Ministry of Finance

Debt and Financial Assets
Management Department

The Czech Republic

Government Debt Management

ANNUAL REPORT

2019

14 February 2020

Ministry of Finance

The Czech Republic Government Debt Management
Annual Report for 2019

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ISSN 2336-5862 (Print)
ISSN 2336-5870 (On-line)

Issued once a year, free distribution

Electronic archive
www.mfcr.cz/statedebt

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List of Abbreviations

APEI	Aggregate Performance Evaluation Index
bn	Billion
CaR	Cost-at-Risk
CCY	Currency
CDCP	Central Securities Depository Prague
CHF	Swiss franc currency code
CNB	Czech National Bank
CPI	Consumer price index
CZK	Czech koruna currency code
CZSO	Czech Statistical Office
DETS	Designated Electronic Trading System
EA19	Euro area (19 countries)
ESA 2010	European System of Accounts 2010
EU	European Union
EUR	Euro currency code
EURIBOR	Euro Interbank Offered Rate
FED	Federal Reserve System
FIX	Fixed-rate
FM	Financial mechanisms
FX	Foreign-exchange
GDP	Gross domestic product
ISIN	International Securities Identification Number
JCR	Japan Credit Rating Agency
JPY	Japanese yen currency code
mil.	Million
MoF	Ministry of Finance
MTS	Mercato Telematico Secondario
OECD	Organization for Economic Co-operation and Development
p.a.	Per annum
p.p.	Percentage point
PRIBOR	Prague Interbank Offered Rate
R&I	Rating and Investment Information, Inc.
T-Bills	State treasury bills
T-Bonds	Medium-term and long-term government bonds
USD	United States dollar currency code
VAR	Variable-rate

Published aggregate data in the tables and in the text may not correspond in the last decimal place to the sum of respective indicators due to rounding in some cases.

Summary

The Ministry of Finance (hereinafter the Ministry or MoF) presents to the public, in accordance with the calendar of published information, The Czech Republic Government Debt Management Annual Report for 2019 (hereinafter the Report), which contains a detailed summary of events in the area of state debt and treasury liquidity management, evaluation of the issuance activity of state in the context of the Czech Republic's financing and financial market developments, analysis of state debt dynamics and related state budget expenditures on state debt service, detailed evaluation of fulfilment of stipulated strategic targets and limits in the area of debt portfolio risk management and last but not least, annual evaluation of primary dealers of the Czech Republic government bonds. The Report, which deals primarily with events in 2019, also includes a more detailed quantification of the prediction of interest expenditure on state debt service in 2020 and in the medium-term horizon through the application of the Cost-at-Risk methodoogy.

The Czech Republic is one of the most reliable issuers and enjoys great interest from domestic and foreign investors. The year 2019 was very successful in terms of the rating. International rating agency Moody's increased its rating of long-term liabilities from A1 to Aa3, placing the Czech Republic at the level of Belgium. In addition, ACRA Europe and ACRA have rated Czech Republic at AA- and AA respectively with stable outlook and existing ratings from S&P Global Ratings, Fitch Ratings and JCR were confirmed. Moreover, ACRA Europe further improved its rating to AA in January 2020. Agencies regularly appreciate the excellent state of public finances, with the general government surplus for the fourth consecutive year, strong fiscal position supported by adequate rules of budgetary responsibility, government debt sustainability and a sound financial sector.

In 2019, the state debt increased by CZK 18.2 billion from CZK 1,622.0 billion to CZK 1,640.2 billion, but with a further decline in the relative ratio to GDP, from 30.5% to 29.0%. i.e. by 1.4 p.p. The Ministry thus continues in the set trend of stabilization or state debt reduction, both in absolute terms, when it decreased by CZK 43 billion from 2013, and relative terms as the share of state debt in GDP decreased by 12.1 p.p. The slight increase in state debt in 2019 is mainly due to the issuance of government bonds to partially cover the state budget deficit.

The Czech Republic is one of the least indebted EU countries. The decline in indebtedness is due to more effective management of treasury liquidity and the related involvement of its available resources to cover the financing needs of state, stable economic growth, but also responsible budgetary policy, when the state budget has achieved better results than planned within the State Budget Act for relevant year. This allows a decrease in the actual financing need, which in 2019 amounted to CZK 317.9 billion compared to the planned CZK 331.2 billion The Czech Republic Funding and Debt Management Strategy for 2019 published on 20 December 2018 (hereinafter the Strategy).

The financing of gross borrowing requirement, which amounted to CZK 309.4 billion in 2019, was carried out mainly through the sale of government bonds on the domestic bond market. The gross issue of medium-term and long-term government bonds denominated in domestic currency on the primary and secondary markets amounted to CZK 255.2 billion, with an average yield to maturity of 1.82% p.a. and an average maturity of 11.1 years. This gross issue, which corresponds to almost the same gross issue as in the previous year, demonstrates a stable demand for medium-term and long-term government bonds of the Czech Republic along the entire yield curve and their high attractiveness for investors. In addition, the Ministry issued a pilot issue of medium-term and long-term government bonds denominated in euro under domestic law in total nominal value of EUR 1.0 billion with maturity in 2021 to cover foreign currency debt. All sales on the primary and secondary markets were made at negative yield, thereby generating additional revenue of EUR 4.4 million. Due to high interest, the Ministry started to take further steps to develop and make this form of financing more attractive to international investors and link it closer with the euro area bond market. The EUR-bond successfully complemented euro-denominated deposit operations with a positive impact on refinancing risk, which are also used to cover foreign currency debts, but only in the short term, thus expanding the portfolio of offered debt instruments.

The sale of medium-term and long-term government bonds denominated in domestic currency on the primary market at a total nominal value of CZK 224.8 billion was complemented by operations on the secondary market in the form of tap sales and, to a lesser extent, exchange operations. The aim of these operations is to manage refinancing risk, support the liquidity of Czech government bond issues and the efficient functioning of the secondary market. Through the electronic trading platform MTS Czech Republic, the Ministry sold government bonds in the total nominal value of CZK 22.5 billion in tap sales from its own asset account and exchanged government bonds in the total nominal value of CZK 8.0 billion.

The net issue of medium-term and long-term government bonds denominated in domestic currency amounted to CZK 16.7 billion, with three regular redemptions of medium-term and long-term government bonds totalling CZK 230.5 billion in 2019 have been carried out and government bonds in a total nominal value of CZK 8.0 billion have been bought back within exchange operations. Together with the issuance of medium-term and long-term government bonds denominated in euro, the net issue was CZK 42.4 billion, as individual sales of government EUR-bond covered maturing euro deposit operations, reducing the total nominal value of money market instruments outstanding.

Despite the May hike of the 2W repo rate by the Czech National Bank to 2.0% p.a., medium-term and long-term government bonds were sold at lower yields and with longer residual time to maturity than in the previous year. The rising 2W repo rate mainly affected the short end of the yield curve, while the long end in 2019 was influenced by external factors, in addition to domestic ones. The Ministry thus sought to maximize the benefits of the relatively flat yield curve of government bonds, which has a positive impact on government debt service expenditures.

In 2019, the Ministry followed up on the successful project of selling government bonds to citizens, which was discontinued in 2014 due to a decline in government bond yields to historical lows, when it launched the direct sale of the so-called "Dluhopis Republiky" bond on the occasion of the 100th anniversary of the founding of the Czechoslovak Republic. In four subscription periods, citizens purchased six-year reinvestment, inflation-linked and fixed government bonds with a total nominal value of CZK 10.4 billion through electronic access to asset account management or through branches of contractual distributors. The Ministry emphasized the minimization of distribution costs, when the selected issues could only be subscribed through electronic access. The yields to maturity of the "Dluhopis Republiky" bonds were set at the market level and thus do not burden state debt service more than the potential issue of medium-term and long-term government bonds with the same maturity. Government bonds could be subscribed every day in individual subscription periods, which were continuously linked to each other, with issues taking place quarterly at specified intervals.

Also in 2019, due to the interest of primary dealers and dealers the Ministry concluded medium-term and long-term government bond lending facilities with positive impact on the liquidity of the secondary government bond market, when government bonds in the total nominal value of CZK 6.6 billion were provided from the Ministry's asset accounts through the lending facilities in the form of repo operations and government bonds from the Ministry's asset accounts in the total nominal value of CZK 60.0 billion were provided through the lending facilities in the form of collateralized loans of securities.

In the area of fulfilment of the strategic targets and limits, the Ministry focused mainly on meeting the target of the average time to maturity of the debt portfolio, when it sold government bonds bearing an interest mainly at the longer end of the yield curve. Thus, the Ministry fulfilled the medium-term target defined in the Strategy at 6.0 years with the possibility of deviation of 0.25 years in both directions, when the average time to maturity of the state debt at the end of 2019 reached 6.2 years.

In the environment of declining government bond yields, especially at the long end of the yield curve, net interest expenditure on state debt servicing decreased by CZK 1.2 billion compared to the previous year. Thanks to appropriate timing of issuance activity and flexible reaction to financial market developments, the Ministry achieved savings of CZK 6.9 billion on net expenditures on state debt servicing compared to the originally approved budget, and thus could transfer funds to other budget chapters in total of CZK 6.0 billion in the form of budgetary transfers in 2019.

Net revenues from state treasury liquidity management operations totalled CZK 3.7 billion in 2019, which is CZK 1.4 billion more than in previous year. The largest contributor to this increase is investment operations within the liquidity management of the koruna state treasury, when revenues from operations using collateral of medium-term and long-term government bonds, state treasury bills and Czech National Bank bills, and short-term investment in the form of deposit operations increased by CZK 1.6 billion due to a hike in key interest rates of the Czech National Bank during the year. The total state budget revenues from state treasury liquidity management, lending facilities and issuance with negative yield amounted to CZK 3.9 billion, e.g. by CZK 1.6 billion more than in 2018.

1 – Macroeconomic Framework and Financial Markets

Economic Development

Real GDP growth is estimated at 2.5% in 2019, when it was driven primarily by household consumption, reflecting the still strong wage dynamics at extremely low unemployment rate and a sharp increase in pensions. To a lesser extent, investment in fixed capital and government consumption, as well as the external trade balance, should also contribute.

Table 1: Main Macroeconomic Indicators of the Czech Republic

	2013	2014	2015	2016	2017	2018	2019F
Real GDP growth (%)	-0.5	2.7	5.3	2.5	4.4	2.8	2.5
Household consumption growth (%)[1]	0.5	1.8	3.7	3.6	4.3	3.2	2.9
Government consumption growth (%)	2.5	1.1	1.9	2.7	1.3	3.4	3.0
Growth of gross fixed capital formation (%)	-2.5	3.9	10.2	-3.1	3.7	7.6	1.0
Contribution of foreign trade to GDP growth (p.p.)	0.1	-0.5	-0.2	1.4	1.1	-0.8	0.1
Average inflation rate (%)	1.4	0.4	0.3	0.7	2.5	2.1	2.8[2]
Unemployment rate (%)[3]	7.0	6.1	5.1	4.0	2.9	2.2	2.0
Nominal wage and salary growth (%)	0.5	3.6	4.8	5.7	8.3	9.5	7.2
Current account balance on GDP (%)	-0.5	0.2	0.2	1.6	1.7	0.3	0.3
CZK/EUR exchange rate	26.0	27.5	27.3	27.0	26.3	25.6	25.7[2]
Real Eurozone GDP growth (%)[4]	-0.2	1.4	2.0	1.9	2.7	1.9	1.2

[1] Incl. non-profit institutions serving households.
[2] Officially published figure, not forecasted.
[3] Average unemployment rate based on the method of Labour Force Survey.
[4] EA19.
Source: MoF, CZSO

While consumer price growth in the first ten months remained in the upper half of the tolerance band of the Czech National Bank's inflation target, which is set at one percentage point in both directions around 2%, in November it has exceeded it for the first time since October 2012 and reached 3.1% and further increased to 3.2% in December. The average year-on-year inflation rate reached 2.8% in 2019.

The Czech Republic still belongs to countries with the lowest unemployment rates within OECD countries, when its value in 2019 was only 2.0% according to the Labour Force Survey methodology, representing a further decrease by 0.2 p.p. compared to the previous year. The internationally comparable unemployment rate thus seems to have reached its bottom. In the long term, labor shortages are evident in virtually all sectors of the economy and in almost all regions, which continues to be a significant obstacle to economic growth.

The current account of the balance of payments has been in surplus since 2014, and as in the previous year its share in GDP remained at 0.3% of GDP. As in the previous year, the positive balance of goods and services surplus exceeds the primary income deficit, which is most influenced by the outflow of income from foreign direct investment in the form of dividends and reinvested earnings.

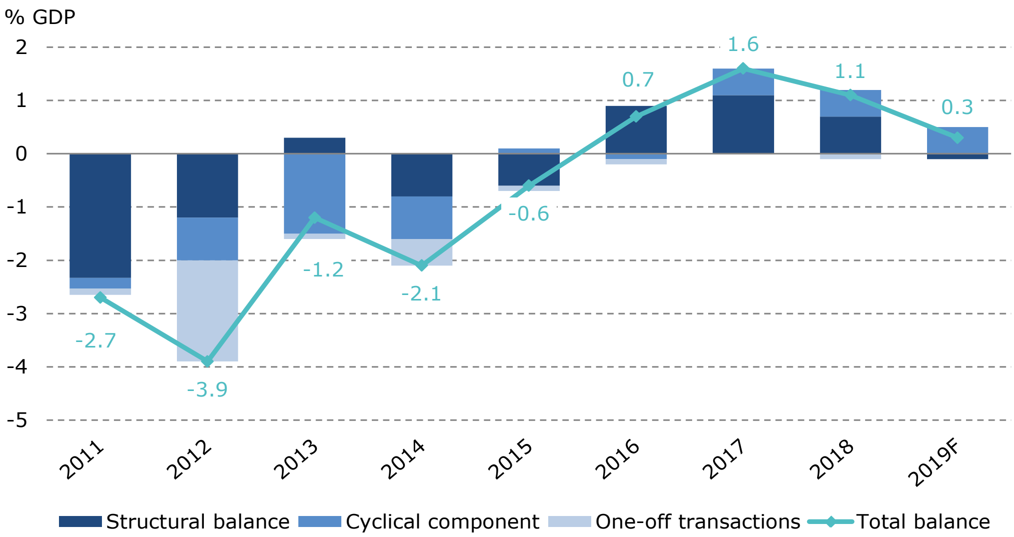
A stable financial sector and a credible fiscal policy remain an important advantage of the Czech Republic. There is ample free liquidity in the banking system and banks' profitability also has a positive impact on capital adequacy.

General Government Sector Finances

In response to the recession in 2012 and 2013, the government adopted a fiscal policy supporting the recovery of domestic aggregate demand, while increasing efficiency on both the revenue and expenditure sides of the state budget. The Ministry estimates that the general government sector ended in a surplus for the fourth consecutive year, expecting it to reach 0.3% of GDP in 2019. The overall result was probably positively contributed by the surplus cash management of local budgets and health insurance companies, which probably outweighed the state budget deficit.

The expected value of the structural balance of general government in 2019 is around balanced values, representing a (primary) fiscal expansion by almost of 1 p.p. compared to 2018. The structural balance thus remains above the medium-term budgetary objective of -1.0% of GDP set for 2019.

Figure 1: The Czech Republic Government Sector Balance



Note: The source of data is Macroeconomic Forecast of the Czech Republic – January 2020.
Source: MoF

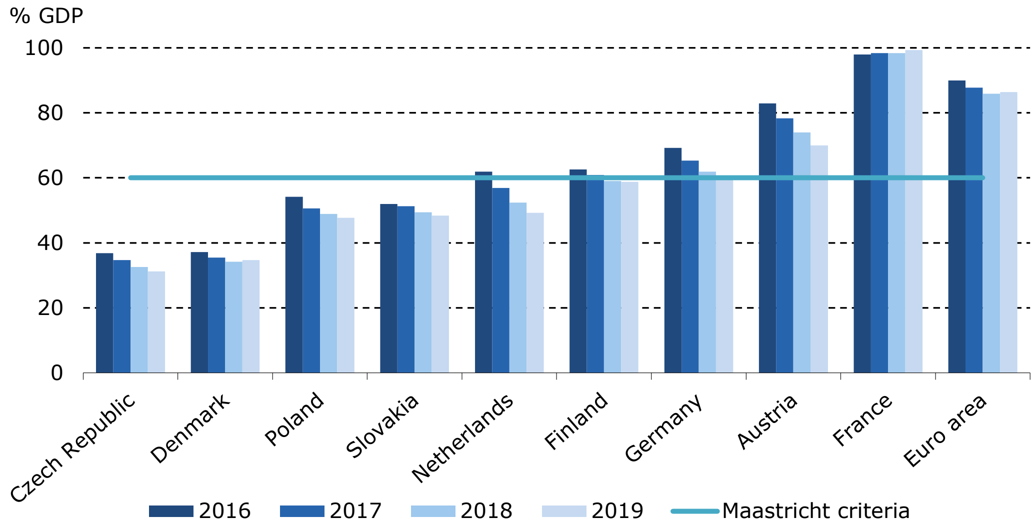
In 2019, the state budget in the national cash methodology resulted in a deficit of CZK 28.5 billion, which is CZK 11.5 billion better than budgeted. This is one of the best economic results in the modern history of the Czech Republic.

Total revenues of the state budget in 2019 amounted to CZK 1,523.2 billion, which represented an increase of CZK 119.3 billion, i.e. 8.5% compared to the previous year. Compared to the revenues stated in the approved budget, the actual revenues were higher by CZK 57.9 billion. All major components of income - tax revenues with a growth of CZK 35.6 billion, i.e. 4.9% year-on-year, social security contributions with a growth of CZK 38.4 billion, i.e. 7.5% year-on-year, and non-tax and other revenues with a growth of CZK 45.3 billion, i.e. 27.7% year-on-year accounted for the higher revenues.

Total expenditures of the state budget in 2019 amounted to CZK 1,551.7 billion, which represented an increase of CZK 150.8 billion, i.e. 10.8% compared to the previous year. Compared to the expenditures stated in the approved budget, the actual expenditures were higher by CZK 46.4 billion. Higher-than-planned expenditures were also achieved due to utilization of so-called claims from unused expenditures of previous years, which reached almost CZK 71 billion during 2019 and their spending resulted in exceeding the budgeted expenditures intended for financing of EU/FM and Czech Republic joint programs. On the other hand, a significant saving of interest expenses compared to the approved budget amounting CZK 6.9 billion was reported in connection with the servicing of state debt.

According to the October notification, the general government consolidated gross debt in relation to GDP decreased by 2.1 p.p. in 2018 to 32.6%. In 2019, it is expected that the indebtedness will decline further by 1.4 p.p. to 31.2% of GDP. In terms of meeting the Maastricht convergence criteria and the Stability and Growth Pact rules for debt, the indicator is thus safely below the 60% of GDP threshold, as well as below the national debt rule threshold, which entered into force in February 2017 (Act No. 23/2017 Coll., on Budgetary Responsibility Rules).

