TOWARDS (MORE) APPROPRIATE FISCAL POLICY IN SLOVENIA

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1 Introduction (Challenges of the fiscal policy in the wake of the financial and economic crisis)

If the fiscal policy in Slovenia was trying to strike a balance between achieving macroeconomic stability and supporting long-term growth in 2009, there is no longer such a dilemma in 2010: the current fiscal situation requires immediate consolidation of public finance! The key issue faced by fiscal policy is whether debt will be stabilised on the level it reached at the end of 2010 or whether debt should be decreased to a lower ("more manageable") level.

Slovenian economy has been hit hard by the international financial crisis and the collapse of external demand. The economy is estimated to have shrunk by 8.1 per cent in 2009, one of the highest negative real GDP growth rates in the euro area. Going forward (2011-13), a modest economic recovery is envisaged associated with a weak and uncertain international environment and the pace of normalization of financial conditions.

Such a sharp decrease in economic activity has long-term consequences for the fiscal capacity of revenues which is determined by the potential economic growth. The latest estimates of potential economic growth or production gaps (according to the latest estimates, potential growth in the following period will be between 1.3 and 2 per cent) show that a positive balance at the end of 2007 was not the result of an appropriate fiscal policy but a consequence of the expansion of the economy (cyclically adjusted or structural government deficit amounted to approximately 2.3 per cent of GDP in 2007). Slovenia thus reported a cyclically adjusted deficit in all previous years, irrespective of which part of the cycle the economy was in. An especially worrying fact is that, according to the latest estimates, the contribution of the total factor productivity to potential economic growth has been decreasing since 2005. Figures 1 and 2 show the inadequacy of the fiscal situation in Slovenia.

The latest crisis has put anti-cyclical fiscal policy back in the foreground and boosted the positive attitude towards discretionary measures. In the past, Slovenia had a relatively low government debt, which enabled the fiscal policy to introduce fiscal incentives for mitigating the consequences of the crisis. The result of such a policy was a rapid growth of the general government debt, which increased from 21.9 per cent of GDP at the end of 2008 to 38 per cent of GDP at the end of 2010. This is why the fiscal exit strategy must set a relative amount of debt as its central target, whereby the required adjustment must be based on suitable economic/structural policies. The key to ensuring sustainability of the general government debt is decreasing the primary budgetary deficit, while the burden of consolidation will be primarily on the expenditure side of the budget.

It is recognized that success of public finance consolidation strategies heavily depends on adequate domestic fiscal framework. The key elements of new Slovenian fiscal framework are: a) expenditure/policy reaction rule supplemented by budget-balance rule, b) medium-term expenditure framework constructed by various government programs and upgraded with General Equilibrium Analysis, and c) Fiscal Council established recently with the purpose of *ex post* assessment of fiscal policy.

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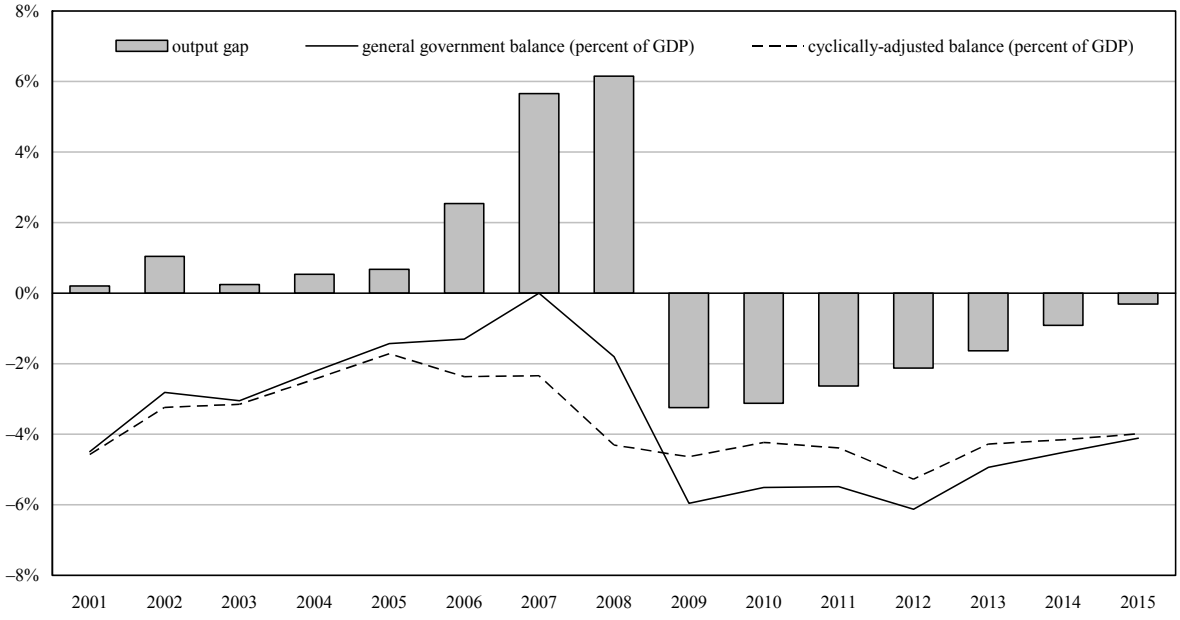
Figure 1

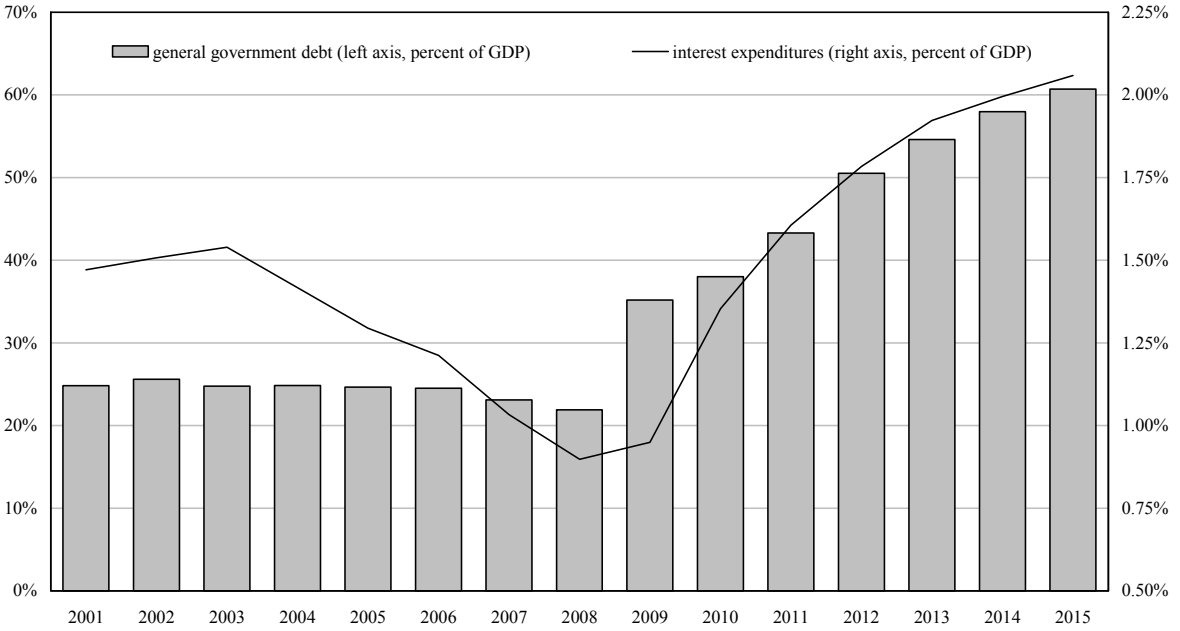
General Government Balance
Following the Spontaneous (No Reform) Scenario, 2011-15



Source: Ministry of Finance; Evaluation methodology: ESA95.

Figure 2

General Government Debt and Interest Payments
Following the Spontaneous Scenario, 2011-15



Source: Ministry of Finance; Evaluation methodology: ESA95.

Special attention was devoted to the limits of convergence of fiscal consolidation (MTO – medium-term objective). Besides general government primary balance, a part of MTO is also general government debt (both expressed as a share of GDP). In addition to ageing costs, in designing MTO we took into consideration also budgetary restrictions and economic reality in Slovenia.

To derive expenditure limits we use Medium-term Fiscal Sustainability model (MtFS model) designed on the idea of Hiebert and Rostagno model but restructured so that primary influence of cyclical economic activity is transferred on revenue side, while fiscal consolidation and restructuring is reflected on the expenditure side.

Our expenditure reaction rule consists of a preventive and a corrective part. According to the preventive part, expenditures are supposed to follow trend growth of economy. Crisis resolution requires expenditure corrections: growth of expenditures is adjusted by a given percentage (u) of the difference between the debt ratio recorded one period ago and the steady state debt target, and a given percentage (v) of the difference between the primary surplus ratio one period ago and its target ratio in the long run. Actually the number of expenditure equations in MtFS model corresponds to the number of government programs. In such a way control parameters [u, v] are introduced for each category/program of expenditures for which the measures of fiscal adjustment are carried out.

