

Debt and Financial Assets Management Department

# The Czech Republic Funding And Debt Management Strategy 2013



**Ministry of Finance** 

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The Minister of finance decided on 12 December 2012 the structure and method of financing the gross borrowing requirements of the central government in the budget year 2013 and in the medium-term to 2015 and approved the basic absolute and relative limits for issuance activity on the domestic and foreign markets and for active management of the net debt portfolio and liquidity of the state treasury (Ref. No. MF-117380/2012/20).

This defined operational framework in the form of the submitted Funding and Debt Management Strategy for 2013 (hereinafter the "Strategy") enables the Ministry of Finance (hereinafter the "Ministry" or "MoF") to be flexible on the domestic and foreign financial markets while actively ensuring resources for covering the gross borrowing requirement of the central government and ensuring the daily solvent position of the state, meaning creation of ideal conditions for the smooth implementation of the budgetary policy and fiscal consolidation strategy of the Government of the Czech Republic.

The Strategy is based on and conforms with the draft act on the state budget of the Czech Republic for 2013, the medium-term outlook of the state budget of the Czech Republic for 2014-2015, the medium-term expenditure frameworks for 2014-2015, the Fiscal Outlook of the Czech Republic from November 2012 and the Macroeconomic Forecast for the Czech Republic from October 2012. The Strategy was updated based on recently available data.

The Strategy is submitted via the Debt and Financial Assets Management Department (hereinafter the "Department"), which is responsible for operations related to the funding of the state, active management of the net debt portfolio, management of the state treasury liquidity and short-term and long-term investment of available funds originating from state financial assets.

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#### Summary

In the medium-term outlook the funding and debt management strategy focuses on the segments of the government financial balance whose management falls within the direct responsibility of the Minister of finance and whose structure impacts directly on the revenue and expenditure and their variation caused by the domestic and foreign market risk factors, particularly interest rates, foreign exchange rates and inflation rate.

The main financial item of the general government balance is state debt, which represents more than 95% of the total gross indebtedness of the sector of government institutions and will in 2012 reach about 43.7% of gross domestic product (GDP). In the medium-term outlook, the growth of the state debt will slow down sharply and will not exceed 46.4% of GDP in 2015. Current outlook of gross general government debt for 2012 is 45.5% of GDP, increasing to 49.2% in 2015. The local government institutions' debt in the medium-term outlook is below the limit of 3% of GDP. The Czech Republic still is the ninth least indebted country economy in relation to GDP within the EU and shows the lowest indebtedness among Central European Countries. Moreover, at the end of 2012 the Ministry will have the cumulated cash reserve of 3.6% of GDP at its disposal, which can be used for the financing of borrowing requirement in following years. The state financial assets liquidity of 1.3% of GDP is also available.

The financing of state debt in 2012 benefited from the high credit worthiness of the Czech Republic as an issuer on the bond markets, which resulted in the lowest government bonds market yields and strong investors demand, being a synonym of one of the safest investment opportunities. Also the citizens of the Czech Republic showed their trust by significant demand for government savings bonds. The high grade of domestic and foreign long-term sovereign credit rating was preserved as well as the stable outlook by all the main rating agencies.

The conception of the strategy for the period from 2013 to 2015 is based on the expectation of slight economic recovery in 2013 and accelerated economic growth in 2014 and 2015, a stable domestic banking sector, external macroeconomic balance, trustworthy monetary policy of the central bank and stabilization of the public budget system with the aim of reducing the budget deficits to the level below 3% of GDP by 2013 and preserving it in the outlook to 2015, but with greater emphasis on support of economic growth and mitigation of the procyclical effect of the consolidation measures. It will show as a neutral impact on structural deficit in comparison to the original goals of the Convergence Programme of the Czech Republic as of April 2012.

The consolidation of public budgets continued in 2012 with an expected general government budget deficit of the government sector of 3.2% of GDP. Current estimation of this deficit is 5.0% GDP. The 1.8 percentage points correction is a result of the adjustments related to the ESA95 methodology requirements. The cause of the adjustments are the certification of the EU Funds lower by CZK 11.2 billion and the impact of the compensation to churches and religious societies approved by the respective act and resulting among others in the obligation to pay the total amount of CZK 59 billion in 30 instalments. These one-off accrual adjustments do not impact on 2012 state budget cash deficit or the net borrowing requirement. The decrease in state budget structural deficit is expected to be 0.9% of GDP in relation to the sharp increase by 1.4% of GDP in 2011. The final state budget cash deficit will not derive substantially from its budgeted value of CZK 105 billion and one of the reasons for it are the significant savings in expenditures on state debt management in comparison to the budgeted expenditures, like in 2010 and 2011.

The negative development of the Eurozone debt crisis and the resulting significant uncertainty regarding the development of the real economy and the bond markets have prompted the Ministry to revise its aim regarding tapping of the cash reserve, which is built by the Ministry from the revenues from the issuance of government securities, planned for 2012-2015. The reserve was increased by CZK 65.1 billion (assuming budgeted deficit of CZK 105 billion), compared to the zero change that was planned in the Strategy for 2012, and this also contributed to the increase in both net and gross borrowing requirement for 2012 and in gross general government debt. The Strategy does not assume tapping or another accumulation of the reserve in the outlook to 2015 and the issuance plans and the funding programme is designed based on the zero change of this item of state financial assets. Nevertheless, in the event of unexpected instability on the financial markets or tactical reduction in issuance activity due to the temporary unfavourable funding costs, the reserve can be integrated in the financing. To the contrary, the Ministry can decide to increase the reserve in order to profit from the favourable conditions and demand from foreign investors like in the second half of 2012 and thus further strengthen the liquidity position of the Czech Republic.

The gross borrowing requirement for 2012 is expected to reach CZK 309.3 billion, which is CZK 65.9 billion more than planned in the Strategy for 2012. In 2013, the gross borrowing requirement is expected to reach CZK 230.7 billion, being CZK 0.2 billion less than the plan from the previous year, and in 2014 it is expected to reach CZK 249.0 billion, which is CZK 17.1 billion more than planned in 2011 based primarily on the increase of the state budget deficit by CZK 15 billion. In 2015, the gross borrowing requirement is expected to increase slightly to CZK 250.1 billion. Gross issuance of medium-term and long-term government bonds on the domestic and foreign market in 2013 is planned in the range of CZK 199.1 billion, which in view of expected redemptions on government bonds, including buy-backs, in the amount of CZK 110.5 billion, represents net issuance of medium-term and long-term government bonds in the amount of CZK 88.6 billion excluding savings government bonds. It is CZK 23.1 billion less than in 2012, when the net issuance reached CZK 111.7 billion.

On the domestic market in 2013, the Ministry will again issue fixed rate bonds and floating rate notes, whereas CZGB 3.40/15; CZGB VAR/16; CZGB VAR/17; CZGB 4.60/18; CZGB 3.75/20; CZGB 4.70/22; CZGB VAR/23; CZGB 4.20/36; CZGB 4.85/57 government bonds will be offered for sale again; three new government bond issues will be opened due in 2016, 2019 and 2028. Issuance on the foreign markets will cover a maximum of 40% of the gross borrowing requirement for 2013 and the Ministry will focus on marketing the Czech Republic in order to achieve higher diversification of Czech government bonds. The planned issuance activity for medium-term and long-term government bonds may be revised sharply if the draft amendment to Act No. 218/2000 Coll., Budgetary Rules Act and the amendment certain related laws (Budgetary Rules Act) is approved, which would lead to the extension of the state treasury collective account, particularly by all the accounts of state funds, the National Fund, state contributory organisations and the accounts

designated for state budget revenue of state funds and the National fund, local government units and voluntary municipal associations, the regional councils of cohesion regions, public research institutes and public universities. It will also allow the use of the financial resources on these accounts within the state funding and creating an additional liquidity buffer that could in the medium-term outlook substitute for part of the cash reserve.

Since 2013 the absolute amount of treasury bills held by the market participants will stabilize, as well as its decrease in relation to the state debt, after the positive net issuance in 2009 to 2012. This change in strategy is possible thanks to stabilization of the domestic bond market in the second half of this year and to the credit worthiness of the government on foreign markets which enables the financing on the long end of the yield curve. Working and liquid domestic money market remains one of the main buffers against unexpected fluctuations of other segments of bond market. That is why the Ministry will not decrease the amount of the treasury bills outstanding to maintain the market liquidity below CZK 200 billion in the medium-term outlook to 2015.

Since 2012, the retail bond program has become an integral part of strategic state debt management planning, and savings government bonds can be considered a full-fledged and stable key source for the borrowing requirement, which was taken into consideration within the planning of the issuance activity and the overall funding programme. At the end of 2012 the share of savings government bonds will reach 5.1% of the total CZK-denominated medium-term and long-term government bonds and 3.4% of state debt. The direct sale of bonds became a successful alternative to saving instruments available to Czech households which was tested in November 2011. The sale of savings government bonds in the total amount of CZK 20.0 billion to 40.0 billion is planned in 2013, which will represent net issuance in the amount of CZK 12.5 to 32.5 billion.

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The Czech Republic Funding and Debt Management Strategy for 2013

## 1 - Fiscal Outlook and Financial Markets

#### **Economic and Government Sector Development**

Since the second half of 2011, the Czech economy has been going through a moderate recession, which it will most likely remain in until the end of the year. The prediction of the real GDP growth for 2011 of 2.1%, which was used in the Strategy for 2012, proved to be overly optimistic; in reality the real GDP growth in 2011 reached 1.7%. For this year, the Ministry expects a decline of the real GDP by 1.0% according to October predictions. According to this prediction, the Ministry expects a gradual recovery of economic activity in the forthcoming years, when the real GDP should increase by 0.7% in 2013, by 1.9% in 2014 and by 2.6% in 2015, which represents a further worsening of the outlook for the development of the Czech economy published by the Ministry in the June prediction, when the growth for 2012 was predicted at a slight 0.2% and for 2013 at 1.3%.

Table 1: Main Macroeconomic Indicato	s of the Czech Republic	Economy 2011-2015
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	2011	2012	2013	2014	2015
Real GDP growth (%)	1.7	-1.0	0.7	1.9	2.6
Households expenditure growth (%)	-0.6	-3.0	-0.5	1.2	2.3
Government expenditure growth (%)	-1.7	-1.1	-1.3	-1.2	0.1
Gross fixed capital formation growth (%)	-0.9	-0.6	0.3	1.8	2.8
Contribution of net exports to GDP growth (p.p.)	2.7	2.7	2.7	2.7	2.7
Average inflation rate (%)	1.9	3.3	2.1	2.3	2.0
Unemployment rate (%)	6.7	6.9	7.3	7.2	7.0
Nominal wage growth (%)	2.3	2.0	2.1	4.3	3.9
Current account balance on GDP (%)	-2.9	-1.3	-1.2	-1.0	-1.3
CZK/EUR exchange rate	24.6	25.1	24.9	24.7	24.5
Real GDP growth EA12 (%)	1.4	-0.5	0.3	1.1	1.8

Note: The unemployment rate according to the Labour Force Survey methodology. Source: Czech Statistical Office and MoF

This macroeconomic framework is burdened by significant downward risks, particularly due to the further development of the debt crisis in the Eurozone, which is the dominant external factor of the the small, open Czech economy and which has been ongoing at a various intensity for the third year running. The peaking of this crisis in the future cannot be precluded, as well as the contagion into other Eurozone countries or European Union, including the Czech Republic.

The situation on financial markets calmed down relatively due to the possibility of further interventions by the European Central Bank (ECB) on the government bond markets. On 6 September 2012, the Governing Council of ECB approved new programme of the purchase of government bonds on secondary markets, i.e. Outright Monetary Transactions (OMTs), which replaces the current Securities Markets Programme. The condition for any intervention within these OMTs will be the activation of the European Stability Mechanism (ESM) with the option of intervention in the government bond market and fulfilment of the conditions agreed within this program. Under the existing programs, the ECB can intervene only when the given country makes an effort to return to the primary market of government bonds. Ireland has already successfully returned to the primary market in June, Portugal has returned in October. For the time being, the mere announcement of OMTs has calmed the situation in some financial market segments; for instance, the yields of the Italian and Spanish government bonds declined.

Comparing the yields of the ten-year government bonds denominated in EUR, it may be observed that the Czech Republic along with Slovakia and Poland are following the trend of countries with a high rating, where the yields have continued to decline their historical minimums since 2011. With the decline in the yields of ten-year government bonds denominated in CZK, this fact confirms that a prudent fiscal policy is perceived as credible by investors, and investments into the Czech Republic's bonds are seen to be safe.

In 2011, the general government balance reached the value of CZK -125.2 billion, i.e. -3.3% of GDP and is 1.3 percentage points less than the government's

original fiscal target. Hence, the result was CZK 17.2 billion, i.e. 0.4 basis points better than the fiscal outlook with which the Strategy for 2012 worked. Compared to 2010, there was an increase in the total general government sector revenues by 3.2%. The growth of public sector revenues was due to the increase in total tax revenues, which rose by 5.0%; revenues from value added tax grew by 2.5% compared to 2010, excise tax revenues increased by 8.2%, individual income tax revenues rose by 8.4% and corporate income tax revenues grew by 1.1%. General government sector expenditure dropped by 0.5%, which documents to the government's continued consolidation efforts, this being the second consecutive year in which a decline occurred. Final consumption expenditure of general government sector declined by 1.8%, while expenditure on social benefits other than social transfers in kind increased by 1.8%. Interest expenditure grew by 2.9% only compared to 2010, which, given the increase in the absolute amount of general government debt, confirms the positive perception of the government's consolidation efforts on the financial markets, and keeps the risk premium on issued bonds at a relatively favourable level.

While in 2010 and 2011 the main priority of the government's fiscal policy was consolidation of the general government sector and improvement of its structural parameters, economic development has been emphasized in the subsequent years. In June, the Government of the Czech Republic approved a resolution regarding the amended fiscal policy strategy (Fiscal Strategy In Light of New Macroeconomic Predictions. Prague, Finance Ministry of the Czech Republic, July 2012), which abandons the strict fulfilment of general government sector deficits after a year of expected termination of the Excessive Deficit Procedure and leaves room for the functioning of automatic stabilisers. When compiling the state budget and state fund budget for 2013, the government refers to the recommendations of the Council of the European Union from 2009, 2011 and 2012, to reduce the general government sector deficit to below 3% of GDP by 2013 in a trustworthy and sustainable manner.

The original general government sector balance estimate for 2012, which was sent to Eurostat on 1 October 2012, was originally notified at CZK -124.0 billion, which is -3.2% of GDP. However, it had to be revised further and new facts concerning the payment of money from European funds were taken into account, where at present the unpaid portion of EU resources for the operation programmes "Transport" and "Environment" amounts to CZK 11.2 billion. Due to the requirements of the ESA95 method, this fact was registered as a onetime capital transfer to for entities that had been provided prefinancing from the state budget. After this adjustment, the estimate of the general government balance for 2012 amounted to -135.2 billion CZK, i.e. -3.5% of GDP. A further adjustment was made in November 2012 after the Act on Property Settlement with Churches and Religious Societies was approved, under which the state undertook to grant financial compensation to churches and religious societies in the amount of CZK 59.0 billion. Although the payments will actually start in 2013 and will last thirty years, the final financial compensation according to the ESA95 method is perceived as a one-time operation and is included in the year when the law came into effect, i.e. in the year 2012. After including these facts, the estimate of the general government sector balance for 2012 is equal to CZK -192.9 billion, which is -5.0% of GDP.

The Ministry predicts the general government sector balance for 2013 at CZK -111.9 billion (-2.9% of GDP), for 2014 at CZK -107.5 billion (-2.7% of GDP) and for 2015 at CZK -101.5 billion (-2.4% of GDP).

In order to assess the effectiveness of fiscal consolidation, the general government balance must be adjusted for impact of the economic cycle and one-time or transitional operations (see the aforementioned transfers). This gives us the value of fiscal effort, defined as the year-on-year improvement of the structural balance expressed in percentage points. Compared to 2010, the fiscal effort in 2011 reached 1.4 percentage points. For 2012, the Ministry predicts a fiscal effort equal to 0.9 percentage points. In the medium-term horizon, the Ministry predicts an improvement of the structural balance to approximately -2.0% of GDP.

## Figure 1: General Government Balance and Structural Balance in the Czech Republic (% of GDP, ESA95)



The debt of the general government sector as calculated based on the ESA95 method reached CZK 1 568.0 billion as of the end of 2011, which is

41.2% of GDP. As of the end of 2012, the Ministry predicts a general government sector debt equal to CZK 1 737.0 billion, i.e. 45.5% of GDP.





Source: Eurostat and Mol

The main factor of the growth of the debt guota is the general government primary balance, of which contribution to the general government sector debt growth amounted to 1.9 percentage points in 2011; in 2012 the Ministry expects a contribution of 3.6 percentage points. The contribution of the interest payments to growth general government debt growth amounted to 1.4 percentage points in 2011; in 2012 the Ministry expects a contribution of 1.5 basis points. Another important factor of the debt quota growth in 2012 is the net acquisition of financial assets, which includes the increase of the cash reserve by CZK 65.1 billion, which the Ministry estimates will contribute 0.9 percentage points to the growth of the debt quota. The increase of the debt guota in the ESA95 methodology in 2012 is significantly attenuated by the influence of the difference in cash and accrual principle, which accounts for -1.5 percentage points and is mainly caused by the differences between the cash and accrued interest on government bonds issued given by the influence of discounts and premia and

the fact, that one-time capturing of the financial compensation to churches and religious societies contributes to the primary deficit growth in 2012, but has no effect on the amount of the general government debt (the liability was classified as non-debt).

Without an active approach to the fiscal consolidation by the government, the condition of public budgets and the dynamics of indebtedness would be very alarming from a long-term point of view and would complicate the smooth financing of the state debt in an environment of extreme instability on the international financial markets. However in an international comparison the Czech Republic still ranks among the European Union member countries with the lowest general government sector debt and a budget deficit comparable to the European countries with the best economies.

#### Figure 3: General Government Debt and General Government Balance in Selected European Union Countries (% of GDP, ESA95)



Note: The United Kingdom data for 2012 are based on its Notification. Source: Eurostat

In 2012, the Ministry predicts the value of the general government sector deficit of the Czech Republic to the GDP 47.6 (41.5) percentage points below the Eurozone (European Union) average and the general government sector deficit to the GDP will be 1.7 (1.4) percentage points higher, caused mainly due to one-time expenditure capital transfer to churches and religious societies in the amount of 1.5% of the GDP in 2012.

The determining component of general government finances is state budget. When determining the gross borrowing requirement of the central government and financial market operation planning, it is necessary to apply the budget deficit based on the method of examining monetary flows as the difference of aggregated revenue and expenditure accounts maintained in the Czech National Bank. For example, there is thus no consolidation with the other government sub-sectors or adjusting for so called net loans, which, although they represent only financing balance operations on the side of assets, affect cash revenue and expenditure of the state budget and therefore they must be financed through debt operations.

