy of the union. *Second*, the rapid ageing of the Slovak society will put upward pressure on spending on pensions as well as health and long-term care. Pension expenditures are a particular reason for concern as the Slovak authorities have started to partly roll back the pension reforms that were enacted in 2004 and 2005, which had been associated with improvements in the sustainability of the public pension system although this reform has had larger short-term costs for the general government budget than originally expected.

Adapting the fiscal framework to life in a monetary union

With euro adoption, the importance of fiscal policy as a mechanism to smooth cyclical shocks increases. This means above all relying on automatic stabilizers, cyclically-induced changes in taxes and expenditures. Letting tax revenues and expenditures (basically unemployment-related expenditure) vary with the cyclical position of the economy cushions against economic fluctuations with practically no information and implementation lags.

When looking at fiscal developments in a medium to long-term perspective across countries, there seems to be a case for constraining fiscal policy in order to avoid undesirable biases. *First*, there may be significant politically motivated changes in fiscal policy, such as changes in taxes or spending around election times (*e.g.* Persson, 2001; Calmfors, 2005; Kopits, 2001). *Second*, fiscal policy might behave in a pro cyclical manner as cyclical increases in revenue could be misinterpreted as being structural with the result that taxes are cut or spending is increased in economic upswings. Cross-country evidence suggests that well-designed budgetary procedures (Hallerberg *et al.*, 2006; Fabrizio and Mody, 2006) and numerical fiscal rules (European Commission, 2006; Ayuso-i-Casals *et al.*, 2007) can help contain such biases.

The current fiscal rules ...

Public finances in the Slovak Republic are subject to the rules laid down in the *Maastricht Treaty* and the *Stability and Growth Pact*. The framework requires member states to avoid excessive deficit positions, measured against reference values for deficits and debt of respectively 3% and 60% of GDP,² and to achieve and maintain the medium-term budgetary objective (MTO), which for Slovakia is a cyclically-adjusted deficit of just below 1% of GDP. As laid out in the *Convergence Programme*, the Slovak government expects to reach the medium-term objective by 2010. Although adhering to the medium-term budgetary objective will provide some additional room for manoeuvre it may not be sufficient to allow automatic stabilisers to operate freely without breaching the 3% of GDP deficit threshold.³

At the national level, public finances are governed by three laws, the *General Government Budgetary Rules Act*, the *Local Government Budgetary Rules Act* (both introduced in 2004) and the *State Budget Act* for the respective budget year. The *General Government Budgetary Rules Act* stipulates the rules for the preparation and implementation of the general government budget. According to this law, the government approves a budget for three consecutive years on an annual basis, the relevant budget year (*i.e.*, the year that succeeds the year of the budget approval) and the two years thereafter. The drafts for the second and third years are not binding, as any change is subject to re-approval by the government alone, thus giving too much leeway to the government. The general government is not allowed to increase net lending in case revenues fall short of expectations. Instead, expenditures have to be reduced to ensure that the original target for the overall balance is met.⁴ This provision can have pro-cyclical effects, as it prevents the functioning of the automatic stabilizers during economic downturns. Rules on the use of windfall revenues are laid down in the *State Budget Act* which is concluded for each budget year. According to this law, the government may spend the additional revenues, but only up to 1% of the originally budgeted expenditures.⁵ Revenues that are not used to cover additional expenditures have to be used for debt repayment.

Although the basic provisions of the *General Government Budgetary Rules Act* apply to local government entities, a separate regulatory mechanism also exists. This *Local Government Budgetary Rules Act* stipulates that the current budget of local government entities must be balanced or in surplus. As capital expenditures are excluded from this rule, local government entities essentially follow a golden rule. As regards net lending, municipalities and higher territorial units are subject to two conditions: They may take on loans if the total amount of their debt does not exceed 60% of the actual current revenues of the preceding fiscal year and the total amount of their annual instalments for loans does not exceed 25% of the actual current revenues of the preceding fiscal year.

... could be strengthened

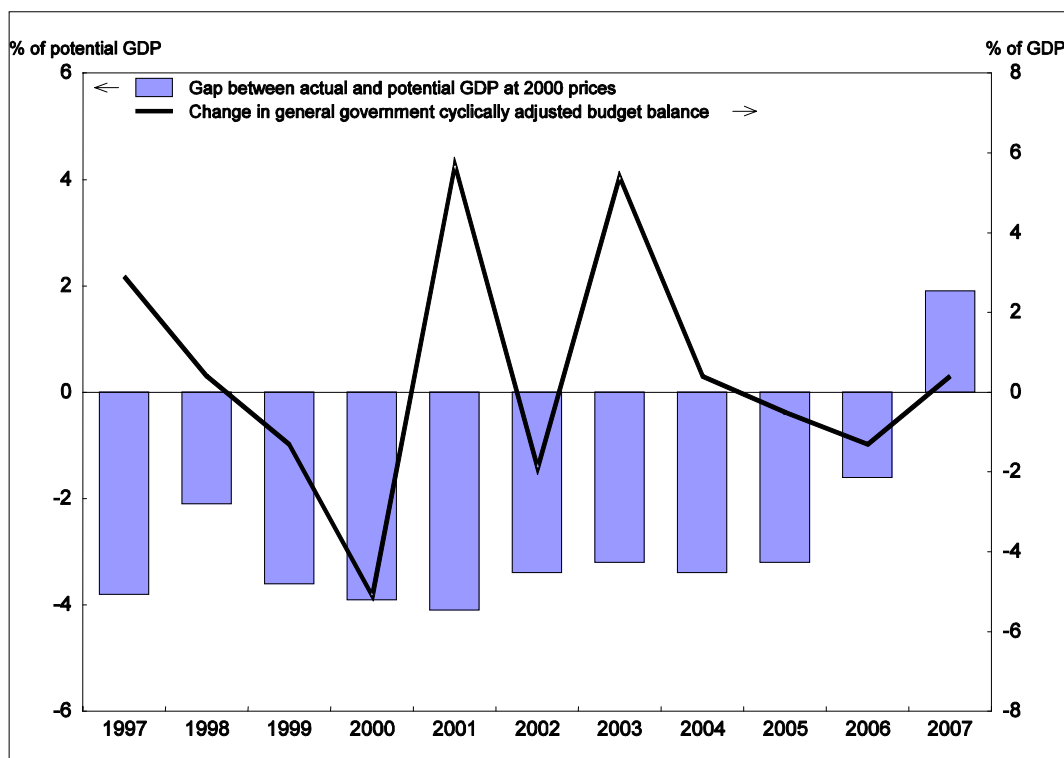
Although all member countries of the European Union are obliged to adhere to the provisions of the *Stability and Growth Pact*, several of them also have implemented national deficit rules. In some member countries (*e.g.* Sweden) the national rules are not compulsory but a political commitment while in others countries the rules are embedded in law (*e.g.* the Netherlands).⁶ Such arrangements demonstrate to the public that the government is firmly committed to the *Stability and Growth Pact*. Given the challenges that public finances in the Slovak Republic are facing in the wake of euro area entry on the one hand and the rapid ageing of the Slovak society on the other, the government should consider extending the existing national budgetary framework by incorporating a deficit rule into the constitution. The rule should be consistent with the *Stability and Growth Pact*, possibly drawing on the medium-term objective of achieving a 1% structural deficit. Such an arrangement would improve transparency and strengthen national ownership of the *Stability and Growth Pact*. To improve enforceability and to increase the political cost of breaking the rule the framework should include a strong reporting system and ex post assessments of the government's performance vis-à-vis the rule (as is the case in Belgium, Sweden and the Netherlands).

Automatic stabilizers need more breathing space

Cross-country evidence suggests that fiscal sustainability is enhanced by augmenting a deficit rule with an expenditure rule (Guichard *et al.*, 2007). Many member countries of the European Union therefore complement the *Stability and Growth Pact* with expenditure rules at the national level (see Box 1). With the introduction of the *State Budget Act* and the *General Government Budgetary Rules Act* the Slovak Republic has also introduced expenditure rules, which is a highly welcome step. However, in their current form the rules contain pro-cyclical elements as described above in the case of revenue shortfalls or windfalls.