The above described disaggregation of expenditure side enables actual (re)prioritization of government programs. Medium-term expenditure framework supported with General Equilibrium Analysis helps us identify and also incorporate the transmission channels through which fiscal policy influences long-term growth. We call this "budgeting with impact".

Section 2 provides assessment of fiscal policy in Slovenia. The impact of business cycle on fiscal stance and long-term sustainability is especially elaborated upon. Section 3 presents recently adopted fiscal framework with emphasize on medium-term budgetary framework including design of our expenditure reaction rule and the process of MTO determination. The following Section 4 presents the fiscal consolidation strategy. Finally, Section 5 concludes.

2 Assessment of fiscal policy in Slovenia

2.1 General government sector deficit and debt developments

Over the period 2004-07, the Slovenian economy exhibited a strong economic performance. Such a development facilitated fiscal consolidation on the one hand and enabled the government to carry out and finance important changes in the tax structure. Over that period Slovenia kept running fiscal deficit with the exception of 2007 when it recorded marginal surplus (Figure 4). Between 2004 and 2007 relatively expressed government balance was decreasing permanently due to decreasing share of expenditures till 2007. This decrease was slowed down in 2006 and 2007 by lower tax rates and introduced tax allowances. This development took place also on the back of conservative fiscal planning with budget outlays planned based on GDP forecast figures that were lower than actual (see Figure 3).

The debt dynamics was driven primarily by the central government (Figure 5). The indebtedness capacity of local government is constrained by the Law on Municipalities financing which limits the total amount of borrowing in a given year to a maximum of 20 per cent of realized revenues in previous year. The debt service (interest and principal) is also subject to a maximum of 5 per cent of realized revenues in the previous year. Before described deficit developments over the period 2004-07 lead to a decreasing general government consolidated debt: from 24.9 per cent of GDP in 2004 debt decreased to 21.3 per cent of GDP in 2007.

Figure 3

Real GDP Growth Rates Used in Budget Formulation and Outturn

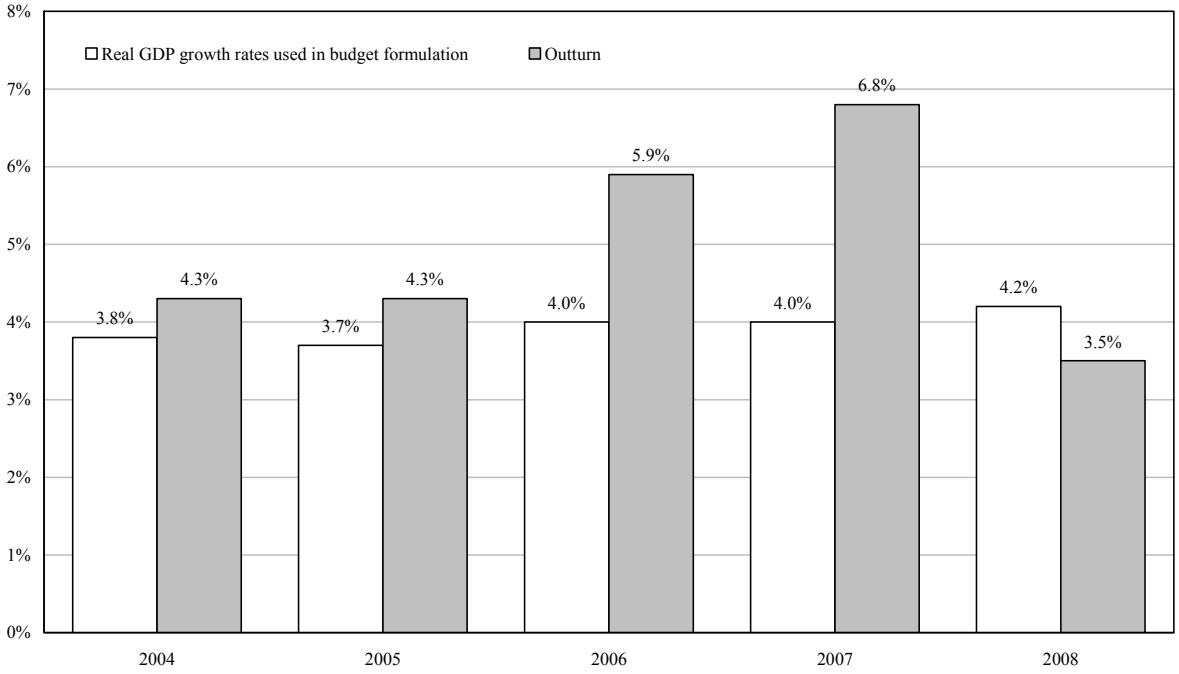
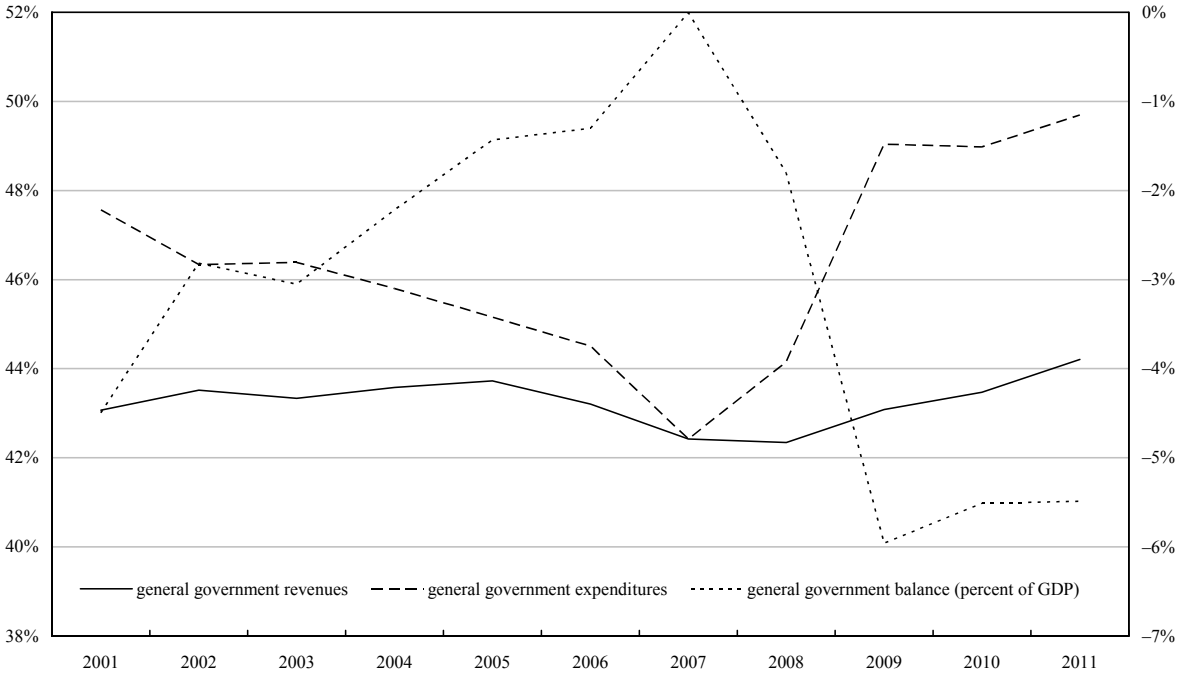


Figure 4

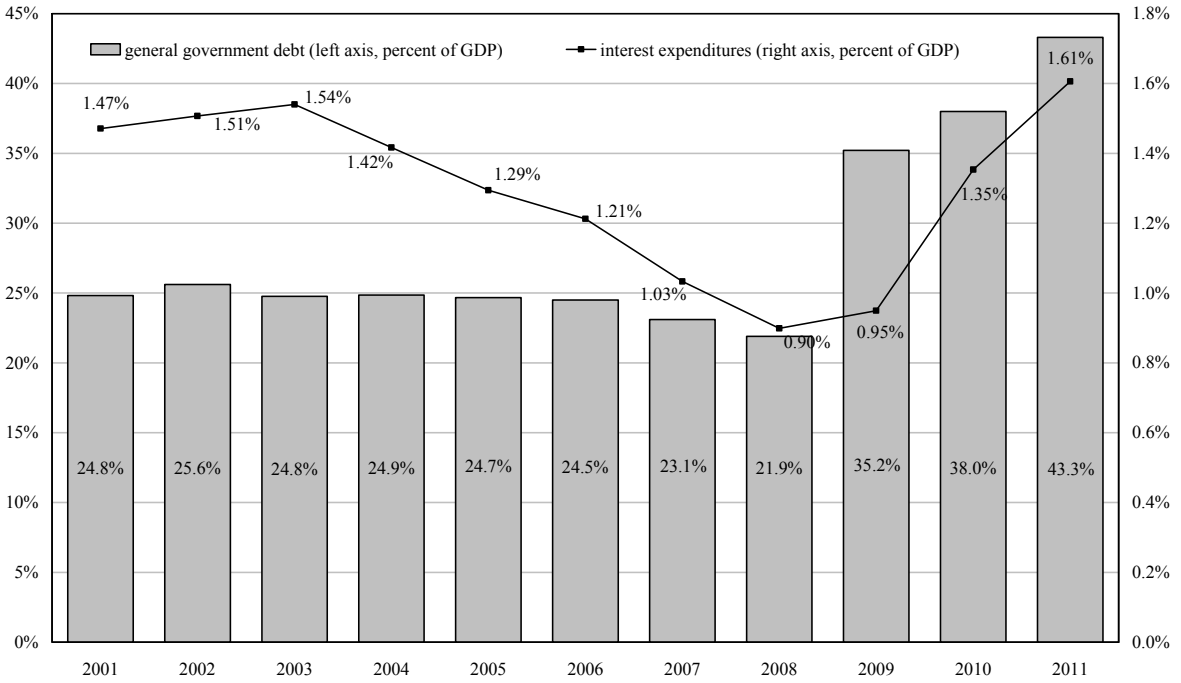
General Government Revenues, Expenditures and Balance, 2004-11
(percent of GDP)



Source: Ministry of Finance; Evaluation methodology: ESA95.

