CBR
COUNCIL FOR BUDGET RESPONSIBILITY

Report on the Long-term Sustainability of Public Finances

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This report presents the official positions of the Council for Budget Responsibility in line with its mandate laid down in Act No. 493/2011 on Fiscal Responsibility.

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Any suggestions and comments on the report are welcome at sekretariat@rrz.sk.

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Summary

The long-term sustainability of public finances remained unchanged in 2015 and the long-term sustainability indicator reached 1.4 % of GDP. The starting position contributed negatively to sustainability due to the worse year-on-year fiscal performance of the general government. Save for the introduction of the minimum old-age pension, the long-term projections of the revenues and expenditures sensitive to demographic changes remained basically unchanged. The indicator was positively influenced by budget development in the medium term under a no-policy-change (NPC) assumption. The present macroeconomic outlook creates a margin for deficit reduction without government interventions by 1.1 % of GDP by 2019. If the government does not use that margin and keeps the expenditure-to-GDP ratio flat, the indicator will rise to 2.4 % of GDP. On the other hand, the attainment of a balanced to surplus budget in 2019[1] would bring public finances significantly close to the long-term sustainability. However, such development is contingent on the government's ability to recast the improved fiscal performance into debt reduction.

From year to year, the CBR is refining its approach towards assessing the long-term sustainability. Compared with the last year, the present report contains new and enhanced sensitivity scenarios that offer a better picture of the effects that different fiscal policies may have in the medium term. For the first time, the report contains a baseline scenario built on the macroeconomic assumptions derived from a no-policy-change scenario and, as far as net worth is concerned, the report shows methodological and interpretational differences between the net-worth variation and selected government revenues and expenditures.

Important from the perspective of long-term sustainability is the value of the structural primary balance which, unlike the balance published by Eurostat, does not take into account the short-term cyclical fluctuations and one-off temporary measures. Moreover, it also disregards the debt interest payments, but, on the other hand, takes into account the fiscal performance of the central bank and state corporations. The fiscal policy easing and the decline in NBS profits deteriorated the value of the thus defined indicator by 0.4 p.p., from - 0.1 % to - 0.5 % of GDP. Gross debt declined by 1 % of GDP to 52.9 % of GDP, which slightly improved the starting position.

In 2015, the government did not adopt any measures in respect of the revenues and expenditures sensitive to demographic changes which would have a significant impact in the long term. Under the NPC scenario, demographic change will worsen the budget balance by 2.2 % of GDP by 2065, mainly due to the effects of the pension schemes and the rising healthcare and long-term care expenditures.

The fiscal performance together with the 2015 year-end applicable legislation, shows how the government deficit and debt would develop in the future ('baseline scenario'). Under that scenario, the general government debt would mount to 167 % of GDP in the next 50 years. The upper debt limit defined by the Fiscal Responsibility Act would be overrun in 2028. Of course, the projection is hypothetical because financial markets would cease to finance Slovakia's debt much earlier.

[1] In line with the objectives of Slovakia's Stability Programme for 2016-2019 (April 2016).

The need for a permanent improvement in the budget balance for the year 2015 reached 1.4 % of GDP. Given the degree of uncertainty inherent in long-term projections, the report contains several sensitivity scenarios which illustrate the indicator's sensitivity to the nature of the fiscal policy, to its different definitions, as well as to changes in various demographic and macroeconomic assumptions. Calculations show that the postponement of consolidation by 5 years increases the value of the indicator by 0.2 p.p. The indicator would rise most steeply, by as much as 0.9 p.p., if the government failed to use (in the medium term) the margin created by the faster economic growth and slower increase in expenditures, for example, due to low inflation. On the contrary, assuming that the budgetary objectives set in the present Stability Programme for 2016-2019 are met (surplus budget in 2019), Slovakia's public finances would come very close to reaching long-term sustainability. From among the macroeconomic assumptions, the most significant impact stems from changes in the productivity growth assumptions. A slower convergence of Slovakia to the EU average may increase the long-term sustainability indicator by 0.6 p.p[2]. The reduction of the indicator by 0.3 p.p. can be achieved, for example, through a gradual fertility increase to 2.1 by 2060. The indicator would deteriorate significantly, by as much as 0.8 p.p. if healthcare expenditures doubled compared with the baseline scenario.

The baseline scenario and sensitivity analyses present long-term projections against the constant macroeconomic scenario. In reality, any debt increase above a critical level is bound to inflate the risk premium on government bonds and, consequently, the rising cost of capital may crowd out private investments. All these channels undercut the output growth potential which, ultimately, significantly shortens the length of time (compared to the baseline scenario) during which Slovakia would be able to refinance its debt, with all the negative consequences attached. Should this development be exasperated by a negative shock due to shrinking foreign demand, the debt mark of 60 % of GDP would be reached nine years earlier compared to what the baseline scenario expects (2029 vs 2038).

The results of generational accounts indicate a shift of the fiscal burden onto future generations. While each child born in 2015 will receive in their lifetime from public budgets EUR 46,000 more than their contribute, future generations would be in a completely different situation for they would have to contribute EUR 62,000 more than what they receive. The total amount of government liabilities, assuming no change in the present fiscal policy, would reach 268 % of GDP. Since the situation in 2015 did not change any significantly compared to 2014, the inter-generational solidarity remained the same.

At the end of 2014, the net worth of the Slovak Republic reached negative 186.8 % of GDP, improving by 42.2 p.p. year-on-year[3]. This development was largely due to the decline in implicit liabilities by 64.1 % of GDP resulting from the update of long-term projections[4]. They, for the first time, also included the pension system of the armed forces and the impact of Christmas bonus paid to old-age pensioners. On the other hand, methodological changes resulting from

[2] The baseline scenario envisages Slovakia's convergence to 90 % of the EU-28 average, sensitivity scenario suggest convergence to 80 %. The impact should be symmetrically positive if 100 % of the EU-28 average is reached.

[3] The interpretation of the negative value of net worth has so far been difficult due to problems with the valuation of certain assets and liabilities that may change the net worth value quite significantly. For this reason, the analysis of a year-on-year variation appears to be more appropriate.

[4] Approved by a working group of the European Commission, updated regularly every three years.

improved data inputs and enhanced methodology of calculations worsened the public sector's net worth by 25.3 % of GDP. This mainly entails the inclusion of long-term reserves for employee emoluments[5], consolidation of equity capital and the inclusion of contingent liabilities of the biggest companies transferred from the portfolio of the National Property Fund (NPF) to the Ministry of the Economy and Ministry of Transport. Moreover, the group of contingent liabilities now also includes other entities (Ministry of the Interior, SZRB, Eximbanka and SEPS). In order to enhance the information value of the net worth indicator, it is necessary to avoid a double inclusion of certain items appearing both in reserves and in implicit liabilities (expenditures on future pensions paid to the retired uniformed corps, nuclear decommissioning scheme). It would also be appropriate to amend the system of data processing so as to link the government's fiscal performance to its impact on the net-worth variation.

The long-term sustainability report is published annually by 30 April and always within 30 days of the parliamentary vote of confidence in the incoming government. Since the parliament endorsed the Government Manifesto on 26 April 2016, this report is submitted within the both deadlines set by the Fiscal Responsibility Act.

5 The employee emoluments include, for example, pensions to the retired uniformed corps, survivor pensions, severance payments and bonuses for years in service or life jubilees.

1 Framework for the evaluation of long-term sustainability

The drawing up of the Report on the Long-term Sustainability of Public Finances is one of the main tasks of the Council for Budget Responsibility (CBR) laid down in the Fiscal Responsibility Act[6]. The objective of the report is to evaluate situation in public finances in the long term, taking into account the current setup of policies.

The methodology for the evaluation of the long-term sustainability of public finances was published in November 2012 (Discussion paper no. 1/2012). The CBR evaluates long-term sustainability along the four main dimensions: solvency, stability, growth and fairness (See Box 1 for description). Given the complexity of evaluation, the CBR has been gradually incorporating new analytical approaches into its reports in order to capture all dimensions of sustainability[7].

Despite the fact that the present report covers all dimensions of evaluation, the quality of evaluation can always be improved. The present report contains adjusted and enhanced sensitivity scenarios providing a better picture of the effects which different fiscal policies may have in the medium term. For the first time, the report contains a baseline scenario built on the macroeconomic assumptions derived from the no-policy-change scenario and, as far as net worth is concerned, the report shows methodological and interpretational differences between net-worth variations and selected government revenues and expenditures.

In order to further improve the evaluation of long-term sustainability, it is essential to improve the quality of all input data. In the future, this will improve the evaluation of net-worth variations and correlate them with the general government deficit. To this end, the Ministry of Finance will have to adjust its information system for the processing of data. The contingent liabilities and fiscal performance of the National Bank of Slovakia (NBS) and state corporations also warrant a deeper analysis. Apart from the current models of the pension systems (universal and armed forces) and healthcare expenditures, the CBR intends to focus soon on the modelling of expenditures in the education sector and, later on, the long-term care sector.

6 Constitutional Act No. 493/2011 on Fiscal Responsiblity

7 A detailed overview of changes is provided in Annex 1.

Box 1: Four dimensions of scrutinising the long-term sustainability of public finances[8]

1. **Solvency**
   Solvency expresses the ability of the state to pay its liabilities, including in the long–term future. The Fiscal Responsibility Act defines solvency as such fiscal performance of the Slovak Republic which, in the next fifty years, does not bring the general government debt above the upper limit of 50 % of GDP[9]. Hence 'public finances sustainable in the long term' mean that the gross debt of Slovakia, despite population ageing, which will increase public expenditure and reduce revenue, will not exceed half of the annual economic output.

2. **Stability**
   The stability principle is about making sure that there are no excessive fluctuations in the living standard of the individual throughout his/her life. In other words, it is not desirable for the state to be forced in the future by financial markets and international institutions to consolidate its public finances radically in a short time span. Moreover, long-term forecasts are reliable only to a certain degree and it is thus of key importance to develop analyses of sensitivity to changes in input parameters, such as the interest rate, birth rate or growth in labour productivity.

3. **Growth**
   The growth aspect is about the impact of the budget variables on economic growth. Various deficit and debt development scenarios must not be isolated from their feedback on the macroeconomic environment. An increase in public debt may, for example, raise the risk premium on its financing or crowd public investments out of the economy. Long-term models should incorporate all these correlations.

4. **Fairness**
   In the public finance context, fairness refers to intergenerational equity. The fairness aspect is there to ensure that current generations refrain from passing excessive financial burdens onto future generations. Also, the recital in the Fiscal Responsibility Act emphasises the economic and social fairness between generations. The CBR will be quantifying the net contribution to/receipt from public finances of individual age cohorts, however, without making judgements on the fairness itself, which is a matter for politicians to decide on.

8 These four dimensions of sustainability were defined by Allen Schick in his study for the OECD entitled *Sustainable Budget Policy: Concepts and Approaches* in 2005.

9 According to the Fiscal Responsibility Act, the upper limit for public debt (and also the other debt limits) will be progressively reduced during the transitional period from 2018 to 2017 from the current 60% of GDP to 50% of GDP – each year by one percentage point.

2 Starting year

The Fiscal Responsibility Act defines long-term sustainability as a difference between the actual and long-term sustainable value of the structural primary balance. Therefore, the first step in assessing the condition of public finances is to evaluate the general government's fiscal performance in the previous period by quantifying the **structural primary balance**[10] and the **actual amount of general government**[11]**gross debt**.

The long-term sustainability report is published regularly, as of 30 April[12] each year, a point in time at which only preliminary data for the past year are available and certain relevant information are still missing. The definitive information on the general government balance and additional information on adjusting items (e.g. profit/loss of state corporations) can thus be reflected only in the next year's update of the report. This part of the report evaluates the results for 2015; the 2014 update is presented in Annex 2.

2.1 Structural primary balance in 2015

In 2015, the structural primary balance reached -0.5 % of GDP. Compared with 2014, the balance deteriorated by 0.4 % GDP[13], mainly under the worse fiscal performance of the general government and worse NBS results.

According to the preliminary data released by Eurostat, the **2015 general government deficit under ESA2010** reached **EUR 2,318 million**, which represents 3.0 % of GDP and a year-on-year deterioration by 0.3 % of GDP. The worse 2015 results compared with the previous year, despite the narrowing output gap (the impact of the cyclical component of the balance[14] was negligible

[10] The Fiscal Responsibility Act defines structural primary balance as the value of the general government budget balance adjusted for the impacts of the economic cycle, one-off effects, cost of debt servicing, and balances of state corporations, municipal corporations and the National Bank of Slovakia.

[11] The gross general government debt corresponds to the Maastricht definition of the debt. It is published by Eurostat as part of its deficit and debt notification.

[12] And always within 30 days of the parliamentary debate on the Government Manifesto and a vote of confidence in the government.

[13] Since the change in the structural primary balance, adjusted for the performance of state corporations and the NBS, does not contain the long-term effects of measures (cost of the implementation of the fully-funded pillar of the pension system, costs connected with the nuclear decommissioning scheme, ...), it is not appropriate to compare and use it in the same way as the structural balance change is used in evaluating the budget. This indicator represents only one of the inputs for the calculation of long-term sustainability (GAP) and expresses the present budgetary position without taking the long-term impacts into account, those are part of the baseline scenario presented in the next part of this document. Only the combination of the structural primary balance quantified in this Chapter and the baseline scenario enables us to calculate the long-term sustainability indicator, which reflects all the impacts that are typically included also in the calculation of a change in structural balance within the budget evaluation exercise.

[14] The budget balance adjusted for the cyclical component assumes that the economy is performing at its potential (long-term) level and the differences in revenues and expenditures occur under the influence of economic and political interventions.

in 2015), were largely offset by a decline in one-off effects[15] (annually by 0.4 % of GDP). **The general government's contribution to the year-on-year worsening of the structural primary balance** reached **0.2 % of GDP.**

Tab 1: Structural primary balance in 2015

	2015 % GDP	2015 mil. eur	2014 % GDP	2015-2014 % GDP
A. Net lending /borrowing	**-3.0**	**-2 318**	**-2.7**	**-0.3**
(-) Cyclical component	0.0	-24	-0.2	0.2
(-) One-off effects	-0.3	-247	0.1	-0.4
(-) Interest payments	-1.8	-1 393	-1.9	0.1
B. General government structural primary balance	**-0.8**	**-654**	**-0.6**	**-0.2**
(+) Profit/Loss of state owned corporations	0.8	614	0.8	0.0
(+) Profit/Loss of the NBS	0.0	5	0.1	-0.1
(-) Dividends paid to the GG	0.4	325	0.4	0.0
C. Public sector structural primary balance (incl. state own. corp. and NBS)	**-0.5**	**-360**	**-0.1**	**-0.4**

Note: when calculating rounding should be considered *Source: CBR, MF SR*

The general government balance was also influenced by state corporations[16] and the National Bank of Slovakia (NBS)**.** The NBS profit declined by 0.1 % of GDP compared with 2014 due to its worse results from financial operations and bond issues. The aggregate profit of state corporations in 2015 is estimated to have reached 0.8 % of GDP, which is at the previous year's level[17]. With revenues from dividends paid in by state corporations[18] taken into account, the **contribution of state corporations and the NBS towards the structural primary balance worsening represented 0.1 % of GDP**.

Figure 1 below illustrates the public sector's contributions to the structural primary balance in the years 2011-2015. For the sake of better comparability of results, the originally calculated balances in 2011-2014 have been adjusted for the actual one-off effects and for the impacts of the

[15] One-off effects are measures (under government control) and transactions (outside government control) with temporary budgetary impacts, which do not induce a permanent change in the budgetary position. See Annex 5 for more.

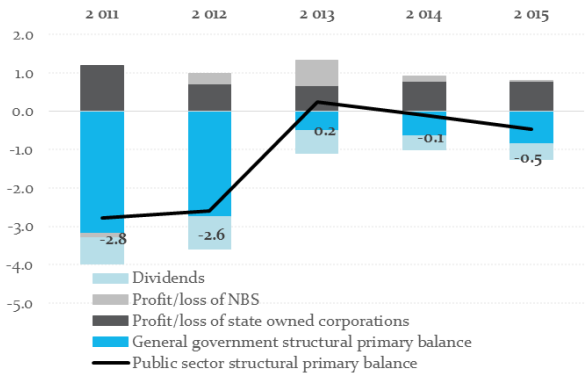
[16] The calculation of the anticipated balances of state corporations in 2015 is based on an annex to the approved General Government Budget for 2016-2018 (state corporations, the companies in the Natioanl Property Fund portfolio are not on the list) in which these corporations indicated their expected financial results for the years to come. The results were then weighted depending on the size of the government's ownership stake. The update of the 2014 results of state corporations was based on the Summary Annual Report of the Slovak Republic for 2014 and the NPF data. Annex 4 contains detailed results for state corporations.

[17] The results presented by the corporations owned or co-owned by the state indicate that their 2015 profits were on par with the 2014 level which, however, may be partly due to the non-inclusion of the companies in the NPF portfolio because they did not report their expected results for the years to come.

[18] Also dividends from state corporations constitute revenues of the general government budget. Since the results of state corporations are included in the calculation of the structural primary balance, mutual relations between the budget and state corporations must be excluded (their overall impact is neutral because dividends represent state budget revenues and, at the same time, expenditures on the books of state corporations). Revenues from dividends are presented in detail in Annex 3.

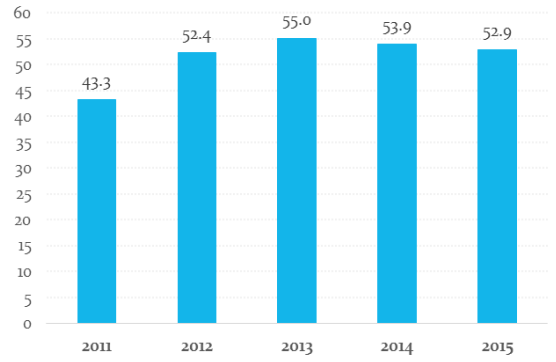
transition from ESA95 to ESA2010 (balance revision, reclassification of selected state corporations into the general government sector).

Figure 1: Structural primary balance in 2011-2015 (% GDP)



Source: CBR

Figure 2: General government gross debt in 2011-2015 (% GDP)



Source: Eurostat

2.2 General government debt in 2015

The end-2015 gross debt of the general government reached 52.9 % of GDP. It declined by 1.0 p.p. year-on-year, particularly under the influence of one-off transactions. In the course of 2015, the government sold its remaining stake in *Slovak Telekom* and received extraordinary dividends from *SPP* (Slovak Gas Company) above the company's profits from ordinary business activities; moreover, the *Cargo* rail company (which had been in the loss in the long term) redeemed its debt by making an early repayment. The opening of the pension system's fully funded pillar transferred a portion of assets from private pension asset management companies to the general government sector. The total value of these transactions reached 2.4 % of GDP.

The share of gross debt to GDP in 2015 fell into the first limit of the debt brake defined by the Fiscal Responsibility Act. The sanctions attaching to the first debt limit oblige the Ministry of Finance to substantiate the debt amount in the national parliament and propose measures for debt reduction. The sanctions continue to apply until the debt falls below the first threshold, i.e., 50 % of GDP). The approval of the new Government Manifesto is without prejudice to the application of the first- and second-debt limit; while the application of sanctions starting from the third-debt limit is suspended (a debt of at least 55 % of GDP).