Estimates of the cyclically adjusted budget balance of the general government suggest that in the past, fiscal policy was indeed pro-cyclical in some years (Figure 2).⁷ For example, the cyclically adjusted budget balance improved significantly in 2001, driven by sizable cuts in current expenditures to support fiscal consolidation, despite a negative and widening output gap. Since the introduction of the *General Government Budgetary Rules Act* and the reduction of the ceiling on the spending of windfall revenues to 1% of the originally budgeted expenditures in 2005, fiscal policy has been slightly countercyclical, suggesting that these laws did indeed improve the stabilizing role of fiscal policy (Figure 2). However, as the economy has enjoyed an economic upswing during this period with GDP growing at above potential since 2005, the framework has not yet been tested in an economic downturn. And it is precisely in such a situation where the pro-cyclical elements of the current framework would be expected to become most visible and potentially damaging, given the ban on additional net lending in the case of unexpected revenue shortfalls. Whilst the underlying aim of ensuring fiscal sustainability through continued fiscal consolidation is welcome, particularly in the light of population ageing, such consolidation efforts are problematic if they come at the cost of pro-cyclical fiscal tightening in an economic downturn. This is all the more important in a monetary union. As such, the fiscal framework should be modified to avoid pro-cyclical behaviour by giving more breathing space to the automatic stabilizers once the medium-term objective has been reached in 2010.

Figure 2. Output gap and government budget balance



Source: European Commission - Economic and Financial Affairs, *Cyclical Adjustment of Budget Balances*, Spring 2008 (Table 27).

Although the design of expenditure rules varies considerably across countries and there seems to be no one-size-fits-all rule, several features have often been associated with successful fiscal policy.⁸ One that is not yet fully reflected in the fiscal framework of the Slovak Republic relates to the time period over which the expenditure targets are to be met. While the current fiscal framework provides for multi-year fiscal planning, the targets for subsequent years are just indicative and thus might be changed on an ad hoc basis by the government. To increase the government's commitment to the targets as well as to raise

transparency, multi-year expenditure ceilings should be introduced, as exist for example in Sweden and the Netherlands (see Box 1). Such binding expenditure ceilings are all the more important in light of the substantial consolidation efforts envisaged for the coming years, as argued by European Commission (2008). Cyclical expenditure items such as unemployment benefits could be excluded from the ceilings to ensure that the automatic stabilizers can work in both directions. The expenditure ceilings might be set so as to allow a structural deficit, for example of close to 1% of GDP as required by the medium-term objective of the *Stability and Growth Pact*. In addition, possible new tax expenditures could also be included in the expenditure ceilings.

Box 1. Fiscal policy rules in selected OECD countries¹

Sweden

The key element of Sweden's fiscal policy framework is a general government surplus of 1% of GDP over the business cycle. The surplus target is supported by an aggregated expenditure ceiling for central government budget expenditure and expenditure for the extra-budgetary public pension system; interest on government debt or local government expenditures are not covered. The expenditure ceiling is set for three years (every year a new third year is added). The ceiling is nominal, *i.e.* it includes estimated future inflation, and it contains a contingency margin. The aggregated expenditure ceilings are broken down into 26 expenditure areas. Local governments are required to offset any deficit by surpluses within three years. In addition, the aggregated position of all local governments must be balanced. The fulfilment of the fiscal targets is monitored *ex-post* by the Fiscal Policy Council that was established in 2007. The performance of the government against the surplus target is assessed based on three indicators: *i)* average net lending from the year 2000 when the target was first applied, combined with information about the estimated output gap over that period; *ii)* average net lending over a seven-year period, including the current year and the next three and the previous three years; and *iii)* the cyclically adjusted net lending adjusted for one-off and temporary effects.

Finland

At the beginning of the electoral period, the Finnish government decides on the ceilings for the budget expenditures over the entire electoral period. There is no legal requirement for the ceilings; rather they are a voluntary restriction that the government places on itself. The ceilings are set for the central government only, although they include transfers to sub-national governments. The overall level of the spending limits is adjusted annually for price level changes (the ceilings are established in real terms) and for changes in the structure of the budget. Moreover, the allocation of expenditures by ministries is revised every year. Several expenditure items are excluded from the ceilings. These include cyclical expenditures such as unemployment benefits, interest payments on government debt and expenditures that correspond to revenues received from the European Union. Overall, about three-quarters of expenditures are included in the ceilings. The ceilings for 2008-11 include a margin to cope with unexpected increases in expenditures. To avoid excessive deficits, the government is required to take actions (even under weak economic conditions) if the forecast suggests that the deficit will be higher than 2¼ per cent of GDP. This rule may result in pro-cyclical policy.

The Netherlands

The main features of the current Dutch fiscal framework are the multi-annual expenditure ceilings, the use of trend-based assumptions and the role of quasi-independent organisations such as the Central Planning Bureau (CPB). The expenditure ceilings are established at the start of any new coalition government for the entire term of government (four years). The ceilings are set with reference to a target for the fiscal balance based on longer-term budgetary sustainability considerations. Analyses by the CPB on developments in the Dutch economy and public finances are the backbones of this process. No explicit corrections are made for business cycle fluctuations. On the revenue side, automatic stabilizers are allowed to work freely. Revenue shortfalls can be compensated within the budget so that no immediate reduction in expenditures or increase in taxes is required. Since 2002, a qualitative clause stipulates that a cyclical drop of expenditures below the ceilings must not lead to any additional discretionary spending. To avoid excessive deficits, the Dutch fiscal framework requires that additional measures are taken and that the expenditure ceilings no longer apply if the deficit risks surpassing the threshold of 2% of GDP.

1. This box draws on OECD (2008a); Bos (2008); Küchen and Nordman (2008); Ljungman (2008); and Ministry of Finance of Finland (2005).

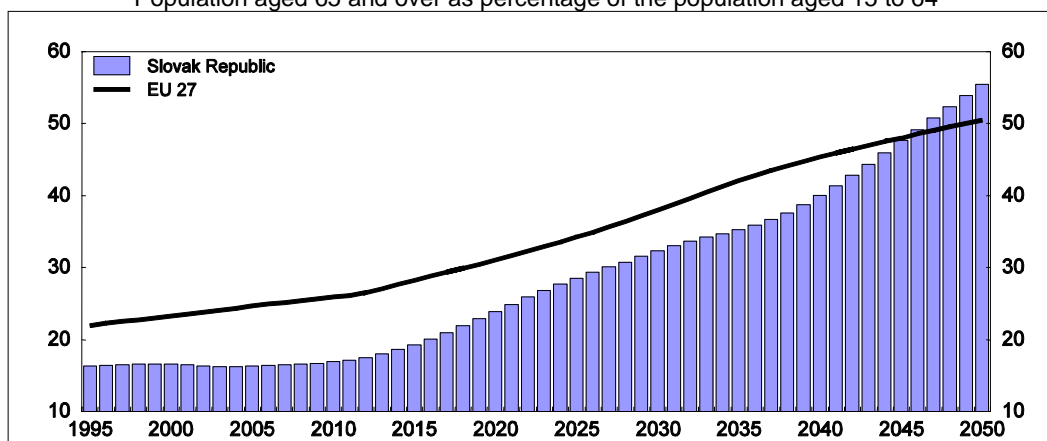
As the expenditure ceilings are set several years in advance, they necessarily rely on projections of the cyclical position of the economy. Empirical evidence suggests that forecasting output gaps is a difficult undertaking with the forecasts surrounded by a high degree of uncertainty (Koske and Pain, 2008). This is especially the case in fast growing countries such as the Slovak Republic where rapid changes in potential output add an additional source of error. To address this problem consideration should be given to setting up an adjustment account similar to the Swiss debt brake that serves to register breaches of the fiscal rule in case of projection errors.⁹ If the deficit turns out to be higher (or lower) than allowed *ex post* due to projection errors the difference is debited (credited) to the adjustment account. If the accumulated deficit on the account exceeds an upper limit, the account has to be settled within a certain time period (the Swiss framework, for example, foresees that the deficit has to be lowered under the limit within three years).