Figure 5

General Government Consolidated Debt and Interest Payments, 2004-11
(percent of GDP)



Source: Ministry of Finance; Evaluation methodology: ESA95.

In 2008 the economy stared to deteriorate and the government balance changed to a deficit of 1.8 per cent of GDP. This was mainly due to: a) delayed implementation of the Law that corrected wage disparities in the public sector and b) granting of additional social transfers in the dawn of the upcoming 2008 elections.

Coping with the crisis has required a policy response targeted to the financial system and to the real sector taking into account the degree of financial integration to the Economic and Monetary Union, the effectiveness of policy response in a small open economy and the relative low level of government debt at the end of 2008 (21.9 per cent of GDP). As a result of the crisis and policy response the government deficit widened in 2009 to almost 6 per cent of GDP. Due to heavily decreased GDP (–8.1 per cent in real terms) the relatively expressed government revenues increased in 2009 by 0.7 per cent of GDP, while the general government expenditures increased by 4.9 percentage points of GDP. Government expenditure policy in 2009 and 2010 followed broader economic policy guidelines agreed among EU Member States to alleviate the impact of the crisis on employment and potential growth. In line with the subsequent EU guidelines, the government in 2010 started to gradually withdraw the fiscal stimulus measures.

The debt-to-GDP ratio increased substantially in 2009 due to a high deficit and pre-financing of the 2010 borrowing requirement, the proceeds of which were used to enhance liquidity conditions of the domestic banking system. The outstanding amount of general government consolidated debt is estimated at 12,449 million euros (35.2 per cent of GDP) at the end of 2009.

The government was faced in 2010 with an additional shortfall in revenues from direct taxes, mainly from corporate income tax. In order to secure the targeted deficit for 2010, the government

Table 1

The 2005-09 General Government Balance by Government Level

Government Level	2005	2006	2007	2008	2009	2010	2011
Government budget	–1.3%	–0.7%	0.1%	0.2%	–4.9%	–4.8%	–4.6%
Municipal budgets	0.2%	–0.1%	0.0%	–0.5%	–0.4%	–0.3%	–0.2%
PDII (ZPIZ)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HIIS (ZZZS)	0.1%	0.0%	0.2%	0.0%	–0.2%	–0.1%	0.0%
General Government Balance	–1.0%	–0.8%	0.3%	–0.3%	–5.5%	–5.2%	–4.8%

Source: Ministry of Finance; Evaluation methodology: cash flow principle.

prepared a supplementary budget and presented it to the Parliament. The adopted supplementary budget reduced government expenditures by the amount that more than off-set the shortfall in revenues. The outstanding amount of general government consolidated debt is estimated at 13,704 million euros at the end of 2010 or 38 per cent of GDP.

General government balance broken down by government levels is presented in Table 1. It is evident that the 2009 deficit was mainly generated at the state budget level. The fact that the financial situation in municipalities was heavily aggravated in the considered period (income tax data to be added) is a cause of concern: at the end of 2005, the municipalities' budgets recorded a 0.2 per cent GDP surplus, while the end of 2009 saw a deficit of 0.5 per cent GDP.

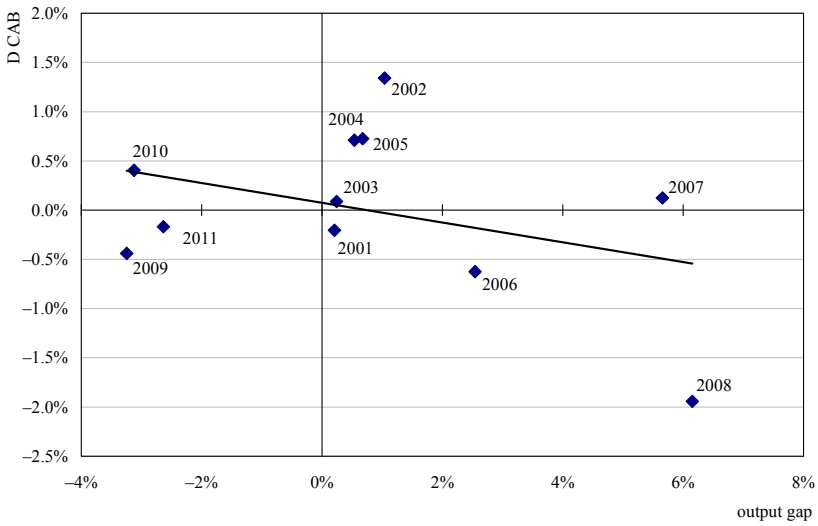
2.2 Fiscal policy and business cycle

An analysis of the influence of economic activity on public finances is very important for the understanding of the current position of the public finances. The analysis of the instabilities created points to the unsuitable interpretation or inconsideration of indicators such as output gaps, and the cyclical and cyclically-adjusted balance.

Based on the changes occurring in the cyclically-adjusted balance (fiscal impulse) in between the specific years, we can make conclusions regarding the tendencies of the fiscal policy – the increase of the cyclically-adjusted balance points to the restrictive tendencies of the fiscal policy, and vice versa, the decrease of the cyclically-adjusted balance points to the expansive tendency of the fiscal policy. Comparison of the dynamics in the cyclically-adjusted balance and the output gap points to the (counter-) cyclical tendency of the fiscal policy. In Figure 6, we can determine the four quadrants setting forth the fiscal situation in terms of changes occurring in the fiscal impulse and the output gap. If the combination of both parameters lies in the first or third quadrant, the fiscal policy is counter-cyclical. In this case, the fiscal policy is responding expansively when the actual GDP is lower than its potential, and restrictively when the actual GDP surpasses its potential. If the combination of both parameters lies in the second or fourth quadrant, the fiscal policy is cyclical. In this case, the fiscal policy is responding restrictively when the actual GDP is lower than its potential, and expansively when the actual GDP surpasses its potential. Cyclical tendency means that the fiscal policy does not allow the functioning of automatic stabilisers due to which, for example, expenditures change in line with the changes in economic growth and not as planned within the budget. This means that, in the event of economic growth

Figure 6

Cyclical Tendencies of the Fiscal Policy



Source: Ministry of Finance.

being higher than that originally planned, the cyclical part of the budget revenue is used to finance the lowering of taxes and/or increase of expenditures, and not to decrease the deficit.

It is evident from the graph below that the fiscal policy exhibited cyclical tendencies throughout the 2005-08 period. Thus the changes of the tax system, especially the abolition of the payroll tax and changes in the income tax system, were not accompanied by corresponding changes on the expenditure side. Instead of saving during that time, the state "adjusted" consumption to surplus revenues. The average annual increase of investments expenditure during the 2005-08 period, therefore, amounted to nearly 22 per cent, while the average annual GDP growth in the same period *concurrently* amounted to less than 10 per cent. Such great growth of investment expenditures only added fuel to the fire of the already overheated economy. To conclude, tax cuts were at the *heart of pro-cyclical* fiscal policy with expenditure retrenchment facilitated by cyclical upturns.