3 Baseline scenario

The baseline scenario of public finance development[19] illustrates the consequences of the current policies on the balance and debt of the general government in the long term, taking into account the anticipated changes in demographic and macroeconomic parameters. Prepared for the next 50 years from the latest available figures, the baseline scenario is essential for the calculation of the long-term sustainability indicator.

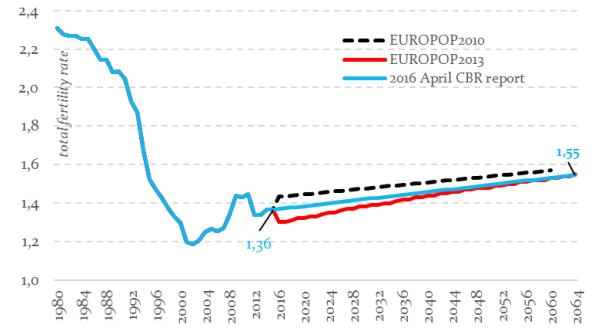
Since long-term projections carry a significant degree of uncertainty, all the information and assumptions that feed into the scenario must be presented in a transparent manner. Its quantification requires (i) demographic forecasts, (ii) macroeconomic forecasts, (iii) medium-term scenario of public finances, (iv) projection of revenues and expenditures sensitive to population ageing, and (v) other implicit and contingent liabilities.

3.1 Demographic forecasts

In its demographic forecasts, the CBR uses Eurostat assumptions for long-term projections, adjusted in a manner that reflects reality as accurately as possible. The CBR's assumptions are based on EUROPOP2013 projections (published in 2014) with the following adjustments:

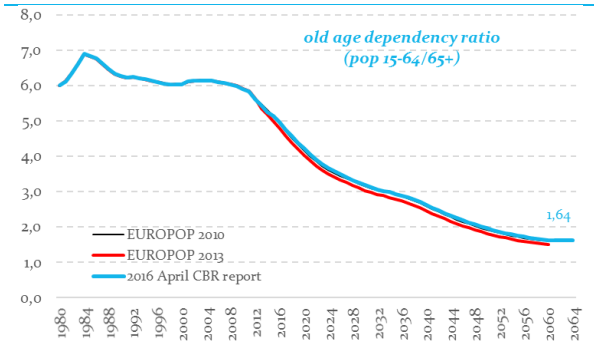
- The present age-structure of the population is based on the latest available Eurostat data;
- The current mortality rates and the calculation of life expectancy are based on the latest available data and methodology of VDC/INFOSTAT. The future changes in mortality rates are taken from EUROPOP2013 projections;
- The total fertility rate is based on the latest available figures of Eurostat and converges linearly to the Eurostat projection until 2064 (Figure 3).

Figure 3: Total fertility rate



Source: Eurostat, CBR

Figure 4: Old age dependency ratio

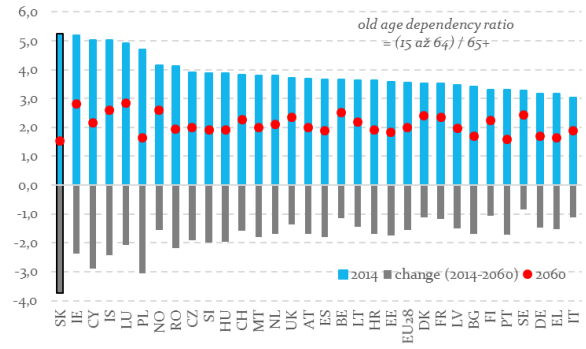


Source: Eurostat, CBR

Eurostat projections show that, by 2060, Slovakia will be confronted with the biggest change in the age structure of the population in the whole of Europe. In other words, Slovakia's population will have aged the most by then (Figure 5). This is due to the combination of the second lowest birth-rate and one of the steepest increases in life expectancy (Figure 6).

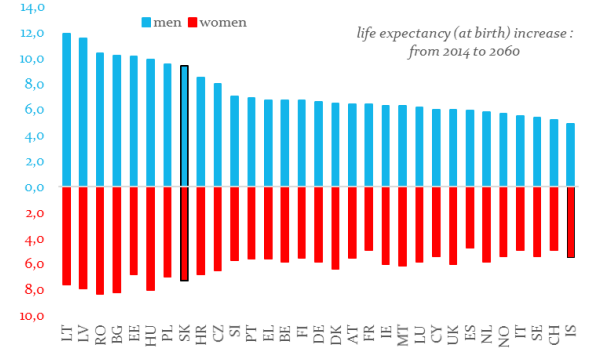
[19] The Fiscal Responsibility Act defines the baseline scenario as a long-term forecast of the general government revenues and expenditures, which reflects the future economic and demographic development of the Slovak Republic under the current legislative framework; the general government liabilities also include the implicit and contingent liabilities of the general government sector.

Figure 5: Old age dependency ratio



Source: Eurostat

Figure 6: Life expectancy (at birth) increase from 2014 to 2060



Source: Eurostat

3.2 Macroeconomic forecasts

The medium-term macroeconomic assumptions are based on the latest forecast by the Macroeconomic Forecasting Committee for 2016-2019.[20] **The long-term horizon** projections are based on the productivity function assumptions of the European Commission[21] (Table 2).

Tab 2: MFC forecasts and CBR long-term projections

Indicator (%)	Actual	MFC forecast (February 2016)				CBR projections		
	2015	2016	2017	2018	2019	2025	2035	2060
GDP, real growth	3.6	3.2	3.6	4.1	4.6	3.4	1.5	0.7
Inflation, year average; CPI	-0.3	0.2	1.6	2.1	2.2	2.0	2.0	2.0
Real wage, growth	3.2	3.1	2.9	2.5	2.9	3.4	1.7	1.5
Employment, growth	2.1	1.3	0.9	1.1	0.9	0.0	-0.2	-0.9

Source: SO SR, MF SR, CBR

For the first time, the sustainability report presents a **scenario with macroeconomic forecast based on the no-policy-change assumption**[22]. The alternative macroeconomic scenario leaves out primary and secondary effects of the new measures incorporated into the general government budget and deducts them from the forecast published by the Macroeconomic Forecasting Committee. These measures produce effects beyond the starting year of 2015, which is the base year for the preparation of the baseline scenario of public finances.

[20] Forecasts of the Macroeconomic Forecasting Committee (MFC) from February 2016.

[21] The projections use the assumptions published by the Commission in (The 2015 Ageing report: Underlying assumptions and projection methodologies) for the overall productivity growth, number of hours worked and unemployment rate. Productivity growth is adjusted in 2018-2021 to reflect the supply shock due to the expansion of production capacities according to the MFC forecast (for 2020, the CBR uses its own estimate); unemployment rate is updated to reflect the latest Commission forecast (AMECO). As in the previous report, the CBR uses its own estimates of participation for individual age categories.

[22] See Annex 7 for details.

3.3 Medium-term no-policy-change scenario

The medium-term part of the baseline scenario is prepared using the methodology described in the CBR's discussion papers, adjusted for changes attributable to the transition to ESA2010 as the new methodology for national accounts[23].

In comparison to the April 2015 report, certain precisions have been made in the method for the indexation of items relating to the reporting of revenues and expenditures of the new general government entities classified under ESA2010 (corporations with state capital participation in the transport sector) and also in connection with changes in the economic classification (indices assigned to the new items of the economic classification)[24].

Tab 3: Medium-term part of the baseline scenario (% of GDP)

	2015 estimate	2015 adjustments	2015 adjusted	2016 scenario	2017 scenario	2018 scenario	2019 scenario
REVENUES	**42.6**	**0.0**	**42.6**	**40.2**	**39.6**	**38.8**	**38.3**
Tax revenues	18.1	0.0	18.1	17.9	17.5	17.3	17.1
Social security contributions	14.0	0.0	14.0	14.0	13.8	13.7	13.5
Non-tax revenues	5.1	0.0	5.1	5.0	4.8	4.6	4.5
- of which property income	0.9	0.0	0.9	0.9	0.8	0.7	0.7
Grants and transfers	5.4	0.0	5.4	3.4	3.4	3.2	3.1
- of which EU funds	3.6	0.0	3.6	1.7	1.8	1.7	1.8
EXPENDITURES	**45.6**	**-0.2**	**45.4**	**42.5**	**41.7**	**40.8**	**40.2**
Compensation of employees	9.0	0.0	9.0	8.8	8.8	8.6	8.5
Goods and services	5.9	0.0	5.8	5.5	5.4	5.2	5.0
Subsidies and transfers	0.6	0.0	0.6	0.6	0.6	0.5	0.5
Social benefits	13.8	0.0	13.8	13.6	13.2	13.0	12.8
Healthcare expenditures	5.1	0.0	5.1	5.2	5.1	5.1	5.1
Interest payments	1.8	0.0	1.8	1.6	1.4	1.3	1.3
Investments	6.2	0.0	6.2	4.4	4.5	4.4	4.4
Other expenditures (mainly transfers)	3.2	-0.2	3.0	2.8	2.7	2.6	2.6
GG BALANCE	**-3.0**	**0.2**	**-2.7**	**-2.3**	**-2.1**	**-2.0**	**-1.9**
GROSS DEBT	**52.9**	**0.0**	**52.9**	**53.6**	**53.1**	**52.0**	**50.5**

Source: CBR, SO SR

The 2015 general government deficit reached 3.0 % of GDP; without one-off effects, the deficit would have reached 2.7 % of GDP[25]. **Assuming no change in policies, the deficit is expected**

[23] A detailed description of the method used for compiling the baseline scenario is presented in the CBR's Discussion Paper No. 2/2015 entitled Public finance baseline scenario. The other changes, mainly those related to the transition to ESA2010, are described in the Report on the Long-term Sustainability of Public Finances from April 2015, Annex 5.

[24] A detailed description of changes compared with the April 2015 report is in Annex 9. Their impact on the resulting long-term sustainability indicator is negligible.

[25] This deficit value is not adjusted for the cyclical component. The impact of the economic cycle in the medium-term part of the baseline scenario is included through macroeconomic forecasts by the MFC and through the TRFC tax revenue forecasts.

to decline to around 2 % of GDP in the medium term. This means that, in the absence of government interventions, the deficit will improve by 1.1 % of GDP over the next four years. The medium-term development scenario shows that the present macroeconomic outlook creates a margin for partial deficit reduction even without government interventions. It would thus be appropriate if the government used these good times to step up consolidation and improve the long-term sustainability. The decline in deficit is connected with the assumption of lower EU funds' drawing compared with 2015, which will decrease the 2016 expenditures on co-financing. At the same time, the low medium-term inflation forecast will significantly reduce government expenditures on goods and services and, also, on current transfers, such as benefits, pensions and subsidies. The balance will also improve thanks to lower debt interest payments as a consequence of low interest rates and the declining share of debt to GDP. **The deficits around 2 % of GDP and economic growth will bring the public debt just below 50 % of GDP**[26].

3.4 Expenditures and revenues sensitive to population ageing

In the next fifty years, the impact of demographic changes on the sustainable development of public finances will be felt more and more markedly. The extended life expectancy, coupled with the rising number of the retired relative to the working-age population, and the declining number of newborns, will affect, in particular, the pension system, healthcare, long-term care and the education sector. In addition, we should also expect changes in the expenditures on unemployment insurance.

Compared to the previous report, **no legislative changes that would significantly influence the budgetary items sensitive to demographic changes have been adopted. By the year 2065, expenditures are expected to increase by 2.2 % of GDP, whereas revenues should remain unchanged.**

Tab 4: Revenues and expenditures sensitive to population ageing (% of GDP)

		Medium-term part				Long-term projections					2065-2015
	2015*	2016	2017	2018	2019	2020	2030	2040	2050	2065	
Social security contributions	**14.0**	**14.0**	**13.8**	**13.7**	**13.5**	**13.5**	**13.5**	**13.7**	**13.9**	**14.0**	**0.0**
- Total contributions (PAYG + fully-funded pillar)	14.3	14.3	14.1	14.0	13.9	13.9	13.9	13.9	14.0	14.0	-0.3
- Shortfall of fully funded pillar	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.7	-0.5	-0.3	-0.2	0.3
- Social contributions of armed forces	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0
Expenditures	**18.7**	**18.4**	**18.3**	**18.3**	**18.2**	**18.2**	**18.1**	**18.1**	**18.9**	**20.9**	**2.2**
- Pensions (PAYG pillar)	8.3	8.2	8.2	8.2	8.2	8.2	7.7	7.7	8.1	9.7	1.5
- Armed forces	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.0
- Healthcare	5.3	5.3	5.3	5.4	5.4	5.5	5.9	6.2	6.4	6.5	1.3
- Long-term care	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.3
- Education	4.3	4.1	4.0	3.9	3.8	3.8	3.7	3.4	3.5	3.6	-0.7
- Unemployment benefits	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	-0.2

** excluding one-offs* *Source: CBR*

The CBR uses its own models for the long-term projections of the pension system expenditures (universal pension system and the pension system of the armed forces and police corps) and

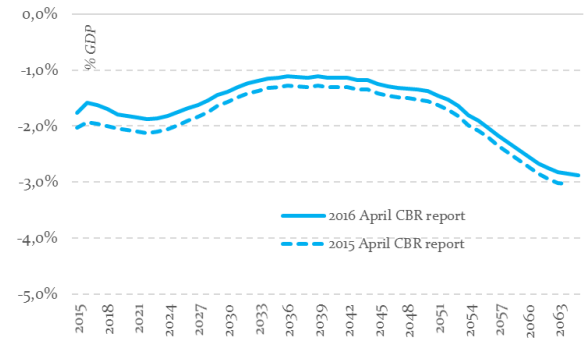
[26] The scenario does not foresee the application of sanctions under the Fiscal Responsibility Act.

healthcare expenditures. For those ageing-sensitive items where the CBR does not have its own models, it uses the dynamics of the expenditure growth calculated by the Commission. These include expenditures on education, long-term care and unemployment insurance[27].

3.4.1 Pension system projections

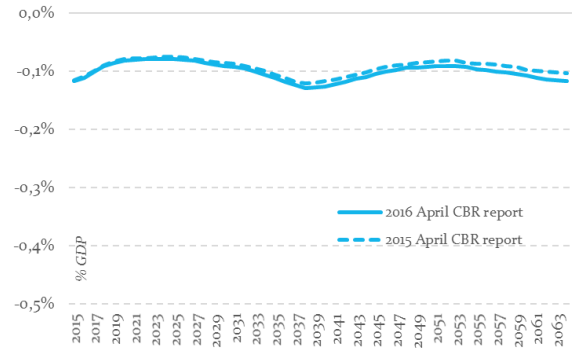
The pension system of the Slovak Republic[28] consists of the **universal system** administered by the Social Insurance Agency (the pay-as-you-go pillar) and the **pension system of the armed forces and police corps**. The latter is an independent and relatively small[29] pension system covering the armed forces, police force and other uniformed corps, which, in terms of its rules, differs quite significantly from the universal pension system. Over the next 50 years, the **balance of these two pension systems will deteriorate by 1.1 % of GDP**.

Figure 7: Universal pension system balance (% GDP)



Source: CBR, SIA

Figure 8: Pension system of the armed forces and police corps balance (% GDP)



Source: CBR

From the perspective of future burdens on public finances, the **universal system** will play a crucial role as it covers most of Slovakia's population. The latest calculations show that the deficit run by the universal system in the next fifty years will **worsen by 1.1 % of GDP and thus the fiscal performance of the Social Insurance Agency will represent an additional burden for public finances**. In terms of policy changes, the projections reflect the introduction of the minimum pension in 2015, which has slightly worsened the long-term sustainability. Nevertheless, the estimate is simplified because long-term financial impacts cannot be precisely quantified[31].

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27 For these items, the dynamics of expenditure development, expressed as a percentage of GDP, were taken from the Commission's projections (2015). As regards their amounts, the expenditures on education, long-term care and unemployment benefits are based on the functional (COFOG) and economic (ECBC) classification of the budget.

28 Within the general government sector.

29 Expenditures in the amount of 0.4 % of GDP compared to 8.3 % of GDP in the universal system.

30 The social security system regulated by Act No. 328/2002 on Social Security Scheme for the Police Corps and Armed Forces covers professional soldiers, members of the police corps, members of the fire and rescue brigades, members of the mountain rescue service, staff of the Slovak Intelligence Service and of National Security Authority, the prison and court guards, and customs officers.

31 Among other reasons, also because of the complicated criteria of eligibility to the minimum pension.

Analogous to the universal pension system, the **pension system of the police corps**[32] **and armed forces** is already generating deficits, although their budgetary impacts are significantly lower[33]. The present deficit is generated by the pension scheme of the armed forces[34], while the police pension scheme is more-or-less balanced. Thanks to the 2013 reform (effective as of April 2014), this pension system should not pose any additional burden for public finances in the next 50 years. The deficit of the armed forces' pension system is expected to decline considerably as its historical burdens are being gradually eliminated.

3.4.2 Projections of healthcare expenditures

Changes in the demographic structure will also affect the future healthcare expenditures. Since healthcare expenditures increase in line with patients' age[35], the number of patients requiring costlier care is expected to rise. However, the relationship between the client's age and healthcare expenditures will probably not remain constant and the increase in expenditures will be curbed by two factors. Additional years of life gained through longer life expectancy will increase the number of years lived in good health[36] when healthcare costs are relatively low. At the same time, healthcare expenditures peak in the last years of life (the death related costs, or DRC) and considerable increase in the average age of the deceased will further defer the point when high costs are incurred.

Apart from changes in the population structure, healthcare expenditures increase also under the influence of non-demographic factors. Healthcare expenditures usually operate as luxury goods and, as income increases, also their share in GDP rises[37]. Expenditures increase dynamically due to the rising demand for the scope and quality of healthcare services and also due to the introduction of new technological procedures if the new procedures are costlier or are used to treat the not-yet treated illnesses. The combination of the above effects increases the healthcare expenditures under the **baseline scenario** by **1.3 % of GDP over the next 50 years.** However, the sensitivity of the healthcare sector to economic growth and technological progress is capable

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[32] This report includes into the category of police corps all those who receive pensions from the Ministry of the Interior, i.e., police officers, firefighters, railway police and mountain rescue rangers.

[33] The size of the deficit is comparable with the universal system if the total size of the scheme is taken into account.

[34] Due to the professionalization of the armed forces in the past, the number of soldiers dropped suddenly and so did the revenues of the pension scheme. At the same time, certain types of pensions in the past were indexed way above the usual benchmarks, which increased the pension expenditure quite considerably.

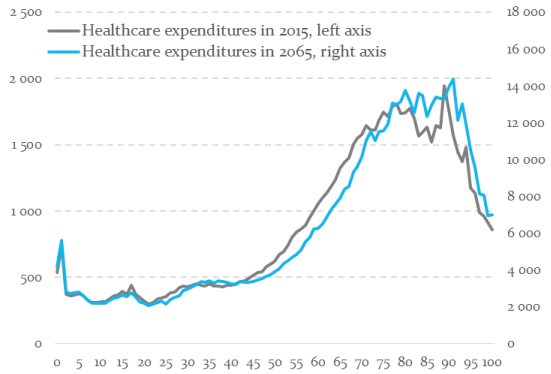
[35] Except for the expenditures of persons of a very high age, which are declining. A Joint Report prepared by the European Commission and the Economic Policy Committee (AWG) mentions as possible causes of the decline the higher risk of certain medical interventions in higher ages and the voluntary restraint from healthcare by older people. A Joint Report prepared by the European Commission and the Economic Policy Committee (AWG) mentions as possible causes of the decline the higher risk of certain medical interventions in higher ages and the voluntary restraint from healthcare by older people. A Joint Report prepared by the European Commission and the Economic Policy Committee (AWG) mentions as possible causes of the decline the higher risk of certain medical interventions in higher ages and the voluntary restraint from healthcare by older people. A Joint Report prepared by the European Commission and the Economic Policy Committee (AWG) mentions as possible causes of the decline the higher risk of certain medical interventions in higher ages and the voluntary restraint from healthcare by older people.