Table 2: General Government Sector in the Cze	ech Republic 2007-2015 (% of GDP)
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	2007	2008	2009	2010	2011	2012F	2013F	2014F	2015F
General Government Balance (ESA95)	-0.7	-2.2	-5.8	-4.8	-3.3	-5.0	-2.9	-2.7	-2.4
State Budget Balance	-1.8	-0.5	-5.1	-4.1	-3.8	-2.7	-2.6	-2.2	-1.9
General Government Debt (ESA95)	27.9	28.7	34.4	38.1	41.2	45.5	47.6	48.6	49.2
Unconsolidated State Debt	24.4	26.0	31.5	35.6	39.4	43.7	45.6	46.3	46.4

Source: MF, Czech Statistical Office

In 2011, the final budget deficit of CZK 142,8 billion, i.e. CZK 7.6 billion higher than its budgeted level and CZK 13.7 billion lower than final state budget deficit in 2010, was shown. For 2012, the budget deficit of CZK 105.0 billion was approved and Ministry does not expect any significant deviation from that value by the end of the year. In 2013 to 2015, further government's consolidation measures on the revenue side will continue – the raising of both VAT rates by 1 percentage point or reduction of the turnover limit for mandatory registration of VAT payers, both in 2013 or higher statutory individual income tax rate by 1 percentage point in 2014. The consolidation efforts on the expenditure side of public budgets are still apparent in the area of employee compensations, which should practically stagnate in the period until 2015. As for mandatory social expenditure, significant savings will be achieved in consequence of the adjustment of the valorisation formula for pensions in 2013 to 2015. Another significant part of the savings implemented in general government sector finance should occur in government expenditure, which will be affected by the planned revision of ministry agendas, state funds and a number of other central government bodies. State budget deficit is the main source for the growth dynamics of the state debt or general government debt, which has been occurring since 1996 in both absolute amount and in relation to the GDP. In the outlook for 2015, the absolute growth

of the state debt as well as general government debt will ease, as well as their proportion to the GDP will decline due to ongoing consolidation measures of the government and the recovery of economic activity.



#### Figure 4: General Government Debt Development (ESA95)

Source: Czech Statistical Office and MoF

The other parts of the submitted Strategy work exclusively with the categories of non-consolidated state debt and the state budget based on the principle of monetary flows, which are decisive for determining the government's borrowing requirements and for the subsequent drafting of the funding strategy and issuance activities on the domestic and foreign financial markets and for measuring and managing financial risks.

#### **Financial Markets and State Debt Service Costs**

During the period from 2002 to 2011, the interest expenditures on the general government debt service almost doubled from CZK 29 billion to CZK 53 billion according to ESA95 methodology. In relation to economic performance, the interest expenditures oscillated around 1% of GDP and in 2011 reached 1.4% of GDP. In relation to the total government budget revenue, they hovered between 2.4 and 3.5%. In the outlook till 2015, the interest expenditures will cause the higher debt change than the primary balance of the general government sector. Effective state debt management and maintenance of credit worthiness of the Czech Republic on financial markets will be more and more important and will be the necessary condition for continuing fiscal consolidation that can influence mainly the primary balance of the government sector.





The interest expenditure of the government sector is mainly determined by state debt services revenue and expenditure. Since 2001, the state debt service cash-flows have been budgeted and implemented as part of the separate budget chapter 396 - State Debt. Until 2007, this chapter contained only expenditures, which also represented state debt service costs. As of 2008, a change occurred in the method of budgeting, and cash-flows originating from debt instruments are categorized based on their material character also on the side of revenues. Since 2008, state debt service costs have been presented based on the difference between state debt service expenditures and revenues, which represents state debt service net expenditures. The difference is cash-based as the whole state budget and there is no accrualization according to ESA95 that is used during the data preparation for notification.

	2002	2003	2004	2005	2006	2007	2008
State debt expenditure	22.0	23.5	27.0	33.7	34.2	38.1	45.5
State debt revenue	-	-	-	-	-	-	1.5
State debt net expenditure	22.0	23.5	27.0	33.7	34.2	38.1	44.0
Actual net expenditure	18.9	21.6	26.8	25.4	31.6	34.1	37.7
	2009	2010	2011	2012	2013	2014	2015
State debt expenditure	<b>2009</b> 48.2	<b>2010</b> 63.7	<b>2011</b> 73.0	<b>2012</b> 79.4	<b>2013</b> 68.6	<b>2014</b> 75.1	<b>2015</b> 80.1
State debt expenditure State debt revenue	<b>2009</b> 48.2 6.7	<b>2010</b> 63.7 6.9	<b>2011</b> 73.0 5.6	<b>2012</b> 79.4 6.5	<b>2013</b> 68.6 3.8	<b>2014</b> 75.1 7.4	<b>2015</b> 80.1 6.4
State debt expenditure State debt revenue State debt net expenditure	2009 48.2 6.7 41.5	2010 63.7 6.9 56.8	<b>2011</b> 73.0 5.6 67.4	<b>2012</b> 79.4 6.5 72.9	<b>2013</b> 68.6 3.8 64.8	<b>2014</b> 75.1 7.4 67.7	2015 80.1 6.4 73.7

Note: In 2012, it amounted to the expected actual net expenditure. Source: MoF

The difference between the volume of actual and budgeted state debt service expenditure depends largely on how interest rates and the government's gross borrowing requirement develop compared to the budget expectations. If the state budget deficit worsens due to financial and economic crisis and interest rates grow simultaneously, as was the case for instance in 2009, the budget chapter will be under major pressure. Due to the uncertain economic development linked to turbulence on the financial markets in the Eurozone, the budget chapter State Debt for 2013, respectively, the outlook for 2014–2015 maintains a reserve should any of the crisis scenarios become reality.

In 2012, substantial savings on state debt net expenditures in the amount of CZK 31.4 billion are expected compared to the budgeted net expenditure in the amount of CZK 72.9 billion. This expenditure will reach the expected amount of CZK 41.5 billion, which represents about 1.1% of the GDP and 3.8% of the expected total budget revenues. These savings have contributed to the better than expected economic results in the government sector. Compared to 2011, there was a decline in net expenditure by about 8.0%. During 2012, the amount of CZK 2.4 billion was transferred from budget chapter State Debt expenditure to other budgetary chapters as budgetary transfers. Simultaneously, the expenditures tie-up was realized in the amount of CZK 5.7 billion. Savings

of CZK 23.3 billion are expected compared to the final budget.

The extremely high savings stem mainly from the prevailing low level of short-term and longterm interest rates, which is in contrast with the essentially conservative expectation of significant growth of interest rates in the approved budget chapter 396 - State debt for 2012. The risk premiums on Czech government bonds remained relatively stable during 2012 in comparison to the majority of EU countries. In consequence of the relative stabilization of the financial and economic situation of the Eurozone and EU countries, fiscal austerity measures and the zero interest rate policy of the Czech National Bank, it was possible to reduce state debt service expenditure in the draft state budget for 2013 by CZK 10.8 billion compared to the approved budget of the Czech Republic for 2012 and by CZK 25.9 billion compared to medium-term outlook of state budget for 2013 and 2014 which were used in the Strategy for 2012, and by CZK 30.4 billion compared to current state debt service expenditure outlook for 2014.

In the second half of 2012, the Integrated Information System of the State Treasure (IISSP) was used to prepare the draft state budget of the Czech Republic for 2013, which allows the budget chapter administrators to react flexibly to changes in the input parameters and the Ministry to monitor in detail the progress of preparation of the draft state budget. From a long-term perspective, this should lead to savings arising from the higher efficiency in obtaining and allocating state budget resources.

The expected savings on state debt net expenditure in 2012 compared to the approved chapter budget

in the amount of CZK 31.4 billion consists of the increase of revenues by CZK 9.1 billion and reduction of expenditures by CZK 22.3 billion. Savings on net expenditure compared to final budget in the amount of CZK 23.3 billion is reduced in consequence of the final budget decrease by CZK 8.1 billion to CZK 14.2 billion keeping budgeted revenues in the amount of CZK 6.5 billion.





Source: MoF

The distribution of expected savings on expenditures to individual parts based on the sources of savings compared to approved state budget is documented by the following figure. It is apparent that the most savings were achieved in the area of lower expenditures on discounts and higher revenues from premiums on domestic medium-term and long-term government bonds, which together amount to two thirds of the expected savings on interest costs. This source of savings is logical, since the auctions of these bonds occur via reopening of existing issues, and the impact of the decline in interest rates is achieved via the prices of bonds and not via coupons, which are largely fixed.





Source: MoF

Savings were achieved with all state debt floating rate instruments, mainly net expenditures for money market instruments, even though lower than budgeted revenues were achieved from the investment of the balances of the collective account of the state treasury, even though there will be net growth of money market instruments by CZK 26.5 billion as a source of financing of the government borrowing requirement during this year. Major savings were also registered in relation to expenditures on floating-rate coupons for mediumterm and long-term government bonds and on loans from the European Investment Bank, which are mostly floating-rated. Certain savings were also achieved with floating legs of currency swaps, via which bonds issued on foreign markets were hedged against currency risk and thus synthetically transformed to floating rate CZK-denominated instruments. The relatively stable development of yields from Czech government bonds in 2011 was interrupted in November 2011 due to the peaking debt crisis in the Eurozone. Fluctuations stemming from the lasting uncertainty on the European government bond market continued to appear in the first half of 2012, but the obvious declining trend from the beginning of the year was maintained.

The relatively stable development of Czech government bond yields in 2011 was interrupted

in November 2011 due to the escalating Eurozone debt crisis. Fluctuations stemming from the lasting uncertainty on the European government bond markets continued to appear even in the first half of 2012, but the obvious declining trend from the beginning of the year was maintained. The Ministry was able to achieve weighted average yield in auctions of CZK-denominated fixed rate government bonds at the level of 2.42%, roughly 67 basis points lower than in 2011.

#### Figure 8: Development of Czech Government Bond Yields in 2007-2012 (% p. a.)



Zdroj: Thomson Reuters

The development of the risk premia measured through the asset-swap-spread also indicates the impact of the decreased risk aversion related to the calming of the situation in the Eurozone from the beginning of last year.



The perception of the Czech Republic on the international market as a reliable issuer of government bonds is illustrated by the situation on the credit default swaps (CDS) markets, where the

Czech Republic has a position comparable with core countries of the Eurozone, i.e. with countries with the highest AAA rating.

#### Figure 10: Premium on Credit Default Swaps in 2011-2012 (10 years, basis points)



There was also a significant decline in yields in auctions of Treasury bills, which contributed further to the drop in the costs for state debt service in 2012. The weighted average auction yield of state treasury bills in in 2012 was 0.63%, which was 44 basis points less than in 2011.





#### **Czech Republic Sovereign Credit Rating**

The Czech Republic counts among very reliable issuers and enjoys considerable interest not only from domestic and foreign investors, but is also rewarded for its credible fiscal consolidation programme by major credit rating agencies. The latest credit rating action on the Czech Republic was on 24 August 2011, when Standard & Poor's upgraded the Czech Republic by two notches to AA with regard to the domestic long-term rating and AA- for foreign long-term rating.

#### Table 4: Czech Republic Sovereign Credit Rating in 2012

Credit rating agency	Domestic long-term	Outlook	Foreign long-term	Outlook
Fitch Ratings	AA-	Stable	A+	Stable
Moody's	A1	Stable	A1	Stable
Standard & Poor's	AA	Stable	AA-	Stable

Source: Fitch Ratings, Moody's, Standard & Poor's

The excellent sovereign credit rating position of the Czech Republic is documented in the following overview of EU member states. Only the group of countries with elite AAA (Aaa, respectively) rating, such as Germany, Luxembourg, Finland, Sweden, United Kingdom, the Netherlands, rank better than the Czech Republic, as well as several other countries whose rating has been reduced by some agencies, for example France and Austria. The Czech Republic is on a comparable level with Belgium. The Czech Republic has the highest rating of all Central and Eastern European countries and of all the new EU member states. Moreover, it is among the smaller share of European Union countries that do not have a negative outlook. Compared to Eurozone countries, the Czech Republic also stands very well with a higher rating than 10 Eurozone countries according to two out of three major credit rating agencies. According to two of those three credit rating agencies, the Czech Republic is above the average rating of Eurozone countries weighted by the gross general government debt of the individual member countries.

## Figure 12: Rating of the Eurozone and Czech Republic in 2008-2012 by Standard & Poor's



Source: Standard & Poor's, Eurostat, European Commission, Ministry calculations

#### Table 5: European Union Sovereign Credit Rating in 2012

#### Figure 13: Rating of the Eurozone and Czech Republic in 2008-2012 by Fitch Ratings



Source: Fitch Ratings, Eurostat, European Commission, Ministry calculation

## Figure 14: Rating of the Eurozone and Czech Republic in 2008-2012 by Moody's



Source: Moody 's, Eurostat, European Commission, Ministry calculations

Rating	Fitch Ratings	Moody's	Standard & Poor's
	Denmark, Finland, France	Denmark, Finland,	Denmark, Finland,
	Luxembourg, Germany,	Luxembourg, Germany,	Luxembourg, Germany,
	Netherlands, Austria, Sweden	Netherlands, Austria,	Netherlands, Sweden,
	United Kingdom	Sweden, United Kingdom	United Kingdom
AA+/Aa1		France	France, Austria
AA/Aa2	Belgium		Belgium, Czech Republic
AA-/Aa3	Czech Republic	Belgium	Estonia
A+/A1	Slovakia, Estonia, Malta	Czech Republic, Estonia	
A/A2	Poland	Poland, Slovakia	Poland, <mark>Slovenia</mark> , Slovakia
A-/A3	Slovenia, Italy	Malta	Malta
BBB+/Baa1	Ireland, Lithuania, Latvia	Lithuania,	Ireland, Italy
BBB/Baa2	Bulgaria, Romania, <mark>Spain</mark>	Bulgaria, Slovenia, Italy	Bulgaria, Lithuania, Latvia
BBB-/Baa3	Hungary	Latvia, Romania, Spain	Spain
BB+/Ba1	Portugal	Hungary, Ireland	Romania
BB/Ba2			Hungary, Portugal
BB-/Ba3	Cyprus	Portugal	
B+/B1			
B/B2			Cyprus
B-/B3		Cyprus	
CCC+/Caa1			
CCC/Caa2	Greece		Greece
CCC-/Caa3			
CC/Ca			
C		Greece	
D			

Note: Domestic long-term rating, countries with a negative outlook are in red, countries with a stable or positive outlook are in green. Source: Fitch Ratings, Moody's, Standard & Poor's

### 2 - Borrowing Requirement and State Debt to 2015

#### Net Borrowing Requirement and Change in the State Debt

The net borrowing requirement of the central government in the medium-term outlook is determined mainly by the state budget deficits. The final amount of the net borrowing is also affected by operations on the side of state financial assets, lending and on-lending and a change in the amount of cash reserve. The net borrowing requirement is

also the main factor in the change in the nominal value of the gross state debt. Since part of the state debt is denominated in foreign currencies, its change is also influenced by fluctuations in the exchange rates of the Czech Koruna against respective currencies.

#### Table 6: Net Borrowing Requirement of the Central Government and Change in State Debt

	2011	2012		2013	2014	2015
CZK billion	Actual	Planned	Predicted		Planned	
Gross state debt as at 1 Jan	1 344.1	1 49	94.6	1 667.8	1 768.8	1 859.1
Primary balance of state budget, excluding on-lending	97.6	32.1	63.5	35.2	22.3	6.3
Net expenditures on state debt <sup>1</sup>	45.1	72.9	41.5	64.8	67.7	73.7
Extra-budgetary borrowing requirement	0.0	0.0	0.0	0.0	0.0	0.0
Net borrowing requirement	142.0	105.0	105.0	100.0	00.0	20.0
excl. asset operations	142.8	105.0	105.0	100.0	90.0	80.0
State financial assets operations <sup>2</sup>	2.5	2.2	2.5	1.6	1.5	1.3
On-lending (net change) <sup>3</sup>	0.0	0.0	0.0	0.0	0.0	-1.7
Cash reserve (net change) <sup>4</sup>	5.7	0.0	65.1	0.0	0.0	0.0
Net borrowing requirement	151.0	107.2	172.7	101.6	91.5	79.6
Changes in nominal state debt <sup>5</sup>	4.1	0.0	-4.1	-0.6	-1.2	-1.2
Promissory notes repayments <sup>6</sup>	0.2	0.0	-0.1	0.0	0.0	0.0
Gross state debt change	155.3	107.2	168.5	101.0	90.3	78.4
Gross state debt as at 31 Dec	1 499.4	1 601.8	1 667.8	1 768.8	1 859.1	1 937.5
(% GDP)	(39.4)	(40.5)	(43.7)	(45.6)	(46.3)	(46.4)

Balance of budgetary chapter 396 – State debt.
 Balance of budgetary chapter 397 – State Financial Assets Operations.
 On-lending to other states and enterprises with full state-backed guarantee on their core business.
 Cash reserve generated by bonds issues according to Section 35(4) of Act No. 218/2000 Coll, excl. revaluation of the part denominated in foreign currencies

due to the exchange rate changes. <sup>5</sup> Exchange rate changes due to revaluation of debt denominated in foreign currencies. <sup>6</sup> Promissory notes covering the Czech Republic ownership interests in international financial institutions. Source: MoF

In 2012, the net borrowing requirement is expected to be approximately CZK 65.6 billion higher, which can be attributed in particular to the higher than planned generation of cash reserve. The building and tapping of the cash reserve has been an important item of the net borrowing requirement since 2008 and is related to the Ministry's cautious approach during the financial and economic crisis and the high level of uncertainty regarding the smooth securing of issuance activity by the state stemming from the potential risk of freezing of financial markets. Due to the continuing uncertainty regarding the development of the Eurozone debt crisis, the Ministry increased its plan for tapping the cash reserve from the zero change to a growth of CZK 65.1 billion.

In terms of other operations related to lending and on-lending to other states and other domestic enterprises and the impact of these operations on the net borrowing requirement of the central government, the Ministry's steps will depend on the approval of the amendment to the Budgetary Rules Act.





The change in the amount of cash reserve is directly related to the development of the state budget. The reduction in the state budget deficit compared to the originally expected development while maintaining the issuance plan causes an increase in cash reserve without affecting the net borrowing requirement. Tapping of the cash reserve within financing can also be used to prevent the change in the net borrowing requirement in case of higher than anticipated budget deficit.

After involving the reserve funds in the state budget revenues in 2008 the budget deficit decreased sharply, and therefore the cash reserve during that year reached its historic maximum. These resources were subsequently used for financing of the state in the crisis year 2009, which made it possible to ensure the smooth course of financing in time of the major financial markets turbulence.

Although the gradual implementation of fiscal reforms leads to significantly reduced uncertainty surrounding the funding and state debt management in connection with the hardly predictable development of state budget and the substantial increased credibility of the Czech Republic as an issuer, the Ministry cannot approach the reduction in the cumulative cash reserve either in 2013 due to the continuing uncertainty regarding development of the Eurozone debt crisis.

#### Gross Borrowing Requirement and Financing of the Central Government

The net borrowing requirement is the first part of the gross borrowing requirement that determines the volume of the state's borrowing operations in a particular year and is the main cause of yearon-year change in state debt. The second item is represented by redemptions on state debt in the particular year (without roll-over of money market instruments during the year), buy-backs and exchanges of government bonds prior to their original maturity, early redemption on savings government bonds at holders' requests, early redemptions on the EIB loans and other unscheduled liabilities. Following figure shows the share of the gross borrowing requirement and its components on GDP. It includes also the predicted amount outstanding of treasury bills at the end of respective year that needs to be refinanced in the following years.