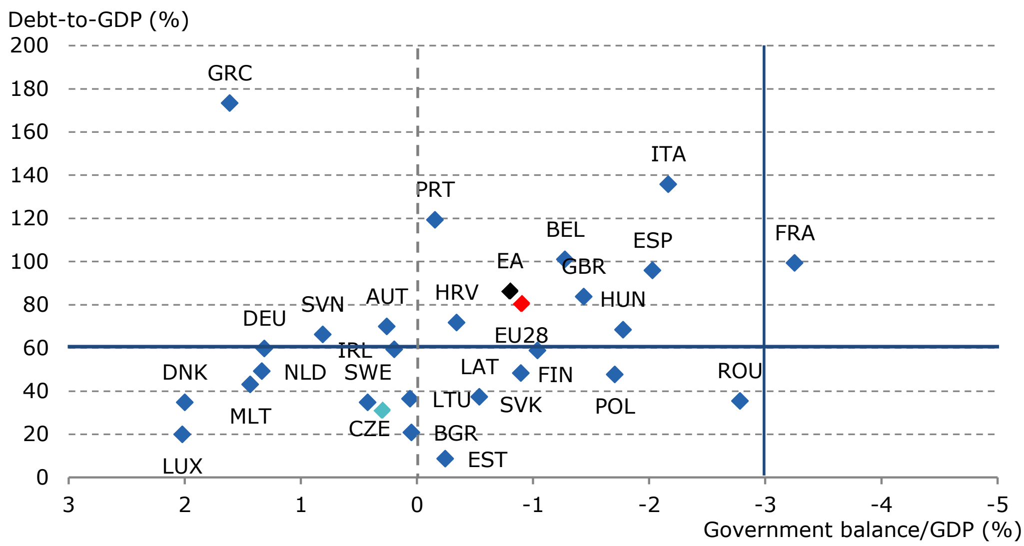
Figure 2: Government Sector Debt in Selected EU Countries



Note: The Maastricht criterion is a part of the condition for EU members to join the single currency union. The value of the share of government sector debt to GDP should not exceed 60%. Eurozone is stated in conception comprising 19 countries. Data sources for 2019 are Fiscal Outlook – November 2019, European Economic Forecast – Autumn 2019 and Macroeconomic Forecast of the Czech Republic - January 2020.
Source: MoF, European Commission, Eurostat

According to international comparison, the Czech Republic ranks among the best-performing EU countries. Based on the current forecast, the Czech Republic should report a general government balance of 0.3% of GDP in 2019. In the case of general government debt, the Czech Republic has the fourth lowest relative debt in the EU in 2017 to 2019. Lower indebtedness can be seen only in Estonia, Luxembourg and Bulgaria. The performance of general government sector as well as nominal GDP growth contribute positively to the general government debt ratio reduction from 44.9% of GDP in 2013 to the expected level of 31.2% of GDP in 2019.

Figure 3: Government Sector Deficit and Debt in EU Countries in 2019



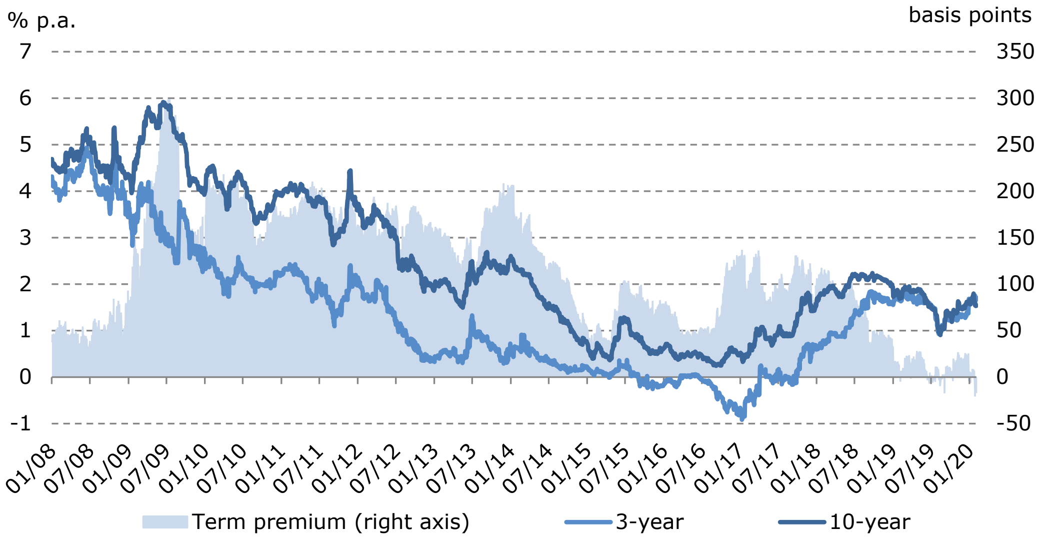
Note: Data sources are Fiscal Outlook – November 2019, European Economic Forecast – Autumn 2019 and Macroeconomic Forecast of the Czech Republic - January 2020.
Source: MoF, European Commission, Eurostat

Financial Markets

In 2019, development of Czech government bond yields reflected mainly the situation abroad, whereas monetary policy decisions of the Czech National Bank had only a minor effect. Government bond prices responded primarily to the risks and uncertainty on financial markets caused by the political and economic situation in Europe, the termination of United Kingdom's membership in the European Union and discussion of the form of its exit, as well as the potential monetary policy decisions of the FED and the threat of trade wars between the United States and China, and other geopolitical and economic conflicts. The domestic financial market is also significantly affected by the situation in the euro area, in particular the monetary policy decisions of the European Central Bank. It has been using its instruments to raise inflation in the euro area to its inflation target level, which is set below, but close to 2.0%.

The 2W repo rate hike by the Czech National Bank in May from 1.75% p.a. to 2.00% p.a. did not have any effect on government bond yields compared to 2018, when responses to the growth in key interest rates were more sensitive. However in 2019, the entire yield curve flattened significantly and the yields of the 10-year government bond were close to yields of the 5- and 3-year bonds. This situation has already began at the beginning of 2019 and accelerated mainly in the summer months due to the decision to deepen the loose monetary policy of the European Central Bank in response to a slight economic slowdown in European economies, especially Germany, and the FED's monetary policy. In addition, the escalation of the situation between the United States and China regarding the imposition of tariffs on imports of selected goods did not help the stability on financial markets. The interest rate differential, together with the excess of liquidity and some uncertainty in the financial markets, thus motivates domestic and foreign investors to hold domestic government bonds of the Czech Republic, which carry only a very low risk of default, and increased demand pushes yields down the along the whole length of the yield curve. During the first half of the 2019 the 10-year government bond yield was 1.8% p.a. on average, in third quarter it decreased to 1.3% p.a. and in August it was even below the yield of 3-year government bond at the level of 0.9% p.a. A similar decline was observed for other maturities. During the fourth quarter, the 10-year government bond yield has gradually increased to 1.6% p.a. at the end of 2019. The flat yield curve in the medium-term segment determined the yields of the 5- and 3-year government bond at the level of approx. 1.5% p.a. In the course of 2019, there was a further reduction in the government bond term premium, when government bond yields with different time to maturity started to approach each other.

Figure 4: Development of Czech Government Bonds Yields and Term Premium



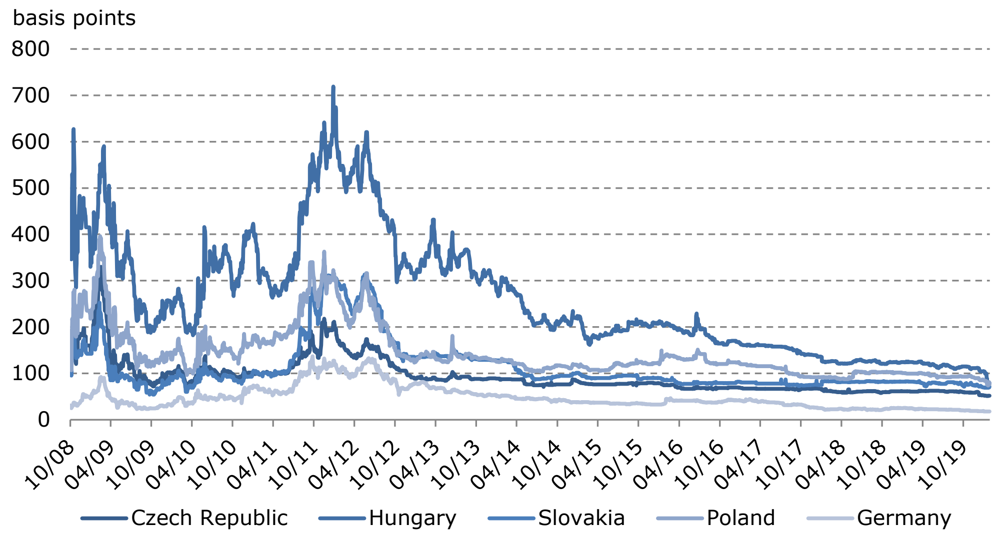
Source: Refinitiv

From a historical point of view yields of the Czech government bond still maintain a relatively low level, even in an international comparison with other member states of European Union, taking into account the different monetary policy phases of the relevant central banks. The reasons can be seen in the sound macroeconomic fundamentals of the Czech Republic, effective management of public finances and state treasury liquidity. The important long-term factor in the decrease of government bond yields is a credible fiscal policy of the government and a conservative approach to state debt management with a positive impact on investors' trust, which is reflected in a high demand for medium-term and long-term government bonds in auctions. The excellent reputation of the Czech Republic on the financial markets is also noted by rating agencies, which regularly affirm very high ratings of the government. The wide offer of debt instruments in individual segments of risk-free yield curve creates a sufficient range for investors to diversify the debt portfolio.

The perception of the Czech Republic on the international market as a credible issuer of government bonds is illustrated by the situation on the credit default swaps (CDS) markets, where market participants pay the lowest risk premium compared to Poland, Hungary and Slovakia.

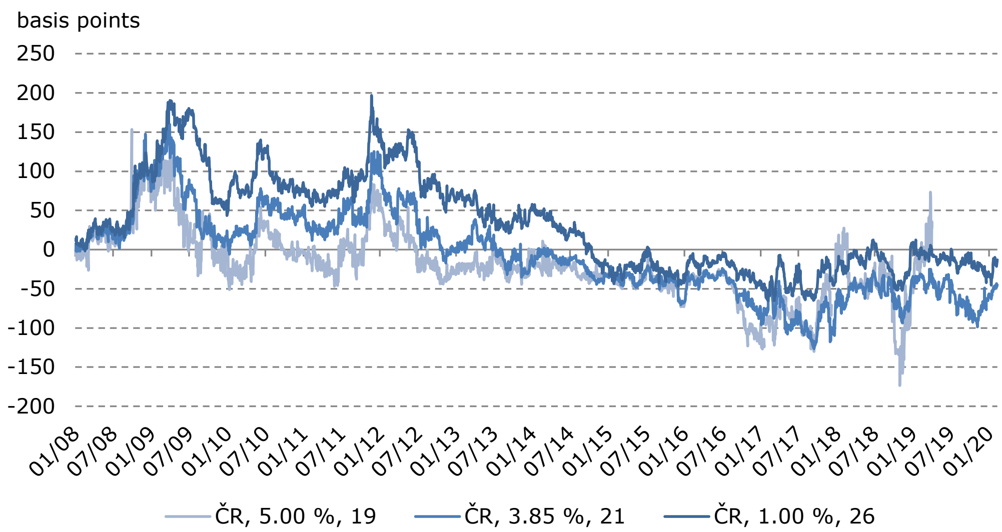
The development of the risk premium measured using the spread to comparable swap rates (asset swap spread) indicates low risk premiums on Czech government bonds.

Figure 5: Premiums on Credit Default Swaps in Selected Countries (10-year)



Source: Refinitiv

Figure 6: "Asset Swap Spread" Risk Premium on Czech Government Bonds

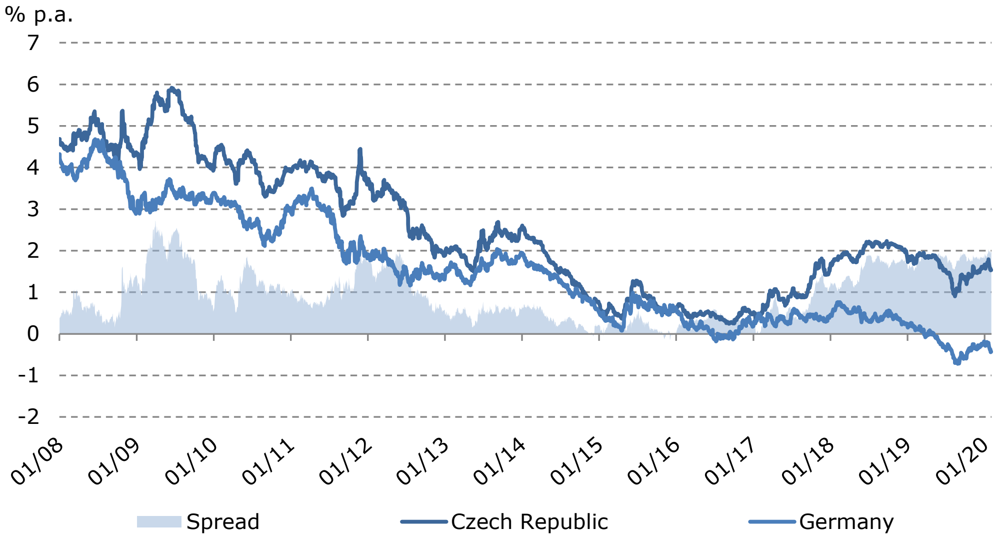


Source: Refinitiv

The gradual convergence of the 10-year Czech government bond yields and German "bunds", which has begun in 2012 and peaked in January 2017 when the Czech government bond yield fell below the German "bund" for a short period of time, was replaced by a widening of their spread. The current spread between the 10-year Czech government bond and the German "bund", which was 1.7 p.p. on average in 2019, is not entirely due to the size of the risk premium, but the different phases of the Czech National Bank's monetary policy raising its key interest rates since 2017, and the European Central Bank continuing in loose monetary policy. As a result, the interest rate differential widened, as German 10-year bond yield remained deeply negative for most of the year.

In 2019, European Central Bank reduced the interest rate on the deposit facility from -0.40% p.a. to -0.50% p.a. aiming for economic growth stimulation of the euro area and the related rise in inflation towards to inflation target. The stimulation package also includes a new wave of quantitative easing despite a gradual reduction in purchased financial assets under Asset purchase programme from the beginning of 2018 to January 2019, when net asset purchases were zero. Since November 2019 net monthly purchases of financial assets amount to EUR 20 billion, and a new wave of quantitative easing is expected to continue until sustained inflation growth towards the inflation target.

Figure 7: Comparison of Yields of the Czech and German 10-year Government Bonds

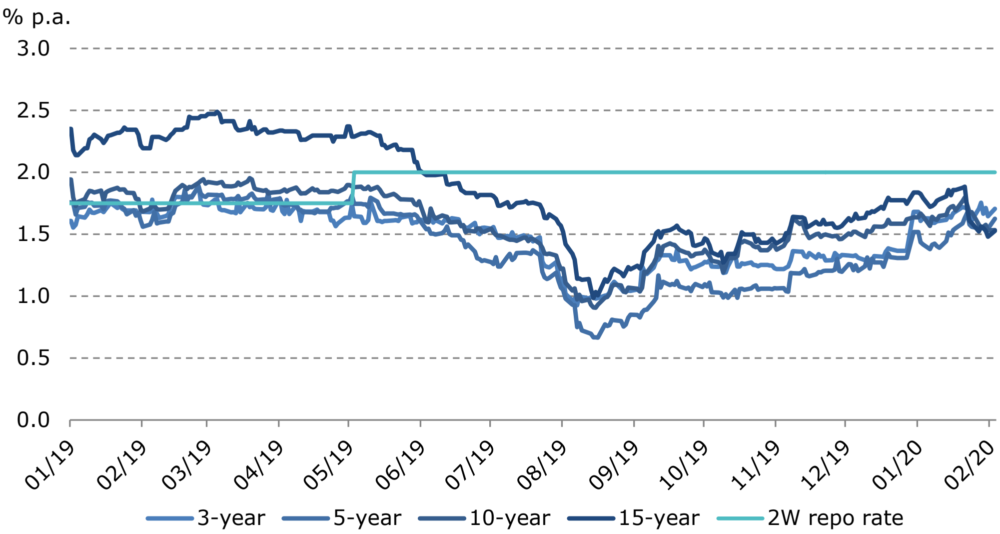


Source: Refinitiv

In times of global surpluses of liquidity on the interbank markets, investors seek possibilities to valorise available liquidity or to avoid negative interest rates on the euro money market. Liquidity provided by the central banks on a long-term basis is reflected in the flattening out of the whole risk-free yield curve. Government bonds provide an investment alternative at zero or negative interbank interest rates.

The yields at the short end of the yield curve are largely influenced by monetary policy decisions of the Czech National Bank, while the medium and long segment was not affected by 2W repo rate hikes. The development of government bond yields in 2019 was mainly influenced by external factors, which generally strengthened demand for safe financial assets. As a result, there is a higher demand for government bonds with longer maturities, which has a positive impact on interest rate and refinancing risk. Non-resident investors, who currently hold approximately 40% of government bonds issued on domestic market, also have a significant impact on the shape of the yield curve. Their shift from the shorter end of the yield curve to government bonds with an average residual maturity of 6 years contributes to a decline in yields in the medium and longer segment of the yield curve and to a stabilization of the investor base. Non-resident investors, whose share in state debt had increased especially with the approaching exit from the exchange rate commitment by the Czech National Bank, thus do not have a strong motivation to close positions quickly in the context of the expected appreciation of the Czech koruna and persisting interest rate differential, which should be positively reflected in the demand for Czech government bonds.

Figure 8: Development of Czech Government Bonds Yields and CNB 2W Repo Rate



Source: Refinitiv, CNB

Czech Republic's Sovereign Credit Rating

The Czech Republic belongs among the exceptionally reliable issuers and enjoys a considerable interest from domestic and foreign investors, as confirmed by its high credit rating with a stable outlook from all the major credit rating agencies. The Czech Republic has the highest total rating of all the countries in Central and Eastern Europe and has had a higher rating than the Eurozone countries average for several years. In 2019, Moody's upgraded its the rating of long-term liabilities from A1 to Aa3 with stable outlook based on growing economy, sound public finances and strong institutional arrangements. In addition, ACRA Europe and ACRA have assigned AA- and AA rating respectively, with stable outlook and S&P Global Ratings, Fitch Ratings and JCR have affirmed existing ratings. In January 2020, ACRA Europe upgraded its rating from AA- to AA with a stable outlook.

Table 2: Czech Republic's Credit Rating

Rating Agency	Local currency long-term liabilities	Outlook	Foreign currency long-term liabilities	Outlook	Affirmed
Moody's	Aa3	Stable	Aa3	Stable	4/10/2019
S&P Global Ratings	AA	Stable	AA-	Stable	19/7/2019
Fitch Ratings	AA-	Stable	AA-	Stable	24/1/2020
JCR	AA	Stable	AA-	Stable	29/8/2019
R&I	AA-	Stable	AA-	Stable	5/11/2018
Scope Ratings	AA	Stable	AA	Stable	26/1/2018
Dagong Global Credit Rating	A+	Stable	A+	Stable	16/10/2018
ACRA Europe	AA	Stable	AA	Stable	24/1/2020
ACRA	AA	Stable	AA	Stable	29/10/2019

Source: Moody's, S&P Global Rating, Fitch Ratings, JCR, R&I, Scope Ratings, Dagong Global Credit Rating, ACRA Europe, ACRA

2 - Borrowing Requirement and Development of State Debt

The borrowing requirement represents a key quantity in the system of public finances of a national economy, which determines the amount of financial resources that the government needed to obtain over the course of the respective calendar year through borrowing operations primarily on financial markets, in order to ensure that the planned annual financing needs are covered as a necessary condition for a smooth realization of expenditures of the state budget and government economy policy.

In addition to these borrowing operations which are the main determinant of the changes in the value of the state debt, the financing needs may also be covered by the operations with state financial assets or by the management of other state assets in extra-budgetary balance sheet operations, or through the involvement of available state treasury cash resources through refinancing mechanisms.

Financing Needs and Sources

The financing needs are determined by standard components, which are necessary to cover by cash resources in the given year, i.e. particularly the state budget cash deficit and all redemptions, buy-backs and exchanges of nominal value (principals) of state debt, including related derivatives. Financing operations on the side of state financial assets and within state treasury single account are then carried out on the side of the cash financial resources which may be involved in covering the financing needs in parallel with the state's borrowing operations on the financial markets.