[36] In line with the previous AWG reports and assumptions the expenditure profiles were adjusted for half of the increase in life expectancy.

[37] Elasticity of 1.1 was applied to the growth in unit costs in the first year; after that, it gradually linearly converges to 1 towards the end of the baseline scenario's projection period.

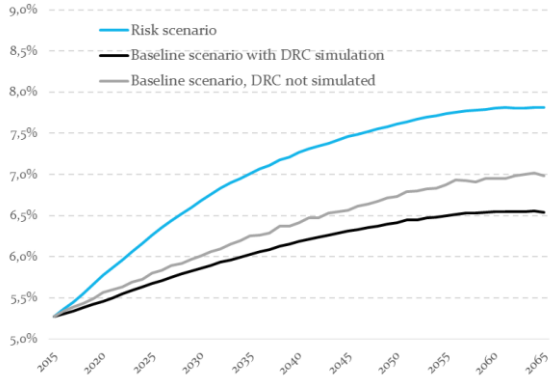
of influencing, quite considerably, the projection of expenditures and, if the **risk scenario**[38] materialises, the increase in expenditures **may double compared with the baseline scenario.**

Figure 9: Simulated age-specific healthcare expenditure profiles (in EUR)



Source: CBR

Figure 10: Healtchare expenditure projections (in % of GDP)



Source: CBR

3.5 Other implicit and contingent liabilities

The baseline scenario also takes into account other revenues and expenditures resulting from the general government's implicit[39] and contingent[40] liabilities. They are liabilities that might not necessary have an impact on the balance under the ESA2010 methodology at present, but they will affect the general government balance and debt when materialize in the future. In order to prepare the baseline scenario and calculate the sustainability indicator, it is extremely important to know their impacts on the balance and debt[41].

Similarly to the last year's sustainability report, the following items of 'other implicit or contingent liabilities' have been identified in the preparation of the baseline scenario: **instalments paid for the R1 motorway PPP project and a scheme for funding the costs of the decommissioning of nuclear facilities**.

38 The risk scenario assumes elasticity of 1.4 in the first year and then its gradual decline to 1 towards the end of the projection period.

39 Implicit liabilities are defined by the Fiscal Responsibility Act as the "difference between the expected future liabilities of general government entities and the expected future revenues of general government entities resulting from the financial implications caused by the future exercise of rights and obligations established by the laws of the Slovak Republic, unless they constitute part of the general government debt".

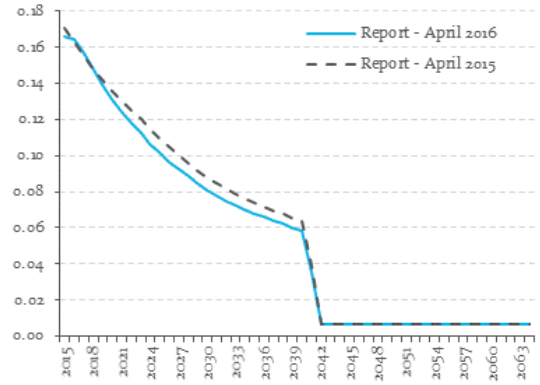
40 Contingent liabilities are not directly defined by the Fiscal Responsibility Act, however, they constitute liabilities which will materialise in budget expenditures only after certain conditions are met. The amount of a liability cannot typically be determined with precision at the time of its origination and, equally so, the period to which it applies may not be obvious either.

41 The total amount of these liabilities is quantified when calculating the net worth (Chapter 5). However, it is a different view of the matter because not all identified liabilities have to materialise in the deficit and debt (or they can materialise only in part). For example, contingent liabilities from a lawsuit do not have to affect the balance at all if the state wins the case and thus incurs no additional cost. Therefore, the baseline scenario only includes those implicit and contingent liabilities whose impact on the balance can be estimated.

With respect to the **PPP project**, no changes have occurred in the estimates of the availability payments to be paid by the state until 2041. Since the ownership of the motorway will be transferred to the state afterwards, the baseline scenario takes into consideration the maintenance costs after 2041[42]. Since the baseline scenario assumes a certain level of GDP, the share of these expenditures in GDP has decreased compared to the last year's report (Figure 11).

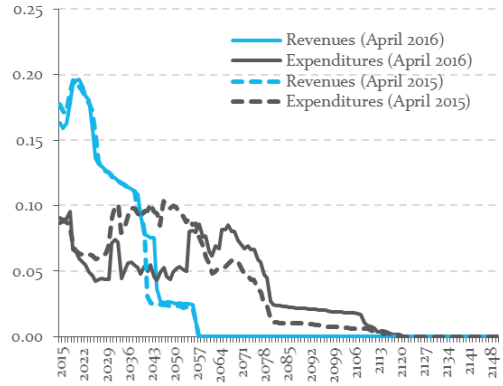
As regards the impact of the **nuclear decommissioning funding scheme,** the updated projections[43] have shifted a portion of these expenditures beyond the horizon of the baseline scenario (Figure 12). The CBR has updated this projection – which was based on actual figures for 2014 – to reflect the actual development of revenues and expenditures in 2015, the inflation forecasts until 2019 and the anticipated delay in putting Units 3 and 4 of the Mochovce nuclear power plant into operation[44].

Figure 11: PPP project availability payments and maintenance costs (% of GDP)



Source: CBR, Ministry of Transport

Figure 12: Decommissiong scheme of nuclear power plants - impact on GG balance (% of GDP)



Source: CBR, Ministry of Economy

Contingent liabilities from lawsuits and provided guarantees are not included in the baseline scenario due to the uncertainty concerning the materialisation of these liabilities and the need to define a clear methodology for incorporating their possible risks to the sustainability of public finances. According to the Summary Annual Report of the Slovak Republic for 2014, contingent liabilities amounted to EUR 13,401 million (17.7% of GDP) as at 31 December 2014. Of the total amount, only the portion attributable to the European Financial Stability Facility (EFSF) in the amount of EUR 2,318 million (3.1% of GDP) is covered by the baseline scenario because these liabilities are included in the gross debt[45].

42 The costs of maintenance are based on an estimate of a portion of the availability payment which serves for the payment of operating costs of a private corporation. For the rest of the period covered by the baseline scenario, they are kept in proportion to GDP.

43 At is session on 8 July 2015, the Cabinet approved the Draft National Policy and National Programme for the Handling of Spent Nuclear Fuel and Radioactive Waste, as an update to the strategic document entitled Strategy of the Back End of the Nuclear Power Sector in the Slovak Republic.

44 The projection assumed that the 3rd and 4th Unit of the Mochovce nuclear power plant would be put into operation in 2016 and 2017, respectively, however, this is unlikely to happen since the 2016-2018 general government budget expects additional revenues only as from 2017. Accordingly, the CBR used the assumption of putting the two units into operation to 2017 and 2018.

45 Under the national accounts methodology, a portion of liabilities towards the EFSF is recorded in the debt. The EFSF's impact on gross debt amounted to EUR 1,997 million (2.6% of GDP) at the end of 2014.

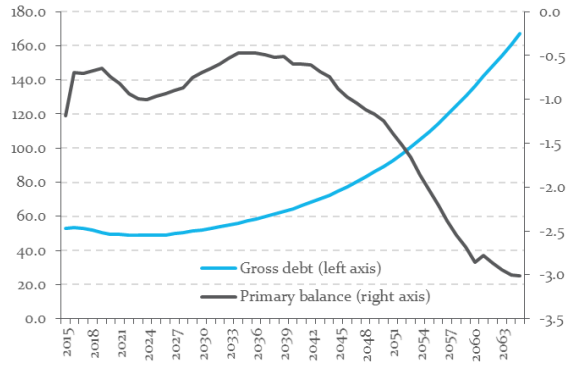
3.6 Baseline scenario of the long-term development of public finances

The baseline scenario of the long-term development of public finances is produced by merging the medium-term scenario with long-term projections of the revenues and expenditures sensitive to population ageing and by incorporating the other implicit and contingent liabilities.

The figures below illustrate the expected development of the general government primary balance and gross debt until 2065, using 2015 as the base year. Based on this projection, general government debt would rise from 52.9% of GDP to as much as 167.0% of GDP. This is a hypothetical scenario because markets would cease to finance Slovakia's needs at much lower debt levels. The effect of the response from financial markets, as well as from households and businesses, is discussed in Chapter 6 which shows that, from a dynamic perspective, the year of Slovakia's theoretical inability to finance itself would occur significantly earlier.

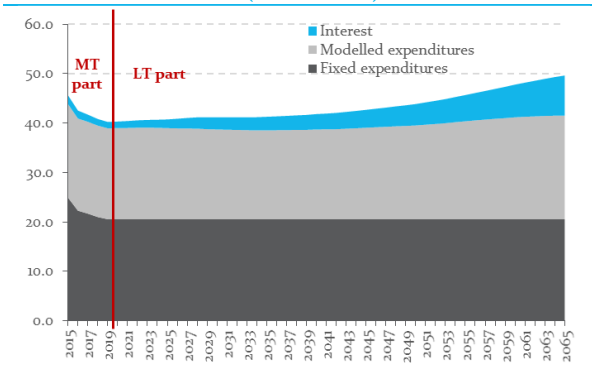
Under the baseline scenario, the debt increase is determined by the general government deficit which is mainly due to the rise in expenditures sensitive to population ageing relative to GDP, from 18.7% in 2015 to 20.9 % of GDP in 2065. The high debt, in turn, shoots up the amount of interest paid, which causes the debt to inflate further. The above implies that, from the long-term sustainability perspective, it is crucial to maintain the general government debt at a stable level because leaving the "safe zone" will automatically trigger uncontrollable deficit increases and debt build-up. **Without adopting additional measures applicable after 2015, the general government debt will exceed the upper limit defined by the Fiscal Responsibility Act in 2028[46].**

Figure 13: Development of debt and primary balance in baseline scenario (% of GDP)



Source: CBR

Figure 14: Development of expenditures in baseline scenario (% of GDP)



MT – medium-term projection, LT – long-term projection

Source: CBR

[46] At that time, the upper limit of the debt would be at 50 % of GDP.

Tab 5: Public finance baseline scenario (% GDP)

		Medium-term part				Long-term projections				
	2015*	2016	2017	2018	2019	2020	2030	2040	2050	2065
Total revenues	**42.6**	**40.2**	**39.6**	**38.8**	**38.3**	**38.3**	**38.0**	**38.1**	**38.3**	**38.5**
Tax revenues	18.1	17.9	17.5	17.3	17.1	17.1	17.1	17.1	17.1	17.1
Social and health security contributions	14.0	14.0	13.8	13.7	13.5	13.5	13.5	13.7	13.9	14.0
Grants and transfers	5.4	3.4	3.4	3.2	3.1	3.1	3.1	3.1	3.1	3.1
Non-tax revenues	5.1	5.0	4.8	4.6	4.5	4.5	4.3	4.2	4.1	4.2
- Contributions to nuclear fund (NJF)	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0
- Property income	0.9	0.9	0.8	0.7	0.7	0.7	0.6	0.5	0.5	0.6
- Other non-tax revenues	4.0	3.9	3.8	3.7	3.6	3.6	3.6	3.6	3.6	3.6
Total expenditures	**45.4**	**42.5**	**41.7**	**40.8**	**40.2**	**40.3**	**41.2**	**41.8**	**43.9**	**49.6**
Primary expenditures	43.6	40.9	40.3	39.5	38.9	39.0	38.7	38.7	39.5	41.5
Fixed	24.7	22.3	21.7	21.0	20.5	20.5	20.5	20.5	20.5	20.5
Sensitive to population ageing	18.7	18.4	18.3	18.3	18.2	18.2	18.1	18.1	18.9	20.9
Decommissioning of nuclear plants	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
PPP projects and maintenance	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Transfers to political parties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest	1.8	1.6	1.4	1.3	1.3	1.3	2.5	3.1	4.3	8.1
GG balance	**-2.7**	**-2.3**	**-2.1**	**-2.0**	**-1.9**	**-2.1**	**-3.2**	**-3.7**	**-5.6**	**-11.1**
GG primary balance	**-0.9**	**-0.7**	**-0.7**	**-0.7**	**-0.6**	**-0.7**	**-0.7**	**-0.6**	**-1.2**	**-3.0**
Debt	**52.9**	**53.6**	**53.1**	**52.0**	**50.5**	**49.7**	**52.1**	**64.5**	**89.4**	**167.0**

** excluding one-offs* *Source: CBR*

4 Long-term sustainability indicator

In order to evaluate Slovakia's solvency based on the flow variables described in Chapter 3, the CBR uses the sustainability indicator (the so-called GAP, or sustainability gap). It shows the amount by which government revenues/expenditures should increase/decrease on a permanent basis in order to ensure that the gross debt of the general government does not exceed 50 percent of GDP in the next fifty years, e.g., the upper limit set by the Fiscal Responsibility Act[47].

4.1 Development of the indicator in 2014 and 2015

The long-term sustainability indicator published in the last year's April 2015 report was based on the 2014 figures. **Due to the revision of the base year and the baseline scenario, its value at 2.4% of GDP was adjusted to the present 1.4% of GDP.** The improvement is mainly attributable to the revision of the 2014 general government deficit which, adjusted for one-off effects, contracted by 0.2 % of GDP. At the same time, the better-than-expected macroeconomic development has increased the medium-term forecast of tax revenues[48], while the increase in current expenditures is toned down by lower inflation.

The CBR quantified the 2015 sustainability indicator at 1.4% of GDP. This means that in order for Slovakia's public debt not to exceed the upper limit set by the Fiscal Responsibility Act – assuming that the macroeconomic and demographic trends develop in line with expectations by 2065 – the government revenues/expenditures would have to permanently increase/decrease by this particular value.

Tab 6: Development of long-term sustainability indicator (% of GDP)

	2011	2012	2013	2014	2015	most important factors
Extraordinary report - December 2012	6.8	-	-	-	-	-
Regular report - April 2013	7.0	4.3	-	-	-	2012: pension system reform, consolidation measures for 2013
Regular report - April 2014	-	4.0	3.0	-	-	2013: GG balance improvement, armed forces pension system reform
Regular report - April 2015	-	-	1.9	2.4	-	2014: worsening of the GG balance in 2014, partially compensated with tax legislation changes effective from 2015
Regular report - April 2016	-	-	-	1.4	1.4	2015: worsening of the GG balance in 2015, implementation of minimum pensions, compensated with lower gross debt and more favourable macroeconomic forecast with positive impact in the medium run

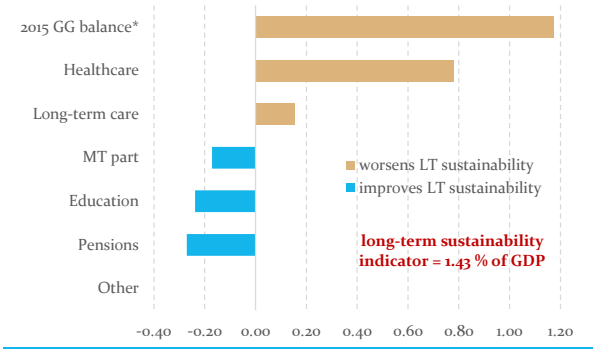
Source: CBR

47 Under the Fiscal Responsibility Act, the ceiling for the government debt (along with other debt thresholds) will gradually decline during the transitional period starting in 2018 from the current value of 60 % of GDP to 50 % of GDP in 2027, i.e., by one percentage point each year, and will remain at that level thereafter.

48 The baseline scenario based on the year 2014, including the factors contributing to the change in the long-term sustainability indicator, is in Annex 9.

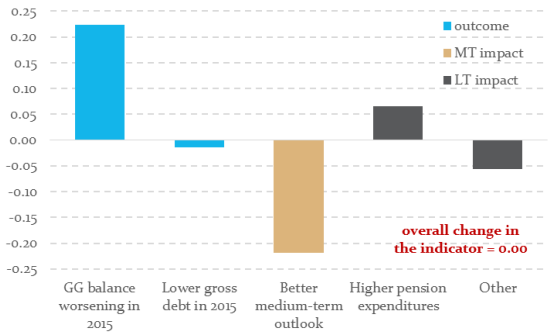
On a year-on-year basis, the sustainability indicator did not change. The positive and negative factors mutually offset each other and thus their impact was minimal. On the one hand, the fiscal policy easing in 2015 deteriorated the structural balance by 0.1 % of GDP, which increased the indicator by 0.2 p.p. The reduction in gross debt from 53.9 % of GDP in 2014 to 52.9 % of GDP in 2015 had a negligible impact on the indicator's value. The other changes included the introduction of the minimum pension, which slightly worsened the long-term sustainability, as well as the opening of the fully-funded pillar, which increased the revenues of the Social Insurance Agency from 2015, yet public expenditures on pensions are expected to increase only towards the end of the baseline scenario. The indicator is positively influenced by the medium-term budget development assuming no change in policies. The present macroeconomic outlook creates a margin for deficit reduction without government interventions by 1.1 % of GDP by 2019, which improved the sustainability indicator by 0.2 p.p.

Figure 15: Long-term sustainability indicator in 2015 (% of GDP)



*Note: * impact of the initial budgetary position, i.e. structural primary balance in 2015* *Source: CBR*
MT part - medium-term part of the baseline scenario

Figure 16: Contributions to the Δ in long-term sustainability indicator between 2014 and 2015 (% of GDP)



Note: MT - medium-term projection, LT - long-term projection *Source: CBR*

4.2 Sensitivity scenarios

Long-term projections involve a higher degree of uncertainty. For this reason, it is advisable to consider, apart from the baseline "no-policy-change" scenario based on the most likely demographic, macroeconomic and budgetary projections, also other scenarios for development in assumptions, as well as other possible definitions of the long-term sustainability indicator.

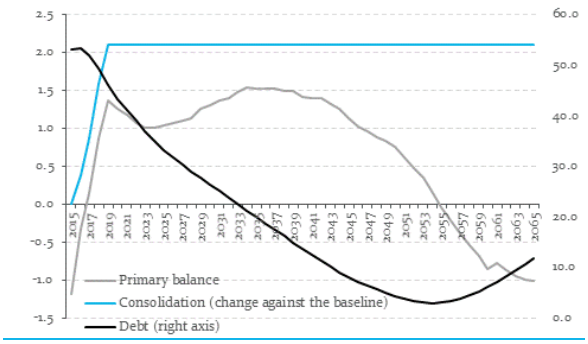
The alternative scenarios are based on the assumption of delayed consolidation and on the change in individual parameters that affect, in the long term, macroeconomic development, as well as outputs from long-term projection models.

As is the case with private finances, where putting off the payment of liabilities might not be worth it at the end of the day, the same is true for public finances where delayed implementation of important reforms may induce additional costs. In general, the longer the delay in the long-term stabilisation of public finances, the more urgent it will be to consolidate them in the future.