#### Figure 16: Gross Borrowing Requirement in 2009-2015

In comparison to the original plan, a CZK 65.9 billion higher gross borrowing requirement is expected in 2012. This increase is caused particularly by the higher net borrowing requirement due to the increased the cash reserve and higher volume of early redemptions on the EIB loans due to the worsened market position of the EIB.

When comparing the amount of the gross borrowing requirement for 2011-2013 planned in the Strategy for 2012 with the current Strategy for 2013, it is obvious that this plan was slightly revised upward, which is related mainly to the Ministry's cautious approach to the building of a sufficient cash reserve during the period of major uncertainty on the global financial markets, particularly with regards to the development of the Eurozone debt crisis.

Figure 7: Gross Borrowing R	Requirement an	d Instruments for	r Funding the Ce	entral Government
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	2011	2012		2013	2014	2015
CZK billion	Actual	Planned	Predicted		Planned	
Net borrowing requirement	151.0	107.2	172.7	101.6	91.5	79.6
Redemptions on government bons due in the respective year	102.1	115.6	115.6	108.6	133.3	138.8
Buy-backs and switches of government bonds from previous years	0.0	-2.0	-2.0	-8.1	-10.0	-10.0
Buy-backs and switches of government bonds due in following years <sup>1</sup>	2.0	10.0	8.1	10.0	10.0	10.0
Redemptions on savings government bonds in the respective year <sup>2</sup>	0.0	9.5	9.6	7.5	12.5	19.5
Redemptions on loans from the EIB	1.1	3.1	5.3	1.1	1.7	2.1
Miscellaneous state liabilities <sup>3</sup>	0.0	0.0	0.0	10.0	10.0	10.0
Gross borrowing requirement	256.2	243.4	309.3	230.7	249.0	250.1
Net money market instruments issuance <sup>4</sup>	49.3	50.0	26.5⁵	0	0	0
Domestic gross government bond issuance <sup>6</sup>	181.2	117.5	164.6	149.3	169.6	161.1
Foreign gross government bond issuance <sup>6</sup>	0.0	50.0	68.8	49.8	49.4	49.0
Gross Savings government bonds issuance <sup>6</sup>	20.4	20.0	45.4	30.0	30.0	40.0
Loans from the EIB	5.3	5.9	4.0	1.6	0.0	0.0
Net loans from the state treasury	0.0	0.0	0.0	0.0	0.0	0.0
Funding of the borrowing requirement	256.2	243.4	309.3	230.7	249.0	250.1

Exc. government bonds due in the respective year.
 <sup>2</sup> Incl. early redemptions requested by bond holders.
 <sup>3</sup> To cover early redemptions on savings government bonds, EIB loans and other unscheduled liabilities.
 <sup>4</sup> Excl. refinancing of due instruments in the respective year.
 <sup>5</sup> CZK 40.0 billin to the market and Ministry's invetsment in the financial assets CZK -13.5 billion.
 <sup>6</sup> Nominal amount, i.e. premiums and discounts are included in net costs for state debt service, i.e. entering the net borrowing requirement. Source: MoF

The financing of the gross borrowing requirement is implemented via three traditional basic instruments and one new instrument used from 2011. Drawing of loans from the European Investment Bank (EIB) as the first of these instruments is closely tied to the implementation of investment expenditures from the state budget. In in comparison to the Strategy for 2012 there was a substantial decrease in credit lines from the EIB in the outlook for 2013-2014. Since 2012 expenditures on projects cofinanced from the EIB loans are budgeted in the budgetary chapters of the respective ministries. The ministries have differing expenditure frameworks whose definition often depends on the priorities of the given ministry. The reduced drawing of the EIB loans in 2013-2015 is the result of a plan to cover expenditures on co-financing the Operational Programme Transport in these years from sources other than the EIB loans. This loan comprised the major part of the the EIB drawing plan in the Strategy for 2012.

In the second half of 2012, the EIB was unable to offer better interest rates on new loan tranches or re-fixation interest rates on existing tranches than the current Czech government bonds yields. Therefore, the Ministry opted for early redemption on two existing tranches in the total amount of CZK 2.2 billion.

In the given period the Ministry will not continue to increase the issuance of money market instruments

as part of the gross borrowing requirement, particularly the treasury bills. This plan corresponds to the aim to stabilize the refinancing risk level. The increased share of these instruments has been planned in order to ensure that the basic limit of state debt due within one year is not exceeded. The limit remains at 25% for 2013. The share of money market instruments in state debt will thus decrease from approximately 11.3% at the end of 2012 to approximately 9.8% at the end of 2015. Refinancing of the treasury bills outstanding at the end of 2012 is therefore planned to be realized through new issues of treasury bills in the same nominal amount and with a similar maturity, so the net issuance towards the holders (i.e. exluding the transactions within the investment portfolios) oscilates around zero and the current market liquidity of this segment of the Czech money market remains below CZK 200 billion.

The gross issuance of medium-term and long-term government bonds on the domestic and foreign markets in the period ranges at the approximate annual level from CZK 200 to 220 billion, the net issuance of government bonds will range from CZK 70 to 90 billion. These issuance volumes do

#### **Net Debt Portfolio**

Financial flows originating from net and gross borrowing requirements and from the chosen financing instruments are reflected in the amount and structure of the balance of state debt and state financial assets, i.e. the net debt portfolio.

The calculation of the net debt portfolio for the requirements of this Strategy is based on the practice in developed countries and places the gross debt portfolio against the financial assets that are closely related to financial operations of the debt management and state financial assets budget operations. Financial assets based on this definition do not include extra-budgetary balances of accounts that are also outside the state treasury collective account. They also do not include other financial assets such as shares, other ownership interests and receivables of the state from foreign entities or originating from provided refundable financial aid or realized state guarantees.

The method of the net debt portfolio provides more realistic overview on the financial position of the state and related risk parameters. Financial assets and their structure slightly reduce the refinancing, liquidity and interest risk of state debt, and therefore they are monitored within the risk management system. not include planned issues of savings government bonds in planned amount of CZK 30 billion to 40 billion annually, depending on demand from persons authorized to their subscription. The amount of planned issuance is based on the actual demand for issues of savings government bonds to date.

Net loans from the state treasury are so far conservatively planned in a zero amount. If the amendment to the Budgetary Rules Act is approved, which is a necessary legislative condition for integration of resources from the accounts of multiple government sector organizations into the state treasury and in the short-term financing of the state, this financing item will probably become more important in connection with the development of a technical mechanism for shortterm integration of client resources into the state treasury. The involvement of these resources in the medium-term horizon will enable the minimization of the cash reserve and become one of the sources of savings on interest costs on the state debt. Approval of the amendment will be reflected in a potential revision of the Strategy.

These financial assets also include investment portfolios which are portfolios held until maturity administered by the Ministry.

The investment of balances of the nuclear account, the nuclear portfolio, is carried out by the Ministry within state financial assets based on the basis of Section 27 of Act No. 18/1997 Coll., Nuclear Act. The balance of this account is invested conservatively, exclusively into domestic government bonds through direct purchases or reverse repo operations, where the collateral consists of treasury bills or Czech National Bank bills. Yields from investments constitute revenue of the budget chapter State Financial Assets Operations. In the future, the cumulative resources from this portfolio will cover part of the special-purpose state budget expenditures on radioactive waste treatment.

The Ministry decided to cease investing the balances of the special account of the pension reform account, the pension portfolio, on the basis of Section 36 of the Budgetary Rules Act. Since 2012 the resources in the pension portfolio are involved in management of the liquidity of the state treasury and are appreciated within the investment of available funds on the state treasury collective account, which contributes to risks reduction and further stabilization of state financing.

The privatisation account of the former National Property Fund was included into the management of state treasury liquidity on 1 February 2012, becoming another part of the collective account.

This led to strengthening of the state's liquidity position with very stable and easily predictable resources.

	2011 2012		2013	2014	2015	
CZK billion	Actual	Planned	Predicted		Planned	
Gross state debt as at 31 Dec	1 499.4	1 601.8	1 667.8	1 768.8	1 859.1	1 937.5
Money market instruments	162.6	212.0	189.1	189.1	189.1	189.1
Medium-term and long-term bonds (domestic market)	999.1	988.6	1 042.0	1 080.8	1 203.5	1 238.6
Medium-term and long-term bonds (foreing markets)	245.7	295.7	310.5	359.7	321.5	356.4
Savings government bonds	20.4	30.9	56.2	73.7	86.2	101.7
Loans from the EIB	71.3	74.3	70.0	65.5	58.8	51.6
Promissory notes <sup>1</sup>	0.1	0.3	0.0	0.0	0.0	0.0
Short-term liabilities to the state treasury	0.0	0.0	0.0	0.0	0.0	0.0
State financial assets as at 31 Dec	121.4	136.7	188.9	190.7	192.4	192.2
Nuclear investment portfolio	16.6	18.2	18.4	20.1	21.6	23.0
Pension investment portfolio	22.0	22.5	22.4	22.5	22.7	22.9
Special-purpose state financial assets account	10.5	10.8	10.7	10.7	10.7	10.6
Lending and on-lending <sup>s2</sup>	1.7	1.7	1.7	1.7	1.7	0.0
Cash reserve <sup>3</sup>	70.6	83.5	135.7	135.7	135.7	135.7
Net debt portfolio as at 31 Dec	1 378.0	1 465.1	1 478.9	1 578.1	1 666.7	1 745.3

#### Table 8: State and Structure of the Net Debt Portfolio and State Treasury Resources

<sup>1</sup> Promissory notes covering the Czech Republic ownership interests in international financial institutions. <sup>2</sup> Extra-budgetary lending to other states and on-lending to institutions with state-backed guarantees for their core business with maturity longer than 1 year <sup>3</sup> Disposable cash balance created from issuance activities according to Section 35(4) of Act No. 218/2000 Coll., incl. impact of exchange rate changes on the core processing particular dispersions. cash reserve parts denominated in foreign currencies. Source: MoF

The balances on special-purpose accounts of state financial assets are not actively invested directly on the financial market but in the future they can cover part of the special-purpose state budget expenditures. However, these balances are part of the state treasury collective account and short term investment via direct operations on the money market. Although the balances of these accounts are the Ministry's financial assets, from the point of view of the borrowing requirement financing they are outside resources, thus being a quasi-client of the state treasury. In the case of an unexpected crisis development, these resources can still be activated by a decision of the Chamber of Deputies, and therefore their position against the current gross debt position is economically reasonable.

The cash reserve is created by the continuous issuance of government bonds or other funding instruments for pre-funding of the future borrowing requirement and logically reduce the gross value of the state debt as of a particular date. Over the short term, they are invested on the money market as part of the state treasury collective account.

Lending and on-lending is provided from issuance activity and effectively does not increase the value of the net debt portfolio, provided that the respective borrowers meet their obligations stemming from loans.

The central liquidity position of the state is further stabilized by short-term outside sources of the state treasury, which are not part of the state financial assets of the Ministry. The balances on respective accounts are part of the state treasury collective account at the Czech National Bank. They can therefore be involved over the short term in the borrowing requirement financing or invested on the money market, which brings savings on interest costs on the state debt and contributes to the reduction of the refinancing and liquidity risk of the central government. Currently, only the balances on the accounts of tax and customs offices, reserve funds of organizational units of the state and the cultural and social requirements funds of organizational units of the state are obligatorily available as part of these resources.



#### Figure 17: Development of Liquid Components of the State Treasury in 2012 (CZK billion)

If the respective amendment to the Budgetary Rules Act is approved, the state treasury collective account will be extended by all the accounts of state funds, the National Fund, state contributory organisations and the accounts designated for state budget revenue, state funds and the National fund for local government units and voluntary municipal agglomerations, the regional councils of cohesion regions, public research institutes and public universities, as well as the accounts of other legal entities with the Ministry's consent, if applicable.

## 3 - Funding Programme and Issuance Activity in 2013

#### Implementation of the Funding Programme in 2012

The basis for defining the funding programme for 2013 was the planned funding programme from 2012. In comparison to this plan, there was an increase in the gross borrowing requirement by CZK 65.9 billion to CZK 309.3 billion. This change is related particularly to the revision of the plan for building the cash reserve with regards to the ongoing uncertainty regarding the development of the

Eurozone debt crisis and also to the slight increase in redemption on the EIB loans in the amount of CZK 2.2 billion, which is partly compensated by CZK 1.9 billion less in buy-backs than originally planned. In consequence of the change in the gross borrowing requirement, financing particularly through mediumterm and long-term government bonds increased.

#### Table 9: Funding Programme for 2012

	Plan as at 12 Dec 2011	Prediction as at 31 Dec 2012	
CZK billion			
Gross borrowing requirement (excl. roll-over of money market instruments)	243.4	309.3	
Issuance of medium-term and long-term government bonds <sup>1</sup>	177.5 to 197.5	278.8	
Issuance of medium-term and long-term bonds on the domestic market	64.5 to 177.5	164.6	
Issuance of medium-term and long-term bonds on foreign markets	0.0 to 73.0	68.8	
Issuance of government savings bonds on the domestic market	20.0 to 40.0	45.4	
Loans from international financial institutions	5.9	4.0	
Loans from the EIB	5.9	4.0	
Loans from other international financial institutions	0.0	0.0	
Net issuance of money market instruments	40.0 to 60.0	40.0 (26.5) <sup>2</sup>	
Gross issuance of treasury bills <sup>3</sup>	202.0 to 222.0 <sup>2</sup>	202.6 <sup>2</sup> (189.1)	
Redemption of treasury bills <sup>3</sup>	162.0	162.6	
Other money market instruments	0.0	0.0	

<sup>1</sup> Incl. tap sales from Ministry's own portfolio on the secondary market, to the EIB and to the investment portfolios.

<sup>2</sup> Targeted net issuance of money market instruments in the market excl. Ministry's operations within investment portfolios, resulting in the net issuance in the amount of CZK 26.5 billion.
<sup>3</sup> Excl. roll-over of money market instruments within the year 2012.

Source: MoF

Total of 14.7% of the government's gross borrowing requirement was secured by the successful "spring" and subsequent even more successful "Christmas" series of issues of savings government bonds in a total nominal amount of CZK 45.3 billion. These issues were supplemented by the tranches issued as the reinvestment of yields of the reinvestment and index-linked savings government bonds in the total nominal amount of CZK 0.1 billion. In 2012, the Ministry introduced two new types of savings government bonds, specifically the premium and already mentioned inflation-linked savings government bond. The issuance of government bonds for small investors thereby became a permanent source of government funding, in addition to primary auctions on the domestic government bond market.

For the first time since 2010, the Ministry entered foreign markets with the issuance of a 10-year benchmark government bond, when in February 2012 it issued a 3.875%/22 eurobond in the total amount of EUR 2 billion. Given the very high demand for this bond on the market, in October 2012 the Ministry decided to increase the total nominal value of this issuance by EUR 750 million to a resulting EUR 2.75 billion.

In 2012, 6 single-bond primary auctions and 17 double-bond primary auctions were carried out on

the domestic market for medium-term and longterm government bonds. The Primary Dealers gave a positive response to the change in publication of the total nominal value offered in the competitive parts of the auction within a predefined range, and the Ministry will continue to publish the offered total nominal values this way in 2013. The Ministry will also continue to inform the Primary Dealers transparently through issuance calendars on a monthly basis. However, in the future it will retain the option of diverging from the indicated total nominal value, or entirely changing the instrument offered for sale, particularly in the event of nonstandard conditions on the financial markets or other extraordinary circumstances.

Medium-term and long-term government bonds in a total nominal value of CZK 151.2 billion were sold in primary auctions.





Source: Czech National Bank and MoF

Sales on the secondary market were realised in a total nominal value of CZK 12.4 billion, of which tap sales of medium-term long-term government bonds to Primary Dealers accounted for CZK 9.1 billion and direct sales to the EIB accounted for CZK 3.3 billion. The Ministry's purchases into the nuclear portfolio were carried out in the nominal amount of CZK 0.9 billion. This year, the Ministry entered other operations on the secondary market and carried out the most buy-backs and repo operations in history in the course of the respective calendar year, as described in detail in Chapter 5. Moreover, it

substantially boosted the liquidity of the secondary government bond market.

The Strategy for 2012 indicated the sale of floating rate notes of at least 30% of the total nominal value issued in primary auctions on the domestic market. The Ministry offered fixed and floating rate bonds in primary auctions evenly throughout all of 2012. The share of both types of instruments sold through primary auctions for 2012 is equal to 54% fixed rate bonds and 46% floating rate notes.



Figure 19: Sale of Medium-term and Long-term Government Bonds in 2012 (CZK billion)

Note: Sales in primary auctions, tap sales, direct sales to the EIB and sales to the nuclear portfolio. Source: Czech National Bank a MoF

In the course of 2012, a relatively high demand for CZK-denominated medium-term and long-term bonds in domestic auctions was observed.

The stable demand for CZK-denominated mediumterm and long-term government bonds in 2012 is illustrated by the Bid-to-Cover Ratio in the competitive part of the auction. The average Bidto-Cover Ratio at a value of 2.24 signals very high auction demand for medium-term and long-term government bonds on the domestic market.



#### Figure 20: Primary Auctions of Medium-term and Long-term Government Bonds in 2012

Source: Czech National Bank and MoF

The total net issuance of money market instruments in the form of treasury bills on the market will be carried out within the planned range at the level of CZK 40.0 billion in 2012, while CZK 13.5 billion in net redemptions were carried out in the nuclear and pensions portfolios. The overall net issuance of money market instruments will thus reach CZK

#### Funding Programme for 2013

The funding programme for 2013 is based on the planned gross borrowing requirement of the government in the amount of CZK 230.7 billion. The Ministry will execute to the core part of the funding programme in 2013 on the domestic market and will continue to evaluate the current development of conditions for financing on the foreign markets.

# The share of financing on the foreign markets will comprise no more than 40% of the planned annual gross borrowing requirement.

In 2013 The Ministry aims to issue at least one public syndicated government bond issue on the foreign markets. The Ministry may also evaluate the option of private placements in foreign currencies, should such issuances bring savings on interest costs or contribute to the stabilization of the refinancing risk, for instance by lengthening the average time to maturity of state debt or provable broadening of investor base of the Czech state debt. The conditions for potential issuances of government bonds on foreign markets will depend primarily on the development of conditions on financial markets in 2013. 26.5 billion and contribute 8.6% to the financing of the gross borrowing requirement.

Loans from the EIB will be realised slightly below the expected volume, in the amount of CZK 4.0 billion, which is approximately 1.3% of the annual gross borrowing requirement of the government.

#### The borrowing requirement in the amount of CZK 1.6 billion will be secured via CZKdenominated long-term loans from the European Investment Bank.

