MAGYAR NEMZETI BANK

THE CENTRAL BANK OF HUNGARY

PROJECTION OF THE FISCAL BALANCE AND PUBLIC DEBT (2012–2027) - SUMMARY

PUBLIC FINANCE REVIEW

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SUMMARY

Key messages

- *The purpose of our analysis is to highlight the risks that fiscal policy may encounter in the medium term, in a 15-year time horizon, in light of the measures and rules known and effective at this time. The scenario we describe is not a forecast but a so-called technical projection: instead of the most likely path that takes into account the likely responses of economic policy, we present the deficit and debt trajectories assuming no change in current economic policies.*
- *Based on the assumptions of our projection, the gross public debt as a percentage of GDP develops along a sustainable path; from the 79 per cent expected for the end of 2012 it may decline to around 66 per cent in 15 years. The projected public dept trajectory is close to the public debt projection published by the European Commission late 2012.*
- *Since our last projection published in May 2012 both the primary balance (i.e. net of interest expenditures) and the debt growth trends changed in an adverse direction. The significant increase of pension expenditures and the deteriorated growth outlook play a major role in the shift of the primary balance.*
- *The upward shift of the debt path is attributable mainly to the change of the primary balance and also to the less favourable growth path. In contrast, the persistently lower funding costs relative to our 2012 assumptions moderate the increase of the debt rate.*
- *In our baseline scenario, in 2027 the public debt ratio is still above both the 60 per cent expected under the Maastricht Treaty, and the 50 per cent debt target of the Constitution. The debt trend, however, tends towards those levels. Achievement of the aforesaid criteria would require either a growth rate permanently above our assumed level, or lower financing costs, or additional fiscal balance improvement measures.*
- *Following a temporary fall, the primary surplus of the general government shows an improving trend and may be over 2 percent of GDP at the end of the projection horizon. During the whole period the financing cost exceeds the growth rate, therefore contributes to debt accumulation, albeit in a decreasing manner. Over time, the positive primary balance is more than able to offset this effect and thus results in a gradual decline in the debt ratio.*
- *The temporary reduction in the primary surplus is caused, in accordance with our projection of May 2012, mostly by the decline in EU funds, and by new expenditure items such as the implementation of the career path model for educational employees. The slightly higher MNB loss reimbursement between 2014 and 2016 also worsens the primary balance temporarily while our projections indicate that MNB's profits may produce steady revenues for the budget in the longer term.*
- *In the medium term, the reduction of pension expenditures will bring about significant balance improvements. Although in the short term the level of pension expenditures will significantly exceed our earlier expectations, the reforms of the pension system will still cause expenditures to decrease by a significant 2.7 percentage points of GDP in the forthcoming 15 years.*

Methodology and principles

The projections of the Magyar Nemzeti Bank tend to look ahead two years at most. In the case of the analysis of the general government frequent, short term analyses facilitate the fine-tuning of forecasts in light of the economic developments observed. However, they are not suited to outline longer term trends or the fiscal effects of certain fiscal measures that unfolds during several years. This publication, launched last year, focuses on longer term processes to address this deficiency. Consequently, our analysis looks at the development of public debt in the 15-year time horizon assuming fiscal policy to remain unchanged apart from the fiscal measures already announced and seeks to answer the question whether the 50 percent debt target set in the Constitution and the 60 percent level required under the Maastricht Treaty can be achieved.

In our analysis, we shall

- briefly describe the initial level of public debt and analyse, in international comparison, the main factors that have affected the debt path in recent years;
- based on our technical projection for the revenue and expenditure items of the budget, prepare a bottom-up projection for the fiscal balance (financing requirement); in this context, we place particular emphasis on the expenditures affected directly and significantly by changes in the demographic composition of the population;
- assess how the initial debt level, the primary balance and interest balance of the general government and the rate of economic growth will form the debt path in the next 15 years;
- examine the sensitivity of the debt path thus obtained to some fundamental assumptions: the HUF/EUR exchange rate, the expected government bond yields, the growth rate and the general government balance, and demonstrate the level of uncertainties surrounding our projected trend;
- compare the projected debt level with the key debt rules relevant for Hungarian fiscal policy and establish the additional balance improvement needed to comply with each requirement in the 15-year time horizon of our review.
- compare the results with the technical projection of last year. The shifts will give a comprehensive picture about the longer term effects of the macroeconomic and fiscal developments of the past year. Moreover, while there is considerable uncertainty in the debt level, the uncertainty relating to the change in the debt path is significantly smaller.

As in our calculations we assumed fiscal policy to be unchanged, our debt and deficit paths are so-called technical projections and they are not to be construed as forecasts. This means that instead of the expected scenario, we present the path that would emerge assuming a “no policy change” environment in fiscal policy.