Whilst such an account would be helpful in dealing with projection errors, questions of implementation remain, such as the specification of an appropriate level for the threshold above which no more breaches of the rule are allowed as well as the definition of an appropriate sanction mechanism. Difficulties also arise from data revisions that can be quite sizeable even several years after the initial estimate of the output gap in a certain year is published (Koske and Pain, 2008). As such, a decision has to be made about whether to change the amount that is debited or credited to the adjustment account each time the data are revised, or whether to regard the data outturn of a certain year as final. A more fundamental issue is that the rule could force fiscal policy to act pro-cyclically if the upper limit is reached in an economic downturn and taxes need to be raised or expenditures cut in order to reduce the deficit on the account.

Improving the pension system to ensure fiscal sustainability

The suggested modifications to the fiscal framework should help prevent continued rises in the debt level. Population ageing, however, also requires more fundamental changes to the social security system. The size and age structure of the Slovak population will undergo dramatic changes in the coming decades due to low fertility rates and continuous increases in life expectancy, with adverse effects on the old-age dependency ratio (Figure 3). The rapid ageing of the population will lead to significant pressures to increase public spending on pensions, as well as on health and long-term care. The disciplining nature of financial markets may raise borrowing costs if the debt burden rises. Recognizing this problem, the government implemented a major reform of the pension system, first reforming the public defined-benefit (DB) pay-as-you-go (PAYG) pillar and then introducing a fully-funded defined-contribution (DC) pillar. Recently, however, a number of modifications were made to the system which rolled back parts of the original reform.

Figure 3. Population ageing in the Slovak Republic
Population aged 65 and over as percentage of the population aged 15 to 64



Source: Eurostat.

Past pension reforms significantly improved the sustainability of the pension system

When becoming independent in 1993 the Slovak Republic inherited a public PAYG pension system. Although the financial situation of the pension system was stronger than in many other economies, with the annual deficit amounting to less than ½ per cent of GDP in the pre-reform years, the system was clearly unsustainable in the light of population ageing. Simulations carried out in 2004 suggested that the deficit of the pension system would rise by between 4 and 8 percentage points of GDP until around 2050 (Schmidt-Hebbel, 2004; World Bank, 2004). Due to this very gloomy outlook the government pushed for reforms, starting in 2004 with parametric changes to the PAYG system.

The contribution rate was increased and redistribution was lowered ...

Under the new system, the overall contribution rate to pension insurance was raised to 28.75% (from 28% before) with employers paying 21.75% and employees paying another 7% (between 2004 and 2005 the contribution rate of employees was reduced by ½ percentage point for each child). Of this contribution 18 percentage points are used to finance old age pensions, 6 a disability fund and 4.75 a reserve fund that is used to cover any shortfalls in the other funds. The upper ceiling of the base of pension contributions (and pension entitlements) was set at three times the average wage. Benefits are based on a points system, which is equivalent to providing pensioners with 1¼ per cent¹⁰ of the average lifetime wage per year of service; an earlier year's pay is revalued in line with the growth of average wages to take account of changes in living standards between the time pension rights accrue and the time they are claimed. Post-retirement pensions are indexed 50% to nominal wage growth and 50% to inflation.¹¹

The pension reform removed the significant elements of redistribution that were incorporated in the pre-reform system and transformed the system from one based on the security principle towards one based on the insurance principle. A direct link between contributions paid and benefits received from the system was established, one of the tightest links of pensions to earnings among OECD countries (OECD, 2007b).¹² In line with the transition towards the insurance principle, the new system does not contain a minimum pension in order to separate social insurance from social assistance. Individuals who have not accumulated enough pension points or who do not qualify for a pension at all may apply for social assistance which is provided at the minimum subsistence level. The link between pension entitlements and earnings improves work incentives as well as compliance (in the old system earnings were frequently underreported) but creates the risk of a resurgence in old-age poverty. Whilst the net replacement rate of the median earner is about the OECD average, the replacement rate of individuals earning just half of the average wage is notably below that level (see Table 1).

... the retirement age was increased ...

An important element of the reform was to increase the statutory retirement age from 60 years for men and 53 to 57 years (depending on the number of children) for women to 62 years for both. The increase is being introduced gradually at a rate of 9 months per year beginning in 2004. As a result, the legal retirement age of 62 was reached in 2006 for men but will not be reached until 2015 for women with four or more children. Early retirement is possible if the pension benefit reaches at least 1.2 times the subsistence minimum. To raise the work incentives of the elderly, early retirement is penalized by a reduction in pension benefits by 6% per year whilst those who postpone retirement receive a bonus of 6% per year. However, as stressed in the 2007 *Survey* (OECD, 2007c), the discounts fall short of being actuarially neutral and should therefore be increased. Individuals may also choose to continue working while drawing a pension.

Table 1. Net pension replacement rates by earnings

Median earner		Individual earnings (multiple of mean)				
		0.5	0.75	1	1.5	2
Men						
SVK	71.9	66.4	70.6	72.9	75.4	76.7
AUS	61.7	83.5	66.2	56.4	46.1	40.8
AUT	90.6	90.4	90.6	90.9	89.2	66.4
BEL	64.4	77.3	65.5	63	51.1	40.7
CAN	62.8	89.2	68.3	57.4	40	30.8
CHE	68.8	75	68.2	64.3	45.7	35.1
CZE	70.3	98.8	75.6	64.4	49.3	40.2
DEU	57.3	53.4	56.6	58	59.2	44.4
DNK	94.1	132.7	101.6	86.7	77	72.2
ESP	84.2	82	83.9	84.5	85.2	72.4
FIN	68	77.4	68.4	68.8	70.3	70.5
FRA	62.8	78.4	64.9	63.1	58	55.4
GBR	45.4	66.1	49.2	41.1	30.6	24
GRC	111.1	113.6	111.7	110.1	110.3	107
HUN	96.5	94.7	95.1	102.2	98.5	98.5
IRL	44.4	65.8	49.3	38.5	29.3	23.5
ISL	86.9	110.9	92	84.2	80.3	79.7
ITA	77.9	81.8	78.2	77.9	78.1	79.3
JPN	41.5	52.5	43.5	39.2	34.3	31.3
KOR	77.8	106.1	83.1	71.8	61.9	50.7
LUX	98	107.6	99.8	96.2	92.9	91
MEX	37.9	50.3	37.8	38.3	39	40
NLD	105.3	97	103.8	96.8	96.3	94.8
NOR	70	77.1	71.2	69.3	62.5	55.1
NZL	48.6	81.4	54.9	41.7	29.4	23.2
POL	74.8	74.5	74.8	74.9	75	77.1
PRT	67.4	81.6	66	69.2	72.2	73.7
SWE	66.2	81.4	69.2	64	71.9	73.9
TUR	103.4	101	102.9	104	106.4	108.3
USA	55.3	67.4	58	52.4	47.9	43.2
OECD	72.1	83.8	74	70.1	65.4	60.7
Women (where different)						
ITA	63.8	63.6	64.4	63.4	63.7	63.5
MEX	32.2	50.3	35.7	31.7	32.3	33.2
POL	55.3	57.5	55.3	55.2	55	56.4
CHE	68.1	75.4	68.9	65	46.3	35.5

Source: OECD (2007), *Pensions at a Glance*.

Overall, these parametric changes led to a substantial improvement in the pension balance. According to the simulations by Schmidt-Hebbel (2004) and the World Bank (2004), the deficit of the reformed pension system would just rise by between 2 and 4½ percentage points of GDP until around 2050. Although financial solvency was still not ensured, the peak deficit was substantially lower than in the pre-reform system. However, elements of redistribution, which were removed from the pension system, have now been replaced by social assistance. As such, some of the savings in pension expenditures will be spent on social assistance for the elderly.

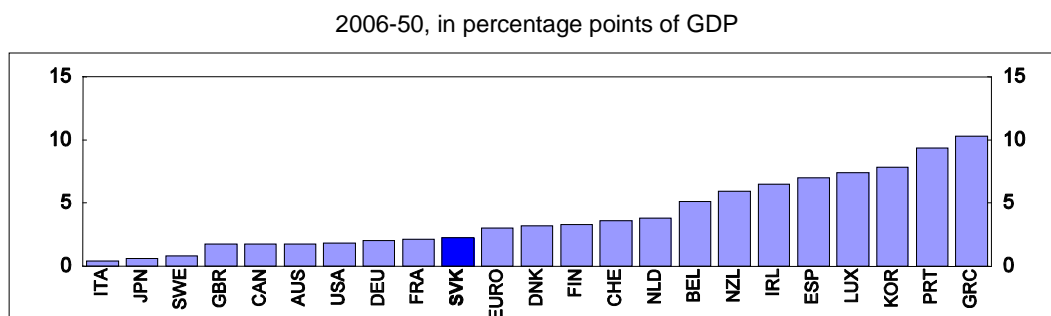
... and a defined-contribution pillar was introduced ...