The drawing of these long-term loans intended exclusively for infrastructure projects is based on the respective loan acts approved by the Parliament of the Czech Republic. The use of resources from credit lines is strictly tied to specific investment projects and programs, and like in previous years is explicitly contained in the state budget for 2013. The individual loan contracts offer extensive maturities of 3-40 years and the option of selecting between fixed and floating interest rates. Based on its exceptional position on the financial markets, EIB can offer more favourable rates than purely market rates. The termination of drawing of loans from the EIB is expected in 2014 and 2015 and is caused among others by less attractive rates offered recently. The outlook shows a significant reduction in the drawing of these loans compared to the Strategy plan for 2012, which is caused mainly by the decision to cover expenditures on co-financing the Operation Program Transport from sources other than EIB loans in these years. This loan constituted the greater part of plans given in the Strategy for 2012. Currently there are no more loan contracts negotiated between the Ministry and the EIB.

#### The issuance of CZK-denominated mediumterm and long-term government bonds on the domestic market will not exceed CZK 219.1 billion.

Given the planned gross borrowing requirement, supply of medium-term and long-term government bonds from the Ministry next year will be approximately the same as in 2012, which should contribute to a stable situation on the domestic market.

The time schedule for auctions of medium-term and long-term government bonds on the domestic market will be governed by the indicative plan of auctions, and a relatively evenly distributed in maturity segments of 2-6 years and 7-15 years. The Ministry may also consider the inclusion of instruments with a maturity of more than 15 years, if there is demand for such instruments on the market.

Like in 2012, the specific instruments and indicated volumes of the individual auctions will be published in 2013 on a monthly basis always on the second working Monday of the preceding month. Likewise, the indicated total nominal value will be published only for the competitive round of the auction in the predefined range. The Ministry also reserves the right to change the indicated total nominal value or range offered for the respective auction according to current requirements and market situation. On the second working Monday of the month preceding the start of the given quarter, the Ministry will also publish the quarterly maximum offered total nominal value for the competitive rounds of the auctions in the given quarter.

Table10:	Indicative	Auction	<b>Schedule</b>	of Medium-	term and	Lona-term	Bonds in	2013
rubic ro.	maioative	///	ouncaute	ormeanan	torn una	Long term	Doma5 III	2010

2013	Auction date	Issue date	Additional auctions <sup>1</sup>	Issue date
	09.01.2013	14.01.2013	16.01.2013	21.01.2013
	23.01.2013	28.01.2013	13.02.2013	18.02.2013
01	06.02.2013	11.02.2013	13.03.2013	18.03.2013
	20.02.2013	25.02.2013		
	06.03.2013	11.03.2013		
	20.03.2013	25.03.2013		
	03.04.2013	08.04.2013	10.04.2013	15.04.2013
	17.04.2013	22.04.2013	22.05.2013	27.05.2013
02	24.04.2013	29.04.2013	05.06.2013	10.06.2013
Q2	15.05.2013	20.05.2013		
	29.05.2013	03.06.2013		
		17.06.2013		
	26.06.2013	01.07.2013	03.07.2013	08.07.2013
	10.07.2013	15.07.2013	31.07.2013	05.08.2013
	24.07.2013	29.07.2013	11.09.2013	16.09.2013
Q3	07.08.2013	12.08.2013		
	21.08.2013	26.08.2013		
	04.09.2013	09.09.2013		
	18.09.2013	23.09.2013		
	09.10.2013	14.10.2013	16.10.2013	21.10.2013
01	23.10.2013	29.10.2013	30.10.2013	04.11.2013
	06.11.2013	11.11.2013	13.11.2013	18.11.2013
	20.11.2013	25.11.2013		

<sup>1</sup> Possible extension of the issuance calendar of CZK-denominated medium-term and long-term bonds.

The Ministry will offer both fixed and floating rate bonds in primary auctions in 2013.

In the case of fixed rate bonds, the Ministry will offer the CZGB 3.40/15 and CZGB 3.75/20 at one or two auctions and then through tap sales. The Ministry may also offer for sale the fixed rate

CZGB 4.60/18 and CZGB 4.85/57 in tap sales, CZGB 4.70/22 at auctions and CZGB 4.20/36 at one or two auctions and then through tap sales and CZGB 4.85/57 in tap sales. As for floating rate notes, the Ministry will offer CZGB VAR/16, CZGB VAR/17 and CZGB VAR/23 at auctions. The Ministry can adjust the supply of the instruments during 2013 based on the development on domestic and foreign markets.

The Ministry also plans to open three new benchmark issues of fixed government bonds due in 2016, 2019 and 2028. No new issue of floating rate notes is scheduled for 2013.

## The Ministry may continue to offer two government bonds in one auction day in 2013.

In order to increase the flexibility of financing the state and owing to the positive response from investors in reaction to the increased volatility on financial markets and lasting uncertainty on financial markets, the Ministry will continue to offer two government bonds with various characteristics (e.g. a fixed and floating rate or medium-term and long-term bond) in one auction day in 2013. This type of auction strategy provides investors with a possibility of selection between instruments and an option of flexible reaction to a changing market environment. The Ministry's aim is to accommodate the needs of market participants as much as possible in times of increased uncertainty.

#### Table 11: Issuance Plan for Medium-term Long-term Bonds for 2013 (CZK billion)

New issues of government bonds on the domestic	Outstanding as	Issuance	Planned scope for
market	at 31 Dec 2012 <sup>1</sup>	limit	2013
Issue 77, CZGB x.xx/16	0	80	25 to 35
Issue 76, CZGB x.xx/19	0	140	25 to 35
Issue 78, CZGB x.xx/28	0	160	25 to 35
Re-opened issues of government bonds on the	Outstanding as	Issuance	Planned scope for
domestic market	at 31 Dec 2012 <sup>1</sup>	limit	2013
Issue 52, CZGB 4.70/22	55	95	20 to 30
Issue 63, CZGB VAR/23	55	100	15 to 25
Issue 49, CZGB 4.20/36 <sup>2</sup>	21	80	0 to 4
Sold off issues of government bonds on the	Outstanding as	Issuance	Planned scope for
domestic market <sup>3</sup>	at 31 Dec 2012 <sup>1</sup>	limit	2013
Issue 60, CZGB 3.40/15 <sup>2</sup>	60	65	0 to 3
Issue 67, CZGB VAR/17 <sup>2</sup>	40	50	0 to 3
Issue 46, CZGB 3.75/20 <sup>2</sup>	68	75	0 to 3
Tap sales of government bonds on the domestic	Outstanding as	Issuance	Planned scope for
market	at 31 Dec 2012 <sup>1</sup>	limit	2013
Issue 60, CZGB 3.40/15 <sup>2</sup>	60	65	0 to 1
Issue 55, CZGB VAR /16	78	80	0 to 2
Issue 67, CZGB VAR/17 <sup>2</sup>	40	50	0 to 2
Issue 41, CZGB 4.60/18	73	75	0 to 1
Issue 46, CZGB 3.75/20 <sup>2</sup>	68	75	0 to 2
Issue 49, CZGB 4.20/36 <sup>2</sup>	21	80	0 to 10
Issue 53, CZGB 4.85/57	9	95	0 to 9

Retail bonds programme			Planned scope for 2013
Government savings bonds – "spring" and "Christmas" series	-	-	20 to 40
Issues of government bonds on foreign markets			Planned scope for 2013
Public issues 5 to 30 years	-	-	0 to 80
Private placement 5 to 30 years	-	-	0 to 30

 Excl. bonds held in the Ministry's own portfolio.
 The Ministry expects one or two primary auctions.
 Bonds up to the Issuance limit may be purchased to the Ministry's portfolio and then used for tap sales. Source: MoF

The issuance of medium-term and long-term bonds on the primary market will be supplemented by the sale of bonds from the Ministry's own portfolio on the secondary market. Bonds held in the Ministry's own portfolio can also be used to carry out repo operations. With the electronic trading system MTS Czech Republic in place, the Ministry will continue to carry out tap sales on the secondary market, as described in detail in Chapter 5. In 2013, the Ministry will no longer carry out direct sales of government bonds to the EIB.

#### Table 12: Government Bonds in the Ministry's Portfolios Expected as at 31 Dec 2012 (CZK billion)

Issue	ISIN	Ministry's own portfolio	Investment portfolios
Issue 40, CZGB 3.70/131	CZ0001000814	2.1	0.0
Issue 59, CZGB 2.80/131	CZ0001002729	6.0	0.0
Issue 62, CZGB 2.75/14	CZ0001002869	3.1	0.0
Issue 60, CZGB 3.40/15	CZ0001002737	1.0	1.0
Issue 44, CZGB 3.80/15	CZ0001001143	0.0	4.9
Issue 55, CZGB VAR/16	CZ0001002331	2.3	0.0
Issue 51, CZGB 4.00/17	CZ0001001903	1.0	3.6
Issue 67, CZGB VAR/17	CZ0001003438	2.0	0.0
Issue 41, CZGB 4.60/18	CZ0001000822	2.1	0.0
Issue 56, CZGB 5.00/19	CZ0001002471	0.0	2.0
Issue 61, CZGB 3.85/21	CZ0001002851	1.0	0.0
Issue 52, CZGB 4.70/22	CZ0001001945	0.5	0.0
Issue 63, CZGB VAR/23	CZ0001003123	4.0	0.9
Issue 58, CZGB 5.70/24	CZ0001002547	1.0	1.4
Issue 53, CZGB 4.85/57	CZ0001002059	8.8	0.0
Total		34.9	13.8

Government bonds bought back to the portfolio within buybacks, not intended for further selling. Source: Mol

#### Due to the refinancing risk, the Ministry will maintain short-term state debt below the limit of 25% stipulated for 2013.

In 2011, treasury bills were purchased within the framework of investment pension portfolio resources. As a result, it is necessary to clear the net issue of treasury bills in 2012 of the resources that the Ministry repaid to the reserve account for the pension reform, which distorts the explanatory value of the total net issuance of treasury bills in 2012. Although the total nominal value of the net issuance of treasury bills is CZK 26.5 billion, together with the redemption on treasury bills in the pensions portfolio in the total amount of CZK

13.5 billion the nominal value of money market instruments outstanding on the market increased by CZK 40.0 billion, which means it is in accord with the plan for 2012.

Given the declining medium-term and long-term government bonds yields, the Ministry has decided to stop the increase in the total nominal value of treasury bills outstanding for 2013 and the expected net issue of treasury bills is therefore set at CZK 0 billion.

The indicative auction plan is set with respect to the decision to stop the rise in the total nominal value of treasury bills outstanding. Efforts remain

to gradually increase the total nominal value of individual issues while reducing their number in order to ensure that there is room for the inclusion of additional auctions in the event of increased requirements for financing via money market instruments.

2013	Auction Date	Issue Date	2013	Auction Date	Issue Date
	10.01.2013	11.01.2013		11.07.2013	12.07.2013
	17.01.201318.01.201324.01.201325.01.2013	25.07.2013	26.07.2013		
		08.08.2013	09.08.2013		
01	31.01.2013	01.02.2013	Q3	22.08.2013	23.08.2013
	21.02.2013	22.02.2013		29.08.2013	30.08.2013
	28.02.2013	01.03.2013		12.09.2013	13.09.2013
	07.03.2013	08.03.2013		19.09.2013	20.09.2013
	28.03.2013	29.03.2013		10.10.2013	11.10.2013
	04.04.2013	05.04.2013		17.10.2013	18.10.2013
	25.04.2013	26.04.2013		31.10.2013	01.11.2013
	02.05.2013	03.05.2013	01	14.11.2013	15.11.2013
Q2	16.05.2013	17.05.2013		21.11.2013	22.11.2013
	30.05.2013	31.05.2013		05.12.2013	06.12.2013
	06.06.2013	07.06.2013		12.12.2013	13.12.2013
	27.06.2013	28.06.2013			

#### Table 13: Indicative Auction Plan for Treasury Bills in 2013

Source: MoF

In 2013 the treasury bills will be issued with standardised maturities of 3, 6, 9 and 12 months.

In the event of unfavourable market development, the Ministry can even introduce 1 month maturity.

#### Table 14: Planned Issuance of Treasury Bills in 2013 (CZK billion)

Issue	3-month	6-month	9-month	12-month	Total
Maturity in 2013	36	26	16	0	78
Maturity in 2014	8	35	57	89	189
Gross issuance	44	61	73	89	267
Redemption on issues of 2012	17	27	53	92	189
Net issuance	-9	8	4	-3	0

Source: MoF

The planned volume of net issuance of treasury bills should be evenly distributed into the individual

quarters over the course of 2012.





#### The Ministry will offer retail bonds in the total nominal amount of CZK 20 to 40 billion in 2013.

In 2013, the Ministry plans to pick up the threads of the highly successful issues of savings government bonds in 2011 and 2012. Due to the very strong demand in the "spring" and particularly in the "Christmas" series of savings government bonds issues, two series of issues will be offered again in 2013. The planned volume of each series is CZK 10 to 20 billion and the total planned issue of government savings bonds in for 2013 is CZK 20 to 40 billion.

#### Table 15: Funding Programme for 2013 (CZK billion)

Gross borrowing requirement (excl. roll-over of money market instruments)	230.7
Direct loans from international financial institutions	1.6
Loans from the European Investment Bank	1.6
Miscellaneous	0.0
Issuance of medium-term and long-term government bonds	219.1 to 239.1
Issuance of medium-term and long-term government bonds on the domestic market $^{1}$	87.1 to 219.1
Issuance of medium-term and long-term government bonds on the foreign markets	0.0 to 92.0
Issuance of savings government bonds	20.0 to 40.0
Net change of money market instruments outstanding <sup>2</sup>	-10.0 to 10.0
Gross issuance of treasury bills <sup>3</sup>	179.1 to 199.1
Redemption on treasury bills <sup>3</sup>	189.1
Change in other money market instruments	0.0
I Incl. tan sales, direct sales to the FIR and to the investment nortfolios	

<sup>2</sup> Targeted net issuance of money market instruments in the market excl. Ministry's operations within investment portfolios. <sup>3</sup> Excl. roll-over of money market instruments within 2013. Source: MoF

### 4 - Risk Management and Portfolio Strategy

Public defining of the strategic benchmark debt portfolio via declaration of strategic objectives is the main tool for increasing the transparency of the Ministry's debt policy in line with the best international practice. The objectives have been set up based on the requirements stemming from the cautious approach to the management of financial and credit risks while minimizing costs over the long term. The main risks to which the debt portfolio is subjected over the long term are refinancing, interest and currency risks. All of the objectives and limits defined below are being applied to the portfolio of the state debt as a whole, including derivative operations. Since the beginning of 2011, the Ministry has been monitoring and from the point of view of market risks also managing the portfolio of related state financial assets, which are included in the composition of the net debt portfolio.

#### **Refinancing Risk**

The stabilization of the refinancing risk forms the central point of the Ministry's concept for issuance planning. As of 2012, the Ministry includes the portfolio of state financial assets in the process of setting limits for the debt portfolio also.

The key indicator on which the Ministry has been focusing in connection to refinancing since 2004 is the share of short-term state debt (i.e. the share of debt payable within one year out of the total debt). In relation to this indicator, the Ministry introduced limits, which have not been exceeded in any year of their existence. In 2006-2012, the Ministry applied a long-term targeted limit of 20.0%. In 2012, this limit was increased by 5 percentage points to 25.0%. As of 2012, the Ministry has been actively managing medium-term state debt through the key indicator of the share of medium-term state debt (i.e. the share of debt repayable within five years out of the total debt), for which the Ministry has set up a limit of 70.0%. The system of these two fundamental limits enables the distribution of refinancing risk between short-term and medium-term state debt. As of 2012, the Ministry includes the portfolio of state financial assets in the process of setting limits for the debt portfolio also. The Ministry sets these limits in line with international practice and respects the estimated absorption capacity of the domestic money market.

For 2013, the Ministry is increasing the limit for the share of short-term state debt payable within one year to 25.0% of the total state debt. The Ministry finds this limit adequate given the structure of the debt portfolio and the portfolio of state financial assets. The predicted share of short-term state debt payable within one year at the end of 2012 was 17.9% of the total state debt, where the predicted share of state financial assets available within one year at the end of 2012 is 11.2% of the total state debt. Compared to 2011, the share of short-term

state debt declined by 1.4 percentage points, which is partly due to the lower than planned net issuance of treasury bills. The value of the state financial assets available within one year in the total state debt increased compared to 2011 by 4.1 percentage points, due to the increased cash reserve in 2012. The Ministry expects the share of the short-term state debt payable within one year to not exceed 20% in 2013.

The predicted net change in money market instruments in the course of 2012 is CZK 26.5 billion, of which the predicted net issuance of money market instruments excluding the Ministry's investment operations is CZK 40.0 billion and the Ministry's net investment in the nuclear and pension portfolio is CZK -13.5 billion. The declared goal for the net issuance of money market instruments excluding the Ministry's investment operations in 2012 will be fulfilled, amounting to CZK 40-60 billion. The decline in the Ministry's net investment in the nuclear and pension portfolio by CZK 23.0 billion compared to 2011 is due to the Ministry's decision to discontinue the investment of available resources from the pension account, but to retain them within the same system as funds deposited on the other state financial asset accounts. In this case, these liquid resources are a part of the state treasury collective account with a positive impact on available liquidity and state debt. Within the total treasury balance, financial resources will be invested into short-term money market instruments with a maturity of several days (repo operations). The predicted value of financial resources on the pension account at the end of 2012 is CZK 22.4 billion. With a view to the situation on capital markets, where the yields from 2- to 3-year government bonds are close to the yields from 12-month treasury bills, the Ministry prefers to issue short-term bonds rather than treasury bills given the lower refinancing risk. For this reason, the Ministry plans a zero net change in money market instruments outstanding in 2013. Upon agreement with the Primary Dealers, the Ministry will issue a new benchmark three-year government bond in 2013, which will replace the positive net issuance of money market instruments.

In the course of 2012, the Ministry made several decisions which influence the short-term refinancing risk. One of them is the aforementioned decision to discontinue the investment of available resources from the pension account. Furthermore, the cash reserve which serves to eliminate short-term refinancing risk and which is a part of the state financial assets was increased in 2012 by CZK 65.1 billion compared to the originally planned zero change in this reserve. At the end of 2012, the predicted balance of the cash reserve is CZK 135.7 billion. The reason for increasing the cash reserve was primarily the continuing debt crisis in the Eurozone, which may lead to the short-term loss of investor confidence and increase the refinancing risk of the debt portfolio. Another factor that contributed to the decision to increase the cash reserve is the higher than planned gross issuance of savings government bonds in 2012 worth a total nominal value of CZK 45.4 billion. The predicted share of retail debt in the total state debt at the end of 2012 is 3.4%, which is 2.0 percentage points higher compared to the end of 2011. According to the issuance conditions for savings government bonds, the bonds may be early redeemedafter the passing of a certain period from their issuance. With a view to the substantial rise in savings bonds outstanding and the somewhat unpredictable total nominal value of early redeemed bonds, it is necessary to maintain a certain reserve balance in case the bonds are early redeemed. In 2012, savings government bonds worth a total of CZK 85.6 million were early redeemed. The Ministry is planning a regular series of savings government bond issuances in forthcoming years as well, which is why the share of the retail debt in the total state debt is likely to continue rising.