Table 3: Financing Needs and Sources

CZK bn	2013	2014	2015	2016	2017	2018	2019
Primary balance of state budget	30.4	29.3	17.5	-102.4	-33.6	-43.7	-11.0
Net expenditure on state debt[1]	50.9	48.5	45.3	40.7	39.8	40.7	39.6
T-Bonds redemptions[2]	107.9	143.7	123.9	157.8	209.4	238.9	238.5
Redemptions and early redemptions on savings government bonds	7.7	11.9	11.9	30.2	16.9	16.4	2.7
T-Bills and other money market instruments redemptions[3]	189.1	120.9	110.2	86.6	4.2	44.0	43.5
Repayments on credits and loans[4]	2.8	11.1	2.5	1.7	5.1	8.0	4.7
Total financing needs	**388.8**	**365.3**	**311.2**	**214.5**	**241.7**	**304.4**	**317.9**
Gross T-Bills issue and other money market instruments[3,5]	120.9	110.2	86.6	4.2	44.0	43.7	18.0
Received collateral in cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross issue of T-Bonds on domestic market[5]	145.6	153.3	180.4	211.6	213.1	259.2	280.9
Gross issue of T-Bonds on foreign markets[5]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross issue of savings government bonds[6]	39.1	2.1	1.0	1.0	0.6	0.1	10.5
Received credits and loans[4]	4.3	0.0	0.0	0.0	0.0	0.0	0.0
Financial asset and liquidity management	78.9	99.7	43.2	-2.3	-16.1	1.3	8.5
Total financing sources	**388.8**	**365.3**	**311.2**	**214.5**	**241.7**	**304.4**	**317.9**
Gross borrowing requirement	**309.9**	**265.6**	**268.1**	**216.9**	**257.7**	**303.1**	**309.4**

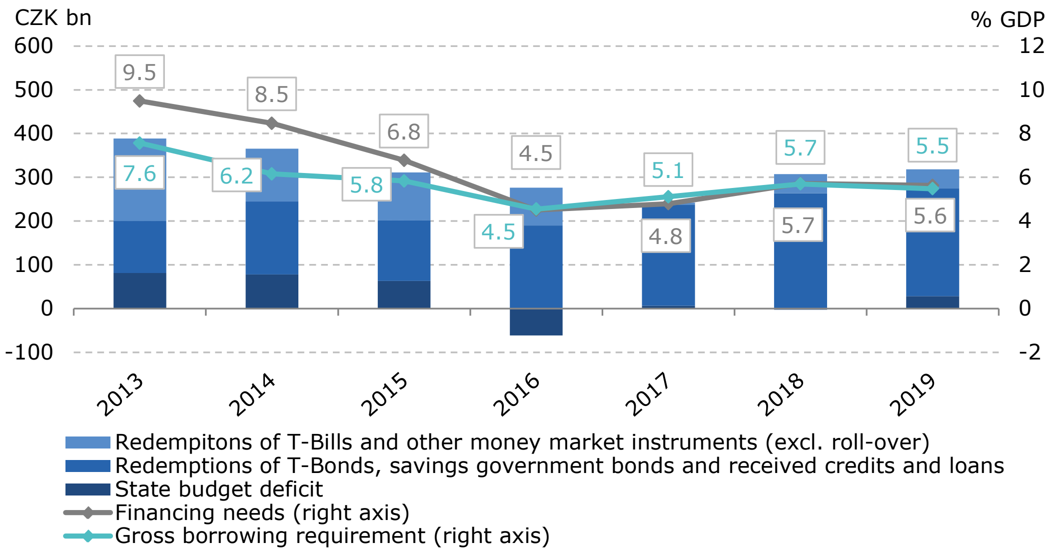
[1] Balance of the budgetary chapter 396 – State Debt.
[2] Incl. effect of buy-backs and exchanges.
[3] Excl. T-Bills issued and redeemed within respective year, and roll-over of other money market instruments.
[4] Credits and loans received from international financial institutions.
[5] Nominal value; premiums and discounts included in the net expenditure on state debt, i.e. they are included in the net borrowing requirement.
[6] Incl. the reinvestment of yields.
Source: MoF

In 2019, the financing needs decreased by CZK 13.3 billion compared to the original plan published in the Strategy. The decline in financing needs was caused mainly by better state budget performance, which reached a deficit of CZK 28.5 billion. Compared to the approved deficit, it was by CZK 11.5 billion better. Savings on net expenditures on state debt service, which were lower by CZK 6.9 billion compared to the budgeted amount, also contributed to this performance.

The total financing needs are adjusted in accordance with the OECD recommended international methodology for roll-over operations with state treasury bills and for refinancing operations with other money market instruments, which take place within a calendar year and thus do not affect the net change of these components relative to the end of each years in the course of the year. The total annual financing needs in the given year thus take into account only the balances of these short-term instruments at the end of the previous year.

The following figure shows the components of financing needs, including the state treasury bills and other money market instruments outstanding at the end of the previous period, which also need to be refinanced in the current year, and the share of financing needs and gross borrowing requirement in GDP.

Figure 9: Financing Needs



Note: GDP in the ESA 2010 methodology. The source of data for 2013 to 2018 is CZSO, for 2019 the Macroeconomic Forecast of the Czech Republic – January 2020. T-Bonds redemptions including effect of buy-backs and exchanges. Credits and loans received from international financial institutions.
Source: MoF, CZSO

Financing of the Gross Borrowing Requirement

The gross borrowing requirement determines that part of the sources covering financing needs, which are ensured by the borrowing operations of the state, i.e. determines the total amount of financial resources the government must obtain mainly through the issuance and sale of government bonds and the through received loans and credits.

Table 4: Financing of the Gross Borrowing Requirement

CZK bn	2013	2014	2015	2016	2017	2018	2019
Gross borrowing requirement	**309.9**	**265.6**	**268.1**	**216.9**	**257.7**	**303.1**	**309.4**
Gross T-Bills issue and other money market instruments[1,2]	120.9	110.2	86.6	4.2	44.0	43.7	18.0
Received collateral in cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross issue of T-Bonds on domestic market[2]	145.6	153.3	180.4	211.6	213.1	259.2	280.9
Gross issue of T-Bonds on domestic market up to 5 years[2,3]	37.8	37.3	100.0	119.6	84.2	45.0	48.1
Gross issue of T-Bonds on domestic market from 5 to 10 years[2,3]	79.6	50.0	23.3	48.4	70.9	94.9	71.7
Gross issue of T-Bonds on domestic market over 10 years[2,3]	28.3	65.9	57.1	43.7	58.0	119.3	161.1
Gross issue of T-Bonds on foreign markets[2]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross issue of savings government bonds[4]	39.1	2.1	1.0	1.0	0.6	0.1	10.5
Received credits and loans[5]	4.3	0.0	0.0	0.0	0.0	0.0	0.0
Total financing of gross borrowing requirement	**309.9**	**265.6**	**268.1**	**216.9**	**257.7**	**303.1**	**309.4**

[1] Excl. T-Bills issued and redeemed within respective year, and roll-over of other money market instruments.
[2] Nominal value; premiums and discounts are included in net expenditure on state debt service, i.e. they are included in the net borrowing requirement.
[3] Remaining time to maturity at the transaction settlement date.
[4] Incl. reinvestment of yields.
[5] Credits and loans received from international financial institutions.
Source: MoF

The resulting gross borrowing requirement may be lower than the annual financing needs if financial assets or liquidity management operations are actively involvement as sources of funding, and may be higher if financial assets are accumulated through state borrowing operations.

Net Borrowing Requirement, Change and Structure of State Debt

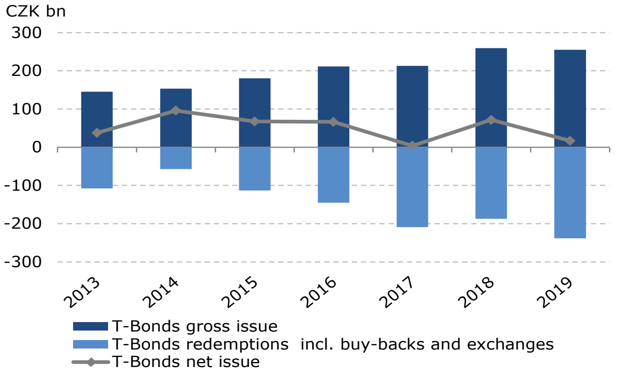
The net borrowing requirement is the major factor in the change in the nominal value of state debt and is determined by the difference between gross borrowing requirement and the total redemptions of nominal values (principals) of state debt, including related derivatives. In the case of zero net change in state financial assets, the net borrowing requirement corresponds to the sum of state budget deficit and any potential extra-budgetary financing needs. The net borrowing requirement thus shows the amount of financial resources the government will have to borrow in addition to the already borrowed financial resources in previous years due in the current year.

Table 5: Net Borrowing Requirement

CZK bn	2013	2014	2015	2016	2017	2018	2019
Gross borrowing requirement	**309.9**	**265.6**	**268.1**	**216.9**	**257.7**	**303.1**	**309.4**
T-Bonds redemptions[1]	107.9	143.7	123.9	157.8	209.4	238.9	238.5
Redemptions and early redemptions on savings government bonds	7.7	11.9	11.9	30.2	16.9	16.4	2.7
T-Bills and other money market instrument redemptions[2]	189.1	120.9	110.2	86.6	4.2	44.0	43.5
Repayments on credits and loans[3]	2.8	11.1	2.5	1.7	5.1	8.0	4.7
Net borrowing requirement	**2.3**	**-21.9**	**19.6**	**-59.4**	**22.2**	**-4.2**	**20.0**

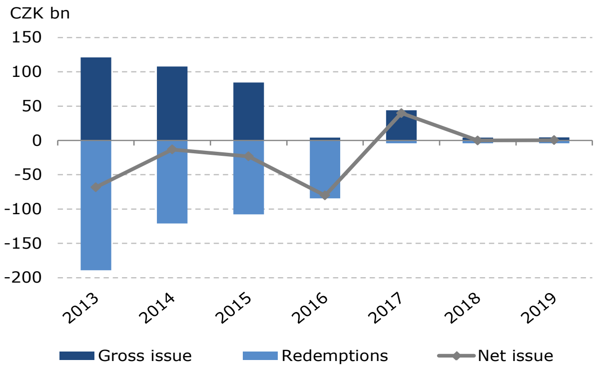
[1] Incl. effect of buy-backs and exchanges.
[2] Excl. T-Bills issued and redeemed within respective year, and roll-over of other money market instruments.
[3] Credits and loans received from international financial institutions.
Source: MoF

Figure 10: Net Issue of Government Bonds Denominated in Local Currency



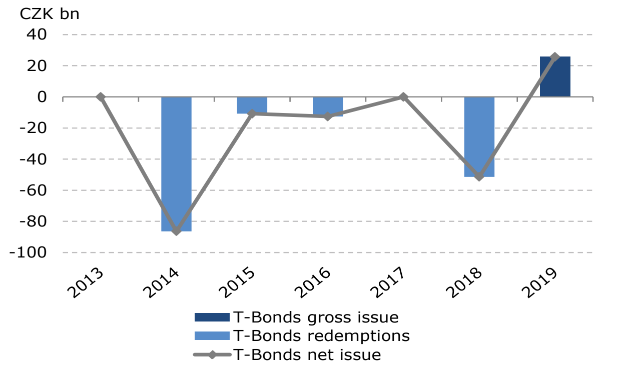
Source: MoF

Figure 12: Net Issue State Treasury Bills



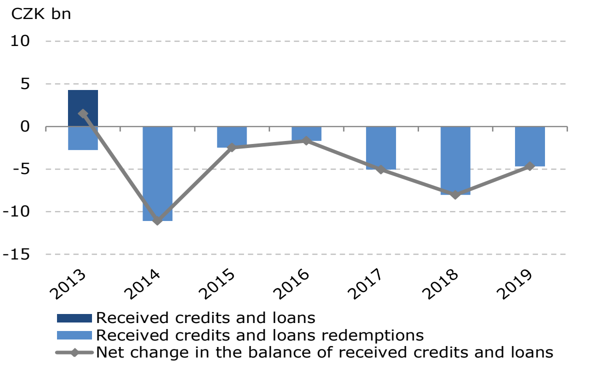
Source: MoF

Figure 11: Net Issue of Government Bonds Denominated in Foreign Currency



Source: MoF

Figure 13: Net Change in the Balance of Received Credits and Loans



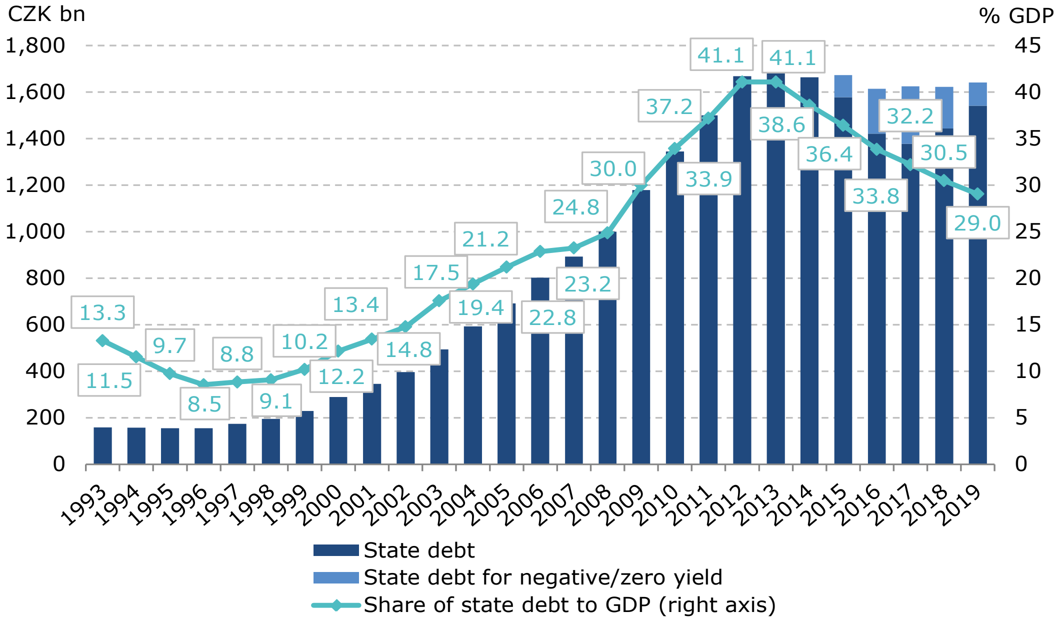
Note: Credits and loans received from international financial institutions.
Source: MoF

Table 6: Net Borrowing Requirement and Change in State Debt

CZK bn	2013	2014	2015	2016	2017	2018	2019
Gross state debt as at 1 January	**1,667.6**	**1,683.3**	**1,663.7**	**1,673.0**	**1,613.4**	**1,624.7**	**1,622.0**
Primary state budget balance	30.4	29.3	17.5	-102.4	-33.6	-43.7	-11.0
Net expenditure on state debt service[1]	50.9	48.5	45.3	40.7	39.8	40.7	39.6
Financial asset and liquidity management operations	-78.9	-99.7	-43.2	2.3	16.1	-1.3	-8.5
Net borrowing requirement	**2.3**	**-21.9**	**19.6**	**-59.4**	**22.2**	**-4.2**	**20.0**
T-Bills net issue and net change in the balance of other money market instruments	-68.2	-10.7	-23.5	-82.4	39.8	-0.3	-25.5
T-Bonds net issue on domestic market	37.7	96.0	67.4	66.4	3.8	71.7	42.4
T-Bonds net issue on foreign markets	0.0	-86.4	-10.8	-12.6	0.0	-51.4	0.0
Savings government bonds net issue	31.4	-9.7	-10.9	-29.2	-16.3	-16.3	7.8
Net change in balance of received credits and loans[2]	1.5	-11.1	-2.5	-1.7	-5.1	-8.0	-4.7
Financing of net borrowing requirement	**2.3**	**-21.9**	**19.6**	**-59.4**	**22.2**	**-4.2**	**20.0**
Revaluation of state debt[3]	13.4	2.3	-10.3	-0.2	-10.9	1.5	-1.8
Promissory notes net change	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross state debt change	**15.7**	**-19.7**	**9.3**	**-59.6**	**11.3**	**-2.7**	**18.2**
Gross state debt as at 31 December	**1,683.3**	**1,663.7**	**1,673.0**	**1,613.4**	**1,624.7**	**1,622.0**	**1,640.2**
Share of GDP (%)[4]	**41.1**	**38.6**	**36.4**	**33.8**	**32.2**	**30.5**	**29.0**

[1] Balance of budgetary chapter 396 – State debt.
[2] Credits and loans received from international financial institutions.
[3] Incl. the revaluation of foreign currency denominated debt due to exchange rate differences and the consolidation of state debt from bonds that were initially recorded on the asset account maintained by the Ministry in the relevant records for as long as they are registered in the account as well own bonds acquired by the state as their issuer prior to their maturity date, and financial resources received or repaid under the lending facilities provided from the nuclear portfolio.
[4] GDP in the ESA 2010 methodology. The source of data for 2013 to 2018 is CZSO, for 2019 the Macroeconomic Forecast of the Czech Republic – January 2020.
Source: MoF, CZSO

Figure 14: Czech Republic's State Debt Development



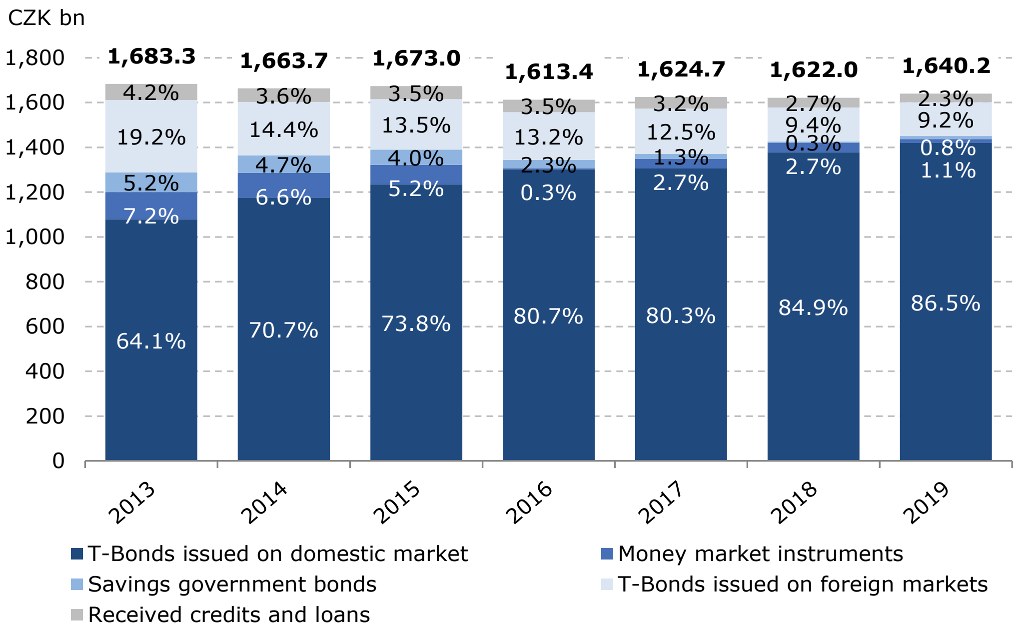
Note: GDP in the ESA 2010 methodology. The source of data for 1993 to 2018 is CZSO, for 2019 the Macroeconomic Forecast of the Czech Republic – January 2020.
Source: MoF, CZSO

Table 7: Balance and Structure of the Debt Portfolio

CZK bn	2013	2014	2015	2016	2017	2018	2019
Gross state debt	**1,683.3**	**1,663.7**	**1,673.0**	**1,613.4**	**1,624.7**	**1,622.0**	**1,640.2**
T-Bills and other money market instruments	120.9	110.2	87.3	4.2	44.0	43.6	18.0
Received collateral in cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-Bonds issued on domestic market	1,079.7	1,175.7	1,235.2	1,301.6	1,305.4	1,377.1	1,419.2
T-Bonds issued on foreign markets	323.7	239.6	225.6	213.5	202.6	152.9	151.5
Savings government bonds	87.6	77.8	66.9	37.8	21.5	5.2	13.0
Received credits and loans[1]	71.5	60.4	58.0	56.3	51.2	43.2	38.5
Promissory notes	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liquid state financial assets	**116.7**	**67.8**	**77.1**	**62.2**	**60.5**	**61.9**	**83.6**
Nuclear portfolio	20.7	22.7	24.5	25.6	27.2	28.7	30.5
Pension portfolio	22.6	22.7	22.9	23.0	23.1	23.2	41.9
Special-purpose state financial assets accounts	10.7	10.9	11.1	10.7	10.1	9.8	11.1
On-lending over 1 year[2]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash reserve[3]	62.7	11.5	18.6	2.9	0.2	0.2	0.0
State financial assets	**116.7**	**67.8**	**77.1**	**62.2**	**60.5**	**61.9**	**83.6**
Liquid state financial assets	116.7	67.8	77.1	62.2	60.5	61.9	83.6
On-lending[4]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net debt portfolio	**1,566.7**	**1,595.8**	**1,595.9**	**1,551.2**	**1,564.2**	**1,560.1**	**1,556.6**

[1] Credits and loans received from international financial institutions.
[2] Extra-budgetary loans with original maturity of over 1 year and the estimated remaining time to maturity shorter than 12 months granted to other countries and domestic legal entities.
[3] Available cash resources created according to Section 35(4) of Act No. 218/2000 Coll. incl. the impact of exchange rate difference of the CZK value of the part of the cash reserve in foreign currencies.
[4] Extra-budgetary loans with original maturity of over 1 year and the estimated remaining time to maturity longer than 12 months granted to other countries and domestic legal entities.
Source: MoF

Figure 15: Structure of the Debt Portfolio by Instrument



Note: Credits and loans received from international financial institutions.
Source: MoF

State Treasury Liquidity Management

In the context of gradual growth in interest rates, the Ministry continued to rationalize the available liquidity of the state treasury in accordance with state-of-the-art government finance management principles. The funds of the central system of the single treasury account management fully replaced the cash reserve generated primarily by issuance.