It is necessary to emphasize that the uncertainties surrounding the deficit and debt dynamics as well as the trends explaining the former two are gradually increasing. The uncertainty is attributable partly to cumulative errors originating in methodological choices, risks concerning the projection of macroeconomic trends and partly to the constrained possibility of economic policy reactions and feedbacks.

The dept path should be regarded as a trend, the emphasis lies not on the single years but on the tendency and on the dept level that may be reached after 15 years. The actual debt rate can fluctuate around the presented trend on account of cyclical factors that has been disregarded in our projection.

As a general rule, our analysis is based on relevant information available up to 15 January 2013.

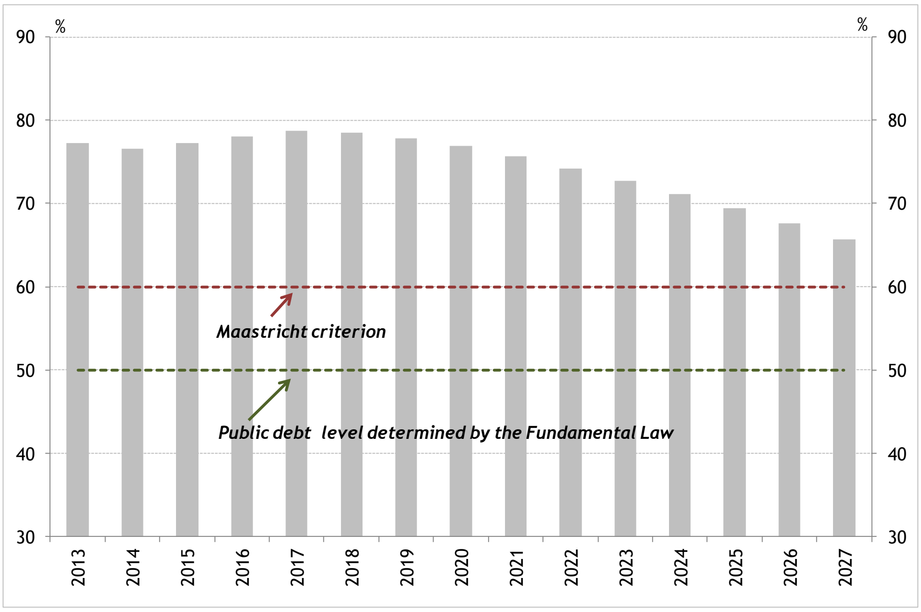
Results

The medium term dynamics of the public debt are determined by the initial debt level, the projected trend of the primary budget balance as well as the assumptions concerning the rate of economic growth, financing costs and the HUF exchange rate. In addition to fiscal measures already implemented, the dynamics of primary balance are driven by the structure of output, the level and narrowing of the output gap, as well as items directly affected by demographic trends.

Baseline scenario

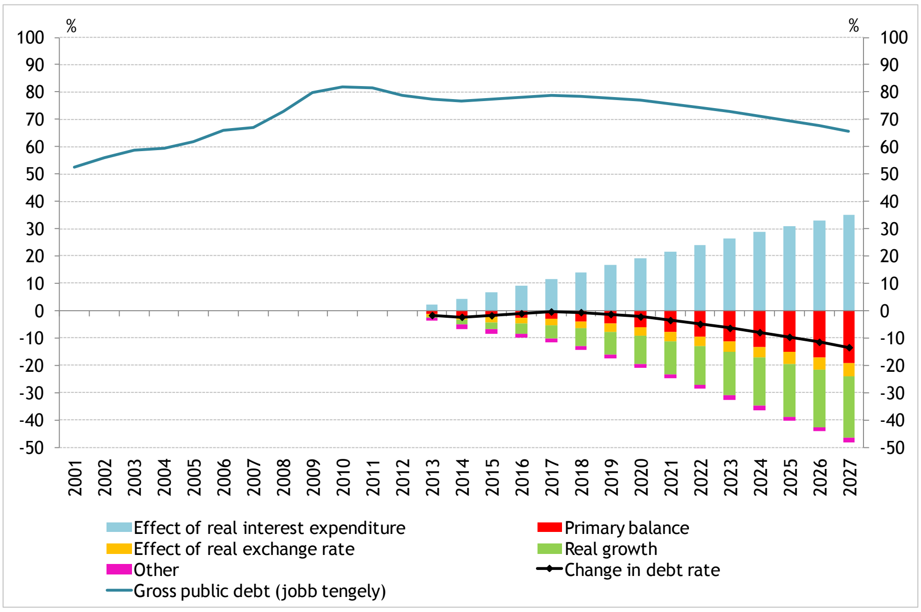
Based on the assumptions used in our projection, gross public debt as a percentage of GDP may decline from the 79 per cent at end-2012 to around 66 per cent by 2027. *Thus, the projected public dept trajectory bears close resemblance to the public debt projection published in the European Commission analysis in Autumn 2012.* The debt path has risen as compared to our projection of May 2012, which is attributable firstly to the reduction of the primary surplus of the budget and secondly to the change in economic growth prospects.