Cyclical behaviours of fiscal outcomes such as primary balance, tax revenue and fiscal variables as a percent of GDP, that are endogenous variables, can be ambiguous. For that reason we analyse cyclical tendencies of the fiscal policy also in terms of government spending – that is, a policy instrument. To obtain a measure of cyclicality of fiscal policy, we estimate the following regression:

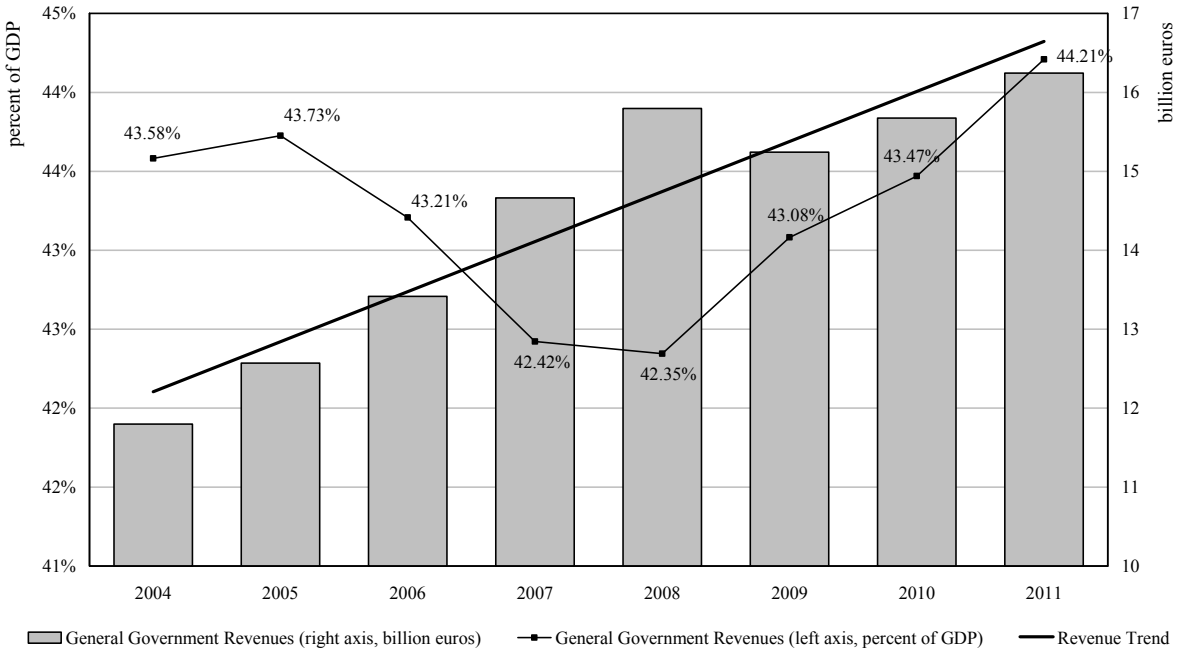
$$\Delta \log G_t = const. + \beta \Delta \log GDP_t + \gamma t + \varepsilon_t$$

where G_t is the general government spending, and GDP_t is the gross domestic product, t denotes the year, and ε is an error term. A time trend t is also added. We can interpret the coefficient β as the response of government spending to an idiosyncratic (percent) change in GDP: it measures the elasticity of government spending with respect to output growth. A positive value of β indicates pro-cyclicality of fiscal policy, whereas a negative value implies counter-cyclical behaviour. A value greater than one implies that general government spending rises (falls) more than proportionally in response to a positive (negative) shock to output. The value of coefficient β for Slovenia is 0.3, which indicates pro-cyclical fiscal policy in previous period.

It is evident from the figure below that the influence of economic activity on the general government revenues was positive during the conjuncture period, especially in 2008, as the cyclical revenue component amounted to more than €900 million (this is the amount by which revenues were higher due to high economic growth). The dramatic nominal revenue decline of 2009 was

Figure 7

General Government Revenues, 2004-11



Source: Ministry of Finance.

hidden because of the sharp decline in output activity. Real picture can be obtained if we compare cyclical part of revenues in 2008 and 2009: cyclical revenue component in 2008 was estimated at 920 million euros while the same component in 2009 was –460 million euros; the difference between the two in 2009 GDP terms was 3.9 per cent.

Table 2 presents the general government aggregates in the period from 2004 to 2015 following the spontaneous scenario.[1] It is evident from the table that the actual GDP will not catch up with its potential by the end of 2015 (the output gap for 2015 is negative and amounts to –0.31 per cent of potential GDP). Nevertheless, the public deficit will increase in the absence of structural reforms and surpass 7 per cent of GDP already in 2011, which will affect the debt growth (we estimate that the general government debt will reach 60.7 per cent GDP by the end of 2015). Such debt growth is accompanied by increasingly high interest payments, which will increase by more than 1.1 per cent of GDP in the period from 2009 to 2015. It is evident from the table that the aggravation of the budgetary performance in 2009 was mainly due to the growth of expenditures on salaries and current transfers.

The inadequacy of the mid-term fiscal situation is also shown by the primary public balance which has been negative since 2008. This means that the budget is unable to cover even the expenditures incurred in the current year (the primary balance shows the budgetary performance without the interest payments). In addition, high debt will reduce the scope for counter-cyclical response.

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[1] Assessment of the government budgetary performance or a "spontaneous scenario" is calculated on the basis of IMAD's (Institute of Macroeconomic Analysis and Development) Spring forecasts which do not take into account the effects of structural reforms on the expenditure side.

Table 2

General Government Aggregates Following a Spontaneous Scenario, 2004-15

(percent of GDP)

Fiscal Indicators	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
General Government Revenues	43.58	43.73	43.21	42.42	42.35	43.08	43.47	43.89	43.08	42.61	41.32	40.12
- Personal Income Tax	5.88	5.53	5.76	5.56	5.84	5.83	5.65	5.63	5.50	5.35	5.19	5.03
- Corporate Income Tax	1.93	2.76	2.96	3.23	2.50	1.84	1.82	1.77	1.69	1.98	1.49	1.40
- Social Contributions	14.46	14.45	14.26	13.93	14.28	15.23	15.24	14.78	14.09	13.56	13.03	12.52
- Indirect Taxes	15.67	15.47	15.00	14.51	14.01	14.12	14.04	14.14	14.14	13.95	13.78	13.70
- Other Revenues	5.64	5.51	5.22	5.20	5.72	6.07	6.72	7.57	7.65	7.78	7.83	7.47
General Government Expenditures	45.80	45.16	44.51	42.43	44.15	49.04	48.98	49.82	49.20	47.55	45.84	44.23
- Compensation of employees	11.59	11.49	11.21	10.53	11.02	12.43	12.36	12.07	11.60	11.01	10.41	9.84
- Social Paymentas	17.87	17.67	17.31	16.28	16.60	18.75	19.13	19.29	19.15	18.77	18.34	17.91
- Intermediate Consumption	6.10	6.19	6.23	5.61	6.02	6.53	6.46	6.57	6.59	6.52	6.43	6.34
- Interest Expenditures	1.42	1.29	1.21	1.03	0.90	0.95	1.35	1.61	1.78	1.92	2.00	2.06
- Subsidies	1.74	1.57	1.58	1.56	1.56	1.67	1.78	1.72	1.63	1.50	1.37	1.26
- Gross Fixed Capital Formation	3.46	3.17	3.68	4.16	4.16	4.19	4.00	4.28	4.40	4.17	3.95	3.75
- Other Expenditures	3.62	3.76	3.29	3.26	3.88	4.52	3.91	4.29	4.05	3.67	3.35	3.07
General Government Balance	–2.22	–1.43	–1.30	0.00	–1.80	–5.96	–5.51	–5.92	–6.13	–4.94	–4.52	–4.11
Primary General Government Balance	–0.80	–0.14	–0.09	1.03	–0.91	–5.01	–4.16	–4.32	–4.34	–3.02	–2.52	–2.05
Output Gap	0.54	0.67	2.54	5.66	6.15	–3.25	–3.13	–2.64	–2.12	–1.64	–0.91	–0.31
Cyclically Adjusted Balance	–2.44	–1.72	–2.37	–2.34	–4.31	–4.64	–4.24	–4.86	–5.28	–4.28	–4.16	–3.99
General Government Debt	24.9	24.7	24.5	21.3	22.3	35.2	38.2	45.0	50.5	54.6	58.0	60.7

Source: Ministry of Finance; Evaluation methodology: ESA95.

Table 3

Age-related Expenditures Following a Spontaneous Scenario

Expenditures	2010	2015	2020	2030	2040	2050	2060	2060-2010
Pension	11.20	11.80	11.76	13.63	16.43	18.46	18.75	**7.6**
Health Care	4.33	4.53	4.76	5.43	6.16	6.72	6.96	**2.6**
Long-term	1.02	1.16	1.29	1.65	2.20	2.66	2.97	**1.9**
Unemployment Benefits	0.51	0.52	0.53	0.53	0.52	0.51	0.51	**0.0**
Education	4.57	4.45	4.60	4.90	4.76	5.03	5.36	**0.8**
TOTAL	**21.63**	**22.47**	**22.94**	**26.14**	**30.08**	**33.38**	**34.54**	**12.9**

Source: Ministry of Finance; Evaluation methodology: cash flow principle.

It is clear from the above-referenced facts that the preservation of the existing public deficit policy is leading to an unbearable fiscal situation. Adding to this the resulting aggravation of Slovenia's credit rating, it is clear that fiscal consolidation must be carried out immediately. With each year missed, the fiscal efforts necessary for consolidation will only grow and become more stressful.

2.3 Long-term sustainability of public finances

The problem caused by the ageing population in the light of current economic situation is becoming more alarming by the day. The first reason for this is the fact that the trend of decreasing debt-to-GDP ratio is turning around, which means the debt level will increase substantially by the end of the programming period. Moreover, the crisis has adversely affected the higher employment level that was achieved in previous years.