On 1 November 2019, the Ministry, in cooperation with the CNB, launched a project of term deposit in the local currency. This project is intended for non-mandatory clients of the state treasury, and newly brings them the option to keep their funds in the account subordinated to the state treasury in the agreed amount and for a predetermined period of time, for which they will receive monetary compensation replacing interest from the Ministry. The Ministry set the rate of monetary compensation replacing interest at 0.50% p.a. for term deposits with a maturity of 6 months and 1.00% p.a. for term deposits with a maturity of 12 months with effect from 1 November 2019. As a part of the further development of the project, the set of offered maturities was widened, as with the effective from 2 January 2020, the Ministry set the rate of monetary compensation replacing interest at 0.25% p.a. for term deposits with a maturity of 3 months and 0.75% p.a. for term deposits with a maturity of 9 months.

Table 8: State and Structure of Resources and Investment Position of the State Treasury

CZK bn, EUR bn	2017		2018		2019	
	CZK	EUR	CZK	EUR	CZK	EUR
Liquid state financial assets	**60.3**	**0.0**	**61.7**	**0.0**	**83.6**	**0.0**
Mandatory clients of state treasury[1]	194.6	0.8	208.5	0.1	204.1	0.1
Optional clients of state treasury	41.5	0.0	57.5	0.0	83.9	0.0
Liabilities to the state treasury (-)	-57.1	-0.6	-72.6	-0.1	-106.0	0.0
Total liquidity position of the state treasury[2]	**239.4**	**0.2**	**255.1**	**0.0**	**265.5**	**0.1**
Reverse repo operations (T-Bills collateral)	0.0	0.0	0.0	0.0	0.0	0.0
Reverse repo operations (T-Bonds collateral)	0.0	0.0	0.0	0.0	0.0	0.0
Reverse repo operations (CNB bills collateral)	0.0	0.0	0.0	0.0	0.0	0.0
Reverse repo operations (foreign securities collateral)	0.0	0.0	0.0	0.0	0.0	0.0
Provided deposits and short-term borrowings and loans	0.0	0.0	9.0	0.0	18.2	0.1
On-lending[3]	0.0	0.0	0.0	0.0	0.0	0.0
Investment in securities	4.6	0.0	4.6	0.0	2.6	0.0
Provided collateral in cash	0.0	0.0	0.0	0.0	0.0	0.0
Cash resources in treasury single account	234.8	0.0	241.5	0.0	244.7	0.0
Ministry's cash resources in commercial banks accounts[4]	0.0	0.2	0.0	0.0	0.1	0.0
Total investment position of the state treasury	**239.4**	**0.2**	**255.1**	**0.0**	**265.5**	**0.1**

[1] Excl. quasi-clients of the state treasury (state debt and state financial assets).
[2] Available liquidity of the state treasury incl. investments outside state treasury liquidity management accounts.
[3] Extra-budgetary loans with maturity of over 1 year and the estimated remaining time to maturity shorter than 12 months granted to other countries and domestic legal entities.
[4] Incl. cash resources in transit.
Source: MoF

The Ministry took advantage of the current market situation, when the 2W repo rate was increased once by the Czech National Bank during 2019, and achieved CZK 1,605 million higher revenue from investment operations on the money market within the state treasury liquidity management compared to 2018. In 2019, the Ministry traded with a total of twenty-two counterparties, both Czech and foreign banks and institutions.

As part of the koruna state treasury liquidity management and investment operations for the purposes of nuclear portfolio financial assets management, short-term investments using collateral of CNB bills, state treasury bills and medium-term and long-term government bonds totalling CZK 5,866.7 billion were made during 2019. The average interest rate on investments using these collaterals recorded a significant increase compared to the previous year, reaching 1.83% p.a. Short-term investments in the form of deposit operations with a total nominal value of CZK 4,975.1 billion were also realized in this period. The average interest rate achieved by investing in deposit operations was 1.25% p.a. In 2019, a total of CZK 3,671.9 million was transferred to the state budget as an income from operations within the koruna state treasury liquidity management.

As part of the euro state treasury liquidity management, short-term investments in the form of deposit operations with a total nominal value of EUR 75.0 million were made during 2019. The average interest rate achieved by investing in deposit operations was 0.01% p.a. The situation on the euro deposit market is characterized by negative interest rates, mainly due to the monetary policy of the European Central Bank. The Ministry took advantage of this situation by further executing short-term foreign currency borrowing operations due in 2019 and 2020 and issued medium-term zero-coupon government EUR-bonds with maturity in 2021. In 2019, the total revenue from these operations amounted to CZK 196.2 million.

Table 9: Net Revenue from Operations within State Treasury Liquidity Management and Operations with Negative Yields

CZK mil	2017	2018	2019	2018/2017	2019/2018
CZK operations	293.5	2,069.6	3,674.4	7.1	1.8
EUR operations	0.0	0.1	0.1	1.6	0.8
Lending facilities	24.4	10.1	8.7	0.4	0.9
FX swaps	17.7	157.9	0.7	8.9	0.0
Issuance with negative yield[1]	1,204.7	1.6	113.6	0.0	68.9
Borrowing operations in foreign currency with a negative yield	1.0	49.9	82.9	50.8	1.7
Total	**1,541.3**	**2,289.2**	**3,880.3**	**1.5**	**1.7**

[1] Adjusted for future expenditure on coupon payments related to the bonds until their maturity, unless they were zero-coupon bonds.
Source: MoF

The Ministry achieves further savings of the state budget by conducting operations on foreign exchange market, which are intended for mediation of foreign currency payments from and to the state budget (e.g. chapters of the of Ministry of Foreign Affairs, General Treasury Management, etc.). The Ministry is able to achieve a more advantageous exchange rate than that offered by the Czech National Bank, which would mediate the operation on the basis of its current exchange rate list. In 2019, the Ministry saved CZK 56.3 million, mediating trades worth almost CZK 11.5 billion.

Table 10: FX Market Operations in 2019

Counterparty	Nominal value (EUR)	Nominal value (USD)	Nominal value (CHF)	Nominal value (CZK)	Savings (CZK)[1]	Share of savings (%)
UniCredit Bank Czech Republic and Slovakia, a.s. / UniCredit Bank AG, München	187,482,573	0	0	4,824,386,906	21,075,538	37.4
KBC Bank NV / Československá obchodní banka, a. s.	39,851,249	39,940,009	0	1,933,245,156	12,522,371	22.2
Société Générale / Komerční banka, a.s.	43,791,417	15,504,649	0	1,480,808,622	6,743,042	12.0
PPF banka a.s.	25,274,115	9,800,434	0	867,247,543	4,483,214	8.0
Citibank Europe plc	31,069,659	4,131,070	0	890,683,738	4,413,689	7.8
J.P. Morgan Securities plc	18,259,301	17,862,528	2,126,573	927,215,824	4,349,542	7.7
Credit Agricole Corporate and Investment Bank	19,266,433	0	2,401,117	550,524,113	2,606,698	4.6
Goldman Sachs International	332,527	0	805,136	26,971,169	135,216	0.2
Erste Group Bank AG / Česká spořitelna, a.s.	19,444	0	0	497,544	2,353	0.0
Total	**365,346,718**	**87,238,689**	**5,332,826**	**11,501,580,615**	**56,331,662**	**100.0**

[1] State budget savings made through the intermediation of foreign currency payments from and to the state budget given by the exchange rate announced by the CNB and the exchange rate on FX market
Source: MoF

3 - Funding Program and Issuance Activity

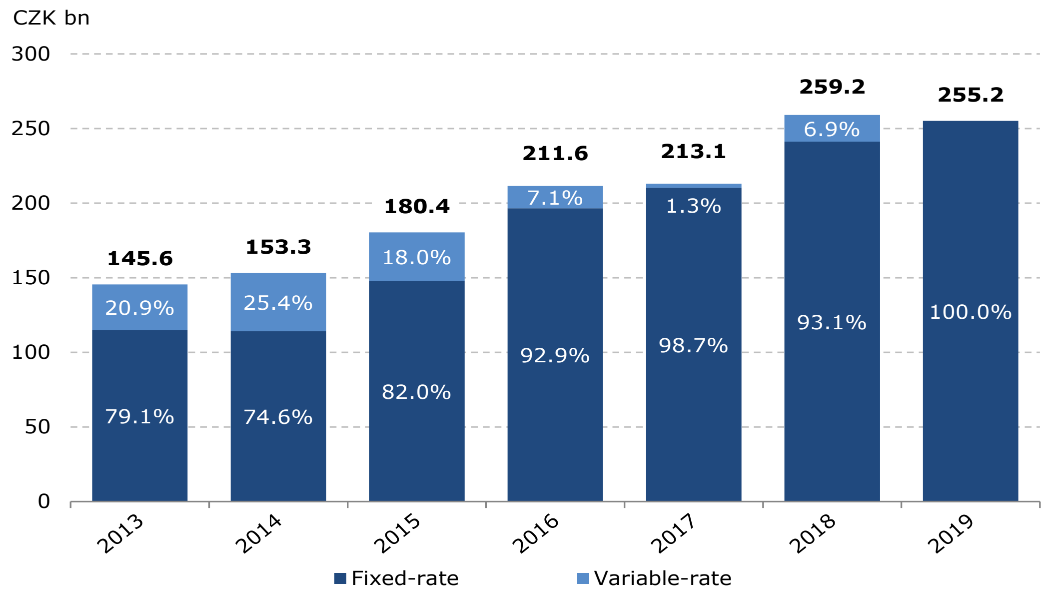
The funding program for the given year defines the scope for the execution of borrowing operations and quantifies the value of cash resources acquired from borrowing operations on the financial markets or from the international financial institutions to cover the financing needs. The structure of funding program consists of debt sources, which are used for financing of the gross borrowing requirement, i.e. the issuance and sale of government bonds on domestic and foreign markets and receiving of loans and credits from international financial institutions.

Regular quarterly evaluation of the actual debt portfolio structure in relation to the declared strategic targets and limits that constitute the key parameters of the publicly defined strategic benchmark portfolio communicated in particular through the Strategy and its possible revisions, and the quarterly update of gross borrowing requirement and funding program contained in the Debt Portfolio Management Quarterly Reports are the Ministry's main tools to support the credibility and transparency of the entire process of state debt and the related state financial assets management and the execution of borrowing operations on financial markets in accordance with best international practice and recommended standards.

CZK-denominated Medium-Term and Long-Term Government Bonds

The CZK-denominated medium-term and long-term government bonds issuance plan for 2019 was set at the minimum level of CZK 150 billion within the Strategy, and CZK 220 billion within the Updated strategy. The actual gross issue of medium-term and long-term government bonds on primary and secondary markets amounted to CZK 255.2 billion. The Ministry complied with the issuance plan framework defined in the Strategy and Updated strategy and increased issuance activity at the longer end of the yield curve helped to achieve the announced refinancing risk targets for the medium-term horizon. Given the situation where the rising key interest rates of the Czech National Bank mainly affect the shorter end of the government bond yield curve and its longer end remains relatively flat, issuing government bonds with longer maturities is more cost-effective. In 2019, a total of 56 primary auctions were held in 24 auction days. In one auction day, up to three different government bonds were offered. The Ministry sold exclusively fixed-rate government bonds on primary and secondary markets, as the issue of variable-rate debt instruments at a higher reference rate would generate relatively higher costs compared to the yield curve of fixed-rate government bonds.

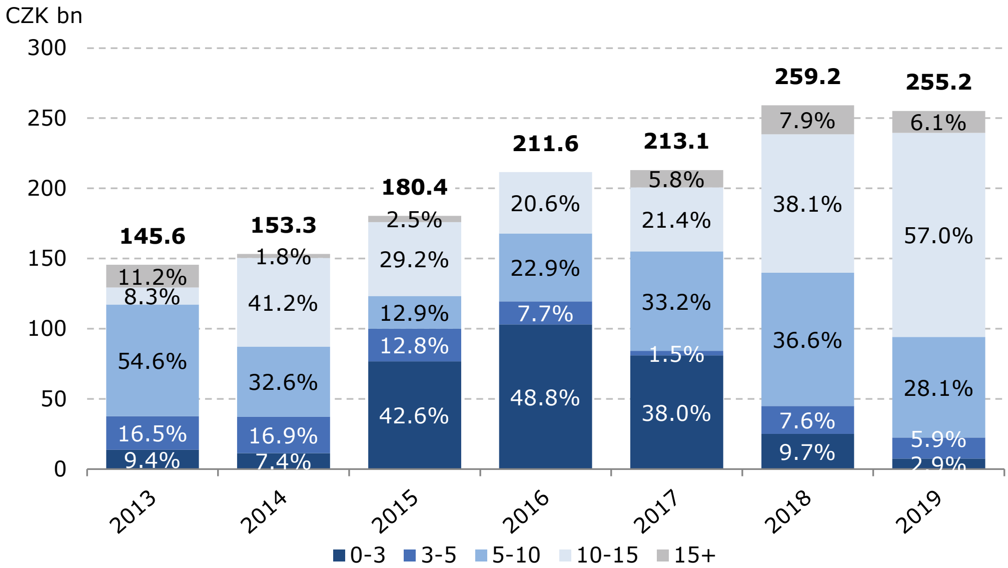
Figure 16: Interest Structure of Sold CZK-denominated Government Bonds



Source: MoF

In 2019, the Ministry re-opened fixed-rate issues, especially in the segment of residual time to maturity of 10 to 15 years. Together with the segment with a residual time to maturity over 15 years, government bonds on primary and secondary markets were sold in a total nominal value of CZK 161.1 billion, which corresponds to 63.1% of total gross issue, while in 2018 this share was only 46.0%. The Ministry has been increasingly trying to take advantage of the favourable conditions resulting from the flat shape of the yield curve, when it is able to sell government bonds with longer maturities only at slightly higher yields than it would achieve with government bonds bearing interest at its short end. The segment of residual time to maturity of 5 to 10 years reached a share of 28.1%, while the segment of residual time to maturity of up to 5 years amounted to 8.8%, which is by 8.5 p.p. less than in the previous years.

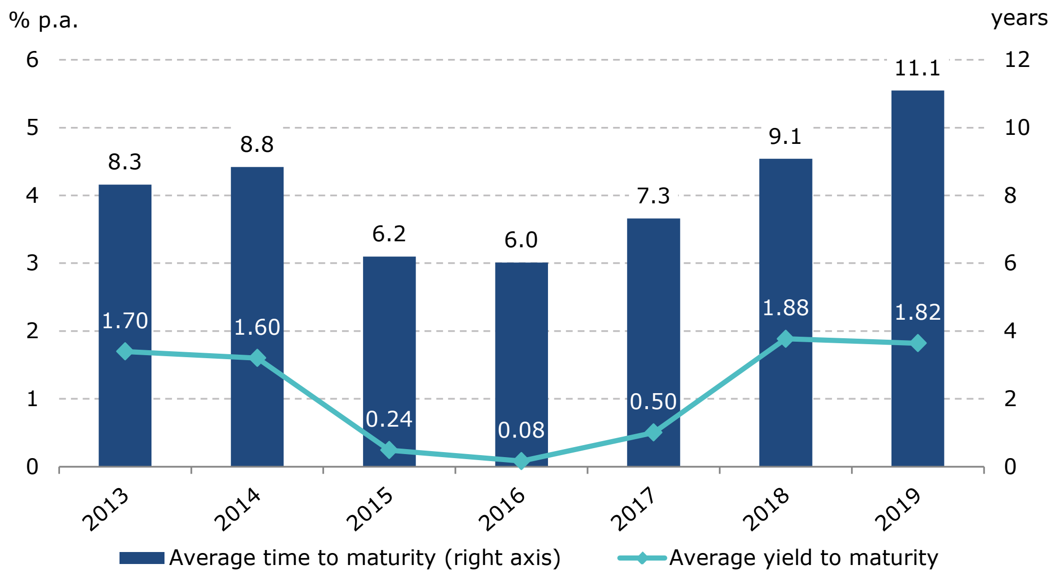
Figure 17: Maturity Structure of Sold CZK-denominated Government Bonds



Note:Residual time to maturity related to the issue date.
Source: MoF

The average yield of medium-term and long-term government bonds denominated in local currency sold on primary and secondary markets in 2019 was 1.82% p.a., which is 0.06 p.p. less than in the previous year, but the average time to maturity increased by 2.0 years to more than 11 years. The Ministry achieved lower yields to maturity despite the restrictive monetary policy of the Czech National Bank, when the 2W repo rate increased to 2.0% p.a.

Figure 18: Average Yield and Time to Maturity of Sold CZK-denominated Government Bonds



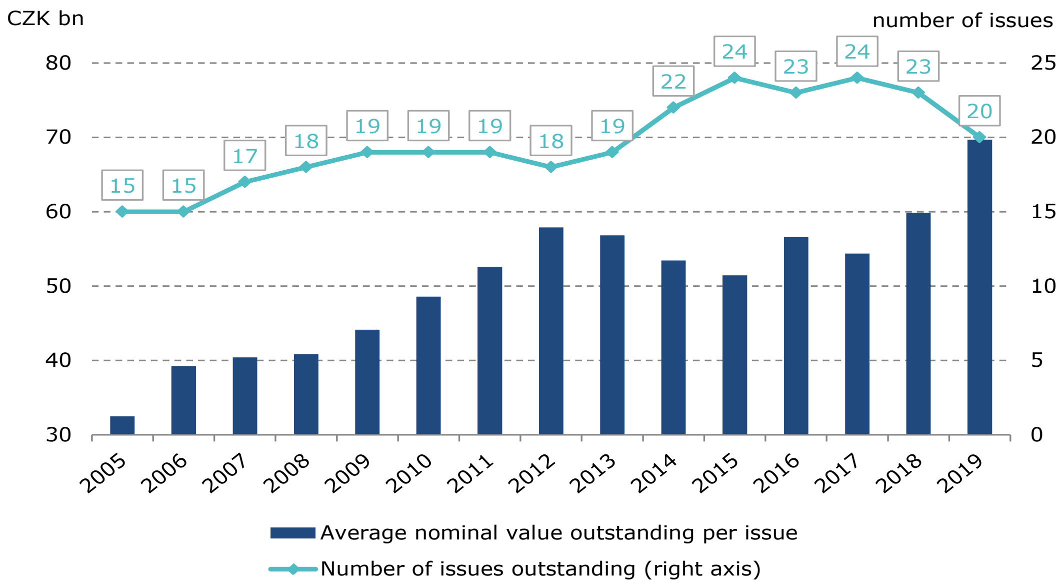
Note: Average residual time to maturity is related to the issue date.
Source: MoF

In 2019, CZK-denominated medium-term and long-term government bonds were sold on primary market in a total nominal value of CZK 224.8 billion, which is CZK 25.7 billion, i.e. 10.3% lower than in 2018. This decrease is mainly due to higher activity of the Ministry on secondary market of government bonds than last year. In the area of tap sales, government bonds with maturities along the entire yield curve, especially in 2020, 2022 and 2029, were sold in a total nominal value of CZK 22.5 billion. Tap sales were supplemented to a lesser extent by exchange operations, when the Ministry usually buys back medium-term and long-term government bonds with a relatively short residual time to maturity or a relatively high coupon rate and sells bonds with longer residual time to maturity or a relatively lower coupon rate, which reduces future redemptions and hence refinancing risk. As a result of these operations, the average time to maturity of the debt portfolio is also increased. At the same time, these operations may have a positive effect on the state budget due to the savings resulting from the non-realization of future coupon payments. The Ministry exchanged government bonds with maturities mainly in 2019, to a lesser extent with maturities in 2020, in a total nominal value of CZK 8.0 billion for government bonds with maturities from 2025 to 2057 in a total nominal value of CZK 8.0 billion.