As the pension system remained unsustainable even after the parametric changes, the government decided to undertake a more fundamental reform of the system and complemented the DB pillar with a DC pillar that came into force in early 2005.¹³ Under the mixed system, the share of the pension contribution that is specifically designated for old age (18% out of the total 28.75%) is split half-half between the DB and DC pillars.¹⁴ The DB pension entitlements are derived from the pension points as before, with years of payment only to the DB system regarded as generating full years of contribution, while years under the mixed system generate only half years of contribution. Additional benefits come from the DC pillar with accumulated contributions and investment returns converted into a pension-income stream at the time of retirement. The minimum period of pension contributions to a pillar needed to claim a pension from that pillar was set at 10 years. All contributions are collected by the Social Insurance Agency (SIA) but the DC contributions are transferred to the private pension company of the contributor's choice. Whilst existing labour market participants were allowed a transition period (from January 2005 to June 2006) to choose whether to stay in the DB pillar or to join the mixed system, participation in the mixed system was made mandatory for those entering the labour market for the first time after December 2004. More than half of all labour market participants decided to join the mixed system, and by end-2007, over 1.5 million individuals (out of a total of 2.6 million individuals enrolled in pension insurance) were participating in the mixed system.

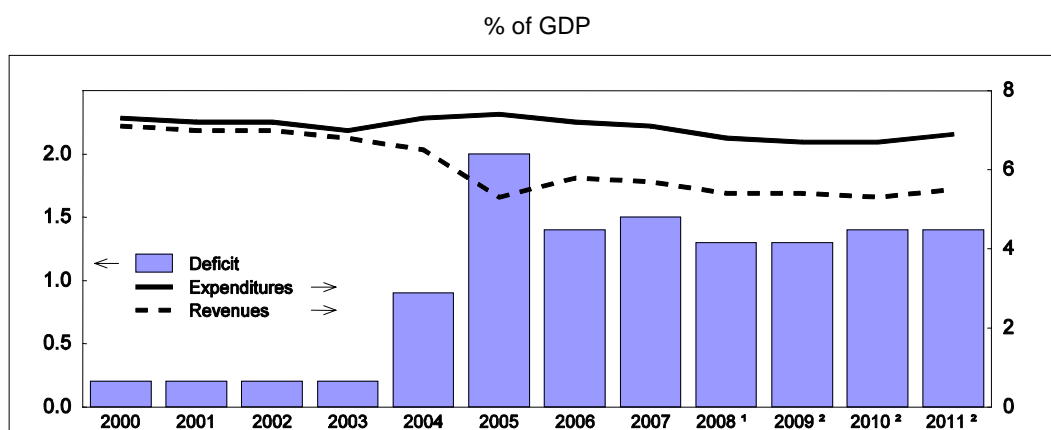
The pension savings under the DC pillar are managed by private pension fund management companies that are certified by the National Bank of Slovakia. Initially, eight pension fund management companies were operating in the Slovak Republic, though two mergers in 2005 and 2006 reduced the number to six.¹⁵ All pension fund management companies provide three types of funds: a conservative fund (all funds have to be invested in bonds and monetary instruments), a balanced fund (up to 50% of all funds may be invested in equities) and a growth fund (up to 80% of all funds may be invested in equity). Pension scheme members are allowed to switch between pension fund management companies every two years against a fee of SKK 500. Moving between different types of funds within a pension fund management company is possible at any time.

... resulting in a significant reduction in future pension costs

Simulations suggest that thanks to the wide-ranging reforms of the pension system, the deficit of the DB system will increase by less than 2 percentage points of GDP until 2050 (Figure 4).¹⁶ This small shortfall, less than in most other OECD economies, represents an important step towards a sustainable pension system. The introduction of the DC pillar was, however, associated with deterioration in the balance of the DB pillar over the short term (Figure 5). To cover the resulting transitory financial gap in the DB pillar, the amount of approximately SKK 70 billion (2.3 billion) was earmarked from privatization resources. These resources are expected to be depleted by the end of 2010 and the government is planning to cover the deficit in 2011 (the last year of the current budget plan) from general revenues.

Figure 4. Projected change in public spending on pensions

Source: Projections of public pension spending are taken from EU EPC (2006), "The impact of ageing on public expenditure: projections for the EU25 Member States on pensions, health care, long-term care, education and unemployment transfers (2004-50)", European Commission, and EU EPC (2007), "Pensions Schemes and Projection Models in EU25 Member States", European Economy Occasional Paper No. 35, for EU countries; from Visco, I. (2005), "Ageing and Pension System Reform: Implications for Financial Markets and Economic Policies", Financial Market Trends, November 2005 Supplement, OECD, Paris, for Canada, Japan, Switzerland and the United States and from Dang *et al.* (2001), "Fiscal Implications of Ageing: Projections of Age-Related Spending", Economics Department Working Paper No. 305, OECD, Paris, for Australia, Korea and New Zealand.

Figure 5. Revenues and expenditures of the DB pillar

1. Estimate.
2. Projection.

Source: Ministry of Labour and Social Affairs of the Slovak Republic.

Reforms are rolled back ...

The shortfall in the DB pillar turned out to be higher than originally envisaged as the underlying assumptions proved to be incorrect.¹⁷ Given the higher than expected deficit of the DB pillar, the government introduced several changes to the pension system during the course of 2008 aimed at reducing the deficit and is planning to adopt further measures in 2009. Among the modifications that came into force in January 2008 was a re-opening of the two pension pillars between January and June 2008. This allowed those pension scheme members who found the DC pillar disadvantageous - either based on their previous experience or because they were not well informed when making their original choice - to revert to the full coverage within the DB pillar or those who were in the DB pillar to join the mixed system (Ministry of Finance of the Slovak Republic, 2007).

During that six-month period, 22 900 people joined the mixed system and 106 600 moved to the DB pillar.¹⁸ The entire DC-pillar savings of those members who moved to the DB pillar were transferred to the Social Insurance Agency, thereby resulting in a one-off increase in revenues of SKK 4 billion.¹⁹ Amongst those who left the DC pillar were mostly people above the age of 45 who essentially had no choice but to move because the simultaneous increase in the minimum contribution period to 15 years meant they could not draw a pension from the DC pillar anyway.²⁰ Due to the financial market turmoil and the associated drop in returns of pension funds the government decided to open up the two pillars again from mid-November 2008 to end-June 2009.

... putting sustainability at risk

Opening-up the two pension pillars is problematic as it worsens the long-term sustainability of the system and sets wrong incentives for those participating in the system. The first wrong incentive is created because those who quit the mixed system for the DB pillar are treated as if they had never left the DB pillar. Thus, the decision to switch out of the mixed system depends not only on the expected future returns of the two systems, but also on the past returns. This creates an adverse selection problem with those members to whom the DC pillar was disadvantageous most likely to switch.²¹ As a result, the savings that are transferred back to the Social Security Agency are likely to be lower than the average savings of a saver in the DC pillar.

The second wrong incentive is created by the ad-hoc nature of the re-openings which creates expectations of further re-openings in the future. The second re-opening that was motivated by the financial market turmoil is especially problematic in this regard as the government cannot now credibly claim that it will not open the system again if another crisis were to occur in the future. The expectation of further re-openings could encourage risky behaviour on the part of savers. For example they might choose a more risky type of fund, in the belief that if things go badly they will always be able to switch to the DB pillar. Given the long-term nature of pension savings, the potential implications of the current financial crisis on pension benefits should be limited and no government intervention is needed. The third wrong incentive is created on the side of the pension funds. As it is a-priori unclear how many people will make use of the option to switch to the DB pillar, pension funds need to shift money into short-term liquid instruments in order to be in a position to pay leaving participants. This artificial reduction of their investment horizon and, thus, returns is to the detriment of those members who decide to remain in the DC pillar. To avoid these negative effects, the government should refrain from opening-up the two pension pillars.