This **cost of delay**[49] can be quantified, using specific assumptions, and thus obtain information on the additional measures necessary to keep the debt below 50% of GDP by the end of the reporting period:

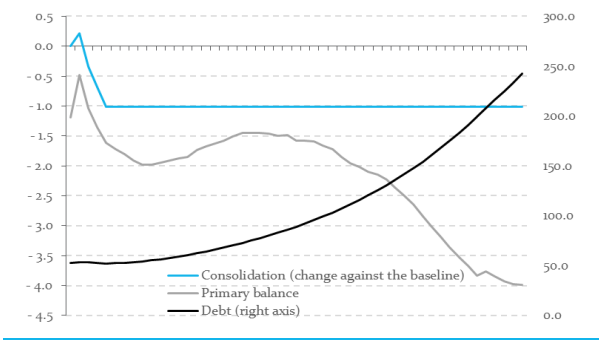
- The first scenario **does not envisage any austerity measures in the first five years; however, an immediate one-off consolidation takes place after the end of this period**, similarly as under the baseline scenario. In the next period, the government is not implementing any measures and, similarly as under the baseline scenario, the debt at the end of the period increases due to population ageing. In this case, the **long-term sustainability indicator will increase** (need for additional austerity measures five years on) **by 0.16 p.p.**
- The second scenario assumes **gradual consolidation** of public finances; here, the total amount of consolidation exceeds the long-term sustainability indicator. This scenario can be illustrated on the objectives set by the government in the present Stability Programme[50]. **If the 2019 budget ends in a slight surplus (0.16 % of GDP), with its further development influenced only by the revenues and expenditures sensitive to population ageing, the long-term sustainability indicator will improve by 1.9 p.p. and reach -0.47 % of GDP. The gross debt at the end of the 50-year period would, in this case, be just over 10 % of GDP** (Figure 17). However, such development is contingent on the government's ability convert its improved fiscal performance into debt reductions towards the zero mark.
- The third scenario illustrates the impacts of **not using a favourable macroeconomic outlook to consolidate public finances**. The baseline scenario assumes a constant share in GDP of those expenditures and non-tax revenues that are not influenced by population ageing and of other implicit liabilities. In the period until 2019, the general government deficit would span from 2.1 to 2.9 % of GDP. **The long-term sustainability would deteriorate by 0.9 p.p. and reach 2.35 % of GDP. Gross debt would exceed the statutory ceiling in 2023.**

Figure 17: Sceanrio "The 2016-2019 Stability Programme targets" (% of GDP)



Source: CBR

Figure 18: Scenario "Failure in using the favourable macroeconomic outlook to consolidate" (% of GDP)



Source: CBR

49 In quantifying the costs of delay, the baseline scenario is compared against alternative scenarios which are characterised by different timing or pace of consolidation. By quantifying the values of the long-term sustainability indicators under alternative scenarios and by comparing them with the baseline scenario, it is possible to assess the additional improvement of the structural primary balance which is necessary for stabilising public finances in the long run.

50 Stability Programme of the Slovak Republic for the Years 2016 to 2019, approved by the Cabinet on 29 April 2016.

Different definitions of the long-term sustainability indicator allow us to illustrate its sensitivity to a given time horizon and target level:

- The sustainability indicator's sensitivity to a given time horizon is described in a scenario under which the fifty-year horizon is extended by 10 more years. In other words, by how much public finances need to be permanently consolidated to sustain Slovakia's debt below the 50% mark also in 2066-2075. **Extending the sustainability period by ten years increases the sustainability gap by a quarter of a percentage point to 1.7% of GDP.**
- As an alternative, let us assume that, until 2065, the debt should not even be reaching the sanction zones defined in the Fiscal Responsibility Act, which will start at debt levels as low as 40 % of GDP. **If the debt were to remain below this threshold over the period of 50 years, the general government sector would have to permanently reduce expenditures or increase revenues by 1.6% of GDP.** The long-term sustainability indicator will therefore increase against the baseline scenario by more than 0.1 percentage point.

Another group of sensitivity scenarios illustrates the **impact of alternative macroeconomic and demographic projections** on the long-term sustainability indicator:

- In determining the stability of government debt, **interest expenditures** associated with its refinancing represent one of the key parameters. Since the baseline scenario envisages an implicit interest rate applied to Slovakia's debt in line with the Commission's assumptions, a rate lower by 50 basis points is considered under this scenario. Cutting down the interest rate[51] by half a percentage point will lower the sustainability indicator by 0.14 p.p. to the final **1.3% of GDP**.
- The growth in labour productivity has a relatively strong impact on the long-term sustainability. If the **labour productivity growth in the long term were 0.3 p.p. lower than what the baseline scenario assumes**, the sustainability indicator would **worsen by 0.6 p.p. to 2.0 % of GDP**. This scenario assumes Slovakia's convergence only to the level of 80 % of GDP per capita in the EU. Symmetrically, the **attainment of the EU average would, on the other hand, reduce the indicator by 0.6 p.p**.
- A gradual linear **increase in total fertility rate** to 2.1 by 2065 would have a positive impact on narrowing the fiscal gap. This assumption would contribute **to improving** the indicator **by 0.2 p.p. to the final 1.2% of GDP**, with its positive impact amplifying after 2065. The main reason lies in GDP growth being driven by higher employment.
- A very moderate improvement in sustainability would occur if we lived longer. Under a scenario assuming that probability of death is reduced in a way that **life expectancy at birth would gain two years** by 2065 against the baseline scenario, the sustainability indicator would slightly **improve, by 0.06 p.p. and reach 1.37 % of GDP**. This is due to the fact that the retirement age is automatically linked to life expectancy, which prevents the extension of the period for which pensioners will receive pensions. More years on the labour market translate into higher pensions because the time of paying social

[51] The impact of interest rates on long-term sustainability is also illustrated in Chapter 6, where the rates respond to the debt amount gradually, while also taking into account the feedback effects on economic growth.

contributions gets longer, but, at the same time, GDP will also grow. It is the effect of higher GDP in the ratio indicator that will very moderately reduce the pension expenditures-to-GDP ratio despite their slight nominal increase.

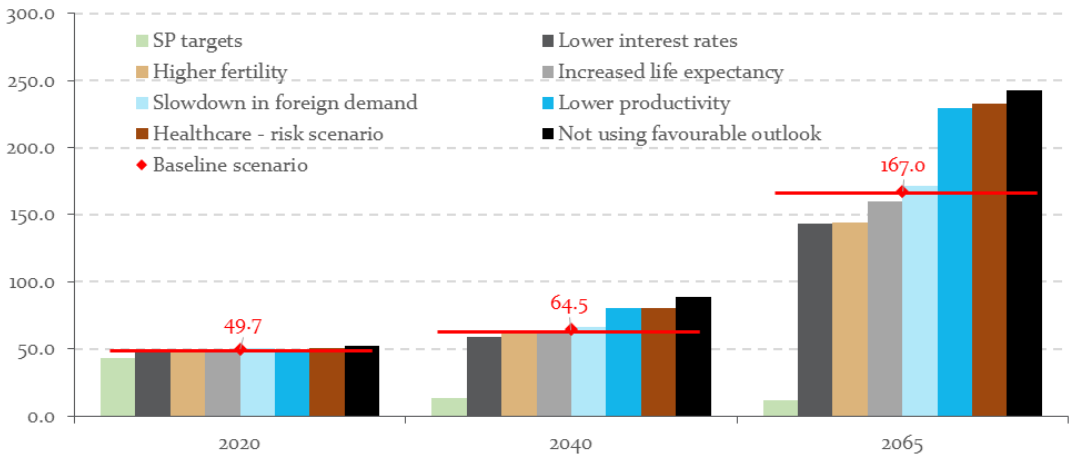
- Sustainability would be significantly undermined if the **risk scenario for the healthcare sector** materialised. If the rate of increase in healthcare expenditures doubled compared with baseline scenario, the **long-term sustainability indicator would deteriorate by 0.79 p.p. to 2.22 % of GDP**.
- The economic cycle is a recurring pattern of periodic fluctuations between declining and growing economic activity. If **foreign demand slows down** in the medium term, even partially, to about one third of the 2009 crisis impact, such a fluctuation would **worsen the sustainability indicator to 1.49 % of GDP**.

Tab 7: Overview of alternative scenarios (% of GDP)

Scenario	GAP	Difference to baseline
Baseline scenario 2015	**1.43**	-
Delay in consolidation by 5 years	1.59	0.16
The 2016-2019 Stability Programme targets	-0.47	-1.90
Failure in using favourable outlook to consolidate	2.35	0.92
Extended period by 10 years	1.68	0.25
Scenario with 10% of GDP reserve	1.56	0.13
Interest rate -50 b.p.	1.29	-0.14
Lower labour productivity (-0.3 p.p. in 2060)	2.00	0.57
Increase in total fertility (2.1 in 2060)	1.21	-0.22
Increase in life expectancy (+ 2 years in 2060)	1.37	-0.06
Risk scenario in healthcare	2.22	0.79
Slowdown of foreign demand in 2020	1.49	0.06
p.m. Baseline scenario under no-policy-change macroeconomic forecast (Box 2)	*1.02*	*-0.41*

Source: CBR

Figure 19: Development of debt in the baseline and alternative scenarios (% of GDP)



Source: CBR

Box 2: Baseline scenario under a no-policy change macroeconomic forecast

Macroeconomic assumptions of the baseline scenario should be based on the assumption of unchanged budgetary policies. This approach has thus far not been used given the absence of precise information about which specific measures and their impacts were included in the forecast produced by the Macroeconomic Forecasting Committee. In this report, for the first time, the CBR estimates these impacts and presents, for the sake of illustration, a no-policy change macroeconomic forecast.

Compared with the MFC forecast (from February 2016), with the consolidation measures listed in Annex 7 eliminated, the overall macroeconomic forecast improves and the long-term sustainability reaches 1.02 % of GDP. This variation from the value of the indicator based on the MFC forecast (1.43 % of GDP) does not mean that the size of the measures necessary to achieve long-term sustainability has diminished. It only underscores the need for a different interpretation of the results.

In order to achieve long-term sustainability of public finances, immediate permanent measures amounting to 1.43 % of GDP are necessary. However, these measures will deteriorate macroeconomic development to such a degree that their final effect will reach 1.02 % of GDP.

5 Net worth of the Slovak Republic

The net worth of the Slovak Republic[52] at the end of 2014 reached negative EUR 141.2 million, which represents 229.8 % of GDP. However, the problems connected with the valuation of some of the assets and liabilities included in the net worth[53] renders the interpretation of this value difficult. It is therefore more appropriate to assess its components individually, which can already be done correctly, and concentrate on the analysis of year-on-year variations (Table 8).

Tab 8: Net worth of the public sector in Slovakia in 2013 and 2014 (% GDP)

	2013	2014	of which:			
			y-o-y change	methodological changes	change in level	impact of GDP
1. Equity of the public sector	3.0	-22.7	-25.7	-25.3	-0.3	-0.1
- Equity of the public sector entities (excl. NPF and NBS)	0.9	-18.6	-19.5	-25.3	5.9	0.0
- Equity of NPF corporations	7.0	0.4	-6.6	-	-6.5	-0.2
- Equity of the National Bank of Slovakia	-5.0	-4.5	0.4	-	0.3	0.1
2. Implicit liabilities	-216.6	-147.5	69.1	-	64.1	4.9
3. Contingent liabilities	-16.3	-17.7	-1.4	-2.3	0.5	0.4
4. Other assets (lawsuits)	0.9	1.1	0.2	0.3	0.0	0.0
Net worth (1+2+3+4)	**-229.0**	**-186.8**	42.2	**-27.3**	**64.3**	**5.2**
p.m. net worth (€ million)	*-169 111*	*-141 155*	*27 957*	*-20 631*	*48 587*	-

Source: MF SR, CBR

In 2014, the country's net worth improved by almost EUR 28 billion and, in relation to GDP, by 42.2 p.p. This improvement was mainly due to the **update of implicit liabilities and changes in methodology**. The year-on-year GDP growth contributed 5.2 p.p. towards the net worth increase.

Implicit liabilities decreased by EUR 48.5 billion (64.1 % of GDP). Liabilities decreased most significantly in the **healthcare sector and in the pension system** due to the updated long-term macroeconomic and demographic assumptions approved by a working group of the European Commission[54]. The projection also includes the pension system of the armed forces and the impact of the Christmas bonus paid to old-age pensioners.

[52] The Fiscal Responsibility Act (constitutional Act No. 493/2011) defines net worth of the Slovak Republic "as the sum of the net worth of general government entities, National Bank of Slovakia, state corporations and corporations owned by municipalities and self-governing regions, adjusted for implicit liabilities and contingent liabilities, as well as other assets and liabilities." The concept is described in more detail in Annex 8. Net worth is quantified and published by the Ministry of Finance as part of the Summary Annual Report of the Slovak Republic.

[53] This involves, for example, the valuation of natural resources (waters, forests, mineral resources) and recording buildings at their book rather than market value. On the other hand, the liabilities do not include, for instance, liabilities related to the implementation of EU standards (for example, those concerning sewerage systems, energy efficiency of buildings) and the environmental debt (for example, the cost of remedying toxic waste landfills).

[54] Long-term assumptions are updated regularly once every three years.

The changes in methodology, associated with continuous improvements in the quality of input data and the method of calculation, **decreased the public sector's net worth by EUR 19.1 billion (25.3 % of GDP).** They specifically entailed the **inclusion of long-term reserves to employee emoluments**[55] in the central government sector based on the estimates provided by the Ministry of Finance with a total negative impact of EUR 16.5 billion (21.8 % of GDP). The second significant methodological change relates to the **transfer of capital participations in the biggest companies from the National Property Fund (NPF) to the Ministry of the Economy and the Ministry of Transport**. The ensuing consolidation of their equity capital into the general government sector had a net negative impact of EUR 2.6 billion (3.5 % GDP). The transfer of these companies also involved the **inclusion of their contingent liabilities**[56] worth EUR 1.1 billion (1.5 % of GDP). Moreover, the group of contingent liabilities now also includes other entities (Ministry of the Interior, SZRB, Eximbanka and SEPS).

These changes in methodology will enhance the net worth's evidential value. On the other hand, the inclusion of reserves for the financing of future expenditures on pensions in the armed forces and of the costs associated with the decommissioning of nuclear facilities into the general government's equity may distort its net worth because these expenditures are also estimated within the category of implicit liabilities. For this reason, **it is essential that estimates in both net-worth components are mutually consistent in the future**.

The changes in the equity of general government entities may also play an important role in the net worth variation. This change should be also analysed in the context of the government's fiscal performance under ESA2010 in order to enable assessing the impact of government policies on net worth. However, the current system of gathering the data used to quantify the net worth does not allow us to establish such a link at the moment.

To illustrate the link between these two approaches, the CBR analysed how the 2014 state budget developed. A comparison of financial statements and data under the ESA2010 methodology shows the main differences (Table 9):

- **Recording of tax revenues** – the differences are due to the application of two different approaches, yet the intention of both of them is to record tax revenues in the period to which the underlying economic activity relates. From this point of view, the two approaches should be equal. The accounting books record the tax assessed, i.e., the tax that should have been paid during the accounting period, also reflecting the probability of non-payment (through the creation of provisions and write-offs of tax receivables). Under ESA2010, Slovakia records[57] cash revenues from taxes, which are shifted in time to the period to which the economic activity relates.
- **Social security system of the armed forces** – according to ESA2010, the revenues from social contributions and the expenditures on pensions are recorded in the year in which they are received/spent. The accounting records broaden this perspective to reflect the fact that the current contributors (payers) will become entitled to benefits in the future

55 The employee emoluments include, for example, pensions to the retired uniformed corps, survivor pensions, severance payments and bonuses for years in service or life jubilees.

56 Annex 8 contains a detailed list of contingent liabilities.

57 Under the ESA2010 methodology, tax revenues may be recorded based on two methods: the 'time-adjusted' cash method and the method based on tax assessment adjusted for amounts unlikely to be collected. Slovakia applies the first method.

(implicit liabilities). The estimate of such future entitlements is reflected in the creation of provisions. During the period when employees pay contributions to the system, expenditures are increased for provisions (reducing net worth) and, when benefits are disbursed, these provisions are settled which increases revenues (increasing net worth).

- **Revenues from dividends** – while financial revenues capture all revenues from dividends, ESA2010 admits only dividends from profits derived from the ordinary business of companies. The difference between the two approaches lies, for example, in extraordinary dividends[58] (derived from profits earned due to the revaluation of corporate assets), which is the main factor explaining the difference in 2014. The actual amount of paid dividends is not relevant from the net worth perspective as the transfer involves two general government entities and thus has a neutral impact on net worth. On the other hand, under ESA2010 it is essential to capture, as precisely as possible, the fiscal performance of the entire general government and make sure that the rules applied to the recording of transactions do not create any incentives to improve the overall balance of the government at the expense of those companies with capital participation of the state that are not included in the general government sector. It is therefore essential to identify the part of the dividend that corresponds to the ordinary business of the company.
- **Interest costs and revenues** – under ESA2010, the exchange-rate differences and the interest revenues and costs connected with derivatives operations do not count towards the general government balance because they are considered financial transactions.
- **Recording of investments** – the differences between the two approaches can be illustrated using the example of a motorway section construction. Expenditures on motorway construction have a negative impact on the balance under ESA2010 at the time when the investment is implemented. Revenues (e.g., toll receipts) flow at the time when the motorway is in use. The impact of the investment at the time of construction on the government's net worth is zero, since an increase in assets in the form of a new motorway is offset by the decrease in financial assets or by the creation of a new debt. The investment is reflected in net worth only after it has been put into use – on the one hand, it generates revenues in the form of toll receipts, on the other hand, the motorway is subject to wear and tear, which generates costs (depreciation). It means that the net worth concept is better positioned to capture investments in terms of their economic substance.
- **Creation and settlement of reserves and provisions** – for example, the creation and settlement of reserves for lawsuits and provisions to immovables. While the balance under ESA2010 is usually[59] influenced by the expenditures actually incurred, net worth is influenced by the reserves and provisions created at the time when it is highly probable that the expenditure will be incurred at some point in the future or when the value of an asset is temporarily impaired.

[58] The extraordinary SPP dividend in 2014 amounted to EUR 321 million.

[59] Under the ESA2010 rules, the balance can be affected even before the expenditure is made. For example, if a state guarantee is provided, its negative impacts on the balance is recorded as soon as the state guarantee becomes highly likely to be called.

Tab 9: Selected items affecting net worth and the general government balance (€ thousands)

	P&L Statement	ESA2010	difference
State budget tax revenues	**9 586 370**	**10 167 644**	**581 274**
- tax and customs revenues incl. sanctions	10 435 676	10 167 644	-268 033
- of which: VAT*	5 544 677	5 021 132	-523 545
- of which: CIT	2 040 062	2 363 589	323 527
- settlement of provisions	325 507	-	-325 507
- write-off of tax receivables	-550 229	-	550 229
- creation of provisions on tax revenues	-624 584	-	624 584
Social security scheme of armed forces and police corps	**54 718**	**-92 272**	**-146 990**
- expenditures	-322 182	-268 981	53 201
- revenues	243 961	176 709	-67 252
- settlement of reserves	132 939	-	-132 939
Revenues from dividends	**714 155**	**220 595**	**-493 561**
Interest payments less revenues	**-1 528 115**	**-1 281 814**	**246 301**
- interest payments	-1 559 071	-1 447 780	111 291
- interest revenues	205 145	175 543	-29 602
- foreign exchange loss	-342 908	-	342 908
- foreign exchange profit	178 295	-	-178 295
Recording of investments	**-516 239**	**-929 481**	**-413 242**
- amrotisation	-516 239	-	516 239
- cash investment expenditures	-	-929 481	-929 481
Creation and settlement of other reserves and provisions	**134 538**	**0**	**-134 538**

** in the Profit and Loss (P&L) Statement revenues include also sanctions*

Source: State Treasury, SO SR

6 Economic growth

Under the baseline scenario, the macroeconomic development is independent of the level of the general government's debt and deficit. As far as feedbacks are concerned, financial markets are likely to react negatively to a high debt, which pushes up the risk premium on yields from government bonds and slackens the pace of investments due to costlier financing and/or shift of resources from savings[60]. In terms of feedbacks on economic growth, unless the government's sets its policy on consolidation path from 2015 onwards, the risk of rising debt increases in medium term quite considerably and the 60 % of GDP debt level would be overrun eight years earlier than under the baseline scenario (2030 vs 2038).