In connection to refinancing risk, the Ministry also monitors the share of cash reserve in the total resources that the Ministry must spend to refinance the debt portfolio, cover the state budget deficit and operations with state financial assets in the following year, i.e. the liquidity ratio. For 2013, the expected liquidity ratio is 33.9%, having increased by 16.1 percentage points compared to the expected liquidity ratio valid for 2012, which is 17.8%. The value of the liquidity ratio for 2012 and 2013 assumes the maintenance of a state budget deficit of CZK 105 billion in 2012, as well as the maintenance of the state budget deficit of CZK 100 billion in 2013. The rise in the liquidity ratio in 2013 is in line with the increased cash reserve.

Assuming the problem-free revolving of treasury bills outstanding in 2013, which is highly anticipated by the Ministry, the share of the cash reserve in the gross borrowing requirement of the Czech government documents the level of the financing risk. The predicted cash reserve at the end of 2012 covers 58.8% of the predicted gross borrowing requirement of the Czech Government in 2013. Compared to the end of 2011, the indicator increased by 36.0 percentage points, having previously been equal to 22.8%.

#### Figure 22: Liquidity Ratio, Share of Cash Reserve in the Government's Gross Borrowing Requirement in 2006–2013 (%)



Note: The liquidity ratio is defined as the share of the cash reserve in the sum of the short-term state debt, state budget deficit (balance) and state financial asset operations Source: MoF

#### Table 16: Share of Assets Available within One Year in the Total State Debt in 2005-2012 (%)

2005	2006	2007	2008	2009	2010	2011	2012F
4.8	2.0	3.3	10.9	7.9	7.5	7.1	11.2
Source: MoF							
In 2012, the Ministry again proceeded to buy back domestic medium- and long-term government bonds. These operations on the secondary market reduce the debt portfolio refinancing risk by reducing the share of the short-term debt and extending the average time to maturity of the debt portfolio. The total nominal value of bonds bought back in 2012 is CZK 15.9 billion, of which CZK 7.8 billion consist of bonds due in 2012 and CZK 8.1 billion of bonds due in 2013. With a view to the situation on the secondary bond market, the Ministry plans to continue conducting the buy-back of domestic medium- and long-term government bonds in 2013.

In the course of 2012, the Ministry started using a new facility in the form of repo operations, with medium-term and long-term government bonds as collateral. These are technical operations conducted for the purpose of supporting the liquidity of the government bond market, not in order to obtain financial resources. These operations affect the nominal amount of the state debt as well as the risk indicators of the debt portfolio. The total nominal value of repo operations conducted in 2012 was CZK 21.0 billion. At the end of the year, all repo operations will have been repaid.

#### Figure 23: Government Bonds Outstanding with Maturity within 1 Year (CZK billion)



It is apparent from the structure of government bonds outstanding due within one year that since the end of 3Q 2010, this segment of the debt portfolio is dominated by treasury bills. The short-term exceeding of the total nominal value of treasury bills outstanding by the total nominal value of medium-term and long-term bonds outstanding due within one year at the end of 3Q 2012 is due primarily to the concurrence of the 50th issue due on 18 October 2012 with the total nominal value of CZK 62.5 billion, the 40th issue due on 16 June 2013 with a nominal value of CZK 64.2 billion and the 59th issue due on 16 September 2013 with a total nominal value of CZK 43.6 billion. Due to the planned zero net issuance of treasury bills in 2013, the Ministry expects an increase in the share of medium-term and long-term government bonds due within one year in the debt portfolio at the end of 2013.

In the area of medium-term refinancing risk, the Ministry monitors and manages the shares of debt due within three and five years. Debt due within five years is managed using the indicator of the share of medium-term debt in the total state debt, for which the Ministry sets an explicit limit. For 2013, the Ministry has kept the limit for mediumterm debt at 70.0% of the total state debt. The setting of this limit is related to the Ministry's longterm vision, which means that its adjustment in forthcoming years is unlikely. The predicted value of the share of medium-term debt in the total state debt at the end of 2012 is around 52.7%. Compared to the end of 2011, the share of medium-term debt in the total state debt increased by 0.1 percentage points. The predicted share of state debt due within three years amounts to 35.4% at the end of 2012, having increased by 0.2 percentage points compared to the end of 2011, when it was 35.2%.



#### Figure 24: State Debt According to Maturity Baskets in 2002-2012 (% of total debt)

Another indicator used in the management of refinancing risk is the average time to maturity of state debt. The goal for this indicator was first explicitly declared for 2005. The span of the target band was 1 year during the years 2005-2008, and in 2005 it amounted to 5.5 to 6.5 years and for 2006-2008 it was increased by half a year to 6.0 to 7.0 years. For 2009 and 2010, the Ministry widened the target band by half a year, adjusting the lower limit down to 5.5 years. For 2011, the Ministry narrowed the target band and again moved it down to 5.25 to 6.25 years. For 2012, the Ministry is adjusting the target band for the average time to maturity of state debt down by a guarter of a year to 5.0 to 6.0 years. The declared goals were fulfilled in all years. The downward adjustment of the target band was again the result of the increased uncertainty related to the future development of the Eurozone and the

related preference of investors to purchase short-term debt.

For 2013, the Ministry has preserved the target band of average time to maturity of state debt on the level of 5.0 to 6.0 years. Maintaining the average time to maturity within the target band and the smooth redemption profile of the debt portfolio determine the term and volume structure of the issuance of government bonds on the domestic and foreign market and the setting of repayment schedule for loans drawn from the European Investment Bank. The predicted average time to maturity of the state debt at the end of 2012 is 5.7 years. The value of this indicator has declined compared to the end of 2011 by 0.1 years, having been equal to 5.8 years at the end of 2011.



#### Figure 25: Average Time to Maturity of State Debt in 2002–2012 (years)

The Ministry monitors not only the average time to maturity of the total debt portfolio, but also the average time to maturity of its individual parts. All parts of the state debt apart from treasury bills have an average time to maturity higher than the average time to maturity of the debt portfolio, which confirms the impact of treasury bills on the value of the indicator. At the end of 2012, the predicted average time to maturity is 0.4 years for treasury bills, 6.1 years for domestic medium-term and longterm government bonds including savings bonds, 6.1 years for foreign bonds including hedging and 11.7 years for non-marketable state debt.

Indicator	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012F
Domestic (CZK)										
government bond incl.	5.7	6	5.7	6.3	6.6	6.5	6.6	6.3	6.1	6.1
savings bonds										
Non-marketable debt	8.6	10.3	10.3	9.7	9.3	12	12.2	12.5	11.5	11.7
Foreign bonds	-	9.5	10.6	10.7	9.6	9.2	7.3	7.1	6.2	6.1
T-bills	0.3	0.3	0.4	0.4	0.2	0.3	0.4	0.4	0.4	0.4

Table 17: Average Time to Maturity of Individual Parts of the State Debt in 2003–2012 (years)

Note: Incl. hedging. Source: MoF

The declining trend in the average time to maturity of government bonds lasting since 2009 is due in part to the declining nominal amount of government bonds in the segment with a remaining maturity of 10-15 years which has existed since 2009. At the end of 2012, the share of the predicted total nominal value of government bonds in the segment with a remaining maturity of 10-15 years in the total nominal value of all government bonds outstanding is 9.0%, having declined by 2.6 percentage points compared to the end of 2011, when it was 11.6%. Furthermore, the predicted change in the share of the total nominal value of government bonds in the segment with a remaining maturity of 1-3 years in the total nominal value of all government bonds compared to the end of 2011 is 2.4 percentage points, in the segment with a remaining maturity of 3-5 years 0.2 percentage points and in the segment with a remaining maturity of 7-10 years 2.4 percentage points. The segment of bonds with a remaining maturity of over 15 years and 5-7 years is relatively stable.

## Figure 26: Maturity Structure of Government Bonds Outstanding in 2002–2012 (CZK billion)



Note: Incl. domestic government bonds, foreign bonds, savings government bonds and treasury bills

The average time to maturity of domestic medium-term and long-term bonds newly issued on the primary market in 2012 is 6 years and 8 months (at the end of 2012), having declined by 4 months compared to 2011. The total nominal value of newly issued domestic medium-term and long-term bonds sold in auctions in 2012 is CZK 151.2 billion. In the past three years, the average maturity of newly issued domestic medium-term and long-term government bonds is within a span of 4 months (6 years 8 months – 7 years), which indicates the Ministry's consistent issuance policy aimed at an average maturity of the debt

portfolio in the range of 5 - 6 years. The decline in the average maturity of newly issued bonds by 4 months, however, is in line with the decline of the average time to maturity of the debt portfolio.

In 2012, there were also foreign issues worth a total nominal value of CZK 68.8 billion with an average time to maturity (at the end of 2012) of 9.4 years, "spring" and "Christmas" series of savings government bonds issuances worth a total nominal value of CZK 45.4 billion with an average time to maturity (at the end of 2012) of 3.1 years and executed tap sales of domestic

medium-term and long-term government bonds worth a total nominal value of CZK 12.4 billion

with an average time to maturity (at the end of 2012) of 21.9 years.





Note: This is the average remaining time to maturity of newly issued bonds in the course of the respective calendar year stipulated at the end of the year, not incl. savings bonds. Source: MoF

New issues of government bonds and the drawing of long-term loans from the European Investment Bank will continue to be managed in line with the fulfilment of another goal, namely the stabilisation and smoothing of the maturity profile of the state debt in the course of time. The medium-term outlook shows annual state debt instalments after taking the impact of buy-backs in the amount of CZK 155 billion into account.

#### Figure 28: Maturity Profile of State Debt and Financial Assets as of the End of 2012 (CZK billion)



Note: Not including money market instruments outstanding on the side of liabilities and assets. The positive vertical axis shows liabilities, the negative vertical axis shows state financial assets and buy backs of bonds due in 2014 and carried out in 2013. Forecast as of the end of 2012. Source: MoF

With regards to the refinancing risk, the Ministry monitors the structure of the debt portfolio according to the individual instruments. Over the long term, fixed interest domestic medium-term and long-term government bonds account for the greatest share, with a predicted share of 52.1% of the total state debt at the end of 2012; this is a decline by 4.8 percentage points compared to the end of 2011. The predicted share of foreign bonds at the end of 2012 is 18.6% of the total state debt, which represents an increase of 2.2 percentage points compared to the end of 2011. The share of

treasury bills at the end of 2012 amounts to 11.3% of the total state debt, which represents an increase of 0.5 percentage points compared to the end of 2011. Beginning in 2011, this structure also includes the retail state debt, the share of which is rising

rapidly. The predicted share of retail state debt at the end of 2012 is 3.4% of the total state debt, which represents an increase of 2.0 percentage points compared to the end of 2011.







*Note: Forecast as of the end of 2012 and 2013. Source: MoF* 

The Ministry also monitors the structure of state debt holders. In the long run, domestic banking institutions hold the greatest share of domestic government bonds, while the Ministry predicts the share at a level of 49.4% (38.7% of all government bonds). Compared to the end of 2011, the share has increased by 4.0 percentage points. The predicted share of foreign government bond holders is 12.9% as of the end of 2012 having declined by 1.3 percentage points compared to the end of 2011. The Ministry does not have information about the structure of foreign debt holders. Assuming that all foreign government bonds are held by non-residents, which most likely is not the case, the predicted share of non-residents of all government bonds is 29.8% as of the end of 2012 having increased by 0.8 percentage points compared to the end of 2011. When compared with other countries in the region, this share is relatively low. For example, in Poland it is 50.7% (the share of non-resident holders of the government debt as of 30 July 2012) and in Hungary 40.0% (the share of non-resident bond holders on domestic government bonds as of 1 September 2012).

The predicted share of households on CZKdenominated medium-term and long-term government bonds is 5.1% as of the end of 2012 having increased by 2.3 percentage points compared to the end of 2011. Before the pilot series of saving government bonds issues on 11 November 2011, households were in possession of 0.8% of CZK-denominated medium-term and longterm government bonds, from which is evident that the possession of saving government bonds is the main factor in significant increase of the share of household possession of CZK-denominated medium-term and long-term government bonds. The increase of the share of household possession throughout the 2012 is caused in particular by two successful series of issues of saving government bonds of total nominal value of CZK 45.3 billion (reinvestments not included). In 2013, the Ministry plans to issue saving government bonds of total nominal value of CZK 20 to 40 billion, by which the share of household possession of CZK-denominated medium-term and long-term government bonds will probably increase further. In the structure of domestic non-financial institutions (non-financial businesses, government institutions, households, non-profit institutions) households are in possession of the biggest share with its prediction as of the end of 2012 being 68.0% of CZK-denominated medium-term and long-term government bonds. This share has grown by 11.2 percentage points compared to the end of 2011. The Ministry also monitors the share of government institutions in possession of CZK-denominated medium-term and long-term government bonds in domestic nonfinancial institutions holding these government bonds. The predicted share as of the end of 2012 has increased by 1.2 percentage points compared to the end of 2011 mainly due to the decision of the Ministry, which, commencing with the spring series of issuances, allows domestic government institutions to subscribe saving government bonds.

#### Figure 30: Holders Structure of Domestic Government Bonds as of the End of 2012 (%)



Note: The structure of domestic non-financial institutions is adjusted for government bonds acquired by the Ministry before the maturity and adjusted for government bonds rendered to the Ministry as collateral in repo operations, the prediction of the Ministry as of 31 December 2012. Source: MoF

## **Interest Rate Risk**

Interest risk remains the most important market risk affecting the management of state debt. In 2011, the Ministry announced a new strategic goal relating to management of market risk; the average time to re-fixing of state debt. For 2011 and also in the longer term, the Ministry set the explicit goal for this indicator to an interval value of 4.0 to 5.0 years. The goal was set in keeping with international practice, taking into consideration cost optimization in relation to state debt and risks stemming from the re-fixing of rates.

The average time to re-fixing of state debt at an interval of 4.0 to 5.0 years remains intact in keeping with the longer-term strategy of the interest rate risk management also for 2013. The primary tool for fulfilling this goal also in 2013 will be to issue fixed and floating rate government securities and draw of lines of credit from the European Investment Bank. The Ministry believes that the target band may be reached using the primary tool. However, the Ministry is continuing to monitor the debt crisis in the European viewing it as a matter of concern, and in case the investors' interest shifts towards the instruments with a rate at the shorter end of the yield curve, the Ministry will consider reaching the target band using derivate operations.

By the end of 2012, the expected value of the average time to re-fixing of state debt is fluctuating at the level of 4.4 years thus meaning it is within the target band. Compared to the end of 2011, there has been a decline in the average time to re-fixing of state debt by 0.2 year. The decline in the average time to re-fixing corresponds to the average time to maturity of debt portfolio during 2012. In the segment of instruments bearing interest on the short end of the yield curve, floating rate bonds to the total nominal value of CZK 69.9 billion were issued in both the primary and secondary market in 2012, which amounts to 42.5% of the total gross issue of CZK medium-term and long-term bonds in 2012. Compared to 2011, the share of newly issued floating rate bonds increased by 11.6 percentage points, since this share amounted to 30.9% in 2011. As of at the end of 2012, the share of treasury bills in the overall state debt amounts to 11.3% having increased by 0.5 percentage point compared to the end of 2011, since it amounted to 10.8% at the end of 2011. These factors also contributed to the decline of the average time to re-fixing of debt portfolio.



#### Figure 31: Re-fixing of State Debt and State Financial Assets in 2007–2013

Note: The positive vertical axis shows the debt portfolio, the negative vertical axis shows state financial assets. Source: MoF

As a result of the decline of the average time to re-fixing of the state debt by 0.2 year, the interest costs of the state debt are on average generated at the short end of the yield curve, which should contribute to relative reduction of interest costs in the long-term horizon. The Ministry's benchmark model compares the accrual interest costs generated by bonds sold in auctions of mediumterm and long-term government bonds with the benchmark portfolio containing the fixed rate bonds always issued on the auction day at the same nominal value as the real bond. The bonds are allocated sufficient time to maturity ensuring that the average time to maturity of 5.7 years is reached at the end of 2012, which is the predicted time to maturity of the real debt portfolio at the end of 2012. The benchmark model confirmed that the Ministry achieved savings amounting to approximately CZK 0.3 billion. in 2012 as a result of the issuing activity in the primary market of CZKdenominated government bonds, confirming that a decline to the average time to maturity generates savings in terms of state debt management. It is possible to find more detailed information regarding this benchmark portfolio hereinafter.

A further indicator monitored by the Ministry in connection with interest rate risk management, for which the Ministry has also been setting the strategic goal for each year since 2006, is the interest re-fixing of the debt portfolio within 1 year, referring to the share of debt which is sensitive to interest rate fluctuations on the financial market the following year. For 2013, the Ministry is keeping the target band at the level of 30 to 40% of overall state debt with an outlook in the upper half of that interval. This goal is in keeping with the introduction of the goal of average re-fixing in the range of 4.0 to 5.0 years. The target band was first achieved in 2009 and a noticeable increase to this indicator was observed over the following years, which is once again consistent with the decline of the average time until the re-fixing of state debt in these years. The forecasted value of the interest re-fixing of the debt portfolio within 1 year as of the end of 2012 is 36.0% of the total state debt and thus fluctuates in the middle of the target band. Compared to the end of 2011, the value of the interest re-fixing of the debt portfolio within 1 year increased by 1.5 percentage points. Changes in the structure of the debt portfolio in the segment of instruments bearing interest according to the yield curve within one year, also affecting the average time to refixing of the debt portfolio, have caused the value of the interest re-fixing of debt portfolio within one year to increase. These changes mainly refer to the already mentioned increased share of treasury bills in the overall state debt and increased share of the newly issued floating rate CZK medium-term and long-term government bonds during 2012.





The debt portfolio sensitive to interest rate fluctuation in the financial market in the following year mainly comprises the treasury bills (31.5%) and CZK-denominated floating rate medium-term and long-term government bonds (28.8%). The CZK-denominated fixed rate medium-term and long-term government bonds constitute 16.7% of this portfolio.





*Note: Forecast as of the end of 2012. Source: MoF* 

The Ministry also monitors the structure of CZKdenominated government bonds based on the current time to maturity, the original time to maturity and the nominal interest rate these bonds bear. This structure allows breaking down the interest costs of state debt, generated by government bonds. As of the end of 2012, the average coupon rate of these government bonds is 3.73%. The government bonds maturing in 2013 have average coupon rate of 3.35%; bonds with the original time to maturity of 2–4 years have the average coupon rate of 2.80%, bonds with the original time to maturity of 8–10 years have the average coupon rate of 3.70%. The treasury bills and discounted savings government bond discounts are the costs of the state budget at the moment of the bond sale and therefore do not affect the interest costs of the state debt service in following years.

#### Figure 34: Redemption Profile of Domestic Government Bonds and Savings Government Bonds by Original Time to Maturity and Coupon Rate (CZK billion, % p. a.)