Chart 1: Public debt to GDP – results of the projection



The debt path of our projection does not assure the achievement of the debt targets and criteria relevant for Hungary. By the end of the 15-year horizon of our projection, the debt target set forth in the Constitution may be achieved if 1) growth is faster than in the baseline scenario 2) the financing costs are lower than assumed or 3) there is additional improvement in the fiscal balance. If the financing cost declines at the rate assumed in our projection and the growth potential of the Hungarian economy develops as we assumed, achievement of the debt target defined in the Maastricht Treaty will require an additional 0.4 percentage point permanent balance improvement, as a percentage of GDP, from 2015 on.

Chart 2: Growth rate and decomposition of public debt, 2001-2027



The three main factors determining the debt ratio—the so-called primary balance of the general government (i.e. net of interest expenditures), the financing costs of existing debt and the growth rate of the economy—will develop along the following projection path:

- *The primary balance of the general government* will show an improving trend following a temporary decline. The primary balance amounting to 1.3 per cent of GDP expected for 2013 will fall to 0.3 per cent by 2016-2017, then it will gradually increase to 2.1 per cent of GDP by the end of the projection horizon. The temporary setback in the primary surplus is due to the introduction of the career path model for educational employees and the loss reimbursement to the MNB as well as the drop in EU funds. In the medium term, however, reforms of the pension system and savings from transfer expenditures resulting from demographic and employment trends will improve the primary balance of the budget. The increase of the primary surplus is also promoted by the expected persistent contribution of the earnings of the MNB to fiscal revenues from 2018 on.

- In respect of *financing costs*, our analysis is based on the forward yield curve calculated from the yields of the government securities market. In the medium term we expect the sovereign risk premium to decline considerably, which has a major effect on costs, though we assume that in the projection horizon the premium will not return to the low level seen in the pre-crisis era. In the case of HUF government securities this implies a real interest rate slightly above 3 per cent, which implies, given our yield assumption for the foreign currency debt, that the average real cost of financing the total debt will stabilise at the pre-crisis level. Taking also into consideration the effect of the changes in real exchange rates, the adjusted implicit interest rate in the second half of the projection period is 20-50 basis points higher than the GDP growth rate.

- In respect of *economic growth*, following the closure of the output gap assumed to occur in 2016, we reckon with potential GDP growth to gradually increase to 2.5 per cent per annum. On the other hand, the debt dynamics are adversely affected by the facts that we assessed short term growth prospects to be worse than we did in our technical projection of last year and the nominal GDP level has also been significantly revised downward. In our projection we assume the terms of external financing to be gradually improving throughout our horizon and the economy to resume the path of convergence.

Sensitivity analysis

We have performed sensitivity analyses to highlight the relationship between the outcomes and the assumptions used:

- *Growth:* A 0.5 percent divergence from the baseline growth rate starting in 2015 causes a 5 percentage point movement of the debt ratio in the opposite direction by the end of the projection horizon.
- *Exchange rate:* The sensitivity of the change of debt between 2015 and 2027 to a 10 percent change in the exchange rate is approximately 2.6 percent.
- *Interest rate:* A 1 percentage point shift in the yields of HUF and FX bonds in 2015 results in an approximately 7 percentage point change in the debt by 2027.
- *Primary balance:* If the primary balance of the general government shows a 0.5 per cent difference from the balance used in the baseline scenario in each year from 2015 on, the debt level in 2027 will be 6.8 percent of GDP lower or higher.

The results of the sensitivity analyses must be viewed with reservations as this method did not allow us to examine and filter out the interaction of the main components affecting debt dynamics. For instance, in the event of a substantial fiscal tightening we expect a temporary setback in growth, which would slow down the reduction of the debt ratio while the risk premium may be reduced and in the longer term, growth may accelerate compared to its previous level. Similarly, the strengthening or weakening of the exchange rate has different, asymmetrical effects on household consumption, import intensive and exporting sectors and consequently on growth and budget revenues.[1] Furthermore, a 1 percentage point improvement in the primary balance and a 1 per cent strengthening of the exchange rate would cause changes of different orders of magnitude compared to the baseline and the probability of their occurrence is also different.

Changes since our previous technical projection

Since our previous technical projection published in May 2012 our trajectories of both the primary budget balance and the debt have changed in an adverse direction. The increase of pension expenditures and the less favourable growth environment have played a major role in the decrease of the primary surplus.