Apart from giving *existing* labour market participants another chance to choose between the two systems, the government made participation in the mixed system voluntary for *new* labour market entrants. By default, persons joining the labour market for the first time participate in the DB pillar but can decide to switch to the mixed system within six months of their first contribution. Similarly, compulsory participation in the DC pillar was abolished for persons who do not carry out any gainful activity due to childcare or care for severely disabled persons. As the change in legislation came into force just recently, it is not yet possible to draw any strong conclusions about the share of new labour market participants that will make use of the option to switch to the mixed system.²²

Making participation in the DC pillar mandatory

Although making participation in the DC pillar voluntary for new labour market entrants raises government revenues in the near term, it increases uncertainty regarding future pension liabilities of the DB pillar and, in particular, risks deteriorating government obligations in the long term. Therefore, the government should consider making participation in the DC pillar mandatory for all persons joining the labour market for the first time. At the very least the government should make participation in the DC the

default option. Findings from behavioural experiments suggest that individuals are much more likely to choose the default option, even when the costs of switching to a different option are low or even negative. A classic example is the 401(k) retirement savings plan that allows workers in the US to save for retirement while deferring income taxes on the saved money and earnings until withdrawal. Employees who are automatically enrolled in the savings plan generally do not make use of the opt-out option, producing enrolment rates of close to 90%. By contrast, when employees are not automatically enrolled in the 401(k) savings plan, less than half enrol on their own during the first year of employment (Madrian and Shea, 2001). This default behaviour appears to result from participant inertia as well as from the perception of the default option as an investment advice by the company. As such, changing the default option from non-participation to participation in the DC pillar is likely to significantly raise membership rates in that pillar.²³

The previous legislation of allowing people to switch to the mixed system within six months of their first contribution to pension insurance was problematic as some new labour market entrants might not be aware that their six-month period is already running. This is especially the case for persons who just work for a very short period of time, such as students working during school holidays. The government has addressed this problem through an amendment of the law stipulating that new labour market entrants have to make their decision only if they pay pension contributions for at least 150 days. If they pay contributions for less than 150 days, this period is not counted for the six-month switching period.

Regarding the share of the DB and DC schemes in the mandatory provision for income in old age, OECD countries have opted for differing designs (OECD, 2007b) and no one-size-fits-all rule appears to exist. While the authorities may consider moving away from the equal split between the DB and DC schemes, such a change should not be done on an *ad hoc* basis due to short-term budget considerations. When considering a change in the split, the government should keep in mind that every measure that reduces the weight of the DC pillar will increase future liabilities of the DB pillar.

As another means of improving the financial situation of the DB pillar, the maximum assessment base for pension insurance (as well as several other types of insurance) was increased in January 2008 from three to four times the average wage in the economy. As the upper ceiling for the calculation of accrued pension points was retained at three times the average wage, any contribution above that limit is essentially a tax used to fill the financing gap of the DB pillar.²⁴ The change in the ceiling adds to the long list of modifications adopted in 2008 with the aim of reducing the short-term deficit of the DB pillar. Such frequent changes create uncertainty among the population and have to be avoided. The government should in particular refrain from any measures that tend to undermine the sustainability of the DB pillar by raising revenues in the short term at the expense of higher liabilities in the long run. Any increases in pension contributions for the DB pillar stemming from recently introduced modifications of the pension system should be used to reduce government debt.

Increasing the sustainability of the DB pillar through further parametric reforms

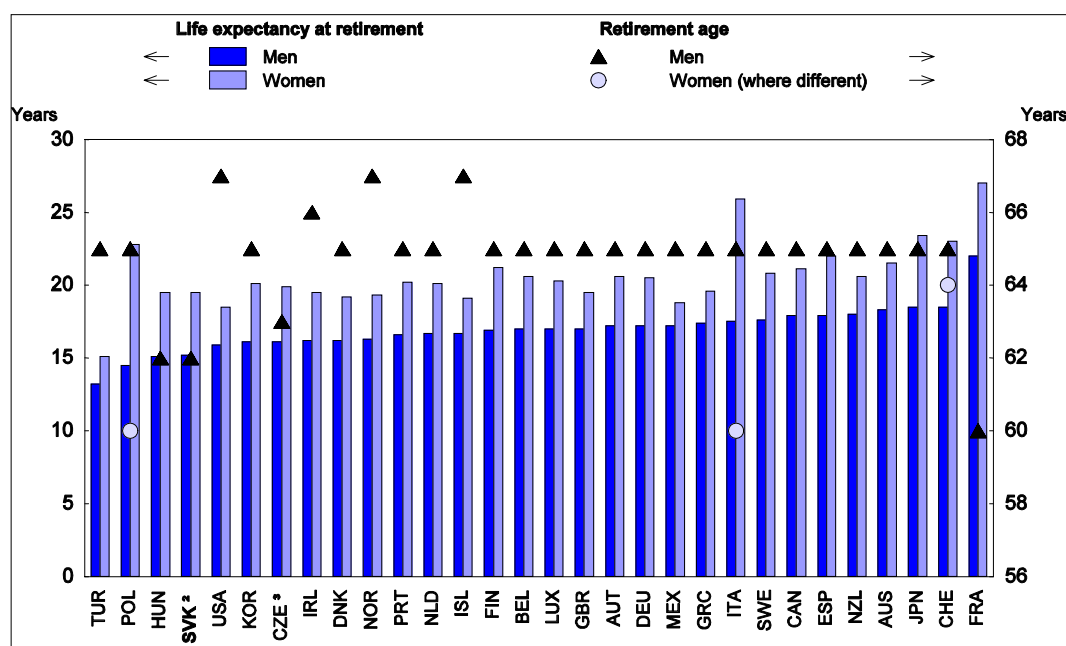
According to estimates by the Social Insurance Agency, the DB pillar is likely to have a deficit of around 2½ percent of GDP in 2008. Although no updated deficit projections are available that take into account the various measures taken in 2008, the measures are likely to be associated with a higher peak in the DB-pillar deficit than the one suggested by the projections of the European Commission (see above). It is therefore vital that the government takes additional steps in order to improve the balance. There are essentially three options available to achieve this goal: raising the contribution rate and/or the base on which contributions are paid; reducing benefits either through direct cuts in benefit rates, changes in the base on which the pension entitlements are calculated or through changes in indexation rules; or increasing the retirement age and/or strengthening the eligibility criteria for early retirement. As contribution rates are already relatively high by international standards and any increase in labour costs would be

counterproductive to lowering long-term unemployment, it would appear to be better to adjust the other two parameters of the system.

Although life expectancy in the Slovak Republic at a given age is low relative to other OECD countries, life expectancy at retirement is only slightly lower for men and about average for women given the very low statutory retirement age for both genders (Figure 6). Moreover, life expectancy at a given age is expected to converge towards the levels seen in other OECD countries,, along with convergence in real incomes. The authorities should increase the statutory retirement age in line with gains in life expectancy as soon as the increase in the retirement age for women to 62 years is fully legally phased in by 2015. This would ensure that the DB-pillar balance does not deteriorate with rising life expectancy and would even lead to an improvement in the balance to the extent that the higher revenues and lower expenditures during the additional working years are not fully offset by the higher expenditures during the retirement years that result from the accumulation of additional pension entitlements. To increase the effective retirement age, the conditions for early retirement were tightened in January 2008, allowing people to retire no earlier than two years before reaching the statutory retirement age.

Pension benefits could also be adjusted. One possibility is to make the indexation rule less generous by indexing pension benefits solely to inflation. This should relax budgetary pressures especially in a catch-up country such as the Slovak Republic where wages increase faster than prices due to strong productivity gains. Whilst an indexation to inflation means that the position of pensioners deteriorates relative to that of workers, it ensures that the consumption level at the age of retirement is protected throughout the retirement period.

Figure 6. Life expectancy and retirement age
2007 or latest available ¹



1. 2007 for Turkey and New Zealand; 2004 for Italy; 2005 for Canada, United Kingdom and United States; and 2006 for others.
2. SVK: For women the increase in the retirement age to 62 will not be fully phased in before 2015.
3. CZE: The retirement age for women varies between 59 and 63 depending on the number of children.