Note: Excl. T-bills and discounted savings government bonds. The details in the graph represent average coupon rate in %. Forecast as of the end of 2012. Source: MoF

#### Table 18: Average Coupon Rate of Domestic Government Bonds according to Maturity Year (%)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023+	Average
3.35	2.75	3.34	2.65	3.19	4.60	4.90	3.75	3.85	4.70	4.44	3.73
Mata Evalu											

Note: Excluding T-bills and discounted savings government bonds. Source: MoF

The Ministry is also monitoring the structure of fixed rate medium-term and long-term CZKdenominated government bonds based on the current time to maturity, time to maturity and achieved yield to maturity. Such structure of bonds predicts the average annual costs of the fixed rate CZK-denominated bonds in the individual segments of the current time to maturity and time to maturity at the time of bond issuing. As of the end of 2012, the average costs of the fixed rate medium-term and long-term CZK-denominated government bonds equate to 3.97%. The buy-backs of fixed rate bonds with maturity in 2013 have reached an average yield to maturity of 0.13% in 2012. In 2013, fixed rate bonds with average annual costs of 3.65% mature, in the following structure: bonds issued as 2-4 year bonds with average annual costs of 2.41%, bonds issued as 8-10 year bonds with average annual costs of 4.70% and the bonds issued as 10-15 year bonds with average annual costs of 3.68%.

#### Figure 35: Redemption Profile of Fixed Rate Domestic Government Bonds According to Time to Maturity at the Time of Bond Issue and Achieved Yield to Maturity (CZK billion, %)



Note: Excludes the treasury bills and savings government bonds, the data in the graph represent the average costs of CZK-denominated fixed rate medium-term and long-term government bonds in %. Source: MoF

# Table 19: Average Yield to Maturity Fixed Rate Domestic Government Bonds According to Time to Maturity at the Time of Bond Issue (%)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023+	Average
3.65	2.10	3.22	5.54	4.02	4.00	4.84	4.01	3.25	5.17	4.45	3.97
Source: Mol	-										

Within the net debt portfolio, the Ministry is also monitoring the development of the basic risk parameters of investment portfolios. The value of the indicators is mainly affected by the volume of funds managed on the pension account. The Ministry decided not to further invest these free funds, but to keep them in the same mode as the funds deposited on the other accounts of state financial assets. In this case, these liquid resources are a part of the total treasury balance with a positive impact on available liquidity and state debt. Within the total treasury balance, financial resources will be invested into short-term money market instruments with a maturity of several days.

#### Table 20: Risk Parameters and Yield of Investment Portfolios and On-lending in 2007–2012

Parameter	2007	2008	2009	2010	2011	2012F
Average yield (%)	3.8	2.9	2.1	1.9	2.1	1.5
Average maturity (years)	5.1	2.0	1.9	2.0	2.2	1.7
Modified duration (years)	4.2	1.8	1.7	1.8	2.1	1.0

Source: MoF

# **Benchmark Portfolio**

In order to assess the ability to generate revenue from the decline of average re-fixing of the state debt and generate savings on interest costs of state debt due to the generation of these costs on the short end of the yield curve, the Ministry created so called synthetic benchmark portfolio consisting of fixed rate domestic government bonds only. The bonds contained in the benchmark portfolio are issued on the day of an actual bond auction and in the same nominal value. All bonds within the benchmark portfolio are always issued with the same time to maturity, while this particular time to maturity ensures the equal average time to maturity of the synthetic portfolio of the state debt containing the benchmark portfolio to average time to maturity of the actual portfolio of the state debt as of the end of the year. The predicted average time to maturity of the state debt as of the end of 2012 is 5.7 years. Providing the actual issuances of domestic government bonds are replaced with the fixed rate benchmark portfolio bonds with the time to maturity of 7.2 years at the day of the auction, the average time to maturity of the synthetic portfolio of the state debt will be the desired 5.7 years as of the end of 2012.

The average weighted yield of the portfolio consisting of domestic government bonds sold at the actual auctions during 2012 amounted to 2.25% p.a. The average weighted yield of the benchmark portfolio bonds achieved in 2012 amounts to 2.52% p.a., i.e. 27 basis points higher than the yield of the actual portfolio. In order to assess the actually achieved savings in 2012, it is necessary to calculate accrued interest costs of each bond issued in actual and benchmark portfolio in 2012 and then compare these total accrued interest costs of each individual portfolio. The total accrued interest cost of all domestic government bonds actually sold in auctions during 2012 amounted to CZK 2.2 billion. The total accrued interest cost generated by the benchmark portfolio in 2012 amounted to CZK 2.5 billion. The achieved savings on the interest costs of the state debt of CZK 0.3 billion demonstrate that the decrease of the average re-fixing of the state debt in 2012 resulted in interest cost savings due to well-adjusted issuance calendar.

It is necessary to point out that achieved savings of CZK 0.3 billion do not result from the decline of yields of the government bonds, which has been occurring during the whole year 2012. These savings were generated only by the adjustment of the issuance calendar so that it benefits from the increasing shape of the yield curves during 2012. It is also necessary to point out that the decrease of the average time to maturity of the debt portfolio does not automatically result in reduction of the interest costs of the state debt in every year. The price of the ability to generate savings is the higher risk of the interest rates and yields increment, which may results in negative achieved savings.

In 2012, 21 fixed rate bond auctions in the total nominal value of CZK 82,2 billion and 19 floating rate note auctions in the total nominal value of CZK 69,9 billion were held on primary market of domestic government bonds. The average weighted time to maturity of all domestic government bonds sold in auctions on primary market during 2012 amounts to 6.6 years as of the end of 2012. To reach the target average time to maturity of the state debt, the benchmark bond needs to have the time to maturity of 7.2 years.





Note: On 12 March 2012, the auction of domestic government bonds maturing in 2036 was held. The value of the time to maturity lies beyond the scope of the figure. Source: MoF



#### Figure 37: Bond Yields Achieved in Auctions in 2012 and Benchmark Bond Yield (% p.a.) Bond yields Benchmark bond yield

# **Cost-at-Risk of State Debt**

Since 2005, the Ministry has applied more sophisticated model framework to measure and manage interest rate risk known as Cost-at-Risk (CaR), which is based on the Value-at-Risk methodology and simulates future expected and maximum interest cost for a particular degree of risk, which is derived from the volatility of the term structure of interest rates. The stochastic element of the CaR model refers to the yield curve, the deterministic element is the dynamic structure of the state debt portfolio, which is based on the planned method of financing the government's gross borrowing requirement respecting the set strategic goals of financial risks management.

The primary goal of the model is determining the maximum costs of the state debt, which with 95% or 99% probability will not be exceeded (CaR 95%

and CaR 99%). The secondary goal of the model is estimation of actual interest costs of the state debt. The simulation framework works separately with interest costs and interest revenues. The outcome of interest costs and revenues aggregation is the net interest costs of the state debt. Unlike the gross interest expenditures, gross interest costs do not include the fees related to the debt service, which are of deterministic nature.

The following figure shows the comparison of net interest costs at risk, expected and budgeted net interest costs with realized net interest costs. The primary goal of CaR model was fulfilled in every year of its application, when the predicted maximum interest costs were not exceeded in any of those years.



## Figure 38: Net Interest Costs and Cost-at-Risk in 2006–2015 (CZK billion)

Note: In 2009 original budgeted costs. In 2012 the estimation of actual interest costs as of the end of the year. Source: MoF

	2006	2007	2008	2009	2010	2011	2012	2013F	2014F	2015F
Budgeted costs	33.9	37.8	43.7	41.3	56.1	66.7	72.1	64.3	-	-
Actual costs	31.5	34.0	37.5	44.1	35.6	45.0	41.1	-	-	-
Expected costs	32.4	33.3	41.7	44.9	57.5	49.1	56.4	50.6	58.6	64.9
CaR 95%	36.6	35.8	50.2	49.9	62.9	59.2	64.9	61.3	70.3	83.1
CaR 99%	-	-	-	-	-	67.8	71.5	65.9	78.4	93.5

#### Table 21: Net Interest Costs and CaR in 2006–2015 (CZK billion)

Note: In 2012 the values are an estimate of actual interest costs as of the end of the year and in 2013 budgeted net interest costs within the draw state budget law submitted to the Chamber of Deputies of the Parliament of the Czech Republic for approval. Source: MoF

In 2012, the predicted value of actual gross interest costs of the state debt is approximately CZK 56.8 billion; the value of expected gross interest costs in 2012 predicted by model is CZK 62.8 billion. The predicted value of actual interest revenues of the state debt in 2012 is CZK 15.6 billion, while the model-predicted value of expected interest revenues is CZK 6.4 billion. The predicted value of actual net interest costs of the state debt in 2012 is CZK 41.1 billion, while the model-predicted value of expected value of expected net interest costs in the same period is CZK 56.4 billion.

Even in 2012, the actual net interest costs will remain below the level of CaR 95% and CaR 99%, which were set at CZK 64.9 billion and CZK 71.5 billion, respectively. The primary goal of the model was thus fulfilled, while the actual interest costs of the state debt remained below the level of CaR 99% and therefore the compliance of state budget deficit for 2012 approved by the Chamber of Deputies of the Parliament of the Czech Republic in budget chapter 396 - State debt was not jeopardized. The estimation of expected gross interest costs is CZK 6.0 billion higher than predicted actual interest costs in CZK 15.3 billion higher than predicted actual interest costs. The estimation of expected interest revenues is CZK 9.3 billion higher than predicted actual revenues.

The reason for the difference between the actual and expected interest costs and revenues in 2012 was mainly caused by the situation on financial markets, which was not expected by the model, when the state debt service costs decreased due to the decline of yield curves. The values of market rates and actual net interest costs in 2012 did not remain in predicted interval and dropped below it as a result of sharp decline of yield curves mainly in the third guarter of 2012. The discrepancy between the estimate and reality is obvious mainly in interest revenues, where the Ministry received significantly higher than expected auction premia on reopening of government bonds issues. The reason for those auction premia was the combination of relatively high coupon rates of reopened issues and low yields to maturity of those bonds.

The yield curves of CZK and EUR denominated money markets have declined since 2012, when major decrease of interest rates can be observed on the short end of yield curve, mainly due to interventions of Czech National Bank which reduced the basic interest rate (2-week repo rate) to the historical minimum several times during 2012.



#### Figure 39: Development of 3M, 6M, 12M PRIBOR and 2W Repo Rate in 2012 (% p.a.)

Besides a decline of the yield curves of the money market, there was a declining trend of the yield curves of the CZK-denominated government

bonds since 2009. The slope of the curves has also been decreasing. The yields of the government bonds in 2012 attacked their minimum levels. The decline of the yield curves of the government bonds is associated with the decline of the risk premium on the government bonds during 2012. Risk premium is defined as the difference between the yield curve of the government bonds and the yield curve of the money market. This decline of the risk premium confirms the attraction of the Czech Republic as an issuer of government bonds among investors at the time of major uncertainty concerning future development of the Eurozone. The austerity policy of the present government in the form of fiscal consolidation of public finances has been positively perceived by the investors, thus bringing a realistic reduction to costs of the state debt service. At the time of designing simulations of the yield curves applied to estimation of the state debt costs in 2012, i.e. in November 2011, the value of the risk premium on the ten-year CZK-denominated government bond amounted to approximately 150 basis points, the present value of this premium amounts to approximately 40 basis points. Concurrence of declines of both curves, intensified by a decline of the risk premium during 2012, is the main reason for overvaluation of the estimated expected interest costs of the state debt.

## Figure 40: Yield Curve of Domestic Government Bonds in 2009–2012 (% p.a.)



Note: The yield curve of the domestic government bonds as of the end of the year; in 2012 as of the end of November. Source: MoF, MTS, Bloomberg

Figure 41: Yield to Maturity of Domestic Government Bond and Swap Rate in 2007–2012 (10Y, % p.a.)



# CaR for 2013

For 2013, the Ministry is introducing three-year simulation horizon for the first time in history, which is major progress in interest rate risk management. The simulation horizon for next three calendar years was also introduced in relation to the prediction of revenues and expenditures of the budget chapter State Debt as a part of a medium-term outlook of the budget of the Czech Republic, which is designed just for three years. The three-year simulation horizon is also necessary for carrying out of the efficient frontier analysis, where the progressive cumulating of expected interest costs and absolute risk of each issuance strategy allows for a better comparability of issuance strategies.

The interest rate model used to construct the CaR indicator for the period of 2013-2015 is based on the full yield curve modeling. Another very important feature of the model is the nonundervalued estimation of the volatility of the long end of the curve. The model has been defined for the first time ever and applied in Yacine-Ait Sahalia: Testing Continuous Time Models of the Spot Interest Rate, The Review of Financial Studies, 9, 2, 385-426, 1996. The model is characteristic for its "mean reversion" feature, i.e. the convergence of expected rates towards their equilibrium value and has been modified by the Ministry so as to comply with Czech market specifics. The model parameters estimates are based on historical daily observations of the Czech yield curve starting on 25 August 2000. 10 000 simulations of interest rates are conducted daily for each required time to maturity for the horizon from 13 November 2012 to 31 December 2015. Regarding the fact that the applied model exhibits the feature of long-term mean reversion of the interest rate, the model expects the rates to increase in the medium-term horizon. The model output includes the simulation of the money market yield curves, however according to which, only a small portion of the state debt bears interest. Therefore, it is important to model the risk premium, defined as a difference between the yield curve of government bonds and yield curve of the money market. Due to continuous overvaluation of expected and quantile values of the risk premium against the actual one in previous years, the Ministry adopted a different, less conservative approach to risk premium modeling for the 2013-2015 period than in the past. This approach should better capture the actual situation in the markets and not unnecessarily increase the risk premium value and thereby the simulated costs of the state debt. As of 2012, when assessing the riskiness of the interest rate costs of the state debt, the Ministry is fully switching from the CaR 95% indicator to the CaR 99% indicator, which was first used during estimation of the costs of the state debt in 2011. One of the reasons for performing this switch is

compliance with the risk management practices in developed financial institutions. The CaR 95% indicator has been still constructed, but it is no longer used for managing the interest rate risks of the state debt.

The expected gross interest costs in 2013 calculated by the model amount to CZK 58.7 billion. Gross interest costs at risk, i.e. CaR 99% amount to CZK 69.1 billion (CaR 95% CZK 64.6 billion). The actual gross interest costs in 2013 will not be higher by more than CZK 10.4 billion compared to the expected gross costs with 99% probability. The budgeted gross interest costs of the budget chapter State Debt for 2013 approved by the government amount to CZK 68.1 billion and are at the level of 98% quantile of gross interest costs distribution in this year. In case of application of the interest rates simulations applied in Strategy for 2012, where CaR indicator was already constructed, and application of valid funding programme for 2013, the budgeted gross interest costs of the budget chapter State Debt for 2013 approved by the government reach the value of 60% quantile of the gross interest costs distribution in 2013. The CaR 2013 analysis published in Strategy for 2012 was based on known facts as of 15 November 2011. The difference in the quantile values is mainly caused by different information, that are currently available, e.g. the decline of the money market yields to their minimums, the significant decline in risk premium on the Czech Republic over the last year resulting in the decline of the Czech government bonds yields to their minimums. The another factor of the difference in the budgeted costs quantile is less conservative approach to Czech Republic risk premium modeling, of which expected and quantile values were constantly overvalued than the actual ones.

The following table shows in detail the development of the cumulative gross interest costs of the state debt in 2013 predicted by the model, always as of the end of each month. It also shows the respective CaR 95% and CaR 99% critical values.

Month of the year 2013	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Expected costs	3.6	4.2	5.9	21.0	29.1	35.7	36.3	40.1	52.0	53.4	56.5	58.7
Absolute CaR 95%	3.9	5.5	7.4	23.0	31.3	38.5	39.6	43.9	56.3	58.5	62.0	64.6
Absolute CaR 99%	4.0	7.7	9.7	25.5	33.9	41.3	42.6	47.1	59.7	62.5	66.3	69.1

# Table 22: Development of Cumulative Gross Interest Costs in 2013 (CZK billion)

Source: MoF

A graphic presentation of simulations of cumulative gross interest costs of the state debt in 2013 calculated on a daily basis is shown in the following

figure. The figure also shows the expected values of costs and the corresponding 5% and 95%, 1% and 99% quantiles of simulated values.

#### Figure 42: Simulation of Gross Interest Costs of State Debt during 2013 (CZK billion)



The expected net interest costs in 2013 calculated by the model amount to CZK 50.6 billion. Net interest costs at risk, i.e. CaR 99% amount to CZK 65.9 billion (CaR 95% CZK 61.3 billion). The actual net interest costs in 2012 will not be higher by more than CZK 15.3 billion compared to the expected net costs with 99% probability (CZK 10.7 billion with 95% probability). The budgeted net interest costs of the state debt for 2013 approved by the government amount to CZK 64.3 billion, which is again consistent with the 98% quantile of the net interest costs distribution in 2013.

#### Table 23: Development of Cumulative Net interest Costs in 2013 (CZK billion)

Month of the year 2013	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Expected costs	3.1	2.9	3.6	18.2	25.4	31.1	30.5	34.1	45.5	46.1	48.5	50.6
Absolute CaR 95%	3.8	5.2	6.8	21.7	29.8	36.4	37.0	41.1	53.3	55.5	58.7	61.3
Absolute CaR 99%	3.9	7.4	9.1	24.2	32.4	39.3	40.0	44.4	56.8	59.4	63.1	65.9

Source: MoF

#### Figure 43: Daily Simulation of CZK Interest Rates in 2013 (% p.a.)



**3M PRIBOR** 

Source: MoF

With respect to the uncertain situation in the Eurozone, the Ministry also deals with problem of sharp yields increase, which could be caused by for example by sharp increase of basic interest rate of Czech National Bank, sudden deterioration of Eurozone's economic condition, sharp increase of Czech Republic's risk premium etc. The Ministry puts effort into quantifying the impacts of these effects on interest costs and revenues of the budget chapter State Debt. Every economic event

#### 10Y CZK SWAP

-1% and 99% percentile -5% and 95% percentile - Expected value



affects certain part of the yield curve, therefore it is important for the Ministry to observe shifts of particular parts of the yield curve separately. The following table quantifies the impacts of possible shifts of the short end of the yield curve, shifts of the long end of the yield curve and equal shifts of the whole yield curve, all during 2013. This analysis also enables unequal shift of the short and the long end of the yield curve and an arbitrary selection of the date of these shifts.

	Current	Shift of ra end of y	tes on short ield curve	Shift of ra end of y	tes on long ield curve	Shift of entire yield curve		
	moder	by 1 p.p.	by 5 p.p.	by 1 p.p.	by 5 p.p.	by 1 p.p.	by 5 p.p.	
Expected net costs	50.6	54.2	68.2	54.3	65.1	57.9	82.7	
Absolute CaR 95%	61.3	64.8	78.5	64.2	73.1	67.7	90.3	
Absolute CaR 99%	65.9	70.0	83.6	69.3	77.8	72.8	94.9	

#### Table 24: Development of Net Interest Costs in case of a Step Increase to Rates (CZK billion)

Note: Shock in the form of a one-time shift in the yield curve occurs at the beginning of 2013 Source: MoF

The shift of the yield curve of domestic government bonds on its short end by 1 percentage point upwards in 2013 would bring the increase of the expected net interest costs by CZK 3.6 billion. In case of the increase of the interest rates on the long end of the yield curve by 1 percentage point, the expected net interest costs of the budget chapter State Debt would increase by CZK 3.7 billion. The shift of the whole yield curve of domestic government bonds by 1 percentage point upwards would result in the increase of the expected net interest costs in 2012 by approximately CZK 7.3 billion.