Long-term projections assume that the economy will perform on par with its potential. If cyclical fluctuations enfeeble economic activity, the stability of public finances is at risk. Negative shocks in foreign demand and the ensuing feedbacks may put debt refinancing at risk nine years earlier than what the baseline scenario foresees (once the debt level of 60 % of GDP is exceeded in 2029).

6.1 Debt feedback on economic growth

The market subjects financing governments by purchasing sovereign bonds react sensitively to any variations in the level of the risk exposure. As the risk of sovereign default increases, the investors are prepared to carry it only at the cost of higher yields on government bonds. Thus, in a high-debt situation, the debt interest payments surge and, consequently, the overall public debt increases.

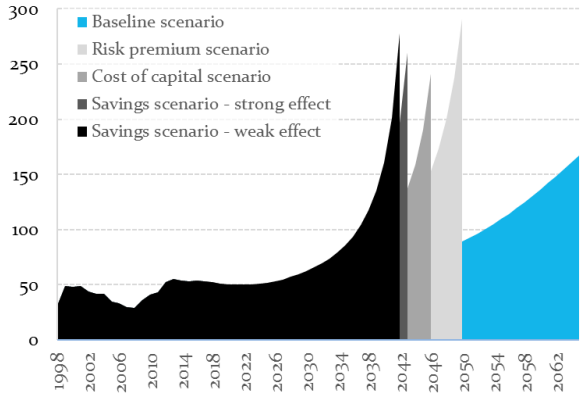
An increase in interest rates on private loans (for example, when public finances deviate from a sustainable path and the country's rating outlook is downgraded) is one of the channels through which the risk passes also to other market subjects. Such costlier short- and long-term loans increase the costs of firms and households and, consequently, reduce the level of investments and undermine the economic potential.

A decline in the level of additional funds available for investments caused by the rising relative share of debt instruments in the investors' portfolios defers the decisions of domestic companies on new investments. Only a part of resources is substituted by foreign funds (specifics of a small and open economy)[61].

[60] The methodology used to analyse the feedback effects of the debt on economic growth is outlined in Box 11 (page 57) of the Report on the Long-term Sustainability of Public Finances (April 2014). The effects of the debt on risk premiums are estimated using actual data for the Visegrad Group countries; the methodology is described in detail in Annex 8 of the Report on the Long-term Sustainability of Public Finances (April 2014).

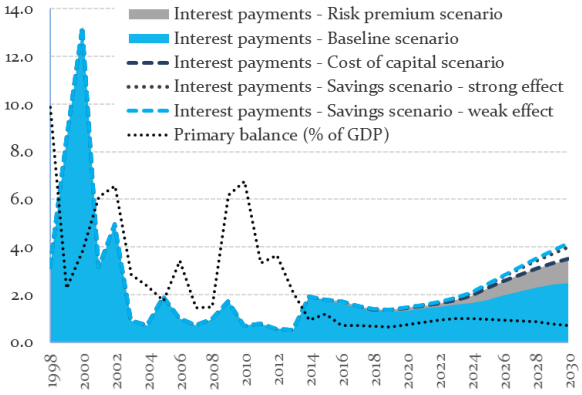
[61] 1 euro of domestic investments is replaced by approximately 25 eurocents of foreign investments, which subsequently worsens the current account balance. If the effect of savings is strong, each euro in deficit decreases investments by 10 cents; if the effect is weak, investments will decrease by 30 cents per euro in deficit.

Figure 20: Debt in basic feedback effects on economic growth (% of GDP)



Source: CBR

Figure 21: Increase in public interest payments and the primary balance



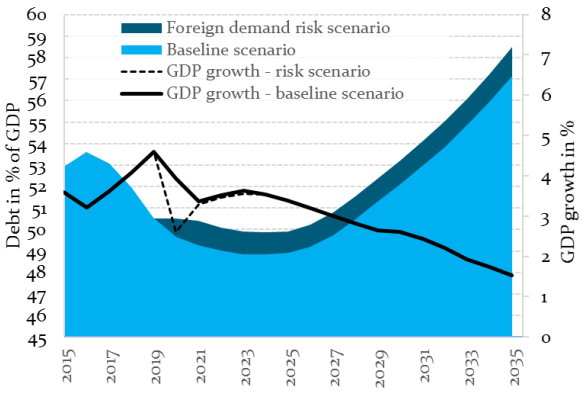
Source: CBR

6.2 Risk scenarios for economic growth

Business cycle represents recurring stages of slowdown and acceleration in economic activity with differing intensity and duration. Thus, stable and sustainable public finances constitute the main prerequisite for resilience to fluctuations in the economic activity from a long-term perspective.

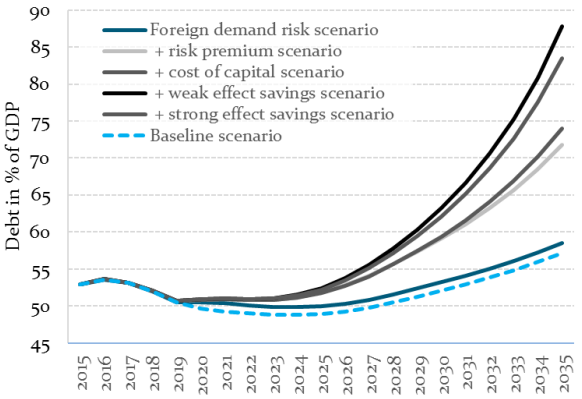
Within four years from the onset of 2009 crisis, the debt level reached its all-time highs (culminating in 2013). If, in the medium-term, foreign demand dips by only 2 percentage points (in 2009, it fell by 6 p.p.), the fluctuation would push the debt up by more than 1 % GDP compared with the baseline scenario. While the baseline scenario expects the debt level in 2035 at 57 % of GDP, the scenario with a foreign shock and feedback effects for economic growth foresees it at 88 % of GDP (see Box 3 for details).

Figure 22: Debt in foreign demand risk scenario



Source: CBR

Figure 23: Debt in feedback and risk scenarios



Source:CBR

Box 3: Risk macroeconomic scenario

In the baseline scenario economic growth follows in the medium-term the MFC forecast (2016-2019), later it assumes economic performance at the level of potential growth. In the risk scenario our simulation considers a slowdown in foreign demand in 2020 in the size of 2 p.p. against the baseline (in the size of about one third of the 2009 crisis decline), as a consequence of which Slovak economy will fall again into a negative output gap. The risk scenario assumes basic economic reactions of economic agents with adaptive expectations[62].

The decline in exports, as a direct consequence of the crisis abroad, is the main macroeconomic transmission channel. The unused export capacities will be reflected in overemployment and consequently in falling employment in the first two years. Households will react by reducing consumption and increasing their level of savings. Given the rigidity of wages, the lower demand will fully affect the wage growth with a one-year delay and, subsequently, will reflect into negative consequences for price development.

Tab 10: Macroeconomic effects of foreign demand slowdown

Growth in %	Growth in % - risk scenario					Change against baseline			
	2019	2020	2021	2022	2023	2020	2021	2022	2023
Consumer inflation	2.2	1.7	1.6	2.2	2.1	-0.3	-0.4	0.2	0.1
Employment	0.9	-0.5	-0.1	0.0	0.0	-0.4	-0.2	-0.1	0.0
Nominal wage	5.1	5.8	4.4	6.0	5.6	-0.3	-1.0	0.5	0.0
Real consumption of households	2.9	2.8	3.0	3.4	3.4	-1.1	-0.4	-0.1	-0.2
Government consumption	0.8	3.9	3.4	3.5	3.6	0.0	0.0	0.0	0.0
Fixed investment	2.0	8.1	2.2	4.2	4.2	-0.7	0.0	0.0	0.0
Export	8.5	2.0	3.4	3.5	3.6	-2.0	0.1	0.0	0.0
Import	6.6	2.4	3.3	3.5	3.6	-1.6	0.0	0.0	-0.1
Real GDP	**4.6**	**2.6**	**3.3**	**3.5**	3.5	-1.3	-0.1	0.0	-0.1
Nominal GDP	**6.9**	**4.4**	**4.9**	**5.8**	5.7	-1.6	-0.5	0.2	0.0

Source: CBR

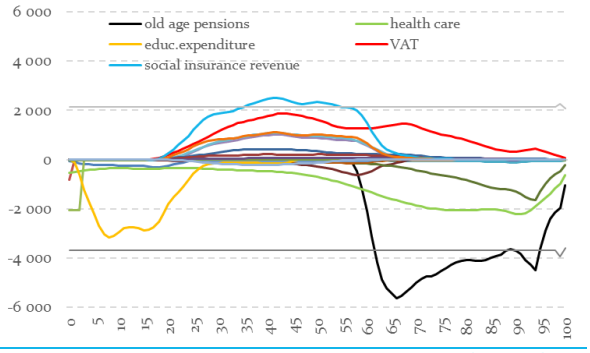
[62] *Working Paper No. 1/2015: Fiscal Adjustment in Slovakia.*

7 Generational accounts

Intergenerational fairness is one of the aspects assessed by the CBR in connection with the long-term sustainability of public finances. Since fairness is a problematic concept from the economic point of view, the purpose of this Chapter is to illustrate it quantitatively, without giving recommendations. For this purpose, the so-called **generational accounts** are used, allowing us to estimate the **magnitude of fiscal expenditures or revenues for individual age cohorts during their lifetime**.[63] If some of the government policies undergo a substantial reform, generational accounts also lend themselves to an analysis of both fiscal and re-distributional impacts on different individual age cohorts. More technical details on generational accounts are presented in the long-term sustainability report from April 2014.

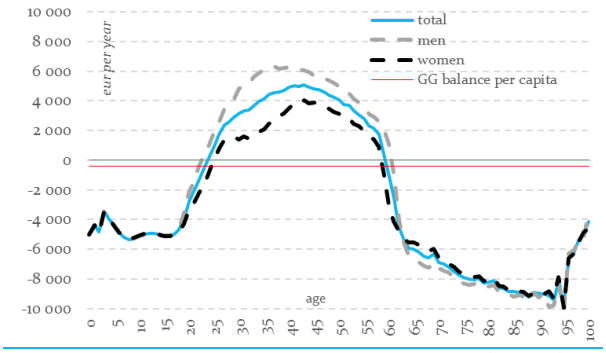
In addition to the long-term demographic forecasts, the basis for constructing generational accounts includes the age profile of individual government policies for the average individual (Figure 24), for instance in terms of pension expenditure, education expenditure or revenues from taxes and contributions. These profiles can be combined into a **summary profile**[64] **expressing the net financial position of an individual vis-à-vis public finances in individual phases of his/her life** (Figure 25).

Figure 24: Age profile of individual policies 2015 (average individual, eur / year)



Source:CBR

Figure 25: Summary age profile 2015 (average individual, eur / year)



Source:CBR

Based on this profile, an average Slovak is a net recipient in terms of public finances until the age of 25, mainly due to the costs of education, costs of healthcare and family benefits. Over the productive life, one gradually becomes a net contributor due to the economic activity, with the

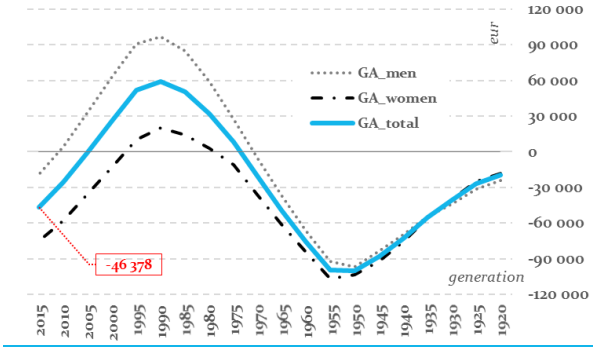
63 Simply put, a comparison of how much one pays in the form of taxes and contributions during one's own lifetime and of how much one receives in the form of benefits, healthcare, education, etc.

64 Given the assumption of no change in policies, indexation by future productivity growth is usually used in academic literature. The CBR also took into account other adjustments in the policies it is modelling. Since the retirement age is linked to life expectancy, the profiles related to the retirement age (pension benefits, contributions, income taxes) were adjusted to reflect developments in the labour market participation, as well as the parameters of the relevant policy (such as pension indexation method, the setup of the fully-funded pillar, etc.). In addition, expenditures on healthcare reflect an increase in life expectancy (in accordance with the Commission's assumptions, 50 % of the increase in life expectancy is spent in good health) and are growing faster than GDP (elasticity of 1.1 converging to 1). The expenditures on family allowances reflect the developments in the number of children.

largest burden being that of social security contributions and VAT. In terms of gender, it is these age categories where most prominent differences between men and women arise, resulting from a higher employment rate of men in combination with their higher wages. In the post-productive age, one again becomes a net recipient, especially due to the pension system and healthcare costs.[65]

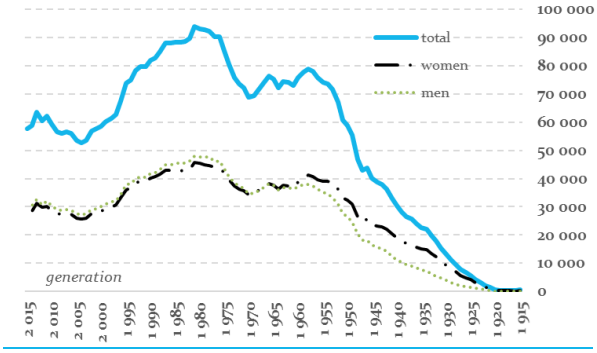
By taking into account the probability of death[66], it is then possible to quantify the generational account of an average individual for every age cohort, as well as the overall fiscal expenditure/revenue of a given cohort.

Figure 26: Generational accounts of average individual for generations alive in 2015



Source:CBR

Figure 27: Number of persons by gender and generation in 2015



Source:CBR, SO SR

As shown by generational accounts for living cohorts (Figure 26), every child born in 2015 will receive EUR 46,000 more from the general government budget than it will contribute to it during his/her life[67] - in 2015, there are some 60,000 of such children (Figure 27). This fact alone indicates that public finances would not be sustainable in the long term. From all living cohorts, this is the only cohort covered by generational accounts over the entire life and, therefore, it can be seen as **a benchmark cohort representing the current generation (the 2015 cohort = current generation)**.

For the remaining living population cohorts (aged more than 1 year), generational accounts are quantified until their death without quantifying how much they received from, or contributed to, the state in the past. In terms of identifying the future fiscal burden of the living population cohorts, monitoring past periods is not only unnecessary, but also extremely demanding in terms of data. Moreover, the past is already captured in the government debt.

65 The age profile is given per capita (share in the total population of the age cohort); therefore, it does not describe an average amount of a recipient's/payer's benefit/tax because the respective policy does not usually cover the entire population (e.g., sickness benefits). The reason is that the profile is to be applied to the demographic projections of the population.

66 Not every newborn will live to a high age. In addition to mortality, the impact of migration is also reflected by assigning a weight to the number of years during which an individual participated in the tax-benefit system.

67 Assuming no change in policies (tax and contribution system and the 2015 balance), the current life-expectancy forecasts and the current general government deficit adjusted for one-off effects.

The merging of the generational accounts of the living population cohorts (Figure 26) with the size of a given cohort (Figure 27) enables us to identify the total fiscal expenditure of the living population cohorts. According to the most recent estimates, the living population will generate an additional fiscal burden amounting to 106 % of GDP. Assuming the long-term budget constraint[68] associated with the payment of these liabilities by future generations, including the existing liabilities in the form of a net debt (48 % of GDP), **all of the yet-to-be-born children of future generations** (GA^{fut}) will have to contribute **EUR 62,000 more to the budget than they will receive from it**.

Under a hypothetical scenario where the intertemporal budget constraint is not taken into account, government policies remain unchanged (reduction in entitlements or increase in taxes), and future governments continue to generate the same deficits as in 2015 (adjusted for one-off measures), the fiscal burden of the general government would increase by a volume of 268% of the 2015 GDP by the year 2150.

Tab 11: Generational accounts of curr. and future generation incl. the sustainability indicator

For year	2014	2015	2015	2015
Anticipated real discount rate	4%	4%	3%	5%
Scenario – actual balance*				
GA^{act} – average individual of present generation (eur)	**-41 348**	**-46 378**	**-51 111**	**-46 891**
1) Fiscal burden from living generation – future (% GDP)	*105.6%*	*106.3%*	*188.1%*	*62.1%*
2) Fiscal burden in the form of net debt - existing (% GDP)	*49.4%*	*47.9%*	*47.9%*	*47.9%*
1+2) Total fiscal burden for future generations (% GDP)	*155.0%*	*154.2%*	*236.0%*	*110.0%*
GA^{fut} – average individual of future generation (eur)	**60 570**	**62 494**	**74 881**	**56 891**
Sustainability indicator (% GDP)	260%	268%	389%	199%

** balance without one-off and temporary measures* *Source: CBR*

Despite the generational accounts being sensitive to discount rates, **the results under all scenarios indicate the inevitability of passing the fiscal burden onto future generations**. While a child born today will receive more from public budgets than he/she will actually pay over his/her life (-EUR 41,000), the future generations will be facing a completely opposite situation (+EUR 61,000) in the event that they would have to pay all the liabilities of the current age cohorts (including the existing debt). Compared with 2014, the fiscal burden of the future generations has not declined because public finances in 2015 practically did not change[69].

[68] Intertemporal Government Budget Constraint.

[69] The 2015 structural balance worsened by 0.1 % of GDP year-on-year and the share of gross debt in GDP declined by 1 p.p..

Annex 1 – Assessment framework on long-term sustainability

Tab 12: Overview of the first four reports on long-term sustainability

Publication date	Type of report	New content	Principle
17.12.2012	extraordinary report (according to transitional provisions of the constitutional Act)	baseline scenario (flow variables)	Solvency
		sustainability indicator	Solvency
30.4.2013	regular report (Art. 4 para. 1 of the constitutional Act)	net worth (stock variables)	Solvency
		sensitivity analysis	Stability
		cost of delay	Stability
28.4.2014	regular report (Art. 4 para. 1 of the constitutional Act)	impact on economic growth	Economic Grotwh
		generational accounts	Fairness
30.4.2015	regular report (Art. 4 para. 1 of the constitutional Act)	new scenarios of sensitivity	Stability
		P/L of corporations adjusted by the cycle	Solvency
		net worth (interlink to balance – selected corporations)	Solvency
		impact on economic growth – convergence scenario and NAWRU	Economic Grotwh
29.4.2016	regular report (Art. 4 para. 1 of the constitutional Act)	new scenarios of sensitivity	Stability
		macroecoomic scenario under NPC	Solvency
		net worth (interlink to balance – selected items of state budget)	Solvency
			Economic Grotwh

Source: CBR

Annex 2 - Revision of the 2014 fiscal performance

Structural primary balance

At the end of April 2015, the CBR published its Report on the Long-term Sustainability of Public Finances which contained a preliminary calculation of the structural primary balance for 2014. Because most of the fiscal data were not available and certain data were available only as estimates at the time of publishing the report, this section makes the information on the results of the public sector's fiscal performance for 2014 more precise.