Source: OECD, *Health database*, OECD (2007), *Pensions at a Glance* and OECD calculations.

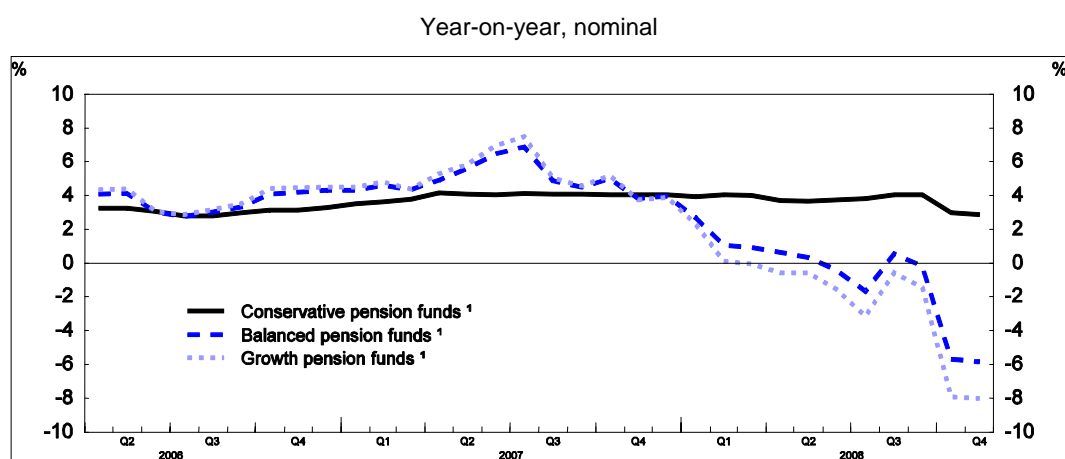
Pension benefits could also be adjusted. One possibility is to make the indexation rule less generous by indexing pension benefits solely to inflation. This should relax budgetary pressures especially in a catch-up country such as the Slovak Republic where wages increase faster than prices due to strong productivity gains. Whilst an indexation to inflation means that the position of pensioners deteriorates relative to that of workers, it ensures that the consumption level at the age of retirement is protected throughout the retirement period.

As an alternative, the government could also modify the existing pension formula to ensure an automatic cut-back of replacement rates as the old-age dependency ratio worsens. Germany adopted such a sustainability factor with its *Old-Age Pension Insurance Sustainability Act* of 2004.²⁵ Such a rule would ensure the sustainability of the pension system, thereby helping to make further discretionary changes to the system unnecessary. The sustainability factor would be consistent with the suggested increase in the retirement age as any such increase would automatically be reflected in the pension formula *via* a lowering of the dependency ratio. Such a formula might also serve as a signalling mechanism to pension scheme members, showing that the DB pension pillar is not sustainable in its current form. This is all the more important if participation in the DC pillar is not made mandatory for all new labour market entrants. In that case, financing the DB-pillar deficit from general government revenues instead of closing the gap through an adjustment in pension benefits might lead to a free rider problem, as all pension scheme members (including those that participate in the mixed system) have to pay higher taxes in order to finance the additional DB-pillar pensions. In order to avoid that a lowering of the average replacement rate leads to a rise in old-age poverty, the solidarity of the defined-benefit pillar should be strengthened as pointed out in the 2007 *Survey* (OECD, 2007c).

Improving the framework conditions for pension funds

Low real interest rates and a virtually non-existing stock market make it difficult for pension funds to achieve returns that are sufficient for the value of pension savings to rise in line with real wages. Before the financial market turmoil, the pension funds achieved annual returns of around 3 to 5% in nominal terms. However, the returns of the balanced and growth funds dropped markedly during the course of 2008 (Figure 7).²⁶ Nonetheless, looking ahead, investing in capital markets is expected to achieve notably higher returns than the DB pillar (Box 2).

Figure 7. Returns of pension funds



1. Unweighted average of all pension funds of that type.

Source: OECD calculations based on data from the Slovak Association of Pension Fund Management Companies.

Box 2. Comparing the returns of the two pension pillars

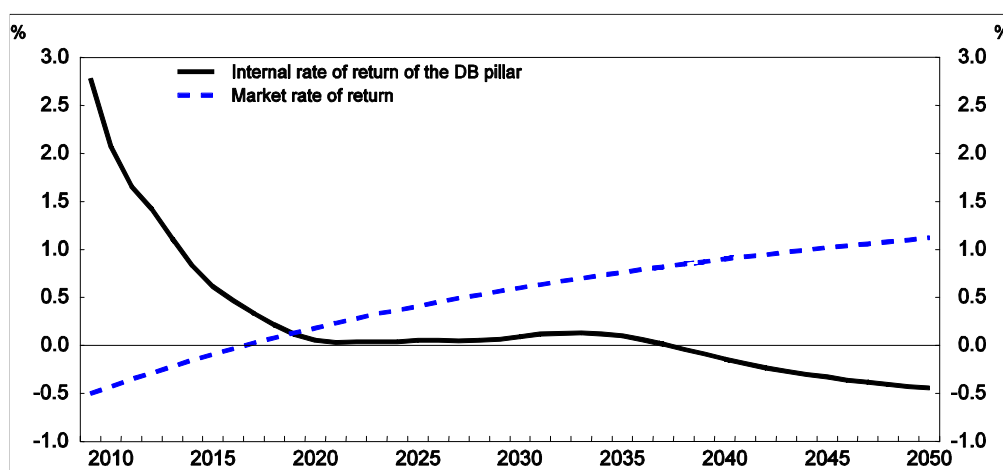
This box presents calculations of the real rates of return obtained by different age cohorts in the two pillars of the pension system. The calculations follow closely those conducted by the Council of Advisors to the German Ministry of Economics. Both the effects of population ageing as well as the effects of the catch-up process are taken into account.¹

The internal rate of return of the DB pillar is defined as the real rate of interest a pension scheme member needs to achieve by investing the pension contributions on the capital market in order to receive the same pension that he would receive from the DB scheme. The simulations assume that the rate of return equals the rate of growth of the sum of wages (which in turn equals the real GDP growth rate) adjusted for the number of pensioners that receive pension payments at any point in time. Furthermore, it is assumed that persons aged 15 to 61 contribute to the system whereas persons aged 62 and above receive pension payments. The contribution rate is assumed to remain constant over the projection period. Together with the constant retirement age this implies that the ageing effect translates into a decline in the replacement rate. Projections on real GDP growth are taken from Koske (2009) and thus take into account the dynamics of the catch-up process. Data on population projections are obtained from Eurostat.

The simulation results are displayed in Figure 8, showing the internal rate of return of the DB pillar for alternative age cohorts. For example, a person retiring in 2010 receives a return of 2.1% on his pension contributions whilst somebody retiring in 2015 only gets a return of 0.6%. The sharp decline in the internal rate of return over the next decade reflects the rapid ageing of the Slovak population and the associated decline in pension payments as well as the slowdown in real GDP growth as convergence proceeds. Between 2008 and 2020, the share of persons paying pension contributions in the total populations is expected to decline from 70% to 65% whilst the share of those receiving pension payments is expected to increase from 15 to 21%.

The figure also shows the compound annual rate of interest of a repeated investment in government bonds where the nominal bond yield is assumed to be equal to 4%² and data on inflation are again taken from the projections in Koske (2009). The real rates of return increase with the year of retirement as inflation is projected to decline going forward due to the progression of the catch-up process. According to the simulations the rate of return offered by the DB pillar is lower than that offered by the capital market for all persons retiring after 2019. The gap in returns will widen quickly for person retiring in later years and for somebody retiring in 2040 (*i.e.* somebody aged 30 today) the DC pillar is estimated to offer a 1 percentage point higher return than the DB pillar. For older persons who retire within the next decade, the DB pillar offers the higher returns and this is signalled to Slovak pension scheme members through the minimum period of pension contributions needed to claim a pension.

Figure 8. Rates of return of the DB and DC pillars



Source: OECD calculations based on Eurostat data.