In 2019, the Ministry used a wide range of operations on primary and secondary markets to meet the demand of primary dealers and dealers, at the same time make maximum use of favourable market conditions with a positive impact on the state budget performance and debt portfolio risk indicators.

In 2019, three redemptions of medium-term and long-term government bonds were carried out that were spread evenly throughout the year. It was the Czech Republic Treasury Bond, 2009-2019, 5.00%, which was redeemed in April in total nominal value of CZK 80.9 billion, the Government Bond of the Czech Republic, 2016-2019, 0.00%, which was redeemed in July in total nominal value of CZK 70.0 billion and the Czech Republic Government Bond, 2013-2019, 1.50%, which was redeemed in October in total nominal value of CZK 79.6 billion. Medium-term and long-term government bonds in total nominal value of CZK 238.5 billion were redeemed in 2019, including the operations on the secondary market. No buy-backs of medium-term and long-term government bonds were carried out during the year. The total nominal value of the net issue of CZK-denominated medium-term and long-term government bonds on the domestic market thus amounted to CZK 16.7 billion. Due to these redemptions and no new issues this year, the number of T-Bonds denominated in local currency has decreased to twenty.

Figure 19: Average Nominal Value of CZK-denominated Government Bonds per Issue



Source: MoF

Refinancing of Foreign Currency State Debt

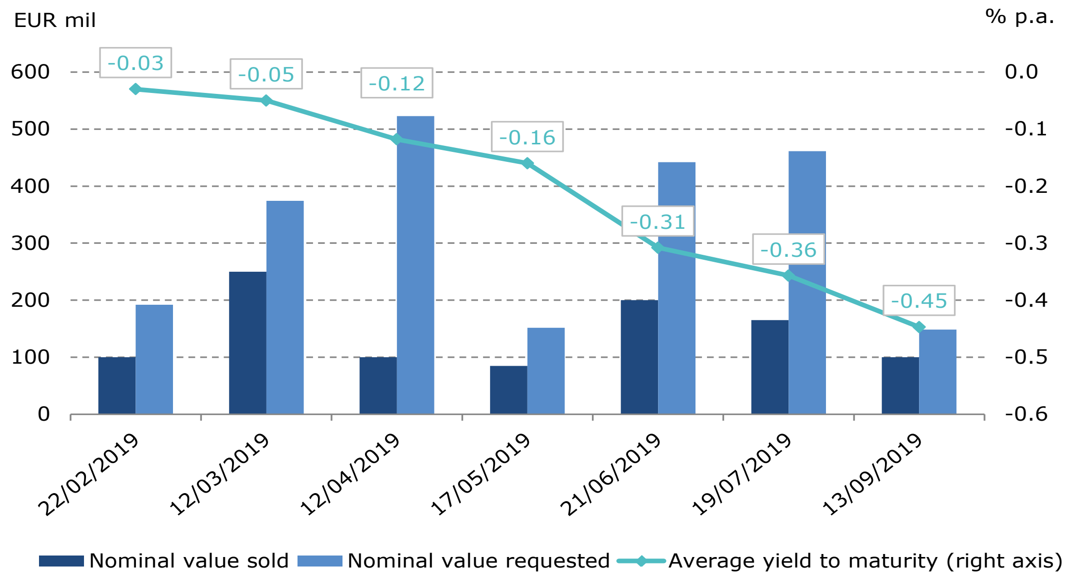
In order to refinance short-term loans on the euro deposit market, which covered the redemption of the government bond in June 2018 issued on foreign markets in 2008 in a total nominal value of EUR 2.0 billion, the Ministry proceeded to pilot issuance of medium-term and long-term government bonds issued on domestic market under Czech law denominated in euro booked in the central register maintained by the Central Securities Depository Prague.

On 20 February 2019, the first tranche of the Government EUR-Bond of the Czech Republic, 2019–2021, 0.00% was issued on primary market with the maturity in 2021. This issue represented an effective alternative to operations on the money market and issuance activity on foreign markets under foreign law to cover redemptions of foreign currency debt. A significant positive feature is the low administrative burden compared to the issue of government bonds on foreign markets, which allows the Ministry to respond more flexibly to the situation on financial market and the current financing needs.

During the year, the Ministry gradually increased the nominal value of the government EUR-bond outstanding, and thus its liquidity on financial market, until it reached the target value of EUR 1.0 billion in September. The high interest on primary market is reflected in bid-to-cover ratio of 2.7, which shows almost three times higher demand than the actual nominal value sold. All sales, whether in the form of auctions or in the form of tap sales following a market call on secondary market, were carried out for a negative yield with the total average value of -0.21% p.a. There is no interest expenditure associated with the issue of the EUR-bond, on the other hand the state budget received additional revenue of EUR 4.4 million.

Based on high demand from investors and positive feedback from the financial market, the Ministry has taken steps to develop this form of financing in order to make it more attractive to international investors and to develop the domestic capital market, including its closer connection with the euro area bond market infrastructure. The issuance of this type of government bond under Czech law is not an obstacle for local and foreign investors significantly limiting its tradability on financial market. This is demonstrated by the structure of the investor base, when non-resident investors make up more than 85% of all holders. The Ministry opened a new transparent and administratively undemanding channel for financing foreign currency debt and expanded the portfolio of investment opportunities offered.

Figure 20: Government EUR-bond Sold and Requested Nominal Value



Source: MoF

Due to the high and stable interest of government bonds issued on domestic market, the Ministry did not carry out any borrowing operations on foreign bonds markets in 2019. In the area of money market instruments denominated in foreign currencies, deposit operations were used where the Ministry borrowed euro funds, thus supplementing the coverage of the euro financing needs during the year. All these short-term operations were realized for negative interest rate and also contributed to the spread of the euro exposure along the money market yield curve. The Ministry sold EUR-bonds in connection with repayments of individual deposit operations. Additional revenue amounting EUR 3.2 million were realized from these operations.

Direct Sale of Government Bonds to Citizens

In 2019, the Ministry followed up on the project of the sale of government bonds intended for citizens in 2011-2014, which was suspended due to the fall in government bond yields to historical minimum and in the case of relevant residual time to maturity up to negative values, and opened a pilot phase of direct sale of government bonds called "Dluhopis Republiky" on the occasion of the celebration of the 100th anniversary of the foundation of the Czechoslovakia at the end of 2018. It offered a conservative and stable form of savings valorisation with the aim of extending the portfolio of investors and increasing the share of households in the state debt. Retail investors are usually conservative and not subject to short-term fluctuations in international bond markets, which contributes to higher stability and diversification of the investor base with a positive impact on the refinancing and interest rate risk of the debt portfolio. A secondary aim is to increase public interest in the the public sector economy. The vast majority of these are mostly domestic entities and part of the interest expenditure of the state debt service will generate additional income of domestic households.

The Ministry offered to subscribe six-year reinvestment, inflation-linked and fixed government bonds under similar conditions as institutional investors have, in order to achieve cost-effectiveness. The yields to maturity of the "Dluhopis Republiky" bonds do not burden the state budget more than the possible issue of medium-term and long-term government bonds with the same time to maturity. The reinvestment bond bears fixed increasing coupon rate over time, which increases motivation to hold the bond until maturity, while the yield of the fixed bond is constant in each year. The inflation-linked bond bears a variable interest rate, which is linked to the consumer price index published by the Czech Statistical Office, and offers protection of invested funds against inflation.

By the end of 2019, six consecutive subscription periods took place, when it was possible to purchase individual issues of the "Dluhopis Republiky" bond. The Ministry offered households the option of daily subscription through the electronic access to asset account management or at selected branches of contractual distributors.

In total, seven issues of "Dluhopis Republiky" bonds were issued in four subscription periods in total nominal value of CZK 10.4 billion. On 3 December 2018, the subscription period of the first issue of the "Dluhopis Republiky" bond, namely the Reinvestment Government Bond of the Czech Republic, 2019–2025, FIX%, was started. Government bonds in total nominal value of CZK 2.9 billion were sold and subscribed on the relevant asset accounts on 1 February 2019. This was followed by the subscription period of the Reinvestment Government Bond of the Czech Republic, 2019–2025 II, FIX%, with issue date 1 April 2019, in total nominal value of 0.9 billion. In the third subscription period, the Ministry expanded the portfolio of offered bonds by selling the Reinvestment Government Bond of the Czech Republic, 2019-2025 III, FIX% and newly the Inflation-linked Government Bond of the Czech Republic, 2019-2025, CPI% in total nominal value of CZK 5.4 billion with issue date 1 July 2019. The fourth subscription period, with issue date 1 October 2019, in which government bonds in total nominal value of CZK 1.2 billion were sold, included, in addition to the Reinvestment Government Bond of the Czech Republic, 2019-2025 IV, FIX%, Inflation-linked Government Bond of the Czech Republic, 2019-2025 II, CPI%, also Fixed Government Bond of the Czech Republic, 2019–2025, 1.50%. In the fifth and sixth subscription periods all three types of the "Dluhopis Republiky" bonds were or still are offered with issue date in January, and April 2020. In the fifth subscription period, government bonds in total nominal value of CZK 1.7 billion were subscribed and the sixth subscription period will end in March 2020.

After the evaluation of the pilot phase, which ended in June 2019, it was decided to continue the project with an emphasis on the gradual electronization of the sales system. Selected issues were offered only through electronic access to asset account. The aim of this is the effort of the Ministry to minimize costs associated with the distribution of government bonds and raising awareness of the possibility of using electronic access as a more convenient and cost-effective alternative.

The total nominal value of the gross issuance of savings government bonds amounted to CZK 10.5 billion, while CZK 0.1 billion were represented by tranches issued in the form of reinvestment of yield of already issued government bonds and CZK 10.4 billion were the issues of the "Dluhopis Republiky" bonds. In June 2019, two regular redemptions, namely of Reinvestment Savings Government Bond of the Czech Republic, 2014-2019, FIX% and the Inflation-linked Savings Government Bond of the Czech Republic, 2012-2019, CPI% in a total nominal value of CZK 2.7 billion were carried out. The issuance terms and conditions of savings government bonds allow the owners to request their redemption before the specified maturity date. However, the share of early redemption is not significant and the holders of savings government bonds exercise this option only exceptionally. In 2019, requests for early redemption in a total nominal value of CZK 8.8 million were received within all submitting periods.

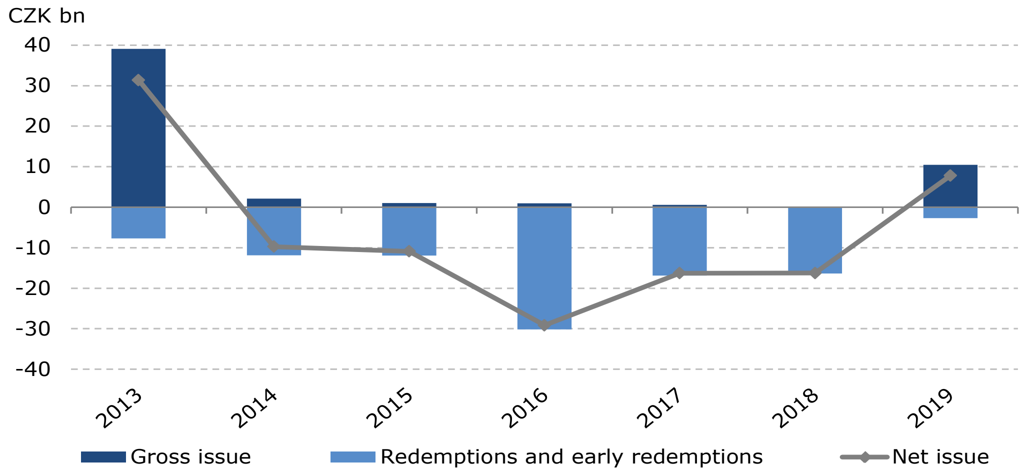
Table 11: Issues and Redemptions of Government Bonds for Citizens

CZK bn	2013	2014	2015	2016	2017	2018	2019
Total nominal value of issued government bonds	38.8	1.4	0.0	0.0	0.0	0.0	10.4
Reinvestment of yields	0.3	0.7	1.0	1.0	0.6	0.1	0.1
Early redemptions	0.2	0.3	0.4	0.1	0.1	0.0	0.0
Early redemptions (% outstanding as at the end of the previous year)	0.4	0.4	0.5	0.2	0.2	0.1	0.2
Regular redemptions	7.5	11.6	11.5	30.0	16.8	16.3	2.7
Total redemptions	7.7	11.9	11.9	30.2	16.9	16.4	2.7
Outstanding	87.6	77.8	66.9	37.8	21.5	5.2	13.0
Share of government bonds to state debt (%)	5.2	4.7	4.0	2.3	1.3	0.3	0.8

Source: MoF

The net issuance of savings government bonds reached a total nominal value of CZK 7.8 billion. In 2019, the new issues of the "Dluhopis Republiky" bonds covered the regular redemptions of savings government bonds issued in 2012 and 2014, and significantly contributed to the increase in the share of government bonds intended for citizens in total state debt from 0.3% at the end of 2018 to 0.8% at the end of 2019, amounted to CZK 13.0 billion.

Figure 21: Issues and Redemptions of Government Bonds for Citizens



Note: Incl. savings government bonds issued in 2011 to 2014 and reinvestment of yields.
Source: MoF

Money Market Instruments and Other Debt Instruments

In 2019, the total nominal value of gross issue of state treasury bills excl. roll-over amounted to CZK 4.5 billion. This lower activity reflects the Ministry's effort to issue government bonds bearing interest at the longer end of the yield curve to cover financing needs, as the short end was significantly influenced by the monetary policy of Czech National Bank in the form 2W repo rate hikes up to 2.00% p.a. The Ministry carried out 7 auctions in 7 auction days. The gross issue of state treasury bills, including roll-over, amounted to CZK 6.8 billion with a demand of primary dealers amounting CZK 51.7 billion and an average auction yield of 0.46% p.a. The financial resources obtained from the sale of state treasury bills were not primarily involved in covering the financing needs, but were further invested within the treasury single accounts liquidity management. Even in 2019, the primary dealers and dealers of Czech government bonds continued to use the lending facility in the form of repo operations, when medium-term and long-term government bonds in a total nominal value of CZK 6.6 billion were provided from the Ministry's asset accounts against financial resources of CZK 6.6 billion, which were further invested in the money market as part of state treasury liquidity management and as part of investment operations within nuclear portfolio state financial assets management. The average interest rate on lending facilities in the form of repo operations in the course of 2019 was -0.18% p.a.

No tranches of the loans from the European Investment Bank were drawn in 2019. In the course of the year, the repayments of European Investment Bank loans tranches in a total amount of CZK 4.7 billion were carried out.

4 - Risk Management and Portfolio Strategy

The declaration of strategic goals and limits is the main tool for increasing the transparency of the Ministry's debt policy in line with the best international practice. The objectives are set up based on the requirements of a prudent approach to management of financial and credit risks while minimizing economic costs in the long run. The main risks to which the debt portfolio is exposed in the long term are refinancing, interest rate and currency risks. All the objectives defined below are applied to the portfolio of the state debt as a whole, including derivative operations. In connection with streamlining and modernizing state treasury liquidity management, refinancing and interest risk strategic targets and limits are announced in medium-term horizon, which allows the Ministry a flexible response to a short-term market conditions and investors' interest in instruments in a certain segment of time to maturity or re-fixing.

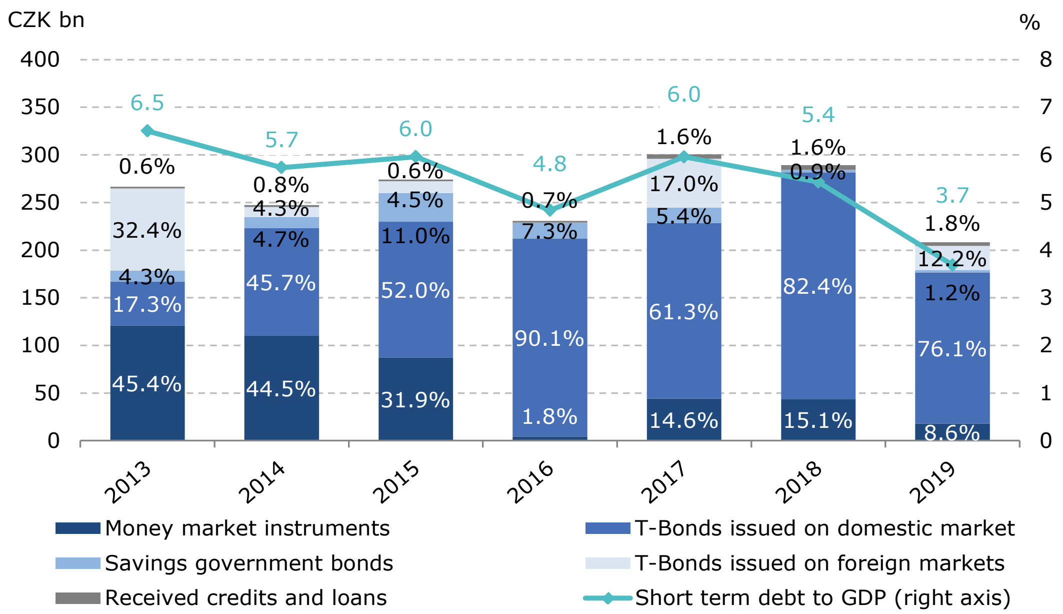
A short-term deviation from the set medium-term strategic limits and targets for the debt portfolio's risk parameters for refinancing and interest rate risk is possible but the medium-term issuance activity will be planned in such a way that the limits and targets defined in the Strategy are met in the medium term.

Refinancing Risk

Refinancing risk is managed by a system of three quantitative indicators: the share of short-term state debt, the share of medium-term state debt and the average time to maturity of the state debt, taking into account the structure of the maturity profile and the effort to achieve a balance of state debt redemptions in individual years of medium-term and long-term horizon. These indicators are to be considered as a comprehensive system, focusing only on one of them may pose a potential risk.

The share of short-term state debt (i.e. the share of debt due within one year in total state debt) is a key indicator of the refinancing risk in the short-term horizon. For the medium-term horizon, the limit for the short-term state debt is set at 20.0%. The share of short-term state debt at the end of 2019 was 12.7% of the total state debt, representing a decrease of 5.1 p.p. compared to the end of 2018, but still below the limit for the medium-term horizon.