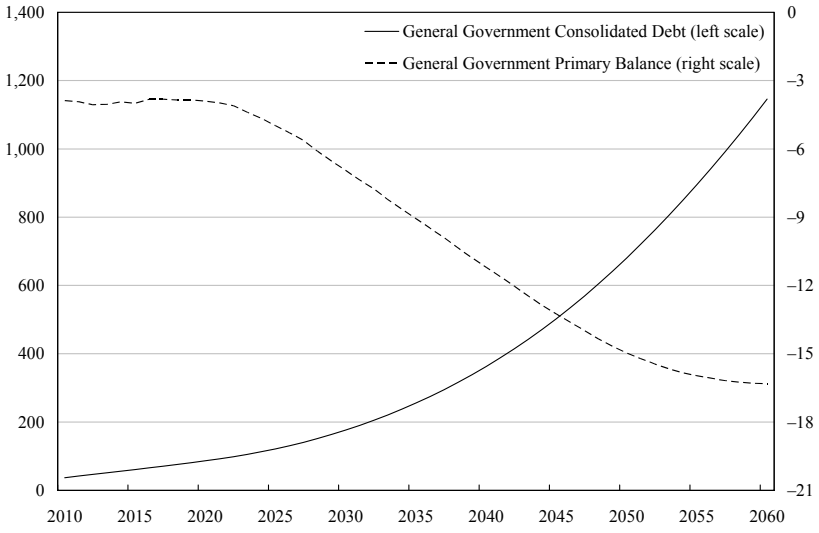
Table 3 presents the forecasts for age-related expenditures in the event the pension reform is not introduced. The table clearly shows that general government expenditures for pensions will increase by 7.6 per cent of GDP by 2060, health care expenditures by 2.6 per cent of GDP and the expenditures for long-term care by almost 2 per cent of GDP. The total increase of expenditures between 2010 and 2060 associated with population ageing thus amounts to almost 13 per cent of GDP. Sustainability indicator is estimated at 10.6. The main driver of pension expenditures is dependency ratio (population 55+ / population 15-64).

Such a rise of expenditures associated with the ageing of population means that the potential time of responding to a change in the pension system has, in comparison with the one we estimated prior to the crisis, been profoundly shortened! The trend in general government expenditures for pensions and pension contributions, as well as the public debt in the 2010-25 period that is presented in this chapter only further confirms this situation.

In order to have a relevant view on the sustainability of public finances in the long-run it is necessary to include estimates of adequacy. Pensions are decreasing from year to year, which is, in part, due to the less favourable valuation of the pension qualifying period (from 85 per cent for 40/38 years of the pension qualifying period in 2000 to 72.5 per cent in 2024) and partly due to the harmonisation of pensions with the adjustment of pensions provided for the retired and new retirees

Figure 8

Hypothetical General Government Debt and Primary Balance Following a Spontaneous Scenario



Source: Ministry of Finance; Evaluation methodology: cash flow principle.

(current Article 151 of the Pension and Disability Insurance Act – ZPIZ-1). If the decrease in the value of pensions is not curtailed, the income replacement ratio (the ratio between the last salary and the first pension received) will drop from the current 61 to 56 per cent by 2024 (when the reform dating in 2000 is complete).

In order to curtail the further fall of pensions, it is urgent to adjust the pension assessment for the new beneficiaries by setting the income replacement ratio at not less than 60 per cent net for the 40/38 years of the pension qualifying period, so that we can achieve a situation where the new beneficiaries' pensions are assessed based only on the salaries received, and not one where the pensions are additionally adjusted for all beneficiaries who are already receiving them. This means that only the individual's salaries would count when it comes to pension assessment, and the pension rating base would not be revalued based on the pensions and salaries of all retirees. This means that the new beneficiaries would face much more severe conditions for retirement and pension assessment (the current suggestion is an extension to 27 consecutive years of service as the pension rating base – by one year for each year of work), but there would be no adjustments during the assessment process. Pensions assessed in this way would then be adjusted/indexed for all retirees equally (old and new) in accordance with the modified Swiss formula.

3 The (new) elements of Slovenian fiscal framework

One of the consequences of the recent economic and financial crisis is that the European Commission is going to govern and supervise economic policies and budget preparations more rigorously. With the aim of escalating economic and budgetary surveillance, the Commission gives special attention to the national budgetary frameworks, *i.e.*, the country-specific institutional policy setting that shapes fiscal policy-making at national level. On 29 September 2010 the Commission adopted a set of proposals in connection with public accounting systems, statistics, forecasting practices, numerical fiscal rules, budgetary procedures including medium-term budgetary frameworks for fiscal planning. Accordingly, the Commission proposals include a draft Directive on national fiscal frameworks setting out a number of minimum requirements that budgetary frameworks in Member States should respect in order to ensure consistency between national fiscal governance and the Stability and Growth Pact (SGP) provisions.

The preventive part of the SGP mainly focuses on the measures that are necessary to avoid an excess in public deficit. There are several elements that are important here: i) avoidance of

pro-cyclic policies (a consent is applied in the EU, which shows that "good times" must be used to consolidate public finances which would prevent the states from exceeding the reference deficit limit of 3 per cent GDP during recession); ii) definition of a medium-term budgetary objectives (by the currently applicable rules, the MTO reflects the circumstances in a particular Member State and should ensure general government debt sustainability which, in practice, would mean a level of debt under 60 per cent GDP); iii) adapting to the MTO (states which have not achieved their medium-term objective yet must, on average, consolidate their public finances by 0.5 per cent GDP annually); iv) structural reforms (implementation of certain reforms, e.g. pension reform, can incur considerable costs in the short term, while also contributing to the long-term sustainability of public finance which should be taken into account when treating the Maastricht criteria).

In pursuing its objective of adjusting the economy in the wake of the crisis, the Government of the Republic of Slovenia adopted the Slovenian Exit Strategy 2010-13 in February of 2010. The Strategy is designed as a combination of economic policy measures and structural changes, which – alongside the assurance of fiscal sustainability – will improve the social status of the weakest members of society as well as boost the economy's competitiveness and create new jobs. In this way the Strategy places the consolidation of public finances in the foreground, which will be achieved through the programmed reduction of expenditures rather than an increase of tax burdens. This is conditional upon defining the scope of public spending by a fiscal rule as well as the structure of public spending on the basis of national development priorities by using target-oriented budgeting.

This paper provides detailed description of a) the definition of a medium-term budgetary objectives and b) the framework for determining government expenditure ceilings.

3.1 Definition of medium-term budgetary objectives (MTO's)

In line with the rules of the Stability and Growth Pact amended in 2005, each Member State must set their own medium-term public finance-related target in the form of a cyclically-adjusted balance. At the moment, Slovenia has a target of structural deficit in the amount of 1 per cent of GDP. Based on the decisions made upon agreeing on the reform of the Stability and Growth Pact in 2005, the corresponding Council working groups (especially the Economic Policy Committee and the Committee on Economic and Monetary Affairs) have developed a methodology which also considers the implicit obligations arising from the ageing of the population in relation to the definition of a medium-term fiscal target. The then amended Code of Conduct states that "the criteria and modalities of including implicit obligations in the MTO definition will be decided upon by the Council [of ministers]".

According to the Commission's proposal, the new medium-term target consists of three parts:

$$MTO = \underbrace{Balance_{\text{debt stabilizing at 60\% GDP}}}_{\text{(i)}} + \underbrace{\alpha * Ageing\ Costs}_{\text{(ii)}} + \underbrace{Effort_{\text{debt-reduction}}}_{\text{(iii)}}$$

where:

(i) General government balance, which provides long-term stabilisation of the level of debt at 60 per cent of GDP;

(ii) Adjustments necessary due to the population ageing (long-term costs of population ageing are translated into the current value, and part of the long-term costs must be covered within the public finance target);

(iii) Additional requirements for the states whose debts already exceed 60 per cent of GDP.

The medium-term target calculation methodology in the second part (adjustments necessary due to population ageing) is based either on i) inclusion of 33 per cent of all costs related to population ageing up to 2060 into today's medium-term target, or ii) public finance sustainability until 2040. According to the first proposal, Slovenia must set a structural surplus of 0.7 per cent as its medium-term target. Compared to the existing medium-term target, the new target is more challenging, especially due to the non-implemented pension reform.

Slovenia maintains reservations to the above described algorithm, most specifically due to:

- *The MTOs must be country-specific and must exhibit ownership*. These are our public finance policy targets and can thus not be a result of a simple mechanical exercise or formula. What we have currently on the table are two figures that come out of a formula – as the Commission note sets out, we have to make a binding choice between two parameters (either 33 per cent prefunding or coverage until 2040). This is not ownership and we strongly oppose an approach like this.
- *Explicit liabilities are treated asymmetrically in favour of contingent not yet existing liabilities*. The MTOs need a proper balance between explicit and implicit liabilities (it implies discounting explicit and implicit liabilities with the same rate).
- *The algorithm does not take into account adequacy of pensions*. Reforms in the long run do not ensure a minimal decent living standards (adequacy) and thus do not eliminate the contingent liability! If we want a comprehensive measure of implicit liabilities, adequacy of pensions (as measures by replacement ratios) must be included.
- *Uncertainty regarding estimates of aging related expenditures is very high*.