1. Council of Advisors to the German Ministry of Economics (1998); and Sinn (2000).
2. This assumes that in the long run, the nominal interest rate equals the nominal GDP growth rate. The long-run nominal GDP growth rate in the euro area is assumed to be 4%, composed of an annual real GDP growth rate of 2.2% and an annual inflation rate of 1.8% (both equal to the 1995 to 2007 average).

Investment decisions by pension funds are subject to a number of regulations relating to the share of certain classes of assets in the overall portfolio of pension funds. Whilst ensuring sufficient investor protection, it is essential that pension fund regulation does not unduly restrict pension funds from investing pension savings efficiently, as such restrictions could have adverse effects on returns. One regulation that appears to be unduly restrictive in this regard is the requirement to invest at least 30% of the capital into entities domiciled in the Slovak Republic, especially as euro area entry will remove any exchange rate risk *vis-à-vis* the euro from 2009 onwards. For this reason, the elimination of this requirement in January 2009 is welcome. The regulation is also eased with respect to changes between pension fund management companies. As of January 2009, it is possible to change between funds once every year without any costs; for more frequent changes a fee of 16 applies.

Another reason for concern is the benchmark rate introduced by the government to ensure that the return of any pension fund does not fall significantly behind the returns achieved by other pension funds of the same type. If the yield of a pension fund deviates from the benchmark by more than permitted by the law, that pension fund management company (*i.e.* the mother company) has to put additional money into the fund to ensure that the yield of this fund achieves at least a limit set by the law. Whilst having a benchmark helps to foster prudent behaviour by pension funds, the choice of the benchmark as the average of the rates of return achieved by all pension funds of a certain type is problematic. Firstly, this benchmark is neither known to contributors nor to pension fund managers in real time, complicating investment decisions. Secondly, it risks creating herd behaviour, as no pension fund wants to fall behind the others, so that the benchmark becomes a target, not a floor as intended. To solve these issues, the authorities should shift the responsibility for setting the benchmark to the pension fund level, combined with the requirement to regularly publish information about their performance against an absolute benchmark.

Box 3. Recommendations for fiscal policy

Fiscal rules

- Consider extending the existing national budgetary framework by incorporating a deficit rule into the constitution. The rule should be consistent with the *Stability and Growth Pact*, possibly drawing on the medium-term objective of achieving a 1% structural deficit.
- The framework should include a strong reporting system and ex-post assessments of the government's performance *vis-à-vis* the rules.
- Introduce multi-year expenditure ceilings. To ensure the operation of the automatic stabilizers, consider excluding cyclical expenditure items, such as unemployment benefits, from the ceilings.
- Consider introducing an adjustment mechanism to claw back accumulated deviations from the fiscal rule in case of projection errors.

Pension system

- Refrain from any opening-up of the two pension pillars.
- Consider making participation in the DC pillar pension mandatory for all persons joining the labour market for the first time. At the very least, make participation in the DC pillar the default option.
- Avoid any measures that tend to undermine the sustainability of the DB system by raising revenues in the short term at the expense of higher liabilities in the long run. Also, do not change the split between the DB and DC schemes on an ad-hoc basis due to short-term budget considerations.
- Use the increased pension contributions for the DB pillar stemming from recently introduced modifications of the pension system to reduce government debt.
- Increase the statutory retirement age in line with gains in life expectancy as soon as the increase in the retirement age for women to 62 years is fully legally phased in by 2015.
- Consider making the indexation rule less generous by indexing pension benefits solely to inflation.
- As an alternative, consider modifying the existing pension formula to ensure an automatic cut-back of replacement rates as the old-age dependency ratio worsens.
- Strengthen the solidarity of the pension system.
- Shift the responsibility for setting the benchmark to the pension fund level, combined with the requirement to regularly publish information about their performance against an absolute benchmark.

NOTES

1. In July 2004, the Council decided that Slovakia was in excessive deficit as the general government deficit was 3.6% of GDP in 2003. Due to data revisions after the 2004 decision, the general government deficit remained below the 3% threshold in the years 2003-05.
2. A deficit in excess of 3% of GDP that is exceptional and temporary may not be considered excessive provided the deficit remains close to the threshold. A deficit above 3% of GDP may also not be considered excessive if it has declined substantially and reached a level that comes close to the threshold. Similar exceptions apply to countries with a debt ratio above 60% of GDP, provided this ratio diminishes sufficiently and approaches the value of 60% of GDP at a satisfactory pace.
3. Using the revenue and expenditure elasticities obtained by Girouard and André (2005) the European Commission estimates the sensitivity of the GDP share of the Slovak general government budget balance with respect to the output gap at 0.29 (European Commission, 2005).
4. An amendment to the Act gives public universities a higher degree of flexibility similar to the one granted to municipalities and higher territorial units.
5. The limit has been equal to 1% since 2005; in 2004, the limit was 5%, in 2003 it was 15% and in 2002 no provision existed.
6. Germany is discussing the option of putting the deficit rule of the SGP into the constitution (OECD, 2008b)
7. As the OECD does not publish output gap data for the Slovak Republic, estimates by the European Commission are used.
8. A comprehensive discussion of the pros and cons of different design elements of expenditure rules is provided by Ljungman (2008).
9. For a description of the Swiss debt brake rule, see OECD (2007a) and the references cited therein.
10. The figure assumes a career length of 40 years and earnings at the average wage level.
11. Prior to the reform increases in pensions were decided by the parliament.
12. According to the pension formula of the pre-reform system, individuals with 25 years of contributions received 50% of the average of the five highest of the last 10 years' salaries and 1% in addition per additional year of service up to 17 additional years. The pension system contained a significant element of redistribution as only the first SKK 2 000 per month were fully included in the pensionable earnings whilst earnings above that ceiling were only counted to respectively one-third (up to SKK 5 999) and one-tenth (up to SKK 9 999). Beyond SKK 10 000 no increases to the pension were made although contributions were assessed up to SKK 32 000.
13. In addition to the mandatory DB and DC pillars, a voluntary DC pillar exists. This pillar was originally established in 1996 as a system of voluntary supplementary pension insurance based on the employer-employee principle. In 2004, the system was transformed into a one of supplementary pension savings and

participation was opened to all natural persons older than 18 and not only to employees. By end-2007 790 000 persons were enrolled in the voluntary pension scheme.

14. The remaining 10.75% of the contributions continues to flow into the disability and reserve funds.
15. Sympatia – Pohoda merged with ING on 31 December 2005, and Prvá dôchodková sporiteľňa merged with Allianz-Slovenská on 1 March 2006.
16. The simulations take into account the parametric changes introduced in 2004 as well as the introduction of the fully-funded second pillar in 2005. It is assumed that 65% of all pension scheme members switched to the mixed system which is slightly higher than the actual number of switchers of close to 60%.
17. The Ministry of Finance of the Slovak Republic estimates that the difference between the projection and the actual outturn represents a shortfall of 1.0% of GDP per year (Ministry of Finance of the Slovak Republic, 2007, Box 5).
18. Most people waited until the end of the six-month period with their decision: more than 40% of all switches took place in the second half of June.
19. The government also expects additional contributions to the DB pillar of some 0.07% of GDP per year by these returning participants.
20. The change in legislation was appealed to the Constitutional Court; at the time of writing the decision was still pending. Under current legislation, pension scheme members who pay contributions for less than 15 years to one of the pension pillars will not receive any money upon retirement from that pillar. Instead, the contributions will be paid to the heirs after the death of the pension scheme member.
21. This argument is put to an extreme in the case of a regular or permanent opening up of the two pillars with participants deciding shortly before retirement which system is the more beneficial to them.
22. During the first half of 2008, 4 250 persons that joined the labour market for the first time decided to switch to the mixed system. This compares to a total number of new labour market entrants of approximately 50 000 per year.
23. New Zealand follows this approach with KiwiSaver, a voluntary work-based savings scheme. New employees aged 18 to 65 are automatically enrolled in the scheme when they start a new job but have the choice to opt out within six weeks.
24. According to estimates by the Social Insurance Agency, the budgetary impact of the increase in the ceiling is 0.09% of GDP in 2008, 0.08% of GDP in 2009 and 0.07% of GDP in 2010.
25. Details on the sustainability factor adopted by the German government can be found in the 2004/05 annual report of the German Council of Economic Experts.
26. By end-2007, the net value of assets in growth (balanced) funds represented 60% (30%) of the total net value of assets of pension funds.