Figure 22: Structure of Short-Term State Debt by Instrument



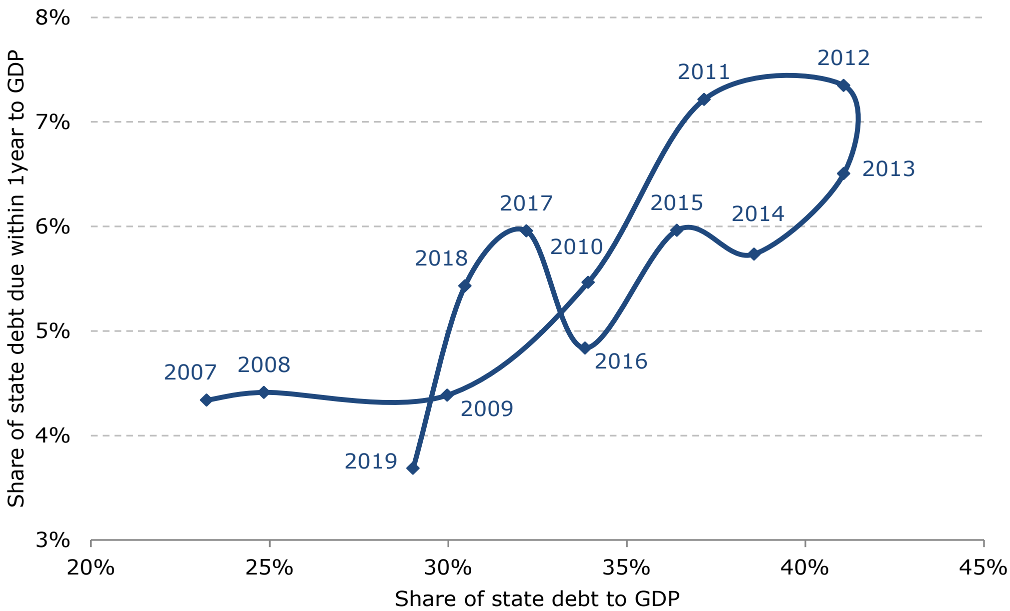
Note: As at the end of each year. The source for GDP for 2013 to 2018 is the CZSO, for 2019 the Macroeconomic Forecast of the Czech Republic – January 2020. Credits and loans received from international financial institutions.
Source: MoF, CZSO

During 2019, the absolute value of the short-term state debt decreased by CZK 80.7 billion to CZK 208.4 billion. Compared to the end of 2018 there has been a change in currency structure of short-term state debt connected to the medium-term and long-term government bonds and other debt instruments. In case of CZK-denominated medium-term and long-term government bonds issued on domestic market maturing within one year, there was a decrease by CZK 79.5 billion, i.e. by 6.3 p.p., in case of government bonds issued on foreign markets maturing within one year, the year-on-year increase was 12.2 p.p. since there will be regular redemption in 2020 of these bonds in total nominal value of EUR 1.0 billion. Regarding savings government bonds maturing within one year the year-on-year decrease was CZK 0.1 billion, i.e. increase 0.3 p.p. Lower repayments of loans received by European Investment Bank by CZK 0.9 billion in 2020 compared to 2019 did not affect the share of received credits and loans in short-term state debt significantly.

Money market instruments outstanding at the end of 2019 decreased by CZK 25.7 billion compared to the end of 2018, the share of money market instruments in total short-term state debt decreased year-on-year by 6.5 p.p., while some short-term loans on the EUR deposit market were refinanced by issuance of the government EUR-bond in total nominal value of EUR 1.0 billion. The share of money market instruments in the total state debt at the end of 2019 was 1.1% and decreased by 1.6 p.p. compared to the end of 2018. Even at the end of 2019, the medium-term and long-term government bonds issued on the domestic and foreign markets including savings government bonds maturing within one year exceed the balance of money market instruments outstanding.

The share of short-term state debt in GDP decreased by 1.7 p.p. compared to end of 2018 to 3.7% at the end of 2019. In total, the share of short-term state debt in GDP decreased by 3.7 p.p. in 2012 to 2019. Since 2012, the share of total state debt to GDP has also declined from 41.1% to 29.0% by the end of 2019. The decrease in this share amounted to 12.1 p.p. since 2012.

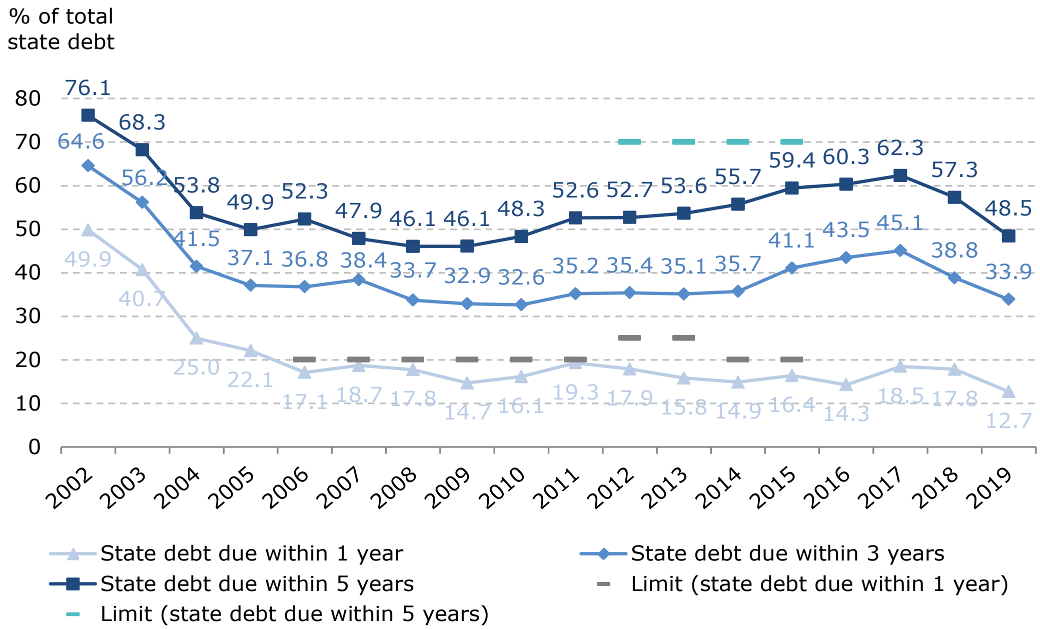
Figure 23: Short-Term State Debt and Total State Debt to GDP



Note: As at the end of each year. The source for GDP for 2007 to 2018 is the CZSO, for 2019 the Macroeconomic Forecast of the Czech Republic – January 2020.
Source: MoF, CZSO

In the area of medium-term refinancing risk, the Ministry monitors and manages the share of debt due within three and five years. The debt due within five years is managed by the share of the medium-term debt to the total state debt, for which the Ministry has set an explicit limit in the medium-term horizon of 70.0% of the total state debt. The value of the share of medium-term state debt in total sate debt at the end of 2019 is 48.5% decreasing by 8.8 p.p. compared to the end of 2018 due to issuance activity on domestic market focused mainly on the longer end of the yield curve, thus the indicator further decreased significantly below the upper limit set for medium-term horizon. The share of state debt maturing within three years amounts to 33.9% at the end of 2019, representing a decrease of 4.9 p.p. compared to the end of 2018.

Figure 24: State Debt by Maturity Baskets

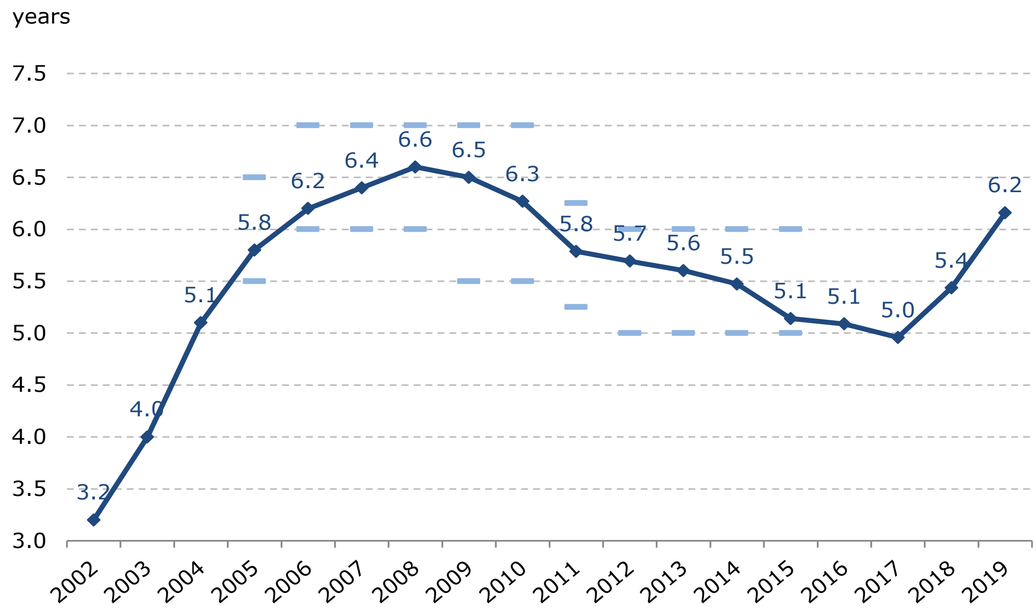


Note: As at the end of each year.
Source: MoF

Another indicator used in the management of refinancing risk is the average time to maturity of the state debt, for which the target value for the medium-term horizon is set at 6.0 years, with a possibility of deviation of 0.25 years. The average time to maturity as well as the structure of state debt portfolio maturity profile belongs among the fundamental indicators that determine the time and volume structure of government bond issues on domestic and foreign markets and the repayment schedules of loans received from European Investment Bank.

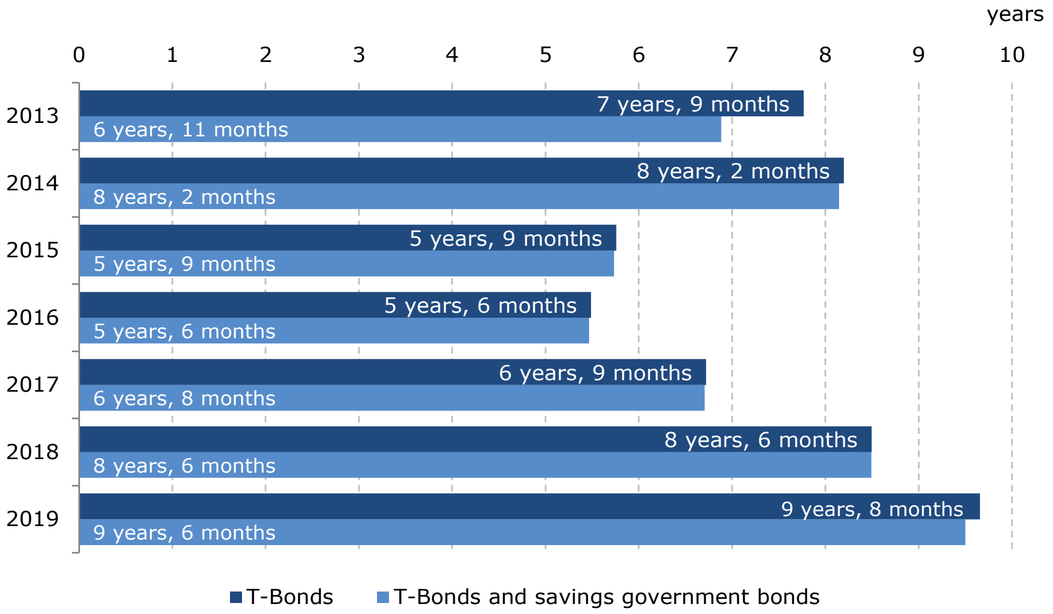
The average time to maturity of the state debt at the end of 2019 is 6.2 years and increased by 0.7 years compared to 2018. The significant increase was mainly due to the higher average time to maturity of gross issue of medium-term and long-term government bonds in 2019 to 9 years and 8 months, i.e. 1 year and 2 months more than in 2018 (at the end of the year) due to the reaction of the Ministry to market conditions, especially the high demand for bonds with relatively longer time to maturity.

Figure 25: Average Maturity of State Debt and Declared Targets



Note: As at the end of each year.
Source: MoF

Figure 26: Average Time to Maturity of Government Bonds Issued on Domestic Market



Note: Residual time to maturity of government bonds issued on domestic market during the respective calendar year calculated relative to the end of the year.
Source: MoF

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 components. The average time to maturity of medium-term and long-term government bonds issued on domestic market at the end of 2019 increased by 0.8 years to 6.6 years compared to the end of 2018. The average time to maturity of foreign issues decreased at 2.2 years compared to the end of 2018 by 1.0 year. The average time to maturity of savings government bonds increased to 4.5 years compared to the end of 2018 due to resumption of the project of direct sale of government bonds intended for citizens. The average time to maturity of money market instruments decreased by 0.2 years to 0.1 years in 2019 and the average time to maturity of received credit and loans from international financial institutions decreased by 0.2 years.

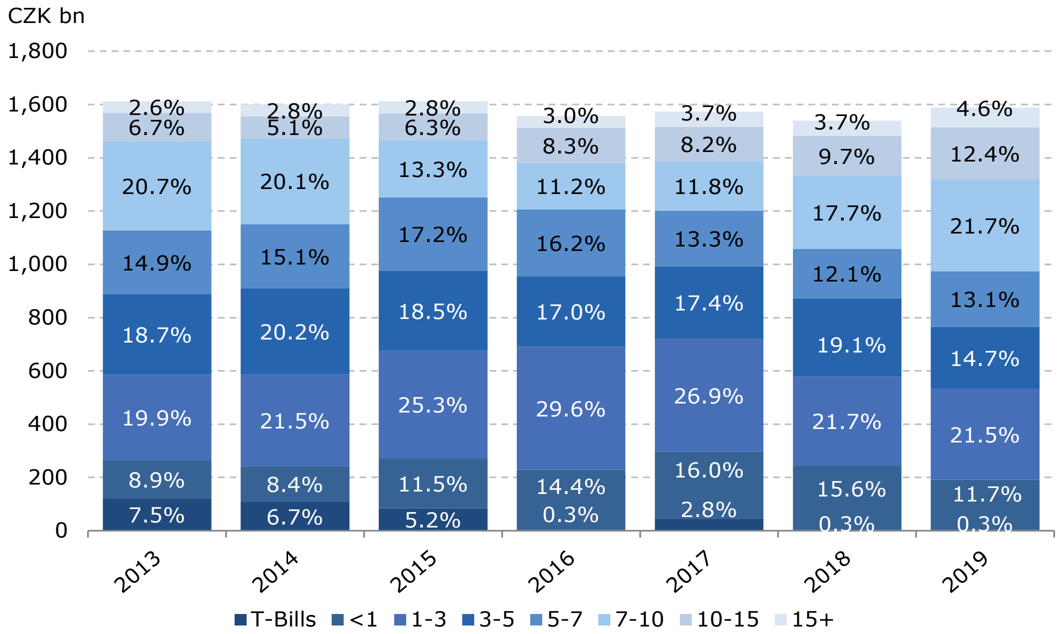
Table 12: Average Time to Maturity of Individual Components of the State Debt

years	2013	2014	2015	2016	2017	2018	2019
T-Bonds issued on domestic market	6.2	5.8	5.5	5.2	5.3	5.8	6.6
T-Bonds issued on foreign markets	5.1	5.8	5.0	4.3	3.2	3.2	2.2
Savings government bonds	3.1	2.5	1.7	1.5	1.1	1.1	4.5
Money market instruments	0.4	0.4	0.4	0.1	0.3	0.3	0.1
Received credits and loans, promissory notes	11.4	10.4	9.8	9.1	7.9	7.5	7.4

Note: Residual time to maturity as at the end of each year. Credits and loans received from international financial institutions.
Source: MoF

In 2019, the average maturity of government bonds increased by 0.7 years, mainly due to a decline in the total nominal value of government bonds outstanding in the segment with a residual maturity of up to five years by CZK 106.8 billion. Its share in the total nominal value of all government bonds outstanding at the end of 2019 is 48.2% and thus decreased by 8.5 p.p. compared to the end of 2018. In addition, the total nominal value of government bonds outstanding increased by CZK 155.7 billion in all segments of residual maturity over 5 years, with the highest increase in the segment of 7 to 10 years (an increase of CZK 71.3 billion, i.e. 3.9 p.p. compared to the end of 2018) and in the segment of 10 to 15 years (an increase of CZK 46.8 billion, i.e. 2.6 p.p. compared to the end of 2018).

Figure 27: Structure of Government Bonds by Time to Maturity



Note: Residual time to maturity as at the end of each year. Includes T-Bonds issued on domestic and foreign markets, savings government bonds and T-Bills.
Source: MoF

The sales of government bonds on domestic primary and secondary markets, the possible issuance on foreign markets and the drawing of long-term loans from the European Investment Bank will continue to be managed in accordance with the fulfilment of another key objective in stabilizing and smoothing the state debt maturity profile over time. In the medium term, compared with 2020, a significant increase in financing needs is not expected, not considering the impact of planned buy-backs or exchanges of medium-term and long-term government bonds before maturity and redemptions of money market instruments.

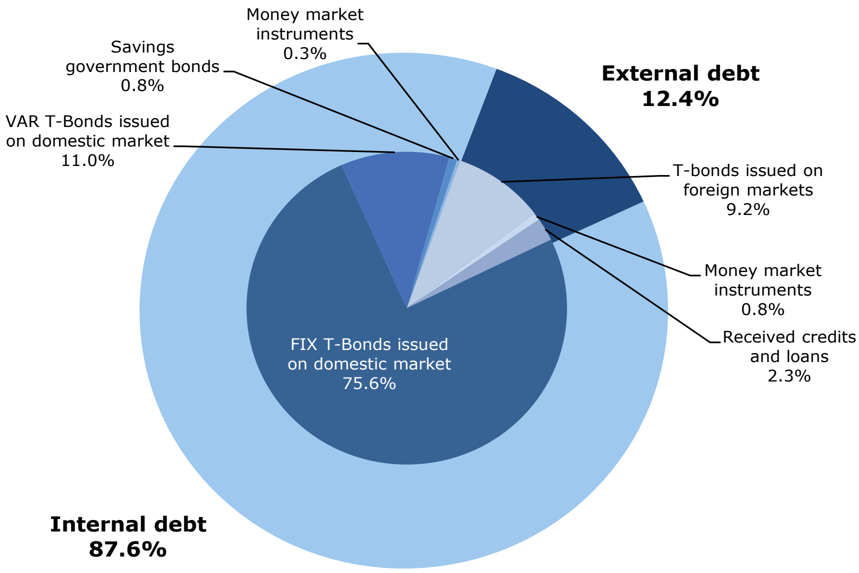
Figure 28: Maturity Profile of State Debt

Note: As at the end of 2019. Credits and loans received from international financial institutions.
Source: MoF

With regard to refinancing risk, the Ministry monitors the debt portfolio structure by individual instruments. Fixed-rate medium-term and long-term government bonds issued on domestic market, cover the largest share in the long run, with a share of 75.6% of total state debt at the end of 2019, which represents an increase of 1.8 p.p. compared to the end of 2018. The share of variable-rate medium-term and long-term government bonds issued on domestic market in total state debt is 11.0% at the end of 2019, which represents a decrease of 0.1 p.p. compared to the end of 2018.

The share of the total nominal value of foreign issues in total state debt is 9.2% at the end of 2019, which represents a decrease of 0.2 p.p. compared to the end of 2018. The share of money market instruments in the total state debt reached 1.1% at the end of 2019, which represents a decrease by 1.6 p.p. compared to the end of 2018. The share of savings government bonds in the total state debt at the end of 2018 is 0.8%, which represents an increase by 0.5 p.p. compared to the end of 2018. The share of loans received from European Investment Bank in total state debt decreased by 0.3 p.p. to 2.3%.