Although we continue to expect pension expenditures to decline steeply in the forthcoming 15 years, the level of expenditures has risen throughout the whole period compared to our previous projection. The increase of pension expenditures reduces the primary surplus of the budget by 0.6 per cent of GDP on average. The expenditure increase is attributable to three factors:

- first, the effect of previous measures is not fully reflected in the disability pension expenditures,
- second, the rate of retirement of women with period of eligibility at least 40 years significantly exceeded our expectations,
- finally, as a result of overestimation of inflation in 2013 pension expenditures will increase by 0.25 per cent of GDP.[2]

While the increase caused by the first two factors will be mostly transitory, the increase in 2013 in real terms caused by the third factor will have its effect felt throughout the whole period.

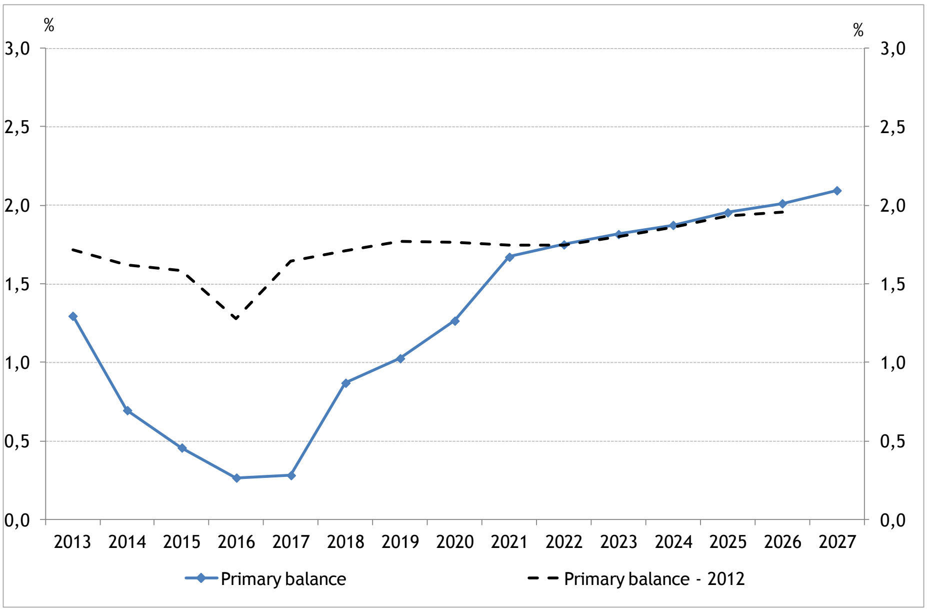
The fiscal measures announced since May 2012 and the Budget Act in aggregate did not improve the balance trend. The revenue increasing measures announced during the year were sufficient to offset the

[1] In our analysis we attempt to present these complex effects using an econometric model, the results of which supplement the baseline projection of the debt ratio and the sensitivity analysis (See Box 3).

[2] In our projection we used the inflation rate of the Act on the Central Budget at 5.2 per cent, which is 1.7 percentage point above MNB's projection for 2013.

deterioration caused by the job protection action plan and the proposed increase of budget expenditures. However, some measures will bring about only temporary balance improvements. When these effects fade, the announced measures and the additional expenditures set forth in the Budget Act will reduce the primary surplus mildly.

33: Change in the projection of the fiscal balance since May 2012



The change of our projection for the MNB earnings worsened the balance in the short term but improved it in the longer run. In the short term, the effect of net interest expenditures on profits may be greater than previously expected; consequently, the loss reimbursement will increase budget expenditures in the years to come. In the longer term, however, the assumed persistent reduction of the external indebtedness allows for lowering the level of foreign exchange reserves. Meanwhile, the non-interest-bearing liabilities of the MNB will increase because of the projected growth in the cash demand of the economy. Thus the interest revenues of the central bank may persistently exceed its interest expenditures and in the longer term the MNB may achieve profits of around 0.1 per cent of GDP; we assume that the MNB will transfer its profits into the budget.

The shift in the growth path has an adverse effect already on the initial position of the budget as well. In 2012 tax revenues fell short of expectations for most types of taxes. Besides less favourable short term growth prospects, the estimated level of potential output has also shifted downward throughout the whole period. Consequently, the balance improvement resulting from the narrowing of the output gap is approximately 0.2 per cent smaller — in terms of GDP — than previously envisaged.

According to our current projection, in 2026 the debt ratio may be 66 per cent of GDP; which is 8 percentage points higher than the figure envisaged in the 2012 projection. The upward shift of the debt trajectory is attributable mainly to the change of the primary balance and also to the less favourable growth path. The debt path has been increased by the higher initial value resulting from the revised nominal GDP figure. On the other hand, the stronger real exchange rate the declining real interest expenditure and the presumably less popular Student Loan II scheme are conducive to the lowering of the debt path.