In the process of definition of medium-term budgetary objectives, we expose the following basic principles MTOs should be built on:

- The MTOs must be country-specific and should ensure credibility and ownership!
- The MTO must not depend on time horizon for which ageing related expenditures are calculated.
- Fiscal policy cannot be expected to cope with the full structural effects of demographic ageing.
- Fiscal policy surveillance in the context of SGP should aim at fostering that countries respect the safety margin of not breaching the 3 per cent deficit threshold (*i.e.*, lowering debt): this concern should be the driving contribution of fiscal policy to sustainability of public finances.
- The MTOs need a proper balance between explicit and implicit liabilities.
- The MTO algorithms have to take into account adequacy of pensions.

Similarly to credit ratings, the approach to fiscal sustainability should be gradual:

- The contingent liabilities and the period over which are measures when taken into account to be included in the MTOs should be shorter, for example over next 10 years and not over next 50 years.
- The resulting MTOs should be updated every 4 years for the next 10 years on a rolling basis.
- The MTOs should ensure that the safety margin of not overcoming the 3 per cent deficit as percentage of GDP should not be breached.

Gradual approach of including contingent liabilities provides more weight to the current fiscal stance within a period where there is more certainty as to the likelihood that contingent liabilities will turn into explicit liabilities.

Table 4 presents MTO calculation according to Slovenian proposal with the exception of first row which shows Commission's proposal calculation. Debt stabilizing deficit is calculated for the 45 per cent of GDP upper ceiling for debt. Costs of ageing (column 5) are calculated as present

Table 4

MTO Using Gradual Approach

Period	Average Nominal GDP Growth (2010-60) *(percent)*	Minimum Benchmark	Euro Area and ERM2	Debt Stabilizing Balance at 45% (5) =–45* (1)/ (1+(1)) *(percent of GDP)*	Cost of Ageing *(percent of GDP)*	(6) = (4) + α * (5) *(percent of GDP)*		MTO	
						(percent of total CoA)		*(percent of total CoA)*	
						33%	100%	33%	100%
	1	2	3	4	5	6	6		
MTO (2011-60)[1]	3.4	–1.6	–1	–1.3	6.2	0.7	4.9	**0.7**	**4.9**
2011-20	5.2	–1.6	–1	–2.2	–0.7	–2.4	–2.9	**–1.0**	**–1.0**
2021-30	3.6	–1.6	–1	–1.6	1.3	–1.1	–0.2	**–1.0**	**–0.2**
2031-40	2.8	–1.6	–1	–1.2	1.8	–0.6	0.6	**–0.6**	**0.6**
2041-50	2.7	–1.6	–1	–1.2	1.3	–0.8	0.1	**–0.8**	**0.1**
2051-60	3.0	–1.6	–1	–1.3	0.5	–1.1	–0.8	**–1.0**	**–0.8**
2060-∞	3.1	–1.6	–1	–1.4	1.9	–0.7	0.5	**–0.7**	**0.5**

[1] Commission proposal; infinite horizon.
All calculations were performed using Commission's methodology for MTO.
Source: Ministry of Finance.

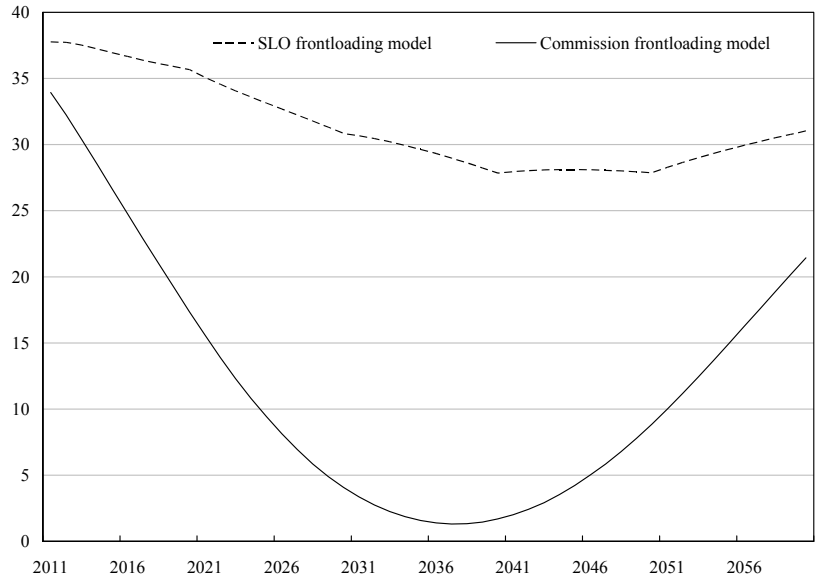
value of changes in the ageing costs in year t compared with the base year. According to the Commission's proposal MTO is calculated using ageing costs for the infinite horizon (6.2 per cent of GDP in the case of Slovenia) which must lead to an ambitious MTO: with 33 per cent frontloading MTO is set to 0.7 per cent of GDP surplus in structural terms and with 100 per cent frontloading of ageing costs MTO is set to be 4.9 per cent of GDP in structural terms. It can be seen from table that even in the case of 100 per cent frontloading MTO calculated gradually does not exceed 0.6 per cent of GDP surplus while in the case of 33 per cent of GDP frontloading MTO is between –1 and –0.5 per cent of GDP deficit.

The fact that Slovenia does not need such a demanding MTO as proposed by the Commission can also be seen if we compare the debt or frontloading evolution using the Commission and Slovenian proposal. According to the Commission proposal, the government debt will be almost diminished in late 30's and will then reach 21 per cent of GDP by the end of 2060 (Figure 9). Debt evolution curve using the Slovenian proposal, never falling below 27 per cent of GDP, is much smoother. We believe that there is no need for such a reduction of debt as proposed by the Commission. On the contrary, such a reduction can negatively influence long-term growth. The same conclusion is obvious if we compare frontloading evolution (Figure 10). So the long-term sustainability can be achieved with on average small deficit (less than 1 per cent of GDP) during 2011-60.

In the case of Slovenia, sustainability gap indicators approach provides limited guidance on what is the appropriate budget target which Member States should aim at in light of the expected costs of ageing populations. Frontloading ageing costs accumulated between 2011 and 2060 does not make sense! This is clear if we analyse deficit and debt dynamics in that period (Appendix 1):

Figure 9

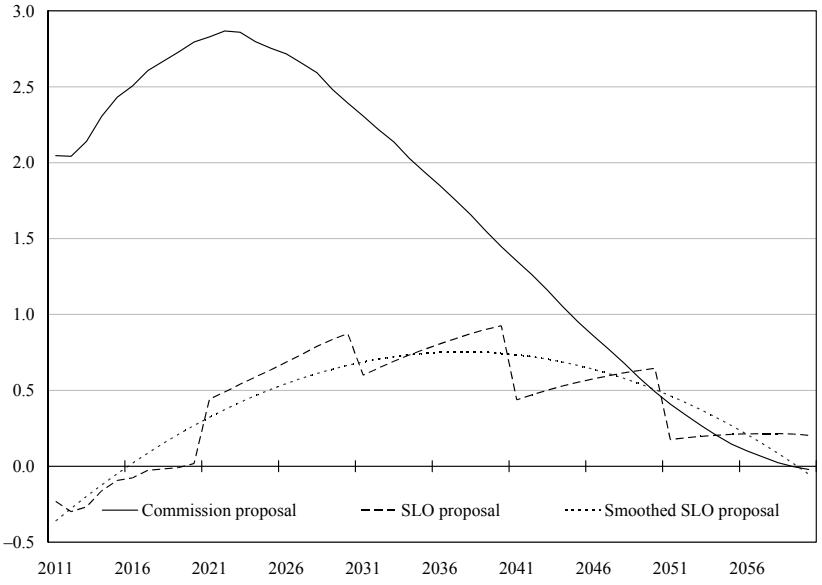
Debt Evolution
at the 33 per cent of Frontloading, 2011-60
(percent of GDP)



Source: Ministry of Finance.

Figure 10

Frontloading Evolution
at the 33 per cent of Frontloading, 2011-60
(percent of GDP)



Source: Ministry of Finance.

from 2040 on Slovenia will (according to this calculation) run budget deficits higher than 10 per cent of GDP and its debt will reach level of more than 1000 per cent of GDP! No country can maintain such a position for so many years – rating agencies will downgrade the country and it will default under the debt burden much sooner than this extreme situation becomes possible!

The "closing of the sustainability gap" approach it too simplistic and therefore fails to take into account various other economic factors. Sustainability indicator should be considered as a benchmark and not necessarily a policy recommendation nor a measure of the adjustment needed in any particular year. For this reason, and also simply because an ambitious policy adjustment can be considered to be politically unrealistic, in the process of defining of medium-term budgetary objectives we consider also:

- budgetary constraints,
- economic reality.