Following the revision of data[70], the 2014 structural primary balance reached - 0.1 % of GDP and, compared to the 2015 report, improved by 0.5 % of GDP, mainly due to the following factors:

- The general government's fiscal performance was 0.2 % of GDP better;
- The revised estimate of the cyclical component contributed 0.2 % of GDP to the improvement;
- The positive impact of better economic performance of corporations with capital participation of the state/National Property Fund represented 0.1 % of GDP.

Tab 13: Structural primary balance in 2014

	Revision		change to 2015 report	
	% GDP	€ mill.	% GDP	€ mill.
A. Net lending /borrowing	**-2.7**	**-2 036**	**0.2**	**121**
(-) Cyclical component	-0.2	-187	-0.2	-182
(-) One-off effects	0.1	72	0.0	-16
(-) Interest payments	-1.9	-1 441	0.0	-1
B. General government structural primary balance	**-0.6**	**-480.5**	**0.4**	**319**
(+) Profit/Loss of state owned corporations	0.8	594	0.1	92
(+) Profit/Loss of the NBS	0.1	102	0.0	0
(-) Dividends paid to the GG	0.4	283	0.0	0
C. Public sector structural primary balance (incl. state own. corp. and NBS)	**-0.1**	**-68**	**0.5**	**411**

Source: CBR, MF SR

Based on the Eurostat report of 21 April 2016, the general government's deficit reached EUR 2,036 million. This is EUR 121 million (0.2 % of GDP) better than the initial estimates from April 2015.

In line with ESA2010, new entities were subsumed under the general government sector (Recycling Fund, Slovak Railway Company, Education Support Fund, ...) and their impact on the 2014 balance was negative. The revised amount of financial corrections to the EU funds worsened

[70] Starting with the 2015 report, in order to achieve better comparability in the economic performance of the general government and public sector companies, the CBR will be adjusting the results of state corporations and the National Bank of Slovakia for one-off effects and the economic cycle in a consistent manner. This adjustment will always apply to the revised data only, because the individual profit/loss figures for state corporations in the given year are not yet available. The calculation is presented in the next part of this Chapter.

the balance by 0.1 % of GDP. On the other hand, higher tax revenues (0.3 % of GDP) and updated nominal GDP had a positive impact on the 2014 balance.

Tab 14: Revision of GG balance in 2014

	€ mill.	% GDP
Net lending/borrowing - notification April 2015	**-2 157**	**-2.87**
revisions related to introduction of ESA2010 methodology	**-25.8**	**-0.03**
- sector reckassification (RF, FnPV, ŽSSK)	-26	-0.03
revisions not related to introduction of ESA2010 methodology	**146.6**	**0.19**
- taxes	239.3	0.32
- receivables/ paybles	8.9	0.01
- EU financial corrections	-97.7	-0.13
- CO_2 allowances	-3.9	-0.01
revision of nominal GDP	**-**	**0.01**
Net lending/borrowing - notification April 2016	**-2 036.1**	**-2.69**

Source: SO SR

Certain items in the category of one-off effects have been updated (revised VAT accruals/deferrals, transfer to the EU budget and financial corrections to the EU funds), yet their overall impact on the resulting structural balance estimate is negligible (0.0 % of GDP).

Based on the annual reports published for 2014, the profits of corporations with capital share of the National Property Fund[71] and the profits of state corporations totalled EUR 594 million. The performance of these corporations was EUR 92 million better compared with the CBR's technical assumptions. The amount of dividends paid to the general government budget remained unchanged and their impact on the structural primary balance amounted to EUR 283 million[72]. According to the information available, the remaining components necessary for the calculation of the structural primary balance remained unchanged.

Tab 15: Public sector structural primary balance in 2011-2015 (% GDP)

	2 011	2 012	2 013	2 014	2 015	most important factors
Extraordinary report - December 2012	-2.8	-	-	-	-	-
Regular report - April 2013	-2.7	-2.3	-	-	-	GG balance revision 2011 (-0.2), one-off effects (-0.1), profit/loss of state owned corporations (0.4)
Regular report - April 2014	-	-2.6	-0.3	-	-	GG balance revision 2012 (-0.1), one-off effects (-0.1), profit/loss of state owned corporations (-0.2)
Regular report - April 2015	-	-	0.6	-0.6	-	GG balance revision 2013 (0.2), one-off effects (-0.7), profit/loss of state owned corporations (0.1)
Regular report - April 2016	-2.8	-2.6	0.2	-0.1	-0.4	GG balance revision 2014 (0.1), cyclical component (-0.2), profit/loss of state owned corporations (0.1)

[71] At the time of report preparation in 2015, the CBR had at its disposal the expected results for the year 2014 only from state corporations, because the companies in the NPF portfolio did not provide their 2014 expected figures.
[72] See Annex 3 for a detailed overview.

(+) impact of GG balance revision (ESA2010)	0.9	0.2	-0.1
(-) impact of one-offs revision	1.1	0.1	0.2
(-) impact of state corporations (ESA2010)	0.0	0.0	0.1

Source: CBR

The table above shows how the structural primary balance of the general government sector developed between 2011 and 2015, as published in the CBR's reports. The last line in the table shows the revised amount of the original indicator in 2011-2013, adjusted to reflect the updated fiscal data (transition from ESA95 to ESA2010 under Eurostat notification of October 2014) and a major end-2014 revision by the CBR of one-off effects. The impact of individual factors in individual years is specified in the footnote.

Structural primary balance – alternative approach

In order to ensure comparable evaluation of the general government's fiscal performance with the results of the central bank and state corporations, the CBR has adjusted, in a consistent manner, the results of these entities for one-off effects and for the impact of the economic cycle[73]. Against the original CBR calculations, the 2014 structural primary balance d**eepened by 0.3 % of GDP and reached -0.3% of GDP**. The exclusion of the central bank's financial operations (outside its control, as the development depends on financial markets) reduced the NBS profit in 2014 by 0.2 % of GDP. Similarly, the revaluation of the assets of numerous state corporations had a negative impact on the public sector's balance to the tune of 0.1 % of GDP. The cyclical component's impact on the fiscal performance of the central bank and state corporations in 2014 was negligible.

Tab 16: Structural primary balance in 2014

	2014 % GDP	2014 € mill.	2014 without add. adjustemt	difference
A. Net lending /borrowing	**-2.7**	**-2 036**	**-2.7**	**0.0**
(-) Cyclical component	-0.2	-187	-0.2	0.0
(-) One-off effects	0.1	72	0.1	0.0
(-) Interest payments	-1.9	-1 441	-1.9	0.0
B. General government structural primary balance	**-0.6**	**-480**	**-0.6**	**0.0**
(+) Profit/loss of state owned corporations (a-b-c)	0.7	545	0.8	-0.1
(a) Profit/loss	0.8	594	0.8	0.0
(b) cyclical component	0.0	-6	-	0.0
(c) one-off measures	0.1	55	-	0.1
(+) Profit/loss of NBS (operating results) (a-b-c)	-0.1	-43	0.1	-0.2
(a) Profit/loss	0.1	*102*	*0.1*	0.0
(b) cyclical component	0.0	0	-	0.0
(c) one-off measures (from financial results)	0.2	*145*	-	0.2
(-) Dividends paid to the GG	0.4	283	0.4	0.0
C. Public sector structural primary balance (incl. state own. corp. and NBS)	**-0.3**	**-262**	**-0.1**	**-0.3**

Source: CBR, MF SR

[73] A more detailed description of the methodology is presented in Box 3 of the Report on the Long-term Sustainability of Public Finances published by the CBR in April 2015.

General government debt

Based on the notification from April 2016, the 2014 general government debt reached 53.9 % of GDP (EUR 40,725.0 million), which is 0.3 % of GDP above the initial estimates from April 2015. *Železničná spoločnosť Slovensko* (ŽSSK, Railway Company Slovakia), as a newly included general government entity, contributed 0.4 % of GDP to the debt increase. The liabilities of *Národná diaľničná spoločnosť* (NDS, National Motorway Company) and Eximbanka increased the debt by 0.2 % of GDP. The revision of nominal GDP influence the debt by 0.2 % of GDP.

Tab 17: GG gross debt revision in 2014

	€ mill.	% GDP
GG gross debt - Notification April 2015	**40 296.9**	**53.6**
sector reclassification	**428**	**0.6**
of which: ŽSSK	321	0.4
NDS	43	0.1
Eximbanka	64	0.1
nom. GDP revision	-	**0.2**
GG gross debt - Notification April 2016	**40 725.0**	**53.9**

Source: SO SR

Annex 3 - Dividends paid to general government budget

Tab 18: Dividends in portfolio of NPF an state (in th. €)

		2013	2014	2015
National Property Fund	Slovenský plynárenský priemysel, a.s.	0	186 316	*SB*
	Slovak Telecom, a.s.	10 585	2 460	3 387
	Západoslovenská energetika, a.s.	355 629	26 629	*SB*
	Stredoslovenská energetika, a.s.	51 503	26 520	*SB*
	Východoslovenská energetika, a.s	33 944	23 742	*SB*
	Trnavská teplárenská, a.s. Trnava	98	45	
	Ostatné	437	242	0
	"Bezcenné" CP	72	78	
	Total NPF	**452 267**	**266 032**	**3 387**
State budget	Správa služieb diplomatickému zboru, a.s.	178	194	
	Slovenská záručná a rozvojová banka, a.s.	0	500	
	Tipos, a.s.	3 000	3 000	8 500
	Slovenská elektrizačná prenosová sústava, a.s.	0	146 090	66 134
	Slovenská konsolidačná, a.s.	1 175	1 477	0
	EXIMBANKA - odvod zo zisku	100	200	
	Slovak Telecom, a.s.	23 993	5 576	7 678
	Transpetrol, a.s.	7 861	7 000	6 563
	Jadrová a vyraďovacia spoločnosť, a.s.	-	1 624	
	Lesy SR, š.p.	5 000	5 000	
	Slovenský plynárenský priemysel, a.s.		446 594	126 970
	Západoslovenská energetika, a.s.		*NPF*	30 223
	Stredoslovenská energetika, a.s.		*NPF*	26 413
	Východoslovenská energetika, a.s		*NPF*	28 373
	Ostatné	685	1 070	20 637
	Total state budget	**41 992**	**618 325**	**321 491**
	Dividends (cash basis)	**494 259**	**884 356**	**324 878**
	(-) superdividends	*312 272*	*336 844*	
	(+) shift of dividends	*254 208*	*-264 492*	
	DIVIDENDs (ESA2010)	**436 195**	**283 020**	**324 878**

Source: MF SR

Annex 4 – Profit/loss of state corporations

Tab 19: Profit/loss of state owned corporations, or NPF respectively (in th. €)

corporation	share	instit.	2014 P/L	20151 P/L	2014 P/L x share	2015 1) P/L x share
Bratislavská teplárenská, a.s.	100.00%	NPF	174.7	na	174.7	na
DLHOPIS, o.c.p., a.s.	100.00%	NPF	14.0	na	14.0	na
DMD GROUP, a.s.	100.00%	NPF	-1 210.5	na	-1 210.5	na
Martinská teplárenská, a.s.	100.00%	NPF	-925.2	na	-925.2	na
Poliklinika Tehelná, a.s.	100.00%	NPF	172.1	na	172.1	na
Tepláreň Košice, a.s.	100.00%	NPF	21.6	na	21.6	na
Trnavská teplárenská, a.s.	100.00%	NPF	9.8	na	9.8	na
Zvolenská teplárenská, a.s.	100.00%	NPF	68.7	na	68.7	na
Žilinská teplárenská, a.s.	100.00%	NPF	924.4	na	924.4	na
Burza cenných papierov, a.s.	75.94%	NPF	727.2	na	552.3	na
KÚPELE SLIAČ a.s.	67.00%	NPF	-605.5	na	-405.7	na
Letisko M.R.Štefánika - Airport Bratislava, a.s.	50.27%	NPF	0.0	na	0.0	na
Slovak Lines, a.s.	44.01%	NPF	557.0	na	245.2	na
SAD Trenčín, a.s.	41.54%	NPF	676.2	na	280.9	na
SAD Žilina, a.s.	40.64%	NPF	395.4	na	160.7	na
ARRIVA Michalovce	39.86%	NPF	295.0	na	117.6	na
SAD Dunajská Streda, a.s.	39.68%	NPF	11.3	na	4.5	na
SAD Poprad, a.s.	39.68%	NPF	126.2	na	50.1	na
SAD Lučenec, a.s.	39.66%	NPF	158.8	na	63.0	na
SAD Prievidza a.s.	39.66%	NPF	549.7	na	218.0	na
ARRIVA Nové Zámky	39.64%	NPF	419.3	na	166.2	na
SAD Humenné, a.s.	39.58%	NPF	0.1	na	0.0	na
SAD LIORBUS, a.s.	39.58%	NPF	512.1	na	202.7	na
SAD Prešov, a.s.	39.53%	NPF	593.3	na	234.5	na
ARRIVA Nitra	39.52%	NPF	813.0	na	321.3	na
eurobus, a.s.	39.50%	NPF	263.8	na	104.2	na
SAD Trnava, a.s.	39.50%	NPF	16.6	na	6.6	na
SAD Banská Bystrica, a.s.	37.96%	NPF	675.9	na	256.6	na
SAD Zvolen, a.s.	37.84%	NPF	-92.5	na	-35.0	na
Slovak Telekom, a.s.**	15.00%	NPF	40 682.0	na	6 102.3	na
Východoslov. vodárenská spoločnosť, a.s.	0.02%	NPF	11 123.0	na	2.2	na
Podtatr. vodárenská spoločnosť, a.s.	0.70%	NPF	425.0	na	3.0	na
BARDEJOVSKÉ KÚPELE a.s.	0.08%	NPF	441.6	na	0.4	na
Stredoslov.vodárenská spoločnosť, a.s.	0.01%	NPF	0.0	na	0.0	na
Západoslovenská vodárenská spoločnosť, a.s.	0.01%	NPF	0.0	na	0.0	na
Letisko M.R. Štefánika - Airport Bratislava , a.s.	100.00%	MTCRD SR	-6 724.0	-8 484.0	-6 724.0	-8 484.0
Železničná spoločnosť Cargo Slovakia, a.s.	100.00%	MTCRD SR	-5 492.0	-5 822.0	-5 492.0	-5 822.0

Tab 19: Profit/loss of state owned corporations, or NPF respectively (in th. €)

corporation	share	instit.	2014 P/L	20151 P/L	2014 P/L x share	2015 1) P/L x share
Letisko Košice - Airport Košice , a.s.	34.00%	MTCRD SR	1 554.0	1 185.0	528.4	402.9
Letové prevádzkové služby SR, š.p.	100.00%	MTCRD SR	5 112.0	987.0	5 112.0	987.0
Metro Bratislava, a.s.	34.00%	MTCRD SR	-144.0	138.0	-49.0	46.9
Letisko Piešťany , a.s.	22.14%	MTCRD SR	-537.0	23.0	-118.9	5.1
Letisko Poprad - Tatry, a.s.	97.61%	MTCRD SR	-217.0	-131.0	-211.8	-127.9
Letisko Sliač, a.s.	100.00%	MTCRD SR	58.0	173.0	58.0	173.0
Slovenská pošta, a.s.	100.00%	MTCRD SR	3 317.0	137.0	3 317.0	137.0
Technická obnova a ochrana železníc , a.s (TOOŽ)	100.00%	MTCRD SR	-455.0	23.0	-455.0	23.0
Verejné prístavy, a.s	100.00%	MTCRD SR	808.0	511.0	808.0	511.0
Letisková spoločnosť Žilina, a.s	99.50%	MTCRD SR	395.0	-130.0	393.0	-129.4
Poštová banka, a.s.2	0.03%	MTCRD SR	41 830.0	na	12.5	na
Spoločnosť pre zavedenie unitárneho systému zdravotného poistenia, a.s.	100.00%	MH SR	-17.8	na	-17.8	na
Slovenská konsolidačná, a.s.	100.00%	MF SR	2 860.0	2 425.0	2 860.0	2 425.0
Slovenská záručná a rozvojová banka, a.s.*	100.00%	MF SR	1 893.4	1 880.0	1 893.4	1 880.0
Slovenská elektrizačná prenosová sústava, a.s.*	100.00%	MF SR	67 464.0	44 621.0	67 464.0	44 621.0
TIPOS, národná lotériová spoločnosť, a.s.	100.00%	MF SR	9 494.0	9 132.0	9 494.0	9 132.0
Mincovňa Kremnica, š.p.	100.00%	MF SR	270.9	65.0	270.9	65.0
Transpetrol, a.s.*	100.00%	MEc SR	6 958.1	7 334.2	6 958.1	7 334.2
Jadrová a vyraďovacia spoločnosť, a. s.	100.00%	MEc SR	12 060.0	12 573.0	12 060.0	12 573.0
Slovak Telekom, a.s.**	34.00%	MEc SR	40 682.0	na	13 831.9	na
Slovenský plynárenský priemysel, a.s.*	100.00%	MEc SR	288 547.0	325 172.0	288 547.0	325 172.0
Západoslovenská energetika, a.s.*	51.00%	MEc SR	61 361.0	59 352.0	31 294.1	30 269.5
Stredoslovenská energetika, a.s.*	51.00%	MEc SR	51 791.0	60 786.0	26 413.4	31 000.9
Východoslovenská energetika, a.s.*	51.00%	MEc SR	157 158.0	66 357.0	80 150.6	33 842.1
Slovenské elektrárne, a.s.*	34.00%	MEc SR	169 756.0	360 163.0	57 717.0	122 455.4
HOREZZA, a.s.	100.00%	MD SR	-110.0	80.0	-110.0	80.0
Letecké opravovne Trenčín, a.s.*	100.00%	MD SR	-1 337.0	128.0	-1 337.0	128.0
Vojenské lesy a majetky SR, š.p.	100.00%	MD SR	142.0	54.0	142.0	54.0
Automobilové opravovne Ministerstva vnútra SR, a.s.	100.00%	MI SR	-95.0	50.0	-95.0	50.0
Správa služieb diplomatického zboru, a.s.	100.00%	MFEF SR	360.0	238.0	360.0	238.0
Technická inšpekcia, a.s.	100.00%	MPSVR SR	81.0	90.0	81.0	90.0
Biont, a.s.	100.00%	MESRS SR	24.0	2.0	24.0	2.0
Poľnonákup Tatry, a.s.	100.00%	ASMR	207.0	73.0	207.0	73.0
Vodohospodárska výstavba, š.p.*	100.00%	MEn SR	2 175.0	18 647.0	2 175.0	18 647.0
Slovenský vodohospodársky podnik, š.p.	100.00%	MEn SR	-21 307.0	-19 611.0	-21 307.0	-19 611.0
Lesy Slovenskej republiky, š.p.	100.00%	MARD SR	9 095.8	6 400.0	9 095.8	6 400.0
Lesopoľnohospodársky majetok Ulič, š.p.	100.00%	MARD SR	313.0	74.0	313.0	74.0
Národný žrebčín Topoľčianky, š.p.	100.00%	MARD SR	-3.0	1.0	-3.0	1.0
Závodisko, š.p.	100.00%	MARD SR	-194.0	-392.0	-194.0	-392.0

Tab 19: Profit/loss of state owned corporations, or NPF respectively (in th. €)

corporation	share	instit.	2014 P/L	20151 P/L	2014 P/L x share	2015 1) P/L x share
Agrokomplex - Výstavníctvo Nitra, š.p.	100.00%	MARD SR	26.0	25.0	26.0	25.0
Agroinštitút Nitra, š.p.	100.00%	MARD SR	-148.0	-75.0	-148.0	-75.0
Plemenárske služby Slovenskej republiky, š.p.	100.00%	MARD SR	160.0	74.0	160.0	74.0
Technický skúšobný ústav Piešťany, š.p.	100.00%	ÚpNMS	189.0	7.0	189.0	7.0
Total			**957 375.3**	**944 335.1**	**593 594.6**	**614 357.7**
* assets revaluation			160 443.0		54 950.7	

** sold to Deutsche Telekom in 2015

1 anticipated P/L according to GGBP2016-2018

2 until 2014 the share amounted 0.04 %

Annex 5 – One-off effects in 2014 and 2015

This part describes the one-off effects taken into account in the calculation of the general government's structural balance in 2014 and 2015.