The Ministry further quantifies the impacts of unplanned increase of the state budget deficit on the interest costs of the budget chapter State Debt. In case of the increase of the Czech Republic's state budget by CZK 10.0 billion in 2013 and assuming that the funding of this increase would be concluded by the uniform increase of nominal values of government bonds sold in auctions in accordance with actual issuance calendar, the expected gross interest costs of the budget chapter State Debt would increase by CZK 0.1 billion.

# CaR for 2014–2015

Within the three-year simulation horizon, the Ministry is also constructing the CaR indicators for the years 2014 and 2015. In 2014, CaR 99% for net interest costs, i.e. net interest costs at risk, amounts to CZK 78.4 billion. CaR 95% for 2014 is CZK 70.3 billion. With 99% probability, the actual net interest rates in 2014 should not exceed the level of CZK 78.4 billion. The expected net interest costs of the state debt in 2014 are predicted by the model to the value of CZK 58.6 billion.

The expected gross interest costs in 2014 are predicted by the model at a value of CZK 60.6 billion. The following table shows in detail the development of the cumulative expected gross interest costs of the state debt in 2014, always as of the end of each month. It also contains the respective CaR 95% and CaR 99 critical values.

The difference between CaR 99% and expected interest costs is higher in 2014 that the same difference in 2013. The reason for this difference is the higher uncertainty in the long-term prediction of the yield curves, which increases the volatility of interest rates.

Table	25: Deve	lopment	of Cumulative	Gross Interest	Costs in 2014	(CZK billion)
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Month of the year 2014	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Expected costs	3.4	4.9	7.9	21.7	29.9	34.6	35.6	40.2	52.3	54.6	58.3	60.6
Absolute CaR 95%	3.7	6.1	9.6	24.3	33.2	38.7	40.8	46.3	59.4	63.6	68.2	71.0
Absolute CaR 99%	4.1	6.9	10.9	26.2	35.8	42.2	44.7	50.7	64.8	70.3	75.8	79.1

Source: MoF

#### Figure 44: Simulation of Gross Interest Costs of State Debt during 2014 (CZK billion)





In 2015, CaR 99% for net interest costs, i.e. net interest costs at risk, amounts to CZK 93.5 billion. CaR 95% for 2015 is CZK 83.1 billion. With 99% probability, the actual net interest rates in 2015 should not exceed the level of CZK 93.5 billion. The expected net interest costs of the state debt in 2015 are predicted by the model to the value of CZK 64.9 billion.

The expected gross interest costs in 2015 are predicted by the model at a value of CZK 66.0 billion. The following table shows in detail the

development of the cumulative expected gross interest costs of the state debt in 2015, always as of the end of each month. It also contains the respective CaR 95% and CaR 99% critical values.

The difference between CaR 99% and expected interest costs is higher in 2015 that the same difference in 2013 and 2014. The reason for this difference is the higher uncertainty in the long-term prediction of the yield curves, which increases the volatility of interest rates.

#### Table 26: Development of Cumulative Gross Interest Costs in 2015 (CZK billion)

Month of the year 2015	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Expected costs	3.8	5.3	8.6	25.5	34.0	38.0	39.2	45.8	57.8	60.5	62.4	66.0
Absolute CaR 95%	4.8	7.3	12.1	31.8	41.2	46.8	49.2	57.5	70.8	76.0	79.1	83.6
Absolute CaR 99%	5.3	8.1	14.0	35.7	45.9	52.5	55.4	64.3	78.4	85.1	88.9	93.8

Source: Mol

#### Figure 45: Simulation of Gross Interest Costs of State Debt during 2015 (CZK billion)



# **Efficient Frontier**

The primary goal of the Ministry is always the smooth financing of the gross borrowing requirement of the central government at minimum costs associated with a particular level of risk. Since 99% of the funding of the gross borrowing requirement consists of government bonds issues (99.3% in 2013), it is important to issue bonds with such parameters that satisfy investors' demand. Another important factor the Ministry must monitor is the liquidity of the secondary market of the government bonds. To maintain a certain level of liquidity of the secondary market of government bonds, it is necessary to ensure a relatively high total nominal value outstanding for each government bond issue. According to the portfolio theory, it may happen that the government bonds issuance according to the issuance calendar so as to meet the investors' requirements and ensure the liquidity of the secondary market of government bonds, creates certain inefficiency in the debt portfolio management.

For the comparison of the actual funding strategy with other alternative strategies in terms of costs and risk, the Ministry conducts an analysis based on Cost-at-Risk methodology, which objective is so called efficient frontier construction, starting in 2012.

In the classic portfolio management, the revenues and risk of each possible investment within particular portfolio are compared directly between each other. On the other hand, the main factor affecting the structure of the portfolio when managing the debt portfolio is time to maturity<sup>1</sup> of each instrument. The fluctuation of the yield curves and the need of refinancing (re-fixing) makes each refinancing (re-fixing) carry the risk of increased costs. Portfolios with higher proportion of instruments bearing interest on the short end of the yield curve are exposed to the risk of higher costs compared to the portfolios with higher proportion of instruments bearing interest on the long end of the yield curve.

Efficient frontier represents the curve, which combines the risk and the expected costs of debt portfolios that contain only bonds with one particular constant time to maturity. The bond in this portfolio is always issued with constant time to maturity, i.e. the reopening is not considered, and on the day of its maturity, the bond is replaced with the bond having the same constant time to maturity. The efficient frontier represents risk and expected costs combinations frontier, which

1

can not be overcome by any other alternative debt portfolio. There is no other debt portfolio that would allow reducing the risk and expected costs simultaneously below the risk and expected costs of portfolios containing only the bonds with constant time to maturity.

All alternative debt portfolios in conducted analysis are based on actual debt portfolio as of 31 December 2012. All the gross borrowing requirement funding as well as treasury bills refinancing in the following years take place in the days of actually planned auctions using only bonds defined in alternative portfolio (issue reopening is not considered). The efficient frontier is comprised of seven alternative debt portfolios containing actual debt portfolio and newly issued bonds with constant time to maturity. These bonds are: 3-month and 12-month treasury bills and 3-year, 5-year, 7-year, 10-year and 15year government bonds. In addition to the seven alternative portfolios lying on the efficient frontier Ministry analyzed another seven alternative portfolios with instruments, which correspond more to actual investors' demand. These seven alternative portfolios are created similarly to the portfolios lying on the efficient frontier, when they consist of actual debt portfolio as of the end of 2012 and the mix of government bonds with different maturities which finance the gross borrowing requirement of the central government in the following years.

Two alternative portfolios allow for zero net issue of treasury bills in all years, while for the first portfolio, government bonds with time to maturity of 3, 5, 7, 10 and 15 years are issued equally. For the second portfolio, bonds with various maturities are issued, while the average time to maturity of entire debt portfolio of 6.0 years as of the end of each year is ensured. The third alternative portfolio funds the gross borrowing requirement and refinances treasury bills with 10-year government bonds and 12-month treasury bills only. In case of the fourth and fifth alternative portfolio, 3-month and 12-month treasury bills and 10-year and 15-year government bonds are issued, while in the first case, the chosen instruments are issued equally and in the second case the average maturity of entire newly issued debt is kept at 5.5 years as of the end of each year. In case of the sixth and seventh alternative portfolio, 3-year, 5-year, 7-year, 10-year and 15-year government bonds and 3-month and 12-month treasury bills are issued, while for the first strategy debt instruments are issued equally and in the second case, one half of total issuance comprises of treasury bills and the other half is comprised of government bonds,

In case of the whole efficient frontier analysis concept, time to re-fixing is considered as time to maturity

while the proportions of maturities within each group is equal.

determine the risk level of particular debt portfolio, the cumulative indicator CaR 99% in the years 2013–2015 is used, namely the relative CaR, which is constructed as the difference of the CaR 99% value and the expected costs.

The expected costs of each debt portfolio are comprised of cumulative expected costs of the state debt service in years the 2013–2015. To



Source: MoF

The figure shows that no alternative or actual debt portfolio, which comprises of a mix of government bonds with various maturities, lies on efficient frontier. The actual debt portfolio comprising of actual strategy of gross borrowing requirement funding is closer to the efficient frontier than the most of other the considered alternative debt portfolios comprising of government bonds with various maturities. To achieve a comparable position of the actual debt portfolio among the alternative portfolios, it is necessary to eliminate the influence of reopened issues. The reopening of issues leads to overvaluation of risk and expected costs in short simulation horizon. If the long-term simulation framework was considered or the costs of reopened

## **Currency Risk**

Currency risk is another market risk to which the portfolio of state debt is exposed. Since the beginning of 2011, the Ministry has been actively managing this risk. In this respect, the Ministry distinguishes between foreign-currency exposure of state debt and foreign-currency state debt. Foreign-currency state debt represents the total nominal value of the debt portfolio denominated in foreign currency. Foreign-currency exposure of state debt reflects the real market risk that foreign-currency debt is exposed to by virtue of exchange rate fluctuation. Foreign-currency exposure of state debt is mainly affected by derivative transactions which hedge a part of bond issues were accrued, the overvaluation of risk and expected costs would vanish.

In the context of the efficient frontier analysis, it is necessary to note that there is no optimal portfolio that could be obtained using quantitative optimization. In the real world, where it is not possible to auction only new issues of government bonds and not to take investors' requirement into account, it is only possible to choose such portfolio that best approaches the efficient frontier. The choice of the part of the efficient frontier, where this approach of portfolio to the efficient frontier occurs, depends primarily on risk preference or aversion of the management.

foreign-currency debt against the negative development of exchange rates. The key indicator introduced in relation to this is the share of foreign currency debt in overall state debt, for which a strategic limit was set at 15% + 2 percentage points.

For 2013, the Ministry is keeping the limit for the share of foreign-exposure of state debt in overall state debt at the level of 15% + 2 percentage points, in line with the medium-term strategy of debt portfolio exchange rate risk management. It is also true that exceeding 15% in the long term is not possible. The share of foreign currency

debt in overall state debt may exceed the 15% limit as much as by 2 percentage points, which, however, serves only for short-term overcoming of temporary depreciation of the domestic currency.

As of the end of 2012, the Ministry predicted the value of the share of foreign-currency exposure of state debt in overall state debt to be 10.0%, thus fluctuating safely below its limit. Compared to 2011, the indicator increased by 0.8 percentage point. The share of the foreigncurrency state debt in overall state debt as of the end of 2012 is predicted by the Ministry at the level of 17.7%, when the indicator increased by 2.2 percentage points as compared to the end of 2011. Both indicators increased during 2012 due to the issuing of two tranches of the sixth public syndicated foreign issuance denominated in EUR. On 24 February 2012, the sixth public syndicated foreign issuance denominated in EUR with the total nominal value of EUR 2.0 billion with maturity in 2022, a fixed coupon at 3.875% and yield to maturity at 3.977% (MS + 160 bps) was issued in line with the Strategy for 2012. On 5 October 2012, the Ministry issued the second tranche of this emission with the total nominal value of EUR 750.0 million with yield to maturity at 2.871% (MS + 116 bps). The achieved yields to maturity confirmed the attraction of the Czech Republic as an issuer of government bonds among foreign investors at a time of high uncertainty concerning the future development of the Eurozone. The austerity policy of the current government in the form of fiscal consolidation of public finances is continuing to be perceived positively on foreign markets. The second tranche achieved the lowest yield to maturity that the Czech Republic has ever achieved on foreign markets.





The Ministry observes the share of foreigncurrency exposure of state debt denominated in EUR in relation to overall currency exposure of the state debt. In 2009, the euro became the dominant currency in terms of overall currency exposure. As of the end of 2012, the Ministry predicts the share of foreign-currency exposure denominated in EUR to overall foreign-currency exposure of state debt at the level of 89.5%, when the indicator value has increased by 2.9 percentage points as compared to the end of 2011. Once again this increase is caused by the issuance of two tranches of the sixth public syndicated issuance on the foreign market denominated in EUR in the course of 2012. In the medium-term horizon, the Ministry does not anticipate a dramatic change in the proportions of currencies in terms of foreign currency exposure of the state debt.

Table 27	1: Foreian-currency	Exposure of Stat	e Debt Denominated	in EUR in	2006-2012 (%)

2006	2007	2008	2009	2010	2011	2012F
5.9	6.2	5.7	84.3	87.9	86.6	89.5
Source: MoF						

# State Treasury Liquidity Risk

The state treasury deals with significant fluctuations in daily income and expenditure during the year. In order to ensure the smooth financing of common operation of the state including the debt service, the state treasury collective account in CZK was opened pursuant to section 33 of the Budgetary Rules Act. It is administrated by the Czech National Bank as a tool for effective management of state liquidity and financing of state deficit during the year.

In 2001, the collective account of the state treasury included the income and expenditure accounts of the state budget, state financial asset accounts, current accounts of tax and customs authorities and the state treasury liquidity management account. On 3 October 2005, the collective account was extended by incorporation of the accounts of reserve funds and funds of cultural and social needs of state organizational units. As of 1 February 2012, it also includes the privatization account of the former National Property Fund.

Further extension of the collective account is currently discussed at the level of the Chamber of Deputies of the Parliament of the Czech Republic, within the amendment to the budgetary rules returned by the Senate. Approval of the amendment would result in significant changes in the collective account system as well as major strengthening of the state liquidity position, which would further mitigate the risk of state treasury liquidity. The new wording of the budgetary rules would also create new opportunities for reducing state debt financing costs, and contribute to the Government consolidation efforts.

The amendment distinguishes two types of the state treasury clients. Clients, whose accounts would mandatorily fall within the state treasury collective account, must transfer all of their funds to the account established by the Czech National Bank and may not open accounts with commercial banks in order to keep the funds on the collective account. These refer to the accounts of foreign funds, accounts of state funds, contributory organizations, Land Fund of the Czech Republic and the National Fund. Clients, whose accounts are included in the collective account optionally, can keep their accounts with commercial banks. They must open an account with the Czech National Bank designated for receiving taxes, subsidies or returnable financial aid from the state budget, state funds or from the National Fund. However, they can freely and immediately transfer the funds from the Czech National Bank to any other account. By the amendment, the accounts falling within the collective account would include the accounts of the Railway Infrastructure Administration, municipalities and voluntary associations of municipalities, Regional Councils of Cohesion Regions, public research institutes, public universities and accounts of other legal entities established by the Czech National Bank with the approval of the Ministry.

The amendment will also enable establishment of a state treasury collective account in EUR, the balances of which can subsequently be invested on the financial markets. Collective accounts in other currencies can be estabilished based on the agreement with the Czech National Bank.

Although the increase in the number of entities, whose accounts fall within the collective account, brings certain risks associated with uncertain development of balances in the accounts, new funds will further strengthen the state's position on the financial markets, which opens another way to achieve budgetary savings and to reduce the financing and state debt service costs.

There is no certainty that the new wording of budgetary rules will be approved this year, further resources cannot be included in the strategic plans for the next year. The estimated development of the state treasury balance is therefore based merely on the currently valid legislation and major changes during 2013 cannot be excluded. In the case of such changes, the Ministry also assumes the possible revision of this Strategy. As the development of the state treasury balance is affected by all of its components, legislative uncertainty multiplies the uncertainty associated with development of the state budget balance, which may result in significant deviations of the actual from the assumed state, affecting also successful issuance activity. Predictions of all components of the state treasury including the cash reserve are necessary for efficient state treasury liquidity management and minimization of the risk of disturbing the smooth implementation of the budgetary policy of the Government.

Deviations of the actual from predicted development could be observed during 2012, especially as of February foreign issue, which was not predicted and which increased the state treasury balance compared to the predictions. State budget deficit developed in line with expectations, certain deviations were caused by the distribution of certain expenses in time, as well as drawing of EU Funds, which was put on hold during the year and released at the end of October. Development of the state budget balance and the state treasury in December in the following figure is based on predictions.

#### Figure 48: Development of State Budget and CZK-denominated State Treasury Balance in 2012 (CZK billion)



Apart from some fluctuations the cash reserve ranged at around 50-80 % of overall state treasury resources, the daily average was 67%. Thanks to

the high share of own resources in the total state treasury resources, the liquidity risk associated with state debt financing was mitigated.

# Figure 49: Ratio of CZK-denominated Cash Reserve to Total State Treasury Resources in 2012 (%)



Security against the liquidity risk of the state treasury can be illustrated on the ratio of the cash reserve in the individual months of the year to the short-term debt due within 1 year. The cash reserve ranges from 33 to 55% of short-term debt. Compared to the previous year, this ratio doubled due to increase in cash reserve, caused by efforts to mitigate dependency on current

development on the financial markets as a part of reducing state debt management costs. Thanks to increased cash reserve, the issuance activity may be limited or expanded based on the current market development without endangering the state's ability to fulfill its obligations in due time. The cash reserve can also be used to finance state debt in the first months of 2013.

# Figure 50: Development of Cash Reserve in Relation to Short-term Debt and to Liabilities Due within 1 Year in 2012 (%)



Based on the experience with the crisis development in 2009 a 2010 the cash reserve was increased during following years not only as a prevention measure but also to ensure the possibility of adjustment of the issuance activity in response to the market development. In 2012, the cash reserve covered the volume of all obligations in September, like in 2010. Similar development is predicted for following years.





The cash reserve will reach CZK 135.7 billion at the end of 2012. Given all the recources of the state treasury, the financing is ensured until May 2013. The reserve itself can cover the budget

deficit but not the scheduled redemptions on state debt. The amount of the reserve is thus adequate and reasonable and will be maintained in following years.

# Figure 52: Cash Reserve at the End of 2012 and Cumulated Borrowing Requirement of 2013 (CZK billion)



Development of the state treasury balance and 2013 state budget balance is predicted based on currently available data. Connection between the state treasury balance and the budget balance can be observed on a daily basis, as the budget income and expenditure form one of the most significant and most volatile components of the the state treasury collective account Based on

data currently available, development of the state treasury balance and 2013 state budget balance is predicted. Connection between the state treasury balance and the budget balance can be observed on a daily basis, as the budget income and expenditure form one of the most significant and most volatile components of the the state treasury collective account.

#### Figure 53: Daily Prediction of State Treasury and State Budget Balance for 2013 (CZK billion)



The daily development of the CZK-denominated cash reserve needs to be monitored mainly for purposes of the issuing activity planning. Nevertheless, now when the cash reserve fluctuates at around CZK 103 billion, it is not necessary to concentrate the issuance activity on the period where the state budget deficit increases. It is possible to distribute

it equally during the year regardless of fluctuations to the state budget balance development. The Ministry can thus respond flexibly to changes on the financial markets, which is why significant reduction of the cash reserve is not envisaged in following years.



Figure 54: Daily Prediction of Development of Cash Reserve for 2013 (CZK billion)

# 5 - Primary and Secondary Market for Government Bonds

# **Primary Market and System of Primary Dealers**

On 1 October 2011, the Primary Dealer Agreement for Czech Government Securities (hereinafter the "Agreement") became valid, formally changing the status of direct participants at auctions for government bonds to Primary Dealers, whose rights and obligations are further specified. In line with best international practice, a standardized institutional and organizational framework for the Ministry's cooperation with financial institutions on funding of state and state debt management was implemented. Only a Primary Dealer who has entered into this Agreement with the Ministry will have the right, as of 1 January 2012, to participate at auctions in accordance with the Rules for the Primary Sale of Medium-term and Longterm Government bonds, organized by the Czech National Bank (hereinafte the "Rules").