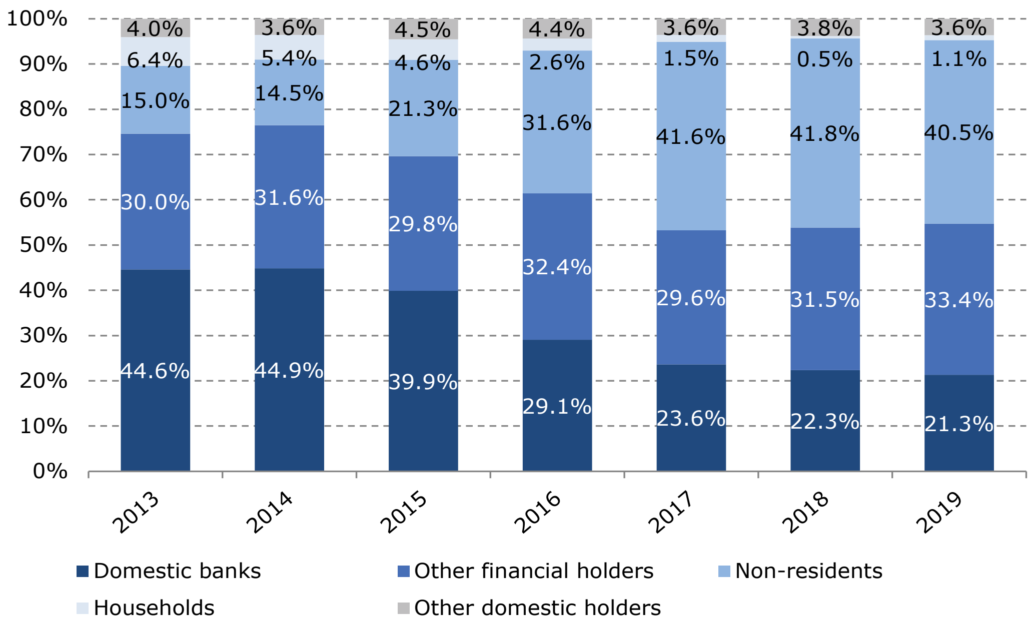
Figure 29: Structure of State Debt by Instrument



Note: As at the end of 2019. Credits and loans received from international financial institutions.
Source: MoF

The structure of holders of government bonds issued on domestic market remained relatively stable compared to 2018, when individual sector shares changed only marginally. The highest share of holdings of government bonds issued on the domestic market remains in the non-residents sector, holding more than 40% of government bonds issued on domestic market at the end of 2019. The sector of other financial holders is relatively stable over time, holding more than 33% of government bonds issued on the domestic market, the domestic bank sector accounts for 21.3%. The increase of the household sector to 1.1%, i.e. by 0.6 p.p. compared to the previous year, is mainly due to resumption of the project of direct sale of government bonds intended for citizens. Given the continuation of the project in 2020, this share can be expected to increase next year, taking into account households' interest in this option of conservative investment.

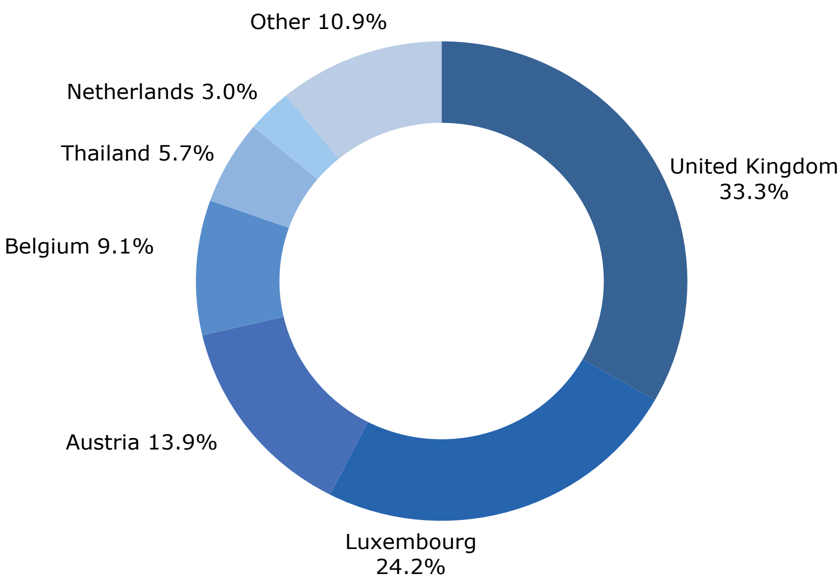
Figure 30: Structure of Government Bonds Issued on Domestic Market by Type of Holder



Note: As at the end of each year.
Source: MoF, CDCP, CNB

In terms of geographic structure of non-residents holding government bonds issued on the domestic market, investors from the UK and Luxembourg dominated, making up almost 58% of all non-resident holders at the end of 2019. Compared to the situation at the end of 2018, there was a decrease of approximately 11 pp, but at the same time there was the same increase for investors from Belgium and Austria. 88.4% of non-resident holders comes from the EU Member State, down by 2 p.p. compared to 2018. To a lesser extent, government bonds are held by investors based in North America and Southeast Asia.

Figure 31: Structure of Non-Resident Holders of Government Bonds Issued on Domestic Market



Note: As at the end of 2019. Excluding T-Bills.
Source: MoF, CDCP

Interest Rate Risk

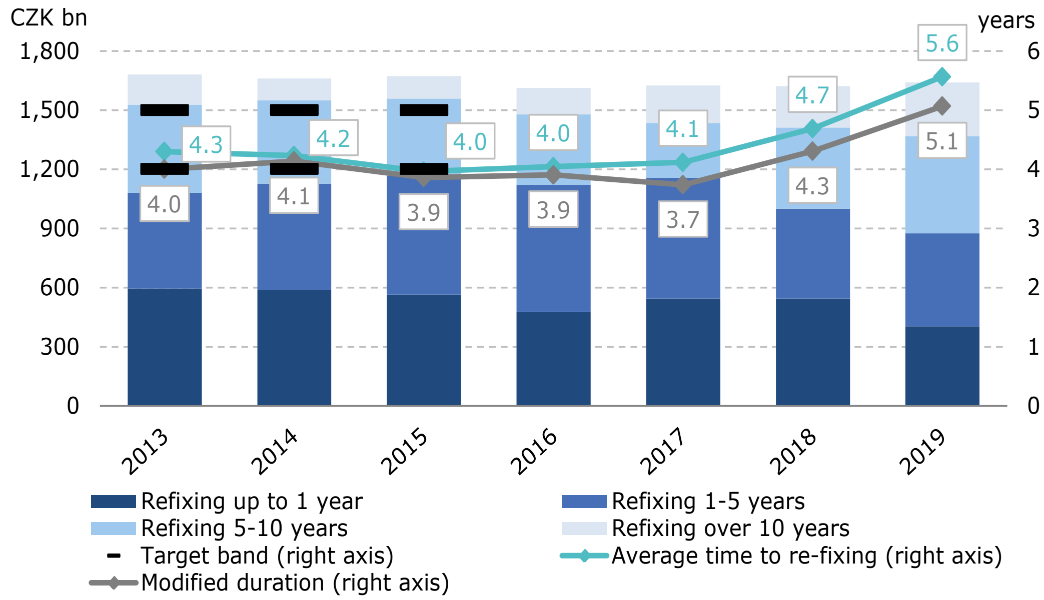
The most important market risk of state debt management remains interest rate risk, which the Ministry manages through the strategic indicator of average time to re-fixing of state debt, for which it sets a medium-term target value.

The average time to re-fixing of the state debt at the end of 2019 is 5.6 years and is thus above the target for the medium-term horizon set at the level of 5.0 years with the possibility of a deviation of 0.25 years. Compared to the end of 2018, this indicator has increased by 0.9 years. It is mainly due to an increase in the average time to maturity of state debt portfolio and also to a decline in the proportion of variable-rate government bonds, as only fixed-rate medium-term and long-term government bonds were issued in 2019. The Ministry thus follows up on previous years, when the issue of variable-rate government bonds constituted a minority share.

The increase in the average time to re-fixing of the state debt means that state debt interest expenditure is generated at the longer end of the yield curve on average, which may represent higher interest expenditure over the medium term, but reduces the risk of higher expenditure in the event of a short-term increase in interest rates and yields.

In the segment of instruments bearing an interest at the short end of the yield curve, fixed-rate medium-term and long-term government bonds maturing within three years were issued on primary and secondary markets in a total nominal value of CZK 33.1 billion, representing 11.8% of the total gross issue of medium-term and long-term government bonds in 2019, whereby this share increased by 1.4 p.p. compared to 2018. The share of money market instruments in total state debt at the end of 2019 is 1.1% and this share decreased by 1.6 p.p. compared to the end of 2018. This decrease was mainly due to the coverage a part of short-term euro deposit operations by a government bonds with a maturity of 2.5 years on the issue date of the first tranche, while the share of state treasury bills remained stable.

Figure 32: Interest Re-fixing of State Debt

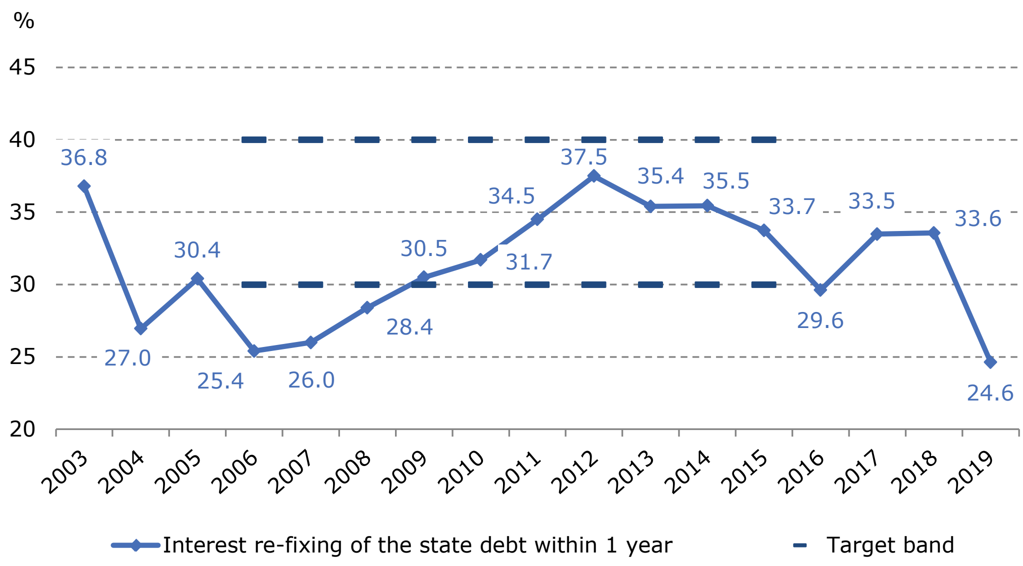


Note: As at the end of each year.
Source: MoF

Another indicator monitored by the Ministry in relation to interest rate risk management and for which the Ministry sets a strategic goal is the interest rate re-fixing of the debt portfolio within one year, which is the proportion of state debt that is sensitive to fluctuations in financial market interest rates in the following year. For the medium-term horizon, the target band was set at 30.0% to 40.0% of the total state debt. At the end of 2019, this indicator decreased by 8.9 p.p. compared to the end of 2018, and amounts to 24.6%. In connection with the relatively limited issuance of variable-rate government bonds and money market instruments, in particular state treasury bills, due to a higher interest expenditure associated with them compared to the issuance of medium-term and long-term government bonds with significantly longer residual time to maturity, the lower boundary for medium-term target band has been removed and since 2020 the target limit has been set at the maximum of 40.0% of the total state debt. At the end of 2019, the value is below this newly set target.

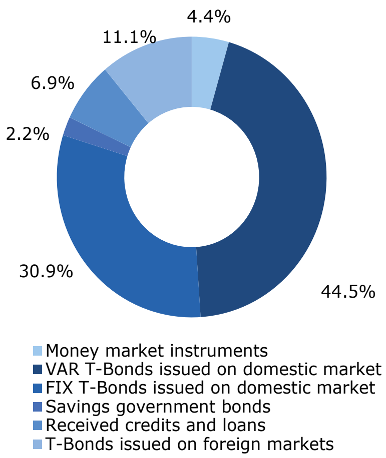
The structure of interest rate re-fixing within one year is important not only for expressing short-term interest rate risk, but also affects the longer-term interest rate risk expressed by the average time to re-fixing indicator. The debt portfolio, which is sensitive to interest rate fluctuations in the financial market in 2020, consists mainly of variable-rate medium-term and long-term government bonds (44.5%) and fixed-rate medium-term and long-term government bonds (30.9%) issued on domestic market. Government bonds issued on foreign markets including the effects of derivative transactions account for 11.1% of this portfolio, credits and loans received from international financial institutions account for 6.9%, state treasury bills and other money market instruments account for 4.4% and savings government bonds represent 2.2% of this portfolio.

Figure 33: Interest Re-fixing of State Debt within 1 Year



Note: As at the end of each year.
Source: MoF

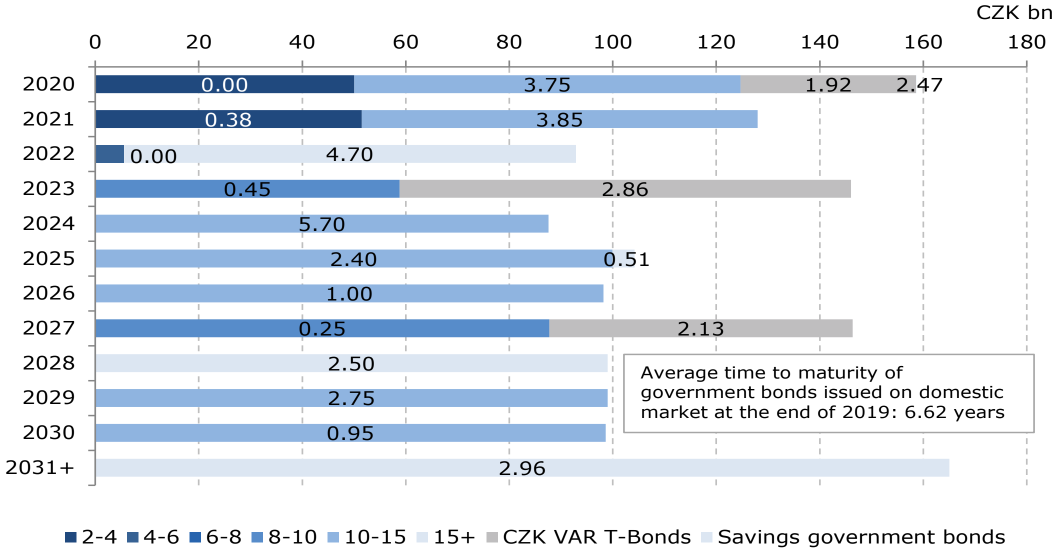
Figure 34: Structure of Interest Re-fixing of State Debt within 1 Year



Note: As at the end of 2019. Credits and loans received from international financial institutions.
Source: MoF

The Ministry also monitors the structure of medium-term and long-term government bonds issued on domestic market according to current and original time to maturity and coupon rates. Such constructed government bond structure allows for a detailed breakdown of interest expenditure on state debt service generated by fixed-rate medium-term and long-term government bonds issued on domestic market. At the end of 2019, these bonds have an average coupon rate of 2.41% p.a.; bonds maturing in 2020 have an average coupon rate of 2.24% p.a. In the segment of 2 to 4 years of original time to maturity, these bonds have an average coupon rate of 0.19% p.a., in the segment of 4 to 6 years an average coupon rate is 0.00% p.a., in the segment of 6 to 8 years no bond is included, in the segment of 8 to 10 an average coupon rate is 0.33% p.a., in the segment of 10 to 15 years an average coupon rate is 2.80% p.a., and in the segment of over 15 years an average coupon rate is 3.26% p.a.

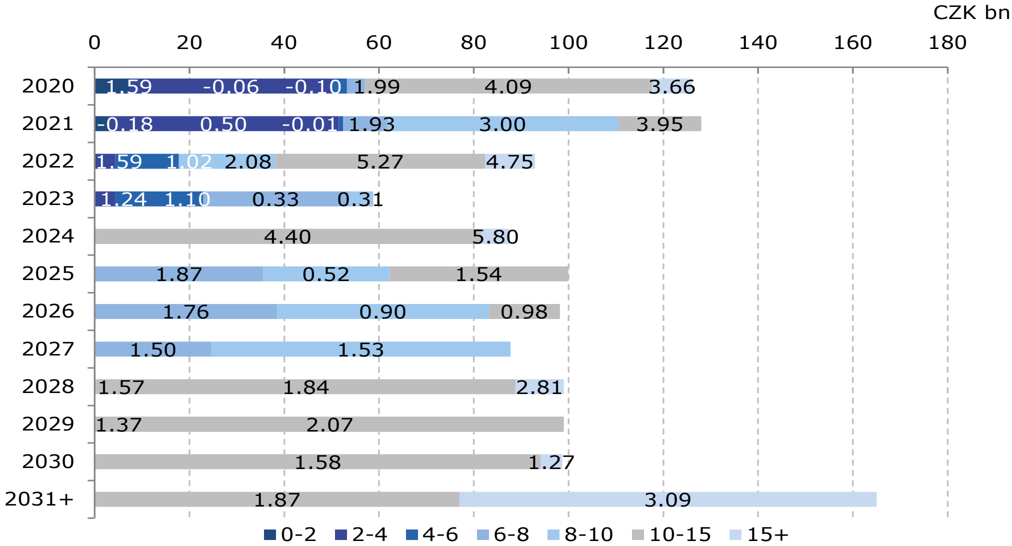
Figure 35: Maturity Profile of Government Bonds Issued on Domestic Market by Time to Maturity and Coupon Rate



Note: Maturity profile as at the end of 2019. Segments represent original maturity. Data in individual segments represents the average coupon rate in % p.a. Excl. inflation-linked savings government bonds and T-Bills.
Source: MoF

The Ministry also monitors the structure of fixed-rate medium-term and long-term government bonds issued on domestic market according to the current time to maturity, time to maturity at the moment of sale and yield to maturity at the moment of sale. Such constructed government bonds structure reflects the average annual cost of these bonds in individual segments of the current time to maturity and time to maturity at the moment of sale of the bonds. At the end of 2019, the average annual cost of fixed-rate medium-term and long-term government bonds issued on domestic market is 2.17% p.a. and decreased by 0.09 p.p. compared to the end of 2018. In 2020, bonds with an average annual cost of 2.34% p.a. are redeemed in the following structure: bonds sold as 0 to 2-year with an average annual cost of 1.59% p.a., bonds sold as 2- to 4-year with an average annual cost of -0.06% p.a., bonds sold as 4- to 6-year with an average annual cost of -0.10% p.a., bonds sold as 6- to 8-year with an average annual cost of 1.99% p.a., bonds sold as 10- to 15-year with an average annual cost of 4.09% p.a. and bonds sold over 15-year with an average annual cost of 3.66% p.a.

Figure 36: Maturity Profile of Government Bonds Issued on Domestic Market By Achieved Yield to Maturity



Note: As at the end 2019. Maturity profile of fixed-rate T-Bonds issued on domestic market by time to maturity at the moment of sale. Data in the individual segments represents the average yield to maturity at the moment of the sale of the T-Bonds in % p.a.
Source: MoF

Table 13: Average Coupon Rates and Costs of Government Bonds Issued on Domestic Market by Year of Maturity

% p.a.	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031+	Average
Average coupon rate[1]	2.24	2.45	4.42	0.45	5.70	2.40	1.00	0.25	2.50	2.75	0.95	2.96	2.41
Average costs[1]	2.34	2.01	3.73	0.64	4.50	1.39	1.25	1.52	1.94	2.07	1.56	2.52	2.17

[1] Incl. only fixed-rate medium-term and long-term government bonds.
Note: Balance as at the end of 2019.
Source: MoF

Currency Risk

In connection to currency risk, the Ministry monitors the development of the net foreign-currency exposure that measures the market risk to which the foreign-currency state debt is exposed in term of foreign-currency exchange rate movement. Foreign-currency debt represents the total nominal value of the debt portfolio denominated in the foreign currency. The net foreign-currency exposure of the state debt is stated net of the foreign currency exposure of government financial assets and it is also affected by derivative operations, which hedge a part of the foreign-currency debt against the unfavourable development of currency exchange rates. The key indicators introduced in relation to currency risk management are the share of net foreign-currency exposure with an impact on state debt level and the share of net foreign-currency exposure with the impact on the level of interest expenditure on state debt service. For both indicators, a strategic limit of 15% + 2 p.p. was set for 2019, while the long-term exceeding of the 15% limit is not possible; exceeding by 2 p.p. serves only for the short-term overcoming of unexpected deprecation of the domestic currency.

At the end of 2019, the share of net foreign-currency exposure with the impact on state debt amounts to 10.1% of total state debt and is thus below its limit. Compared to the end of the year, it remains stable when the indicator decreased by 0.2 p.p. The share of net foreign-currency exposure with an impact on the level of interest expenditure on state debt is 10.1% of total state debt at the end of 2019 and is below its limit. Compared to the end of 2018, there is a decrease by 0.2 p.p.

The sensitivity of interest expenditure on state debt service to the change of the koruna's exchange rate is relatively low, even in comparison to the sensitivity of interest expenditure to the shift in the yield curve. At the end of 2019, the net foreign currency exposure with an impact on the interest expenditure on state debt service is denominated exclusively in the euro. The share of the foreign currency state debt in the total state debt at the end of 2019 is 11.6%, when the indicator decreased by 0.3 p.p. compared to the end of 2018, and thus remains stable.