Tab 20 : One-off effects in 2014-2015

	2014		2015	
	€ mill.	% GDP	€ mill.	% GDP
VAT revenue/payment from a PPP project (Granvia)	-5.8	-0.01	-5.8	-0.01
digital dividend	163.9	0.22	-	-
retroactive top-up of pensions in the armed forces	-58.5	-0.08	-	-
financial correction to EU funds	-139.9	-0.19	-186.8	-0.24
adjusted amount of transfer to the EU budget	57.8	0.08	-	-
penalty of the Antimonopoly Office of the SR	44.8	0.06	-	-
accrualisation of VAT receipts ***	-57.8	-0.08	-54.6	-0.07
repayment of a loan provided by Cargo a.s. (cap. transfer v 2009)	19.5	0.03	-	-
repayment of a loan provided by Vodohospodárska výstavba, š.p.	48.1	0.06	-	-
Total	**72.1**	**0.1**	**-247.2**	**-0.3**

Source: CBR, MF SR

1. **VAT receipt from a PPP project**– In 2011, the imputation of a claim towards the Granvia company as a consequence of VAT payment in connection with a PPP project for the R1 motorway in the amount of EUR 174 million had a one-off positive effect on the deficit. For the next 30 years, the amount of the advance payment will be reduced every year by an aliquot portion amounting to EUR 5.79 million. This amount will continue to affect the general government budget negatively for a period of 30 years.
2. **Digital dividend** – In 2014, the sale of frequency bands through auction, the so-called digital dividend, had a one-off positive effect on non-tax revenues. The positive impact of the sale on the 2014 balance reached EUR 163.9 million.
3. **Retroactive top-up of pensions in the armed forces** – In 2014, based on a court ruling, the Social Insurance Agency retroactively granted pension entitlements to certain categories of employees in the armed forces. The court ordered a retroactive payment of pensions to those who, for the most part of their career, paid contributions to the pension scheme of the armed forces and police corps, and who, on leaving the service, worked for a short period of time in the civilian sector without becoming entitled to any pension at all, or to a very low pension, for the civilian part of their career. This one-off retroactive top-up of pensions had a negative impact on the budget in the amount of EUR 58.5 million.
4. **Financial corrections to EU funds** - Due to various irregularities ascertained in the drawing of EU funds, Brussels withheld the reimbursement of expenditures in respect of a number of projects despite the fact that Slovakia did already receive payments from the EU and/or such projects had already been pre-financed from the national budget. Once a financial correction is assessed and accepted, it has a negative impact on the balance; some of these corrections relate to projects implemented in previous years. Their impact reached EUR 139.9 million in 2014 and EUR 186.8 million[74] in 2015.

[74] The actual amount of financial corrections to EU funds reached €209 m in 2014 and €304.3 m in 2015. The amount of corrections presented in this document was taken from documents provided by the Ministry of Finance. The

5. **Adjusted amount of transfer to the EU budget** – The amount of the transfer payable to the EU budget from sources based on VAT and GNP is estimated annually by the Commission. Based on the calculations done in September 2014, the original amount was significantly revised (revision of the 1993-2013 GNP time series) and the deadline for settlement with Member States was set to 1.12.2014 and 1.9.2015, respectively. In the case of Slovakia, the revised amount of the transfer had a positive impact on the 2014 general government budget in the amount of EUR 57.8 million.

6. **Penalty imposed by the Antimonopoly Office** - In October 2006, the Antimonopoly Office ruled that the companies of Strabag a.s., Doprastav, a.s., BETAMONT s.r.o, Inžinierske stavby, a.s., Skanska DS a.s., and Mota – Engil, Engenharia e Construcao, S.A. concluded a cartel agreement in conflict with the provisions of the Antimonopoly Act and the Treaty on the Functioning of the European Union. The cartel agreement concerned a public tender for the construction of the first section of the D1 motorway (Mengusovce–Jánovce). The Supreme Court of the Slovak Republic confirmed the legality of the penalty in the amount of EUR 44.8 million on 30 December 2013. The penalty increased non-tax revenues in 2014.

7. **Accrualisation of VAT receipts** - ESA2010 uses the method of accrued cash receipts based on which cash receipts are attributed to individual periods with a fixed time lag. This approach, however, does not fully reflect the reality, particularly when it comes to excess tax refunds. Tax audits and the related suspensions of excess tax refunds may significantly influence VAT accrual receipts under ESA2010. Due to this, the negative effect on VAT revenues in 2015 reached EUR 54.6 million.

8. **Repayment of loans provided to Cargo, a.s.**[75] – On 4 March 2009, the government approved the use of state financial assets for the provision of a loan to Cargo Slovakia a.s. in the amount of EUR 166 million; this had a negative impact on the general government balance in 2009. Under a contract with the Ministry of Finance and the Ministry of Transport, Cargo used the assistance to finance its payroll and personnel expenditures, charges for the use of the railway infrastructure, and its own financial expenses. The payment of interest was set to begin in 2009, the payment of principal in 2011, and the entire loan was to mature in 2016. In 2014, the instalment paid by Cargo had a positive impact on the general government balance in the amount of EUR 20 million.

9. **Repayment of loans provided to Vodohospodárska výstavba, š.p.** – In 2014, the balance of the last two instalments of the loan provided to Vodohospodárska výstavba (state corporation) before 2002 was paid, which increased revenues by EUR 48 million. Because, in the past, the loan was treated as a capital transfer with negative effect on deficit under the ESA95 methodology, the transaction had a positive impact on the GG balance in 2014.

impact of corrections in individual year is identified as a difference between the officially recorded correction affecting the balance and the analytically adjusted correction (correction assigned to the year in which it originated).

75 Even though individual instalments do not reach 0.05 % of GDP in each year, the CBR believes that the recording of these transactions should be consistent. The instalments are thus spread over the entire loan term and have a positive impact on the balance.

Annex 6 – Methodology and assumptions of the baseline scenario

The baseline scenario prepared by the CBR is based on the last known data made available by the Statistical Office of the Slovak Republic and the State Treasury in its reporting system. The data for the base year are available in a detailed revenue/expenditure structure under several classifications: economic (ECBC), ESA2010, functional (COFOG) and source-based (national sources, EU funds, co-financing).

In the first step, the base year data are adjusted for one-off effects and impacts that are non-recurring but fall short of meeting the definition of a one-off effect (e.g., due to their size). This balance is then adjusted for specified rules. Given the detailed data, the indexation rules are defined in the first four years of the baseline scenario (the medium-term part) at the level of sub-items of the economic classification of the government budget classification (ECBC) by using the current macro-economic and tax revenue forecasts prepared by the committees[76]. If certain items are not directly related to economic developments, the actual figures for the last year are used. The medium-term scenario is linked with the long-term projections of expenditures sensitive to population ageing. The projections of the pension and healthcare systems are based on CBR's models, other expenditures sensitive to population ageing are taken from the Commission's projections. Implicit and contingent liabilities are taken into account across the entire horizon of the baseline scenario projections.

The baseline scenario presented in this report was compiled on the basis of the 2015 base year for the first time; the 2014-based scenario was updated, as well. Compared to the methodology used for its compilation as outlined in the last year's report (from April 2015), it underwent only minimal changes.

Changes against the approach applied in the previous year:

- There has been a change in the indexation of '**revenues from the sale of products goods and services**' (ECBC 223 001 and, in some cases, simplified recording under 223 000). This sub-item also captures the revenues of companies (sales) in the transport sector, such as the Railways of the Slovak Republic and the National Motorway Company, and urban public transport companies classified in the general government sector. In the past, this sub-item was recorded as a three-year average due to fluctuations in the recorded revenues. Since this item is now used to also record considerable regular revenues, the indexation has changed – instead of the three-year average, an indexation for inflation is used.
- In the case of '**other expenditures on goods and services**' (ECBC 637 200), for which the medium-part of the baseline scenario assumed a three-year average, the changes had several reasons. This sub-item also captures the expenditures on goods and services of the Railways of the Slovak Republic and, partly, also public transport companies. At the same time, this sub-item is used for adjustments to expenditures on research and development (under ESA2010, these expenditures are capitalised[77]) and for reductions in receivables related to PPP projects (sums known for the whole duration of the concession contract). Given the diversity of transactions recorded under this sub-item, it was

[76] The Macroeconomic Forecasting Committee and the Tax Revenue Forecasting Committee

[77] The expenditures on research and development recorded under the relevant sub-items of expenditures on goods and services are deducted through sub-item 637 200 and, by the same amount, increase capital expenditures.

divided into three areas which have different indexations in the baseline scenario. The expenditures or railways and public transport companies, as well as the revised expenditures on research and development, have been indexed for inflation; the change in the PPP project receivables is known in advance. The remaining sum was indexed using the three-year average assumption.

- The ECBC now includes **new sub-items** (637 038 and 637 039) created to **record the payments for irregularities to EU funds and co-financing**. Similarly as for other irregularities and refunds (for example ECBC 637 025, 637 037), also in this case the indexation rule is linked to a three-year average. Since these sub-items did not exist before 2015 (and irregularities were recorded under other sub-items similar in substance), the three-year average was calculated assuming zero values for the years 2013 and 2014.
- A **projection rule in the form of the past three years' average** applies to those items that develop in irregular patterns and cannot be linked to any particular macroeconomic indicator. In the last year's report, given the absence of detailed data (due to transition to ESA2010) only the actual figures for the last year were taken into account. This report already uses the three-year average for 2013 to 2015. For the baseline scenario based on the year 2014, the two year average (2013 and 2014) was applied because of the absence of comparable data from before 2013.
- The **update of the baseline scenario in 2014** reflected the actual tax revenues for 2014, while the CBR estimated the 2015-2018 revenues based on the actual macroeconomic forecasts (forecast by the Macroeconomic Forecasting Committee from February 2016) assuming the same development in the effective tax rates[78] as supposed by the Tax Revenue Forecasting Committee when approving the forecast of the 2015-2017 general government budget. The actual tax development in 2015 and the ensuing forecast for the years to come have not been included into this scenario because they may be influenced by the yet-unquantified government measures (for example, in combatting tax evasions), which should not be a part of the baseline scenario. The differing values of the tax revenue estimates based on these approaches are presented in Table 21.

Tab 21: Tax revenue forecast used in the update of the 2014 baseline scenario (€ thousands)

	2014	2015	2016	2017	2018
Personal income tax	2 280 157	2 434 390	2 578 308	2 736 685	2 919 235
Corporate income tax	2 363 589	2 533 796	2 572 307	2 711 298	2 926 651
Value added tax	5 021 132	5 424 213	5 494 629	5 696 277	5 946 660
Excise taxes	2 014 993	2 031 547	2 047 850	2 060 293	2 076 976
Social insurance contributions	5 766 547	6 042 541	6 316 202	6 623 471	7 003 120
Health insurance contributions	2 778 554	2 743 865	2 873 783	3 047 694	3 243 273
Other taxes	1 193 743	1 145 477	1 157 259	1 040 326	1 085 144
1. Total - estimate in the 2014 baseline (April 2016)	**21 418 716**	**22 355 829**	**23 040 339**	**23 916 044**	**25 201 058**
2. Tax revenues and social contributions in the 2014 baseline (April 2015)	21 201 079	21 735 804	22 605 744	23 499 479	24 730 908
- difference (1-2)	**217 638**	**620 024**	**434 596**	**416 565**	**470 150**
3. Tax revenues and social contributions in the 2015 baseline (April 2016)	21 418 716	22 849 020	23 404 879	24 352 619	25 633 825
- difference (3-1)	**0**	**493 191**	**364 540**	**436 575**	**432 767**

Source: SO SR, CBR, TRFC

[78] The effective tax rates in 2015-2017 were adjusted to reflect a change in the 2014 effective tax rate resulting from the difference between the actual figures and the estimates used in the preparation of the 2015-2017 budget.

Main assumptions for constructing the baseline scenario:

- As was the case with the last year's report, the **forecast by the Macroeconomic Forecasting Committee** has again been used for the medium-part. The forecast of the Macroeconomic Forecasting Committee has been adjusted to reflect the actual results for 2015[79]. Box 2 shows the baseline scenario with an alternative macroeconomic forecast that does not contain the impacts of the new measures incorporated into the general government budget (macroeconomic forecasts under the no-policy-change assumption).
- The baseline scenario takes into account the legislation applicable at the end of the relevant period. **For the 2015 base year, this means the state of play as at 31 December 2015, i.e., including the measures approved in 2015 which have become or will become effective in 2016.** In the case of taxes, the latest tax revenues of the Tax Revenue Forecasting Committee from February 2016 were used in the preparation of the 2015-based scenario. This forecast does not contain any changes adopted after the end of the relevant period.
- In addition to the one-off effects presented in Annex 5, the **base year also reflected other items** which, albeit not meeting the definition of one-off effects (due to their size), **have a temporary impact on the balance**. Specifically, these include a transfer from JAVYS (nuclear decommissioning company) to the National Nuclear Fund of EUR 10 million in 2014, the one-off part of the Christmas bonus to pension benefits in 2014, revenues of the Resolution Fund from 2015 which will influence expenditures in 2016, and a one-off revenue from the dividend paid by VSE Holding in 2015.

Tab 22: One-offs and other items with temporary impact (% of GDP)

	2014	2015	2016	2017	2018	2019
Tax revenues	**-0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
- accrualisation of VAT receipts*	-0.1	-0.1	-	-	-	-
- revenues of the National Resolution Fund	-	0.0	-	-	-	-
Nontax revenues	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
- sales of telecommunication licences*	0.2	-	-	-	-	-
- one-off revenues from dividends	-	0.0	-	-	-	-
Grants and transfers	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
- penalty imposed by the Antimonopoly Office of the SR*	0.1	-	-	-	-	-
- grant received from nuclear decommissioning company (JAVYS)	0.0	-	-	-	-	-
- repayment of loans by Cargo*	0.0	-	-	-	-	-
- repayment of loans by Water-management development (VHV)*	0.1	-	-	-	-	-
Intermediate consumption	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
- VAT liabilities from PPP project*	0.0	0.0	0.0	0.0	0.0	0.0
Social benefits	**-0.1**	**0.0**	**-0.1**	**0.0**	**0.0**	**0.0**
- retroactive disbursement of pensions in the armed forces*	-0.1	-	-	-	-	-
- one-off increase in Christmas bonus to pensions	0.0	-	-	-	-	-
- refunds paid to households for gas consumption*	-	-	-0.1	-	-	-
Other expenditures (mainly transfers)	**-0.1**	**-0.2**	**0.0**	**0.0**	**0.0**	**0.0**
- adjusted amount of transfer to the EU budget*	0.1	-	-	-	-	-
- financial corrections to the EU funds*	-0.2	-0.2	-	-	-	-

79 At the time when the Macroeconomic Forecasting Committee's forecast was approved, the actual figures for 2015 were not yet known. For the purpose of the baseline scenario, the CBR adjusted the forecast to reflect the actual 2015 figures, maintaining the growth rates of individual indicators for 2016-2019 in line with the rates contained in the MFC forecast.

- expenditures of the National Resolution Fund	-	-	0.0	-	-	-
Total (impact on balance)	**0.10**	**-0.24**	**-0.11**	**-0.01**	**-0.01**	**-0.01**

*Note: * one-offs meeting the CBR definition* *Source: CBR, SO SR*

- **The forecast of the drawing of EU funds** is influenced almost exclusively by the funds available under the 3rd programming period (2014-2020). In its forecast, the CBR assumes approximately the same spread in time of the EU funds as in the 2nd programming period. The only difference are the projects-in-progress in the transport sector (construction of motorways and speedways), which are financed from both programming periods. These projects accelerate the pace of EU funds' drawing compared with the 2nd programming period. The CBR estimated the amount of expenditures on co-financing based on the co-financing rates to individual EU funds and the co-financing expenditures effected so far.

Tab 23: Assumptions on EU funds (€ thousands)

	2014	2015	2016	2017	2018	2019
Structural funds and Cohesion fund - 2nd PP	1 507 738	3 610 892	159 204	0	0	0
Structural funds and Cohesion fund - 3rd PP	0	39 076	1 259 472	1 644 274	1 702 645	1 862 065
Agriculture - 2nd PP	127 536	238 439	0	0	0	0
- Rural Development Programme	91 673	236 487	0	0	0	0
- other (mainly direct payments)	35 863	1 952	0	0	0	0
Agriculture - 3rd PP	378 240	431 864	674 687	737 689	729 380	784 037
- Rural Development Programme	52 094	44 784	256 179	287 466	245 026	262 954
- other (mainly direct payments)	326 146	387 080	418 507	450 223	484 354	521 083
Total expenditures financed from EU funds	**2 013 514**	**4 320 271**	**2 093 363**	**2 381 963**	**2 432 025**	**2 646 102**
Expenditures on co-financing*	**383 934**	**762 246**	**362 780**	**404 492**	**396 253**	**430 359**
p.m. EU funds in the general government sector	*1 194 671*	*2 798 071*	*1 355 789*	*1 542 705*	*1 575 128*	*1 713 777*

** including co-financing of EU grants and other foreign grants* *Source: CBR, MF SR, SO SR*

- The projection of revenues and expenditures in the pension and healthcare systems are based on the outputs from the CBR's models. Due to the absence of the 2015 **long-term care** data[80], the CBR used data from the Commission's forecasts[81]; the ECBC structure of expenditures was estimated based on the 2014 results[82]. In the years to come, the trends in expenditures are in line with the Commission's assumptions (taking into account the dynamics in expenditures in % of GDP). **The expenditures on education and**

80 In the absence of statistics on long-term care expenditures, also the Commission uses simplified assumptions for Slovakia (for example, averages from other countries). Expenditures can be estimated based on the COFOG classification; the estimate would partly include healthcare expenditures and partly social-security expenditures. However, this is a breakdown at the fourth level of classification, but the Statistical Office publishes – due to insufficient quality of data – only the second level as the maximum.

81 European Commission: The 2015 Ageing Report: Economic and budgetary projections for the 28 EU Member States (2013-2060), European Economy 3/2015.