BIBLIOGRAPHY

Ayuso-i-Casals, J., Gonzalez Hernandez, D., Moulin, L. and A. Turrini (2007), “Beyond the SGP, features and effects of EU national-level fiscal rules”, paper presented at the 9th Banca d’Italia Workshop on Public Finance.

Bos, F. (2008), “The Dutch fiscal framework: History, current practice and the role of the Central Planning Bureau”, *OECD Journal on Budgeting*, 8, pp. 1-42.

Calmfors, L. (2005), “What Remains of the Stability Pact and What Next?”, *Swedish Institute for European Policy Studies Report* No. 8, Stockholm.

Council of Advisors to the German Ministry of Economics (1998), “Grundlegende Reform der gesetzlichen Rentenversicherung”, Bundesministerium für Wirtschaft, *Studienreihe* No. 99.

European Commission (2008), *Slovakia: macro fiscal assessment – An analysis of the November 2007 update of the Convergence Programme*, European Commission, Brussels.

European Commission (2005), *New and updated budgetary sensitivities for the EU budgetary surveillance*, European Commission, Brussels.

European Commission (2006), *Public Finances in EMU*, European Commission, Brussels.

Fabrizio, S., and A. Mody (2006), “Can budget institutions counteract political indiscipline?”, *Economic Policy*, 48, pp. 689–739.

Girouard, N. and C. André (2005), “Measuring cyclically-adjusted budget balances for OECD countries”, *OECD Economics Department Working Papers* No. 434.

Guichard, S., Kennedy, M., Wurzel, E. and C. André (2007), “What promotes fiscal consolidation: OECD country experiences”, *OECD Economics Department Working Papers* No. 553.

Hallerberg, M., Strauch, R. and J. Von Hagen (2006), “The design of fiscal rules and forms of governance in European Union countries”, *GESY Discussion Paper* No. 150, Mannheim.

Kopits, G. (2001), “Fiscal rules: useful policy framework or unnecessary ornament?”, *IMF Working Paper* No. WP/01/45

Koske, I. (2009), “Raising flexibility of the Slovak Economy during the catch-up phase”, *OECD Economics Department Working Papers* No. xxx.

Koske, I. and N. Pain (2008), “The usefulness of output gaps for policy analysis”, *OECD Economics Department Working Papers* No. 621.

Küchen, T. and P. Nordman (2008), “Performance budgeting in Sweden”, *OECD Journal on Budgeting*, No. 8, pp. 49-59.

- Ljungman, G. (2008), "Expenditure ceilings – A survey", *IMF Working Paper* No. WP/08/282.
- Madrian, B.C. and D.F. Shea (2001), "The power of suggestion Inertia in 401(k) participation and savings behaviour", *Quarterly Journal of Economics*, CXVI, pp. 1149-1187.
- Ministry of Finance of Finland (2005), *Decision on central government spending limits 2006-2009*, Ministry of Finance of Finland, Helsinki.
- Ministry of Finance of the Slovak Republic (2007), *Convergence Programme of the Slovak Republic for 2007-2010*, Ministry of Finance of the Slovak Republic, Bratislava.
- OECD (2007a), *OECD Economic Surveys: Switzerland*, OECD, Paris.
- OECD (2007b), *Pensions at a Glance: Public policies across OECD countries*, OECD, Paris.
- OECD (2007c), *OECD Economic Surveys: Slovak Republic*, OECD, Paris.
- OECD (2008a), *OECD Economic Surveys: Sweden*, OECD, Paris.
- OECD (2008b), *OECD Economic Surveys: Germany*, OECD, Paris.
- Persson, T. (2001), "Do political institutions shape economic policy", *NBER Working Paper* No. 8214.
- Schmidt-Hebbel, K. (2004), "Pension reform in Slovakia: Fiscal, financial, and growth effects", mimeo.
- Sinn, H.W. (2000), "Why a funded pension system is useful and why it is not useful", *NBER Working Paper* No. 7592.
- World Bank (2004), *Slovak Republic: Pension policy reform note*, World Bank, Washington, DC.

WORKING PAPERS

The full series of Economics Department Working Papers can be consulted at www.oecd.org/eco/Working_Papers/

680. *Raising flexibility of the Slovak economy during the catch-up phase Do Latin American central bankers behave non-linearly? The experience of Brazil, Chile, Colombia and Mexico*
(March 2009) Isabell Koske
679. *Do Latin American central bankers behave non-linearly? The experience of Brazil, Chile, Colombia and Mexico*
(February 2009) Luiz de Mello, Diego Moccero and Matteo Mogliani
678. *Enhancing educational performance in Australia*
(February 2009) Vassiliki Koutsogeorgopoulou
677. *Quantifying the effect of financial conditions in the euro area, Japan, United Kingdom and United States*
(February 2009) Stéphanie Guichard, David Haugh et David Turner
676. *Taking stock of existing structural policy and outcome indicators/ Un inventaire des indicateurs structurels de politique et de performance*
(February 2009) Davide Furceri and Annabelle Mourougane
675. *Stabilization Effects of Social Spending: Empirical Evidence from a Panel of OECD Countries*
(February 2009) Davide Furceri
674. *Fiscal Convergence, Business Cycle Volatility and Growth*
(February 2009) Davide Furceri
673. *Boosting Productivity in Korea's service sector*
(February 2009) Randall S. Jones
672. *Sustaining growth in Korea by reforming the labour market and improving the education system*
(February 2009) Randall S. Jones and Masahiko Tsutsumi
671. *Reforming the tax system to promote economic growth and cope with rapid population ageing*
(February 2009) Randall S. Jones
670. *Financial market stability: Enhancing regulation and supervision*
(February 2009) Jeremy Lawson, Sebastian Barnes and Marte Sollie
669. *Overcoming the financial crisis*
(February 2009) Andrea De Michelis
668. *Financial crises: past lessons and policy implications*
(February 2009) Davide Furceri and Annabelle Mourougane
667. *Reforms to open sheltered sectors to competition in Switzerland*
(February 2009) Andrés Fuentes

666. *Raising education outcomes in Spain*
(February 2009) Andrés Fuentes
665. *Health care reform in the United States*
(February 2009) David Carey, Bradley Herring and Patrick Lenain
664. *The role of R&D and technology diffusion in climate change mitigation: new perspectives using the WITCH model*
(February 2009) Valentina Bosetti, Carlo Carraro, Romain Duval, Alessandra Sgobbi and Massimo Tavoni
663. *Long-run GDP growth framework and scenarios for the world economy*
(January 2009) Romain Duval and Christine de la Maisonneuve
662. *Realising South Africa's employment potential*
(January 2009) Geoff Barnard
661. *Making the most of Norwegian schools*
(January 2009) Romina Boarini
660. *Can the financial sector continue to be the main growth engine in Luxembourg?*
(January 2009) Arnaud Bourgain, Patrice Pieretti and Jens Høj
659. *Fiscal policy responsiveness, persistence, and discretion*
(December 2008) António Afonso, Luca Agnello, Davide Furceri
658. *The economics of climate change mitigation: policies and options for the future*
(December 2008) Jean-Marc Burniaux, Jean Chateau, Romain Duval and Stéphanie Jamet
657. *Maximising Mexico's gains from integration in the world economy*
(December 2008) David Haugh, Roselyne Jamin and Bruno Rocha
656. *How do taxes affect investment and productivity? An industry-level analysis of OECD countries*
(December 2008) Laura Vartia
655. *Strategies for countries with favourable fiscal positions*
(November 2008) Robert Price, Isabelle Joumard, Christophe André and Makoto Minegishi
654. *Monetary transmission mechanism in Central and Eastern Europe: Surveying the Surveable*
(November 2008) Balázs Égert and Ronald MacDonald
653. *An Overview of the OECD ENV-Linkages Model*
Jean-Marc Burniaux and Jean Chateau
652. [Reforming the labour market in Japan to cope with increasing dualism and population ageing](#)
(November 2008) Randall S. Jones
651. [Enhancing the productivity of the service sector in Japan](#)
(November 2008) Randall S. Jones and Taesik Yoon