The Primary Dealer's obligation is to purchase at least 3 % of the total nominal value of government bonds sold at auctions of medium-term and longterm government bonds (including noncompetitive parts of auctions) during four consecutive quarters. Another important obligation is for the participant to also act as a market-maker on a secondary market through the Designated Electronic Trading System (DETS) with the aim of achieving a highly liquid secondary market for government bonds. For 2012 and 2013, MTS Czech Republic which was launched on 1 July 2011 was chosen as this platform based on a decision taken by the Primary Dealers Committee.

The Primary Dealer is granted exclusive access to primary auctions of government bonds and the Ministry's operations on the secondary market, such as buy-backs, switches, tap sales, lending facilities and/or repo operations. Primary Dealers are also preferred by the Ministry as counterparties as to foreign issues, private placements and other financial operations. Primary Dealers also have an exclusive right to participate at regular meetings with officials from the Ministry, at least once per quarter, and to be involved in the preparation of issuance calendars for government bonds as well as to propose alternative instruments for financing the state's borrowing requirement, incl. hedging operations.

A new version of the Agreement which will enter into force on 1 January 2013 does neither bring about any change into Primary Dealers status nor does it alter any of their rights and obligations. However, it strictly defines procedure in case of non-compliance with their obligations on both primary and secondary market. A new version of the Agreement also brings a new name of the Agreement in Czech language.

The purpose of the new evaluation method, which came into force upon concluding the Agreement as of 1 October 2011 and was further revised in line with the amended Agreement of 2013, is to achieve a general and objective evaluation of all three criteria. The scale of groups A and B was moved closer which takes into consideration the strengthening of the importance of the secondary market, which enables the evaluation of active market-makers in relation to their performance at primary auctions of government bonds. The maximum evaluation of each Primary Dealer can reach 100 points, and this score is calculated on a relative basis. The activity of Primary Dealers is therefore evaluated guarterly for the last four consecutive guarters. The latest evaluation is published on the last working day in the month ensuing from the end of the corresponding quarter.

A. Primary market	45 pts	B. Secondary market	40 pts	C. Qualitative criteria	15pts
A.1. Government bond	25 pts	B.1. Quoting obligations on	9 pts	C.1. Derivative operations	8 pts
primary auctions share		DETS			
A.2. Dependability	5 pts	B.2. Qualitative performance on	9 pts	C.2. Marketing &	7 pts
		DETS		sovereign advisory	
A.3. Auction pricing	5 pts	B.3. Traded volume on DETS	9 pts		
strategy					
A.4. Auction participation	2.5 pts	B.4. Treasury operations on	9 pts		
		secondary market			
A.5. Primary auctions	7.5 pts	B.5. Tap sales and buy-backs	4 pts		
share – Treasury bills		pricing strategy			
Source: MoF	-				

#### Table 28: Criteria for Evaluation of Primary Dealers Valid as of 1 January 2013

As part of the A evaluation criterion of the activities on the primary market, the share of the particular Primary Dealer on the primary market of government bonds, meaning the share of accepted bids at auctions of government bonds for the evaluated period, is monitored. Using the ratio of the accepted bids for purchase to the total nominal value of the submitted bids, the Ministry monitors the willingness of investors to hold Czech government bonds. The important aspects of evaluating participation on the primary market include the auction price strategy, in which the Ministry evaluates the willingness of Primary Dealers to pay the highest price weighted by the nominal value and the time to maturity of the government bond auction. In another subcriterion, the Primary Dealer is evaluated with more points should that dealer be a regular participant at auctions, regardless of the evaluation period. The maximum number of points in the final subcriterion is received by the Primary Dealer who subscribes the largest share of Treasury bills sold by the Ministry during the particular period.

The quantitative criteria of group B, which is primarily based on statistics available and the monitoring tools of the MTS Czech Republic platform focuses on quotation activity, its quality, traded volumes and transactions with the Ministry. The evaluation of the fulfillment of the market maker's obligations also forms the subject of the secondary market sub-criterion. The quality of quotation activity represents an evaluation of the average quoted spread weighed by time and nominal value, which is further taken into account in the time to maturity of the given bond. Similarly also in relation to other criteria, the traded volumes are weighted based on the time to maturity of the bond. For the next one, the Primary Dealer is evaluated based on the ratio of the nominal value of the transaction carried out (type of repo operation, buy/sell back operation, depo, tap sale of government bonds on the secondary market or buy-backs) to the total nominal value of transactions carried out for the evaluation period. Since 2013, the newly established criterion will evaluate the willingness of the Primary Dealers to pay the highest price weighted by the nominal value and the duration of tap sales and buy-backs of government bonds on the secondary market.

The qualitative criteria of group C focus on derivative operations, marketing and consulting. The Primary Dealers are evaluated in ascending order depending on the prices they provide for various derivative instruments. The Ministry of Finance further evaluates the quality of consulting activities, cooperation and sharing of information, human and technical resources related to risk management and optimization of the debt portfolio.

The Czech Republic currently has 13 belowmentioned Primary Dealers in Czech government bonds. This number did not change during the course of 2012. One foreign entity is expected to join the group of Primary Dealers as of 2013.

#### Table 29: Primary Dealers in Czech Government Bonds

Primary Dealers in Czech government bonds as of
1 October 2011
Barclays Bank Plc
Citibank Europe plc
Česká spořitelna, a.s.
Československá obchodní banka, a. s.
Deutsche Bank AG
Goldman Sachs International
HSBC Bank plc
ING Bank N. V.
J. P. Morgan Securities plc
Komerční banka, a.s.
PPF banka, a.s.
The Royal Bank of Scotland plc
UniCredit Bank Czech Republic, a.s.
Source: MoF

For 2013, no amendments to the Rules are planned. Current version of the Rules that entered into force on 1 January 2012 is expected to remain valid throughout the period, incl. double-bond auctions, current terms for competitive part of auctions and current rules for access of Primary Dealers into non-competitive part of auctions.

### Secondary Market and MTS

An effective and transparent domestic market for government bonds is a necessary condition for implementing the issuance activity of the state and for ensuring smooth and cost effective financing over the long term. Since at least 80% of state debt is usually financed on the domestic market, the transparent price discovery on the secondary market of CZK-denominated government bonds is also an important factor, which affects the amount of interest costs for debt servicing.

In accordance with the strategic goal for 2011, on 1 July 2011 the national electronic platform MTS Czech Republic for the secondary market of CZK-denominated government bonds was launched. The pilot operation of this platform was launched on 11 July 2011 continuing with full operation after three months. The MTS Czech Republic platform enables clear monitoring of the behaviour of market participants and compliance with the market rules in real time as a basis for the subsequent evaluation of their performance and point awarding. Implementation of MTS Czech Republic also enabled expansion of the group of Primary Dealers with new foreign market-makers of the domestic market. The Czech division of MTS is managed by representatives of the Ministry together with representatives of Primary Dealers through the MTS Czech Republic Committee in accordance with the valid market rules. The main task of this committee is to implement and further update market rules and monitor compliance with them by market participants. Implementation has necessitated major redefinition of the conditions for participation in the trade system, definition of the rights and obligations of Primary Dealers and the Ministry, setting of the quoting obligations of market-makers, subsequent monitoring of market activity and its evaluation. Also related to this is the restoration of the status of benchmark issues of Czech government bonds, which newly as of 1st October 2011 form the subject to majority voting within the MTS Czech Republic Committee. The list of benchmark bonds is changed from time to time as a result of approaching maturity and an effort to maintain a stable number of 8-10 bonds with this status.

#### Table 30: Benchmark Government Bond Issues in 2012

Issue No.	Issue	ISIN	Coupon	Maturity Date
Issue 59 <sup>1</sup>	CZGB 2.80/13	CZ0001002729	2.80%	16.09.2013
Issue 62	CZGB 2.75/14	CZ0001002869	2.75%	31.03 2014
Issue 60	CZGB 3.40/15	CZ0001002737	3.40%	01.09.2015
Issue 55	CZGB VAR/16	CZ0001002331	PRIBOR 6m	27.10.2016
Issue 51	CZGB 4.00/17	CZ0001001903	4.00%	11.04.2017
Issue 41 <sup>2</sup>	CZGB 4.60/18	CZ0001000822	4.60%	18.08.2018
Issue 56	CZGB 5.00/19	CZ0001002471	5.00%	11.04.2019
Issue 61	CZGB 3.85/21	CZ0001002851	3.85%	29.09.2021
Issue 58	CZGB 5.70/24	CZ0001002547	5.70%	25.05.2024

<sup>1</sup> Included as benchmark issue to 15 June 2012.

<sup>2</sup> Included as benchmark issue since 1 April 2012. Source: MoF

#### Table 31: Benchmark Government Bond Issues as of 1 January 2013

Issue No.	Issue	ISIN	Coupon	Maturity Date	
Issue 60	CZGB 3.40/15	CZ0001002737	3.40%	01.09.2015	
Issue 55	CZGB VAR/16	CZ0001002331	PRIBOR 6m	27.10.2016	
Issue 51	CZGB 4.00/17	CZ0001001903	4.00%	11.04.2017	
Issue 41	CZGB 4.60/18	CZ0001000822	4.60%	18.08.2018	
Issue 56	CZGB 5.00/19	CZ0001002471	5.00%	11.04.2019	
Issue 61	CZGB 3.85/21	CZ0001002851	3.85%	29.09.2021	
Issue 52	CZGB 4.70/22	CZ0001001945	4.70%	12.09.2022	
Issue 58	CZGB 5.70/24	CZ0001002547	5.70%	25.05.2024	

Note: New issues of 2013 due in 2016, 2019 and 2028 will have the benchmark status Source: MoF The Primary Dealer who acts as market maker quotes the bid and offers prices for all bonds subject to quoting obligations in the minimum quoted total nominal value, which varies depending on the remaining time to maturity and at least 5 hours during a single trading day. However, the quoted prices must be within the competitive spread, which is set on a daily basis for each bond subject to quoting obligations as the average of the quoted spreads of all Primary Dealers multiplied by the coefficient of k = 1.5. This method and the quantitative criteria were set up following mutual discussion within the MTS Czech Republic Committee, and the respective calculations are available to all participants in the system. The evaluation of the performance and activity of participants occurs on a monthly basis.

Table 32: Maturity Buckets Based on Minimum Quoted Total Nominal Value on MTS Czech Republic

А	Bonds maturing within 1.25-3.5 years	CZK 50 million
В	Bonds maturing within 3.5-6.5 years	CZK 50 million
С	Bonds maturing within 6.5-13.5 years	CZK 40 million
D	Bonds maturing within 13.5 years and more	CZK 30 million

Source: MoF

The market average spread (MAS) of the particular bond subject to quoting obligations is calculated as the scale of the average time weighted spread (S) during the best five hours quoted by the particular Primary Dealer during the particular trading day:

$$MAS_{o,d} = \frac{\sum_{i=1}^{PD} \sum_{n=1}^{SQ_{o,d,i}} S_{i,d,o} \times (t'_{n,i,d,o} - t_{n,i,d,o})}{\sum_{i=1}^{PD} \sum_{n=1}^{SQ_{o,d,i}} (t'_{n,i,d,o} - t_{n,i,d,o})}$$

The market competitive spread (MCS) of the particular bond subject to quoting obligations is calculated as a multiple of the market average spread. The setting of the k coefficient occurs in cooperation with the Primary Dealers. Value of k is currently at the level of 1.5:

# $MCS_{o,d} = k \times MAS_{o,d}$

For the particular bond subject to quoting obligations, the fulfilled quoting obligations (Compliance Ratio – CR) fluctuates between 0 and 1 (0 to 100 %, respectively), depending on the number of quoted hours during the particular trading day, when the particular Primary Dealer quotes the prices of the particular bond subject to quoting obligations within the MCS for the particular bond subject to quoting obligations and in the minimum quoted total nominal volume:

$$C R_{o,d,i} = \sum_{n=1}^{SQ_{o,d,i}} \left[ IF \left( S_{i,d,o} \leq MCS_{o,d}; \frac{t'_{n,i,d,o} - t_{n,i,d,o}}{\frac{5}{24}}; 0 \right) \right]$$

The daily fulfillment of quotation obligations (Daily Compliance Ratio - DCR) is set based on fulfillment of the quoting obligation for all bonds subject to quoting obligations for the particular Primary Dealer and for the particular trading day. Similarly the monthly fulfillment of quoting obligations (Monthly Compliance Ratio – MCR) for the particular month is calculated as the average of the DCR for the particular Primary Dealer. The Primary Dealer fulfills quotation obligations as long as MCR  $\geq$  0.9. This key parameter for evaluation of the obligations of Primary Dealers based on the Agreement was approved at the first MTS Czech Republic Committee meeting on 20 September 2011 and re-approved for the year 2013 at the Third MTS Czech Republic Committee Meeting on 5 October 2012.

$$DCR_{d,i} = \frac{\sum_{a=1}^{SQOB} C R_{a,d,i}}{SQOB} \qquad MCR_{m,i} = \frac{\sum_{d=1}^{D} DCR_{d,i}}{D}$$

Due to strong volatility of the global bond markets and pilot operations during the second half of 2011, the actual compliance ratio of the Primary Dealers was insufficient. As of the second half of the year 2012, the avareage compliance ratio did not fall significantly below 90% which is a sign of continued stabilization of domestic bond market. As such, this is included in 2013 issuance plan.





Also as far as the traded volumes are concerned, there is a noticeable increasing trend that later settled at 5-6 billion of trades concluded per

month which is a proof of increasing liquidity and importance of MTS Czech Republic on the entire secondary market trading.





Note: The above-mentioned trades do not include the trades of the Ministry on the secondary market. Source: EuroMTS and MoF

The bid-offer spread underwent dramatic development at the end of 2011. Along with decreasing uncertainty in the European bond markets, a similar trend was also noticed in the case of the spread of quoted prices. Market stabilization and gradual narrowing of price

spreads were also supported by the fact that the minimum quated bid-offer spread is built on a relative basis based on the market average. This enabled significant flexibility and adaptation to the changing market environment as opposed to the fixed spreads.





The strategy of the development of the secondary market via MTS Czech Republic primarily focuses on ensuring the full functioning and smooth running of the system. The Ministry views as promising the developments related to the compliance with quoting obligations from Primary Dealers. During 2013, lending facilities, buybacks and tap sales will continue to be the tools actively used by the Ministry for its direct participation on the secondary market.

# Ministry's Operations on the Secondary Market

The Ministry's plan from the previous Strategy, i.e. completion of the testing transactions in December 2011 and use of the "Treasury Operations" function during 2012, has been fulfilled. The Ministry's operations performed on the MTS Czech Republic platform, i.e. buy-backs of government bonds and tap sales of government bonds from the Ministry's portfolio, became a part of the planned issuance activity, supporting effective liquidity management and re-financing risk.

As per the Agreement, tap sales and buy-backs are performed every Wednesday between 11 AM and noon and between 2 and 3 PM Central European time. The Ministry is also authorized to perform these transactions on another business day if it informs the Primary Dealers of such intention no later than by 4 PM Central European time on the business day prior to the date of the transaction. The Ministry will not also carry out the tap sale of a particular government bond during a week when the particular government bond is being sold at an auction or during the week preceding or following the week of such an auction.

In order to ensure maximum transparency, the Ministry will inform all Primary Dealers about the intention to conduct a buy-back or tap sale on the secondary market at least one business day prior to the date on which the transaction is to be executed. The Primary Dealers will be notified of:

- (1) the type of transaction (buy-back or tap sale),
- (2) the government bond (demanded within a buyback or offered for tap sale),
- (3) the maximum total nominal value of the transaction with particular government bonds,
- (4) the time when bid or offers from Primary Dealers can be submitted via the system,
- (5) the date of settlement,
- (6) the contact person at the Ministry.

At the determined time when the orders are accepted from the Primary Dealers, the Primary Dealers can enter the price and nominal value of the order in the system and the Ministry will subsequently accept or reject the order based on the price and nominal value. The Ministry can accept orders from more than one or from no Primary Dealer, or may reduce the orders. Buy-backs are performed based on price fixation by the Ministry which the Primary Dealer can decide to accept or sell a certain nominal value to the Ministry for up to the amount of the nominal value offered by the Ministry or until the time limit for the transaction expires. The Ministry will publish the result of the transactions (a summary of the volume of transactions carried out within one buy-back or tap sale and the average price) on its website by the date of settlement of the transactions. Therefore, the process of conducting the transactions will be entirely transparent.

During the course of 2012, the Ministry also started using the short-term lending facilities of government bonds for the Primary Dealers based on the Agreement and later in the form amended by the amendment Agreement valid as of 1 July 2012. For this activity and based on the creation of sufficient stock for government bonds in its own portfolio, it intends to continue this practice. Pursuant to an amendment to the Agreement and the new wording of the Agreement valid as of 2013, the lending facilities are available in the form of repo transactions when the Primary Dealer can borrow the government bond and lend the CZK liquidity to the Ministry in return. The agreed rate, for which the Ministry borrows the liquidity, must be lower than rate for the reverse repo transaction with the same maturity and to the same nominal volume which the Ministry is concluding with the same or other Primary Dealer at that particular moment. Total 11 repo transactions were carried out in 2012, mostly for a period of 14 or 30 days, whereas Czech government bonds 4.00/17 and 4.85/57 were mostly used as a collateral.

	1 Q	2 Q	3 Q	4 Q	2012
Buy-backs	0	2.190	6.369	7.322	15.881
CZGB 3.55/12	0	2.190	5.621	0	7.811
CZGB 3.70/13	0	0	0.748	1.353	2.101
CZGB 2.80/13	0	0	0	5.969	5.969
Tap sales	1.850	0	2.697	4.594	9.141
CZGB 4.00/17	0	0	1.000	0.774	1.774
CZGB 5.70/24	1.850	0	1.047	0	2.897
CZGB 4.85/57	0	0	0.650	3.820	4.470
Total	1.850	2.190	9.066	11.916	25.022

Table 33: Transactions Carried out by the Ministry on the Secondary Market (MTS Czech Republic) in 2012 (CZK billion)

Note: Tap sales include only operations carried out through MTS Czech Republic. Source: MoF

As to buy-backs, the Ministry has executed such operations only with Czech government bonds with remaining time to maturity of less than one year. During 2013, the Ministry may agree with Primary Dealers to take a step towards buy-backs of Czech government bonds with remaining time to maturity longer than one year. Such operations would be focused on less liquid issues without benchmark status that are not subject to quoting obligations on DETS. These bonds would possibly be switched into Czech government bonds with benchmark status and longer remaining time to maturity so that these operations contribute to set goals in terms of refinancing risk of the debt portfolio.

\* \* \*

This publication was prepared based the information available as of 10<sup>th</sup> December 2012. The Ministry reserves the right to promptly respond to the actual development of the gross borrowing requirement of the Government during course of 2012 using its tools. Performance of the planned financing programme and announced strategic objectives will be dependent on development of the situation on the domestic and foreign market in terms of minimizing costs related to state debt management and financial risk management.

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