82 In 2015, the social care sector (Section 10 of the COFOG classification) contained only three levels of classification, which made it impossible to estimate the structure of expenditures on long-term care according to the ECBC.

unemployment were identified through the classification of functions[83] (COFOG)**.** The input data, particularly for the education sector, differ from those used by the Commission that relies on other statistics by Eurostat and the OECD. Even though they also show general government expenditures, their use makes it impossible to exclude them, in a consistent manner, from the overall balance of the general government and to apply the correct indexation rules[84]. On the other hand, the classification of functions is reported in parallel with other national classifications and ESA2010 which allows their consistent combinations. These expenditures (education and unemployment) have been indexed in the medium-term part based on defined rules and, therefore, reflect the current macroeconomic developments and the existing legislation. The long-term part takes into account the dynamics in expenditures expressed in proportion to GDP as presented in the Commission's forecast.

- **The projection of revenues and expenditures related to the nuclear decommissioning scheme has been updated** to reflect different actual developments and the forecast of macroeconomic indicators (inflation), as well as information on the postponed launch of the 3rd and 4th unit of the Mochovce nuclear power plant.

[83] For the 2015 baseline scenario, the expenditures under the functional classification were compiled by the CBR, using also documents from the State Treasury and the Statistical Office of the Slovak Republic. Because the Statistical Office publishes such data only at the end of 2016, these unofficial figures may be slightly revised once the official data have been released.

[84] Expenditures on education include payroll costs, operating costs, as well as investments. By using the data based on the Commission's methodology, the information concerning the structure of expenditure on education is lost; for this reason, it is not possible to exclude the expenditure on education from the structure of general government expenditures under the relevant ECBC sub-item.

Annex 7 – Medium-term macroeconomic no-policy-change scenario

In order to ensure consistency of the baseline scenario, the CBR has prepared macroeconomic forecasts based on the assumption of no change in policies between 2016 and 2019 (NPC – no-policy-change scenario). In the medium-term, it was necessary to adjust the official forecast of the Macroeconomic Forecasting Committee (MFC) for the effects of those fiscal measures that were not in force during the starting year 2015, which was used as a basis for the baseline scenario of public finance development.

The 2016-2018 general government budget assumes one-off and permanent measures with effects on government revenues and expenditures and, subsequently, on the macroeconomic variables (included in the MFC forecast) which enter into force after the starting year of 2015. Also, the assumption used in the NPC scenario is that their announcement and/or approval in 2015 produced only negligible effects onto expectations and decisions of economic subjets during the year 2015. The measures are clearly identified in the Draft Budgetary Plan for 2016 (Chapter II.7, Annex 3). The size of the measures is specified in Table 26 and their effects have been quantified using the Draft Budgetary Plan for 2016 and the estimates of the Tax Revenue Forecasting Committee. The quantification of both direct and indirect effects of the measures on macroeconomic variables is based on estimates of the CBR macronometric model[85]; the transmission and macroeconomic channels are comparable with the model used by the Ministry of Finance (Annex 5 to the Draft Budgetary Plan) and contain secondary effects as well. The effects of individual measures have been estimated using the latest MFC forecast from February 2016. The overall effect of the consolidation measures included in the MFC forecast on GDP is negative and, therefore, after their deduction, the macroeconomic growth in individual years under the no-policy change scenario is higher (isolated annual effects are in Table 24). The cumulated dynamic effect of all measures in 2016-2018 accelerates GDP growth in 2016 and 2017 by 0.2 p.p. compared to the MFC forecast from February 2016 (Table 25).

Tab 24: Macroeconomic effects of fiscal measures - adjustment for NPC-scenario

Effect on growth in p.p.	Effect of fiscal measures in the specific year			Mixed total effect - change against MFC forecast			
	2016	2017	2018	2016	2017	2018	2019
Consumer inflation	0.2	0.0	0.1	0.2	-0.1	0.1	0.0
Employment	0.0	0.1	0.2	0.0	0.1	0.2	0.1
Nominal wage	-0.4	0.8	0.7	-0.4	1.4	0.1	-0.7
Real consumption of households	-0.7	0.6	0.1	-0.7	1.1	-0.4	-0.3
Government consumption	2.5	1.7	1.3	2.5	-0.9	-0.4	-1.3
Fixed investment	0.7	0.5	-0.4	0.7	-0.2	-0.8	0.3
Import	0.0	0.3	0.0	0.0	0.2	-0.2	-0.1
Real GDP	0.2	0.5	0.2	0.2	0.2	-0.3	-0.2
Nominal GDP	0.4	0.4	0.3	0.4	0.1	-0.1	-0.3

Source: CBR

85 *Working Paper No. 1/2015: Fiscal Adjustment in Slovakia.*

Tab 25: Macroeconomic NPC forecast and MFC official forecast

Indicator (in %)	Actual	NPC scenario (adjusted MFC forecast)				MFC official forecast (February 2016)			
	2015	2016	2017	2018	2019	2016	2017	2018	2019
GDP, real growth	3.6	3.4	3.8	3.8	4.4	3.2	3.6	4.1	4.6
Inflation, year average; CPI	-0.3	0.4	1.5	2.3	2.2	0.2	1.6	2.1	2.2
Real wage, growth	3.2	2.4	4.3	2.4	2.2	3.1	2.9	2.5	2.9
Employment, growth	2.1	1.3	1.0	1.3	1.1	1.3	0.9	1.1	0.9

Source: CBR

Tab 26: Size and transmission channels of fiscal measures (in % of GDP)

Measures with direct impact on GDP growth			
	2016	2017	2018
Government consumption	**0.29**	**0.44**	**0.36**
Intermediate government consumption	0.60	0.19	0.13
Compensation of employees	-0.23	0.26	0.24
Social transfers in kind	-0.07	0.00	0.00
Market production	-0.02	-0.01	-0.01
Investments	**0.16**	**0.11**	**-0.08**
Government	0.15	0.11	-0.08
Other	0.01	0.00	0.00
Gross disposable income of households	**-0.13**	**0.07**	**0.00**
Inflation	**-0.07**	**0.01**	**0.00**
Size of measures with direct impact on GDP	**0.24**	**0.63**	**0.28**

Source: CBR

Annex 8 – Net worth

A comprehensive understanding of the situation in public finances requires a perspective on flow variables (balance, revenues and expenditures) as well as stock variables, typically presented in the form of a balance sheet. The government's balance sheet can be very helpful in increasing the transparency of public finances, as well as in setting the right incentives for economic policy makers. Achieving the long-term sustainability of the general government (deficit and debt) by shifting the burden onto state corporations (putting off problems until later) is not the same as doing so by reducing the level of provided services (e.g. low quality of infrastructure). The result of the public sector's balance is the so-called net worth.

Net worth is defined by the Fiscal Responsibility Act as the sum of equity of general government entities, equity of the National Bank of Slovakia, equity of central government corporations and local government corporations, adjusted for implicit liabilities and contingent liabilities, other assets and other liabilities. The scheme of the public sector's net worth is shown in Table 27.

Tab 27: Balance sheet of the public sector – net worth

ASSETS	LIABILITIES
A1 – buildings, land, etc.	P1 – explicit debt
A2 - infrastructure	P2 – implicit liabilities
A3 – net capital stock	P3 – contingent liabilites
A4 – financial assets	P4 – other liabilities
A5 – net worth of the central bank	Net worth
A6 – net worth of state-owned enterprises	
A7 – natural resources*	
A8 – ecological wealth*	
A9 – other assets	

** Currently not estimated due to difficulties related to the estimation of these items.* *Source: CBR*

Based on the currently available data, it is not possible to compile such balance for the entire public sector[86]. Consolidated balance is available only for the public sector entities, with the exception of the National Property Fund's corporations and the balance of the National Bank of Slovakia. For this reason, net worth is shown as a summary of its individual parts (Table 28), with more detailed data on each individual part presented in the Summary Annual Report of the Slovak Republic for 2014 published by the Ministry of Finance.

Tab 28: Net worth of the public sector in Slovakia in 2013 and 2014 (€ million)

	2013	2014	y-o-y change	of which: methodological changes	of which: change in level
1. Equity of the public sector	2 196	-17 153	-19 349	-19 134	-215
- Equity of the public sector entities (excl. NPF and NBS)	672	-14 040	-14 712	-19 134	4 422
- Equity of NPF corporations	5 195	304	-4 891	-	-4 891
- Equity of the National Bank of Slovakia	-3 671	-3 417	254	-	254
2. Implicit liabilities	-159 932	-111 467	48 466	-	48 466

[86] The consolidation of mutual relations between the NPF's corporations, the National Bank of Slovakia and other public sector entities is still a problem.

3. Contingent liabilities	-12 063	-13 401	-1 338	-1 711	373
4. Other assets (lawsuits)	689	866	177	214	-37
Net worth (1+2+3+4)	**-169 111**	**-141 155**	27 957	**-20 631**	**48 587**

Source: MF SR, CBR

In the case of contingent liabilities, the CBR identified further liabilities beyond those presented by the Ministry of Finance. These involve protected deposits in the Deposit Protection Fund. An exhaustive list of contingent liabilities is presented in Table 29, indicating those items that were identified by the Ministry of Finance on the basis of a wider data base (marked as methodological change).

Tab 29: Contingent liabilities of the public sector

Entities (according to the annual report)	Liability	2013		2014	
		(€ mill.)	(% GDP)	(€ mill.)	(% GDP)
MF SR	European Stability Mechanism	5 109	6.9	5 109	6.9
	European Financial Stability Facility	2 188	3.0	2 318	3.1
	EIB membership	574	0.8	580	0.8
	IBRD membership	340	0.5	386	0.5
	EBRD membership	101	0.1	101	0.1
	CoE DB membership	17	0.0	17	0.0
	IBEC membership	12	0.0	12	0.0
	MIGA membership	2	0.0	2	0.0
	IIB membership	48	0.1	48	0.1
	arbitration with shareholders of ZP Union, a.s.	26	0.0	27	0.0
	arbitration with shareholders of former ZP Apollo, a.s.	131	0.2	0	0.0
	arbitration with U.S. Steel Košice shareholders	257	0.3	0	0.0
	arbitration with shareholders of Eurogas Inc. and Belmont Resources Inc.	-	-	227	0.3
	other legal disputes	823	1.1	556	0.8
MI SR	legal disputes	-	-	129*	0.2
NC SR	legal disputes	725	1.0	728	1.0
SLF	legal disputes	116	0.2	117	0.2
NPF	guarantees according to para. 15 of act no. 92/1991	1 114	1.5	1 014	1.4
	legal disputes	209	0.3	221	0.3
Other central government entities		242	0.3	0	0.0
Slovenský plynárenský priemysel, a.s.		-	-	1 112*	1.5
Slovenská záručná a rozvojová banka, a.s.		-	-	147*	0.2
Exportno-importná banka Slovenska		-	-	198*	0.3
Slovenská elektrizačná prenosová sústava, a.s.		-	-	115*	0.2
MF SR guarantees against SZRB, a.s.		-	-	10*	0.0
Municipalities		21	0.0	86	0.1
Self-governing regions		8	0.0	6	0.0
Other entities	**Liability**	**2013**		**2014**	
		(€ mill.)	(% GDP)	(€ mill.)	(% GDP)
DPF	insured deposits	26 856	36.4	28 149	37.3
Total		**38 920**	**52.7**	**41 416**	**54.8**

** impact of methodological changes*

Source: MF SR, NC SR, DPF, CBR

Annex 9 - Baseline scenario of 2013 - revision

Based on the revision of the 2014 baseline scenario, the long-term sustainability indicator improved by 1 p.p., from 2.4 % to 1.4 % of GDP.

Tab 30: Contributions to the change in the long-term sustainability indicator in 2014

	% of GDP
GAP 2014 Baseline (April 2015)	**2.42**
- medium-term part of the baseline scenario	-0.70
- revenues and expenditures of the universal pension system	0.15
- healthcare expenditures	-0.06
- expenditures on education, unemployment and long-term care	-0.05
- nuclear decommissioning scheme	-0.03
- revenues and expenditures of the pension system of armed forces and police corps	0.01
- property income	0.03
- gross debt in 2014	0.01
- combined impact of all changes*	-0.15
- GDP forecast (denominator effect) and interest payments	-0.18
GAP 2014 Baseline - update (April 2016)	**1.43**

Note: (-) means improvement and (+) means worsening of the long-term sustainability indicator *Source: CBR*

** It is an additional impact on the long-term sustainability indicator stemming from the fact that all above listed changes ocurred at the same time. Since changes in the primary balance affect gross debt and interest payments which also affect gross debt, the overall change in the long-term sustainability indicator is always higher than the sum of each factor taken separately.*

The improvement is mainly due to changes in the medium-term part of the baseline scenario where the revenue and expenditure items are indexed depending on their substantive nature[87]. The general government deficit in the base year, adjusted for one-off effects, improved by 0.2 % of GDP. At the same time, the improved macroeconomic development has increased the medium-term forecast of tax revenues[88], while the non-tax revenues and expenditures unaffected by population ageing remained almost unchanged. This is mainly due to the forecasted decline in the rate of inflation that slows down the pace of growth in expenditures on goods and services and current transfers.

Another factor behind the improvement is the upward revision of the GDP growth throughout the forecast period. GDP level has increased on average by almost 10 %. The **downwardly revised forecast of interest rates** on government bonds in the medium term, which reduces the cost of debt, has also influenced the indicator positively.

[87] In the long-term part of the baseline scenario, specifically defined rules apply only to the revenues and expenditures sensitive to population ageing and to other implicit liabilities. The other revenue and and expenditure items are indexed for GDP growth and do not affect the long-term sustainability indicator.

[88] According to the updated baseline scenario, the change in revenues from taxes and social contributions between 2014 and 2018 is 0.5 % of GDP higher.

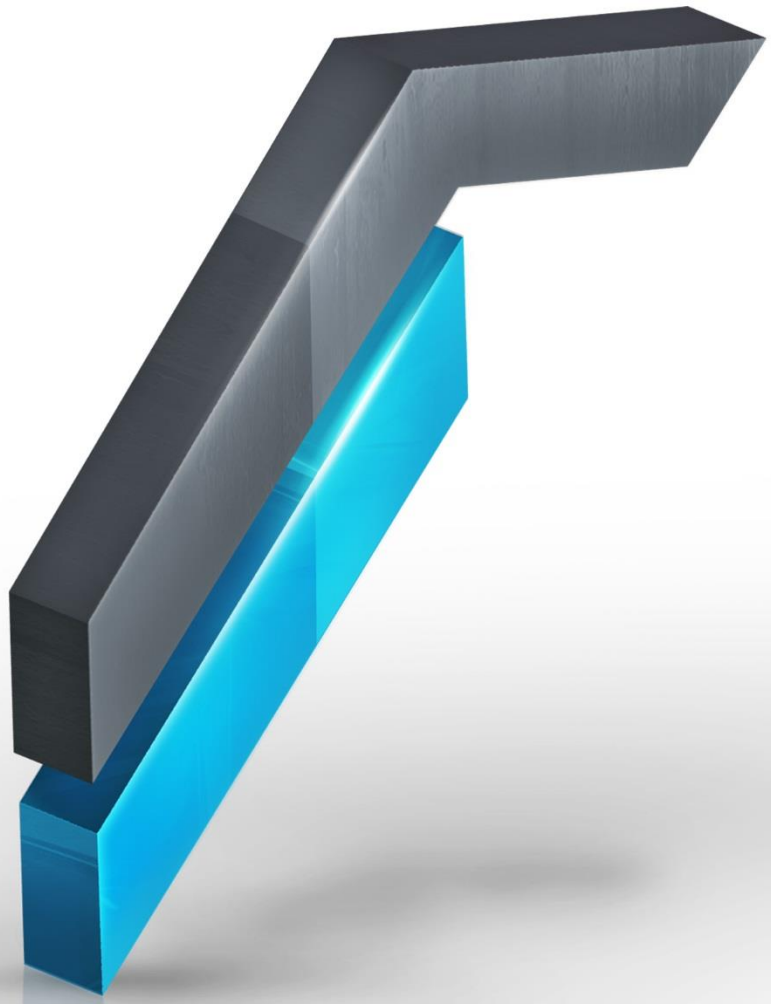
The updated projection of revenues and expenditures associated with population ageing, other implicit liabilities and the higher actual end-2014 level of gross debt, have slightly worsened the long-term sustainability indicator.

Tab 31: Public finance baseline scenario – year 2014 (% of GDP)

		Medium-term part				Long-run projections				
	2014*	2015	2016	2017	2018	2020	2030	2040	2050	2064
Total revenues	**39.1**	**40.6**	**38.8**	**38.2**	**37.6**	**37.5**	**37.2**	**37.3**	**37.4**	**37.7**
Tax revenues	17.6	17.8	17.6	17.2	16.9	16.9	16.9	16.9	16.9	16.9
Social and health security contributions	13.6	13.6	13.7	13.7	13.6	13.5	13.3	13.5	13.8	13.9
- Total contributions (PAYG+ fully-funded pillar)	13.9	13.9	14.0	14.0	13.9	13.9	13.8	13.8	13.8	13.8
- Shortfall of fully funded pillar	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.7	-0.5	-0.3	-0.2
- Social contributions of armed forces	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3
Grants and transfers	3.0	4.4	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7
Non-tax revenues	4.9	4.8	4.7	4.6	4.5	4.5	4.3	4.2	4.1	4.2
- Contributions to nuclear fund (NJF)	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0
- Property income	0.9	0.8	0.8	0.7	0.7	0.7	0.6	0.5	0.4	0.6
- Other non-tax revenues	3.9	3.8	3.8	3.7	3.6	3.6	3.6	3.6	3.6	3.6
Total expenditures	**41.9**	**43.9**	**40.9**	**40.4**	**39.6**	**39.8**	**40.5**	**41.1**	**43.2**	**48.7**
Primary expenditures	40.0	42.2	39.3	39.0	38.4	38.4	38.0	37.9	38.7	40.7
Fixed	21.2	23.1	20.6	20.4	19.8	19.8	19.8	19.8	19.8	19.8
Sensitive to population ageing	18.5	18.8	18.4	18.4	18.3	18.3	18.0	17.9	18.8	20.7
- Pensions (PAYG pillar)	8.4	8.4	8.3	8.3	8.3	8.3	7.6	7.5	8.0	9.6
- Armed forces	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.4
- Healthcare	5.2	5.2	5.3	5.3	5.3	5.4	5.8	6.1	6.4	6.5
- Long-term care	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6
- Education	4.1	4.4	4.0	4.0	3.9	3.9	3.8	3.4	3.5	3.6
- Unemployment benefits	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Decommissioning of nuclear plants	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
PPP projects and maintenance	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0
Transfers to political parties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest	1.9	1.7	1.6	1.4	1.3	1.4	2.6	3.2	4.5	8.0
GG balance	**-2.8**	**-3.3**	**-2.1**	**-2.2**	**-2.0**	**-2.2**	**-3.3**	**-3.8**	**-5.7**	**-11.0**
Primary GG balance	**-0.9**	**-1.5**	**-0.5**	**-0.8**	**-0.7**	**-0.9**	**-0.7**	**-0.6**	**-1.3**	**-3.0**
Debt	**53.9**	**55.4**	**55.7**	**55.1**	**53.9**	**51.5**	**54.2**	**66.9**	**92.4**	**165.1**

** excluding one-offs*

Source: CBR



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