Reforms of pension and health care systems to curtail the impact of ageing on expenditure growth and reforms to reduce the level of non-age related

primary spending requires a number of years to be implemented – a newly appointed medium-term objective should (only) be based on the revised expenditure projections and its achievement has to be put in an appropriate /realistic time frame! It was agreed that the length of one business cycle (6 to 8 years) is an appropriate time horizon needed to consolidate public finances.

The Stability and Growth Pact (SGP) emphasizes two criteria in relation to achieving a long-term manageable fiscal situation:

- *stability*: once the fiscal target is achieved as the final point in the consolidation process, this target must be such as to enable its own sustainability as an average GDP percentage throughout the following economic cycles;
- *safety*: the fiscal target expressed as a GDP percentage must be such as to protect the economy with an acceptable level of trust from fiscal shortage deemed as excessive according to the rules of the Treaty on the European Union.

We use simple equations (1) and (2) to calculate country-specific debt and primary surplus objectives which can guarantee both stability and safety taking into account the average potential growth and the average effective interest rate:

$$b^* = \left(\frac{1+g}{g}\right)(0.03 - m) \tag{1}$$

$$s^* = \left(\frac{r-g}{g}\right)(0.03 - m) \tag{2}$$

where g is the average potential growth rate, r is the average effective interest rate and m is the safety margin. We find that it is most realistic that:

$$g \in [3.2\%, 3.6\%]$$

$$r \in [4\%, 5\%]$$

Using these assumptions upper ceiling for debt is set at 45 per cent of GDP with primary surplus of 0.5 per cent of GDP.

Taking into consideration all factors mentioned above, Slovenian public finance medium-term objectives (MTOs) are defined as:

- target level for cyclically-adjusted budget balance is 0 per cent of GDP, *i.e.*, balanced position;
- target level for general government debt is 40 per cent of GDP.

Targeting deficit and debt at the same time allows for the reconciliation of multiple policy targets, such as safety, speed and quality of convergence, whereas deficit benchmark identifies a convergence path only by focusing on one of the above criteria, namely safety.

The resulting MTOs will be consistent with the following objectives:

- providing sufficient margin for not breaching the 3 per cent deficit-to-GDP ratio;
- keeping the debt below 60 per cent of GDP;
- ensuring long-term fiscal sustainability;
- avoiding a distortive allocation of funds in the medium-term based on high degree of uncertain liabilities.

BOX 1
INCORPORATING IMPLICIT LIABILITIES
INTO THE MEDIUM-TERM BUDGETARY OBJECTIVES (MTOS)

European Commission proposed the following methodology for the calculation of the MTO:

$$MTO = \max (MTO^{ILD}, MTO^{MB}, MTO^{Euro/ERM2})$$

A. MTO^{ILD} = rule incorporating implicit and explicit liabilities
B. MTO^{MB} = MTO defined by the minimum benchmark (as agreed by the EFC)
C. $MTO^{Euro/ERM2}$ = Treaty obligation for Euro and ERM2-Member States to have an MTO not lower than –1 per cent of GDP

A. The first element (MTO^{ILD}) was formulated as follows:

$$MTO = \underbrace{Balance_{debt\ stabilizing\ at\ 60\%\ GDP}}_{(i)} + \underbrace{\alpha * Ageing\ Costs}_{(ii)} + \underbrace{Effort_{debt\text{-}reduction}}_{(iii)}$$

i) budgetary balance that would stabilise the debt ratio at 60 per cent of GDP
$b^* = -60\% \bullet G/(1+G)$ where G is nominal GDP growth (if the overall balance is set at the constant level b^*, the actual debt ratio will asymptotically converge to 60 per cent from any initial level (if $G > 0$))

ii) the budgetary adjustment that would cover a fraction of the present value of the increase in the cost of ageing, where α is the size of this fraction (the cost of ageing corresponds to the present value of the increase in total age related spending as of 2010):

$$Ageing\ costs = \frac{\sum_{t-1}^{50} \frac{\Delta PB_t}{(1+\lambda)^t} + \frac{\Delta PB_{50} + (1+\lambda)^{50}}{(long-term\ differential)}}{\sum_{t-1}^{50} \frac{1}{(1+\lambda)^t} + \frac{(1+\lambda)^{50}}{(long-term\ differential)}}$$

where:
long-term differential = $\frac{(1+3\%)}{(1+\lambda)^{50}} - 1$; $\lambda = (i - \gamma)/(1 + \gamma)$

γ = nominal GDP growth rate
i = nominal interest rate
ΔPB_t = changes in the ageing costs in year t compared with the base year

To calculate ageing costs, it is assumed that the change in ageing costs as a share of GDP, the interest rate and the growth rate remain constant after 2060, implying that no further budgetary impact of ageing is assumed after that date!

iii) a supplementary debt-reduction effort, specific to countries with gross debt above 60 per cent of GDP had been set as a step-wise function in the 2008 Commission proposal, mounting to 1.0 per cent of GDP for gross debt between 60 and 70 per cent of GDP, to 1.1 per cent of GDP for debt at 70-80 per cent of GDP, and etc. up to 1.4 per cent of GDP for debt above 100 per cent of GDP.

3.2 Framework for determining government expenditure ceilings

The need to ensure convergence to medium-term budgetary objectives (sustainable fiscal position) is in the core of every stabilizing fiscal policy. Having defined the MTOs (targets of fiscal convergence), the analytical problem is reduced to determining a policy rule which can ensure convergence of the debt and deficit ratio from its initial value to its target (steady state) level within a given period of time and avoiding at the same time distortive allocation of funds.

Last year, the government of the Republic of Slovenia introduced a fiscal rule by means of which it can derive the general government expenditure ceiling. The expenditure rule, which is based on the potential GDP growth, enables the determination of the speed of adjustments to the fiscal target. Within the goal of greater stabilisation of the public finance effectiveness or adjustment to the starting position of public finance, the fiscal rule is also formally defined in the *Decree on the documents of development planning bases and procedures for the preparation of the central and local government budgets* (Official Gazette of the Republic of Slovenia, No. 54/2010). This rule cannot be considered as a fiscal rule in the sense commonly understood of being a permanent constraint on fiscal aggregates in terms of numerical limits. It can be conceived more as an expenditure reaction rule to derive expenditure ceilings based on medium-term budgetary objectives.

The expenditure reaction rule sets upper limit of general government expenditures and is determined by means of the following formula:

$$G_{t+1} = G_t \times (1 + g^*)$$

The nominal growth of general government expenditures (g^*) is determined as follows:

$$g^* = \underbrace{g^{\text{trend}}}_{\text{“preventive” part of the rule}} - \underbrace{u \times (b_t - b^*) - v \times (f_t - f^*)}_{\text{“corrective” part of the rule}}$$

where:

G_{t+1} general government expenditures forecast for the next year *(euros)*

G_t general government expenditures estimate for the current year *(euros)*

g^{trend} arithmetic average of the past three years, the current year and forecasts for the following three years for the nominal growth of the potential gross domestic product *(percent)*

b_t estimate of the consolidated gross general government debt for the current year *(percent of GDP)*

b^* target level of the consolidated gross general government debt *(percent of GDP)*

f_t estimate of the general government primary balance for the current year *(percent of GDP)*

f^* target level of the primary general government balance *(percent of GDP)*

u speed of reaching the target level of the consolidated gross general government debt with a value between 0 and 1

v speed of reaching the target level of the general government primary balance with a value between 0 and 1.

The potential gross domestic product is estimated by following the production function method, which is also the official method used by the EU Commission in calculating potential gross domestic product.

The b^*, f^*, u and v parameters are determined for a two-year period. If fiscal consolidation must be carried out due to aggravated macroeconomic indicators and the consequently lower

potential gross domestic product, the Government of the Republic of Slovenia can change the fiscal rule parameters and the resulting upper limit of the general government expenditures.

The above-defined expenditure reaction rule enables a controlled growth of general government expenditures and, consequently, the medium-term achievement of a stabilised general government balance independent of the cyclically conditioned movement of general government revenues.

When the fiscal situation is either balanced or is on the surplus side, the maintaining of the fiscal stance ensures the growth of expenditures in line with the trend of economic growth ("preventive" part of the rule). If consolidation of the fiscal situation is needed, the second, "corrective" part of the framework is activated, which ensures that the growth of expenditures is decreased in proportion to the difference between the current primary balance and the target level of the general government primary balance, as well as the difference between the current level of the general government debt and the target level of the consolidated gross general government debt. The fiscal policy reaction parameters u and v do not depend on the b^* and f^* targets, but rather only on the difference between the effective interest rate and the trend growth of the economy.

The above-defined expenditure reaction rule in the process of derivation of expenditure ceilings is *flexible*. It enables harmonisation of several fiscal policy criteria such as consolidation safety, speed and quality. The rule distinguishes clearly between the *fiscal policy's target stance* (b^*, f^*) and the *transition* to the target stance by defining the g^* reaction formula which best suits (to) each fiscal consolidation level.

In addition, the above-defined expenditure reaction rule reveals the fundamental fiscal policy trade-off between the fiscal target's ambition and the fiscal balance cycle amplitude: The closer the average deficit to the lower limit (3 per cent of GDP), the more closed/narrower its allowed deviations become. The rule enables the achievement of an "optimum" balance between the severity of structural reforms and the exposure to the economic cycle.

Greater transparency is also an important characteristic of the above-defined expenditure reaction rule, which leads to it being less subject to political manipulations. The corrective part of the rule does not contain the "non-measurable" components such as output gaps or cyclically-adjusted balance: the necessary decrease of general government expenditures within the fiscal consolidation targets is unambiguously calculable by application of the corrective part of the rule.

The above-defined expenditure reaction rule itself is part of a broader fiscal procedural framework to derive general government revenues and expenditures in mid-term. This framework is designed on the idea of Hiebert and Rostagno model but restructured so that primary influence of cyclical economic activity is transferred on revenue side, while fiscal consolidation and restructuring is reflected on the expenditure side. This modelling strategy is justified by the fact that countercyclical fiscal policy would lead to a budget that is balanced on average. The expenditure reaction formula is explicitly devised to guarantee stability but also is enough manageable to strike a balanced compromise between the safety requirement and the authorities' need to retain as much control as possible over fiscal policy throughout the transition and beyond.

3.3 Fiscal consolidation strategy

Having defined the MTOs and expenditure reaction rule, *i.e.*, fiscal procedural framework, government of the Republic of Slovenia derived public finance framework according to which:

- general government deficit should be below 3 per cent of GDP by the end of 2013;

Table 5

Public Finance Framework, 2011-15

Year	Preventive growth (g^{TREND})	Growth Correction	Primary Expenditure Growth	General Government Expenditure Growth	General Government Expenditure Ceilings *(million euros)*
2011	4.0%	–1.0%	3.0%	3.4%	**18,260.8**
2012	3.6%	–4.2%	–0.7%	0.0%	**18,251.6**
2013	3.5%	–2.6%	0.8%	1.4%	**18,501.8**
2014	3.7%	–2.8%	0.9%	1.3%	**18,742.9**
2015	4.0%	–2.8%	1.1%	1.4%	**19,007.4**

Year	General Government Revenues *(million euros)*	CAB *(percent of GDP)*	General Government Primary Expenditure *(percent of GDP)*	General Government Balance *(percent of GDP)*	General Government Debt *(percent of GDP)*
2010	15,636.3	–4.4	–4.0	–5.6	38.1
2011	16,244.2	–4.4	–3.7	–5.5	43.3
2012	16,761.8	–3.0	–1.9	–3.9	45.2
2013	17,324.3	–2.3	–0.8	–2.9	46.1
2014	17,880.9	–1.7	0.2	–2.0	46.0
2015	18,529.5	–1.0	1.2	–1.1	44.8

Source: Ministry of Finance; Evaluation methodology: ESA95.

- cyclically-adjusted general government deficit should be no greater than 1 per cent of GDP by the end of 2015;
- balanced cyclically-adjusted fiscal stance should be reached by the end of 2016.

Table 5 presents general government expenditure ceilings in nominal terms as well as general government revenues, balance and debt. Amount of correction of preventive growth needed to ensure consolidation is also presented. It is important to notice that forecasts of general government revenues and expenditures are derived in cash terms and then converted to ESA95 numbers.

Having in mind that revenue forecasts are conservative, the above presented framework should be resistant to the usual economic activity fluctuations. Only extreme changes in macroeconomic environment should be the reason for the adjustments in the public finance framework.

4 Conclusions

Slovenian economy has been hit hard by the international financial crisis and the collapse of external demand. The economy is estimated to have shrunk by 8.1 per cent in 2009, one of the

highest negative real GDP growth rates in the euro area. Going forward (2010-13), a modest economic recovery is envisaged associated with a weak and uncertain international environment and the pace of normalization of financial conditions. The most notorious effect of the drop of economic activity in 2009 and envisaged slow economic recovery in the program period (2009-13) on the public finances is a downward shift in the government revenue trend level of around 2 per cent of GDP which is not reverted in the program period. With much more uncertainty about economies than before crisis, it was recognized that success of "crisis resolution" and "crisis prevention" strategies heavily depend on adequate domestic fiscal framework – a clear fiscal framework is needed more than ever. The key elements of the new Slovenian fiscal framework are: a) medium-term budgetary objectives, and b) framework for determining government expenditure ceilings.

We understand that medium-term objectives for the government budgets build the link between the current fiscal stance and the medium-term and long-term developments in public finances. For that reason, in the process of defining the medium-term budgetary objectives, we looked carefully into the economic rationale for setting MTOs and considered:

- implicit obligations arising from the ageing of the population,
- budgetary constrains,
- economic reality in Slovenia.

Taking into consideration all these factors public finance medium-term objectives (MTOs) are defined as:

- the target level for cyclically-adjusted budget balance is 0 per cent of GDP, *i.e.*, a balanced position,
- the target level for general government debt is 40 per cent of GDP.

We incorporate expenditure reaction rule as a part of a broader fiscal procedural framework to derive expenditure ceilings based on medium-term budgetary objectives. The expenditure reaction rule enables a controlled growth of general government expenditures and, consequently, the medium-term achievement of a stabilised general government balance independent of the cyclically conditioned movement of general government revenues. The respect of the expenditure ceilings will play the major role in the assessment of the credibility of the Slovenian fiscal policy.

Targeting deficit and debt at the same time allows for the reconciliation of multiple policy targets, such as safety, speed and quality of convergence. The derived MTOs will ensure a long-term fiscal sustainability and at the same time prevent a distorting allocation of funds in the medium-term based on high degree of uncertain liabilities.

APPENDIX 1

Table 6

Long-term Sustainability of Public Finance
(percent of GDP)

Item	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Total Revenue	41.01	41.56	41.93	42.07	41.99	41.87	41.72	41.48	41.24	41.09	41.03
Total Expenditure	46.24	48.01	49.38	52.07	56.24	61.54	68.06	75.82	84.87	94.92	105.99
Pensions	11.20	11.55	11.17	11.47	12.48	13.55	14.49	15.19	15.56	15.51	15.16
- old age	7.55	8.20	8.18	8.59	9.53	10.47	11.28	11.88	12.20	12.17	11.89
- disability	1.40	1.34	1.21	1.10	1.04	1.02	1.01	1.01	0.98	0.93	0.89
- familiy	0.79	0.73	0.69	0.73	0.81	0.89	0.96	1.01	1.05	1.07	1.08
- state	0.09	0.10	0.10	0.11	0.12	0.13	0.13	0.14	0.15	0.15	0.14
- other	1.37	1.18	0.99	0.94	0.98	1.05	1.11	1.16	1.19	1.19	1.17
Healthcare	4.33	4.53	4.76	5.07	5.43	5.80	6.16	6.47	6.72	6.89	6.96
Long-term care	1.02	1.16	1.29	1.45	1.65	1.93	2.20	2.45	2.66	2.82	2.97
Education	4.57	4.45	4.60	4.80	4.90	4.82	4.76	4.83	5.03	5.25	5.36
Unemployment benefits	0.51	0.52	0.53	0.53	0.53	0.53	0.52	0.51	0.51	0.51	0.51
Interest payments	1.35	2.45	3.54	5.02	7.30	10.61	15.13	21.08	28.66	37.86	48.65
General Government Deficit	–5.23	–6.45	–7.45	–10.00	–14.25	–19.67	–26.34	–34.34	–43.63	–53.83	–64.96
General Government Debt	37.12	60.99	86.22	121.51	176.44	255.44	362.61	502.82	680.45	895.20	1146.02

Source: Ministry of Finance; Evaluation methodology: Cash flow.

REFERENCES

European Commission (2009), *Incorporating Implicit Liabilities into the Medium-term Budgetary Objectives (MTOs): Update and Finalisation of June 2008 Proposal*, Document No. ECFIN-C-2/REP/51612.

——————(2010), *Proposal for a Council Directive on Requirements for Budgetary Frameworks of the Member States*, 2010/0277 (NLE).

Heikki, O. (2009), "Setting Targets for Government Budgets in the Pursuit of Intergenerational Equity", *European Economy*, No. 358.

Hiebert, P. and M. Rostagno (2000), "Close to Balance or in Surplus: A Methodology to Calculate Fiscal Benchmarks", in Banca d'Italia (ed.), *Fiscal Sustainability*, Roma.

Marin, J. (1999), "Monitoring Budgetary Discipline: Some Simple Indicators", in Banca d'Italia, *Indicators of Structural Budgetary Balances*, Roma.

——————(2002), "Sustainability of Public Finances and Automatic Stabilization Under a Rule of Budgetary Discipline", European Central Bank, Working Paper, No. 193.

Republic of Slovenia (2011), *Stability Programme 2011 Update*, Ljubljana, April.