Benchmark Portfolio

In order to assess the structure of issuance calendars and the ability to profit on the development of government bond yields over the year and the shape of the yield curve, the Ministry has developed a so-called synthetic benchmark portfolio consisting only of fixed-rate government bonds issued on domestic market.

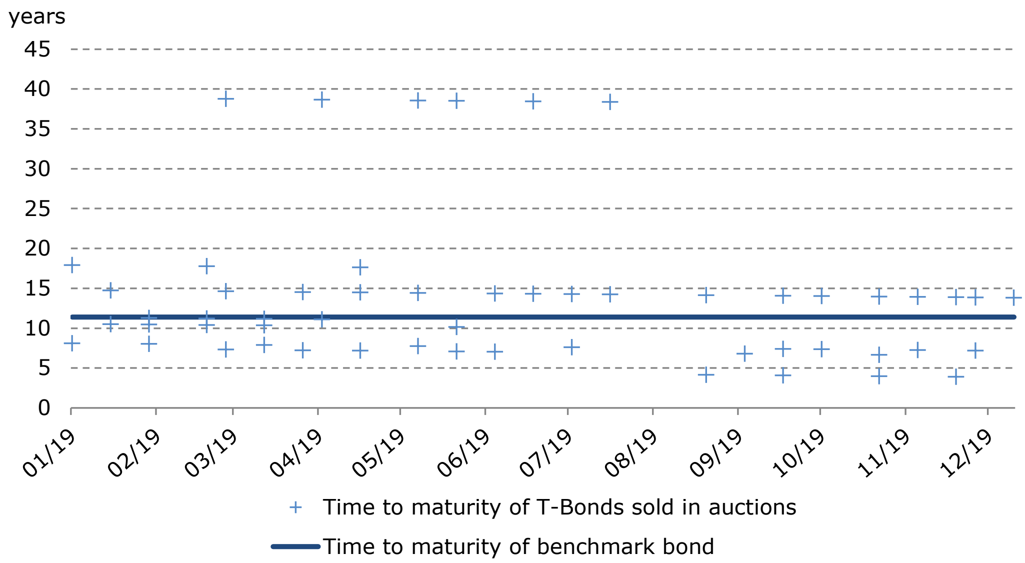
The bonds in the benchmark portfolio are issued on the auction day at the same nominal value as the bonds actually issued. All benchmark portfolio bonds are issued with the same residual time to maturity guaranteeing the same average time to maturity of the synthetic debt portfolio containing benchmark portfolio as the average time to maturity of the actual debt portfolio at the year-end. The average time to maturity of the state debt at the end of 2019 is 6.2 years. If the actual issues of medium-term and long-term government bonds issued on domestic market are replaced by fixed-rate bonds from benchmark portfolio with a time to maturity of 11.4 years at the time of the auction, the required average time maturity of the synthetic state debt portfolio will be 6.2 years at the end of 2019.

The weighted average yield of the portfolio of medium-term and long-term government bonds denominated in local currency sold in actual auctions on domestic market during 2019 using the average yield to maturity of the auction for fixed-rate bonds was 1.81% p.a. The weighted average yield of the benchmark portfolio bonds derived from the theoretical yield curve modelled using the Svensson model reached 1.81% p.a. in 2019, i.e. at the level of the weighted average yield of actual portfolio.

To assess the actual savings achieved in 2019, it is necessary to express the accrued interest cost of each bond issued in both the actual and benchmark portfolios and then compare these total accrued costs in the individual portfolios. The total annual cost in accrual terms of all medium-term and long-term government bonds actually sold in auctions on domestic market during the year 2019 is CZK 4.1 billion. The total annual cost in accrual terms generated in the benchmark portfolio is also CZK 4.1 billion.

The above comparison shows that the actual adjustment of the issuance calendar after taking into account the development of the level and shape of the yield curve resulted in a comparable yield to maturity and accrual interest costs as in the synthetic benchmark portfolio, which is theoretical and cannot be achieved in practice due to the need to re-open previously issued government bond issues ideally across the whole yield curve to support their liquidity on secondary market.

Figure 37: Time to Maturity of Government Bonds Sold in Auctions and Benchmark Bond

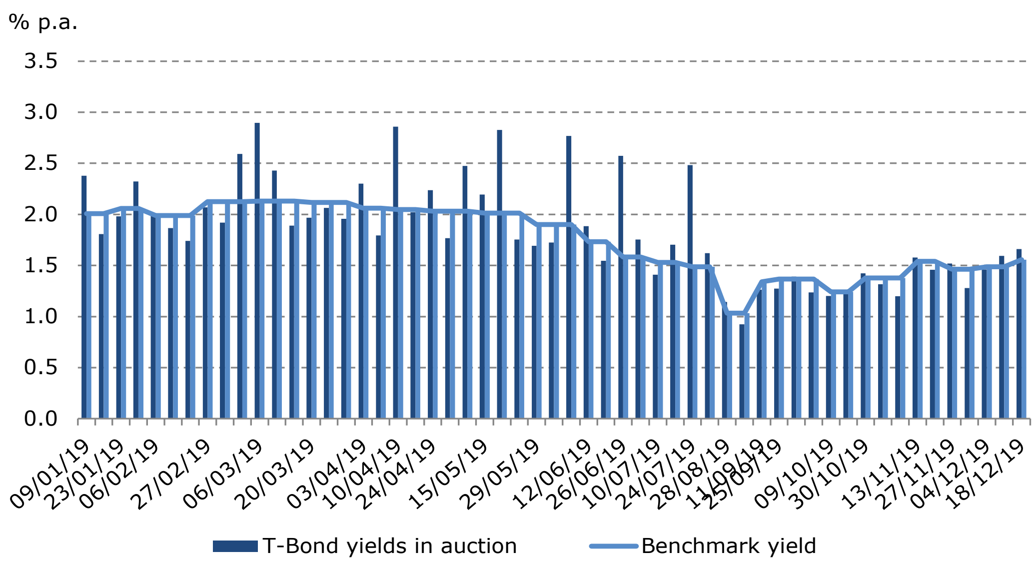


Note: Residual time to maturity. Incl. T-Bonds denominated in local currency.
Source: MoF

Over the course of 2019, 56 auctions of fixed-rate medium-term and long-term government bonds denominated in local currency were carried out on primary market in total nominal value of CZK 224.8 billion. No auction of variable-rate medium-term and long-term government bonds denominated in local currency were carried out.

The weighted average time to maturity of all medium-term and long-term government bonds denominated in local currency sold in auctions on primary domestic market during the year 2019 was 11.4 years and is the same as the maturity of the benchmark bond.

Figure 38: Yields of Government Bonds Sold in Auctions and Benchmark Bond



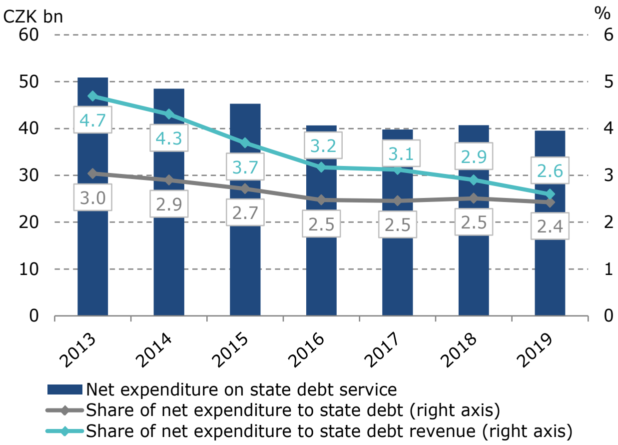
Note: Incl. T-Bonds denominated in local currency.
Source: MoF

5 – State Debt Service Expenditure

Cash and Accrued Expression

Net state debt service expenditure is the difference between gross state debt service expenditure and revenue, which are based on a cash principle as well as whole state budget, and is not accrued according to ESA 2010 methodology, which only takes place when preparing data for notification. The share of net state debt service expenditures in both state budget revenue and GDP has been on a downward trend since 2014, while the share of these expenditures in state debt has stabilized at the level of 2.4% to 2.5% of state debt in recent years.

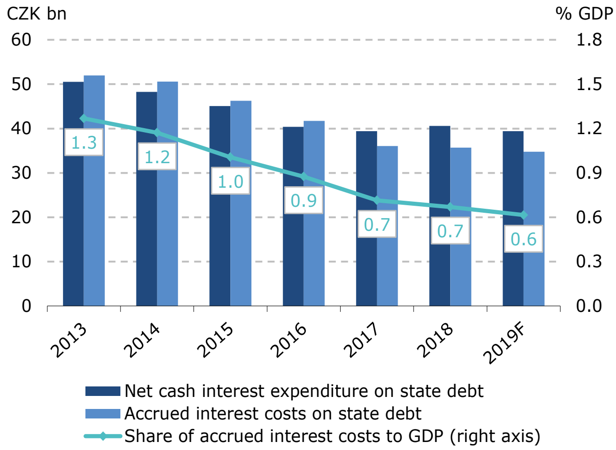
Figure 39: Net Expenditure on State Debt Service



Note: The revenue of state budget is adjusted of the revenue of chapter 396 – State Debt.
Source: MoF

Monitoring the development of revenue and expenditure as well as net expenditure on state debt service does not always have to provide accurate information on what economic costs are actually associated with state debt in a given period. For this purpose, accrual-based costs, which are based on a gradual accumulation of interest costs on a daily basis, are more appropriate. Thus, the development of accrued interest costs tends to show significantly less volatility than the development of interest costs on a cash basis, as it is not affected by the time discrepancies between the period in which the net interest expense arises and the date of realization of the related expense or revenue. Until 2012, accrual-based costs grew continuously and their share in GDP developed similarly. The decrease in accrued costs between 2013 and 2019 is due to the concurrent decline in state debt and the low level of government bond yields in the long run.

Figure 40: Net Cash Expenditure and Accrued Costs on State Debt Service



Note: The source of GDP in the ESA 2010 methodology for 2013 to 2018 is the CZSO, for 2019 the Macroeconomic Forecast of the Czech Republic – January 2020.
Source: MoF, CZSO

Factors influencing the relationship between cash budget expenditures and accrued costs include the development of the balance of individual debt instruments. When the balance increases, the interest payments paid out at the end of the calculation period, i.e. mainly coupon payments of CZK and foreign currency denominated medium-term and long-term government bonds, European investment bank's loan interest payments and swap interest payments, will initially show on accrual basis and eventually at the end of this period on cash basis. As the state debt increases, accrual costs predominate in this period. In the case of discounted debt instruments, on the other hand, interest is settled with the state budget at the date of issue, i.e. the discounts are first fully reflected in cash expenditure and only gradually over the entire duration of the instrument on an accrual basis. The same principle applies to the received premiums of medium-term and long-term government bonds.

The development of interest rates also plays a key role in the ratio between cash expenditure and accrued costs. In case of the growth of interest rates, the accrued costs prevail over cash expenditure for payments made at the end of the calculation period, and cash expenditure for payments made at the beginning of the calculation period prevail over accrued costs. The same principles apply in the opposite sense in the case of interest rates decreasing.

Similarly, there may be a significant disproportion between cash expenditure and accrued costs in the calculation period, if the instrument with a high interest rate is due in that period, which is fully projected in cash expenditure but only partly in accrued interest, and is replaced with an instrument with a low interest rate, whose accrued cost starts being continually accounted for from the issue or acceptance date, while it may not be reflected in cash expenditure in the given period at all.

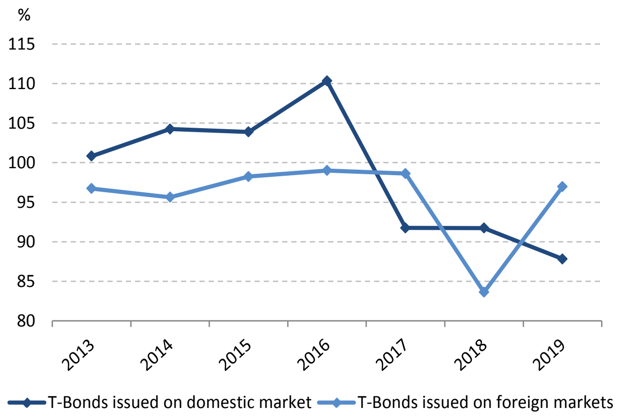
Table 14: Cash Premiums and Discounts and Difference Between Cash Expenditure and Accrued Costs

CZK bn	2013	2014	2015	2016	2017	2018	2019
Cash premiums	5.8	6.0	7.1	8.6	8.4	8.4	11.4
Cash discounts	1.4	1.3	0.6	0.0	3.0	8.0	10.3
Difference between cash discounts and premiums	-4.4	-4.7	-6.5	-8.6	-5.4	-0.4	-1.1
Difference between cash expenditure and accrued costs	-0.3	-1.5	-1.3	-2.8	2.4	2.7	4.3

Note: T-Bonds issued on the domestic market.
Source: MoF

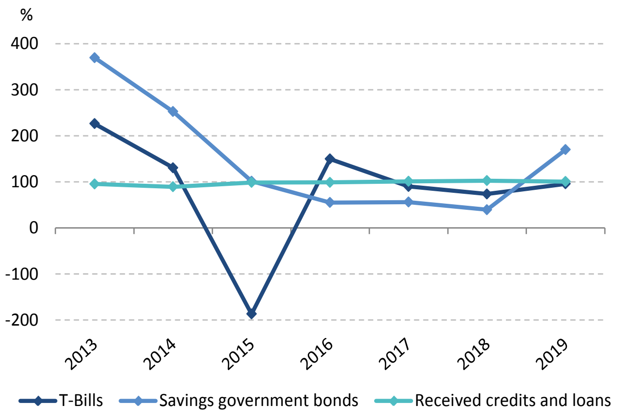
The underlying trends in cash expenditures and accrued costs are largely given by the development of these indicators for medium-term and long-term government bonds issued on the domestic market, which form the dominant part of state debt and account for nine tenths of the total accrued state debt costs in 2019. For medium-term and long-term government bonds issued on the domestic market, cash interest expenditure outweighs accrual costs. For medium-term and long-term government bonds issued on foreign markets, which account for about one fifth of total accrued costs in 2019, cash interest expenditure also outweighs accrued costs. Given the short maturity of most received credits and loans in the form of lending facilities as well as state treasury bills, the differences between cash expenditure and accrued costs are not significant. The same applies to short-term borrowings and, in most cases, to loans received from the European Investment Bank due to the generally short time to refixing. For savings government bonds, accrued costs outweigh cash interest expenditure.

Figure 41: Share of Accrued Costs in Net Cash Interest Expenditure of Government Bonds



Source: MoF

Figure 42: Share of Accrued Costs in Net Cash Interest Expenditure of Other Components of State Debt



Note: Credits and loans received from international financial institutions.
Source: MoF

Budget for the Chapter – State Debt

The budget of Chapter 396 – State debt is compiled annually on the basis of a Cost-at-Risk analysis. The expected net expenditures amounted to CZK 46.1 billion. The actual net expenditures of the chapter amounted to CZK 39.6 billion in 2019, i.e. roughly 0.7% of GDP and 2.6% of total state budget revenues excluding the revenues of Chapter 396 – State Debt. The difference between actual net expenditures and the originally approved budget of CZK 46.5 billion is CZK 6.9 billion, which partly contributed to the better-than-expected state budget performance in 2019. The difference between actual and budgeted net expenditures is due to lower expenditures compared to the approved budget while revenue was zero as well as approved budget. Compared to 2018, net expenditures decreased by around 2.9%.

Table 15: Budget Expenditure and Revenue of the State Debt Chapter

CZK mil	Actual 2018	Budget 2019		Actual 2019	% Execution	2019/2018 (%)
		Approved	After changes			
1. Total interest expenditure and revenue	**40,615** **0**	**46,149** **-**	**40,149** **-**	**39,400** **-**	**98.1** **-**	**97.0** **-**
Internal debt	31,272 -	37,413 -	32,213 -	32,142 -	99.8 -	102.8 -
Money market instruments	(-) 2,013 -	(-) 1,820 -	(-) 3,720 -	(-) 3,742 -	100.6 -	185.9 -
Savings government bonds	1,198 -	147 -	147 -	166 -	112.4 -	13.8 -
T-Bonds on domestic market	32,086 -	39,086 -	35,786 -	35,719 -	99.8 -	111.3 -
External debt	9,344 -	8,731 -	7,931 -	7,261 -	91.6 -	77.7 -
T-Bonds on foreign markets	8,808 -	7,907 -	7,107 -	6,436 -	90.5 -	73.1 -
Received credits and loans[1]	536 -	824 -	824 -	825 -	100.2 -	153.9 -
Payment accounts	0 0	5 -	5 -	(-) 3 -	-50.2 -	1 196.2 -
2. Fees	**114** **0**	**350** **-**	**350** **-**	**151** **-**	**43.2** **-**	**132.7** **-**
Total chapter balance	**40,729**	**46,499**	**40,499**	**39,551**	**-**	**97.1**

[1] Credits and loans received from international financial institutions.
Note: (-) means revenue (gains).
Source: MoF

Table 16: Overview of Budgetary Transfers from the State Debt Chapter Realized in 2019

Chapter number	Chapter	Amount (CZK)
307	Ministry of Defence	350,000,000
313	Ministry of Labour and Social Affairs	300,000,000
314	Ministry of Interior	1,300,000,000
317	Ministry of Regional Development	100,000,000
327	Ministry of Transport	1,000,000,000
328	Czech Telecommunication Office	1,000,000,000
329	Ministry of Agriculture	1,000,000,000
334	Ministry of Culture	750,000,000
335	Ministry of Health	200,000,000
	Total	**6,000,000,000**

Note: Detailed overview of realized budgetary transfers from the chapter State debt is part of the Appendix II.
Source: MoF

In the course of 2019, a total of CZK 6.0 billion was transferred from the chapter's expenditure to other budget chapters through budgetary transfers. The resulting difference between actual net expenditures and the final budget after including the impact of budgetary transfers amounts to CZK 0.9 billion.

The difference between actual and budgeted expenditure is due to several factors. The main factor is in particular the nature of the construction of the budgeted expenditure of the chapter. The budgeted expenditure represents the boundary of expenditure that is to be exceeded only with a certain probability. Due to higher budgeted expenditures than the expected expenditures, it is possible, among other things, to hold part of the state debt in the form of variable-rate instruments, which on average usually bear lower interest rates than fixed-rate government bonds, thereby achieving savings on state budget expenditures. The total savings of the state budget due to the sale of variable-rate bonds compared to the sale of fixed-rate bonds with the same time to maturity, i.e. while maintaining the same refinancing risk, amounted to more than CZK 26 billion between 2008 and 2019. However, in order to express the realized savings, it is necessary to know the amount of all coupon payments, i.e. the realized savings due to the issuance of a particular variable-rate bond can only be expressed after the last coupon rate has been fixed.

The realized savings on state budget expenditures can be expressed only in connection with already redeemed bonds as compared to the situation if fixed-rate bonds with the same time to maturity were always sold instead of these bonds. The total savings associated with the issuance of the Czech Republic Bond, 2009-2012, VAR amounted to about CZK 1.0 billion, the total savings associated with the issuance of Czech Republic Treasury Bond, 2009-2012, VAR amounted to approximately CZK 1.0 billion, savings associated with the issuance of Czech Republic Treasury Bond, 2008-2016, VAR amounted to approx. CZK 12.1 billion and savings associated with the issuance of Czech Republic Treasury Bond, 2012-2017, VAR amounted to approx. CZK 2.2 billion.

In 2019, interest costs on state debt service amounted to CZK 34.8 billion on accrual basis, of which interest costs on state debt issued in 2019 amount to approximately CZK 3.3 billion. The total nominal value of state debt issued in 2019 amounts to CZK 298.1 billion, including state treasury bills issued and redeemed in the course of the year. The accrued costs related to state debt issued in 2018 and 2019 are approximately the same, their increase compared to the newly issued state debt in 2016 and 2017 is due to the extension of time to maturity of issued government bonds and gradual growth of government bond yields along the whole yield curve.

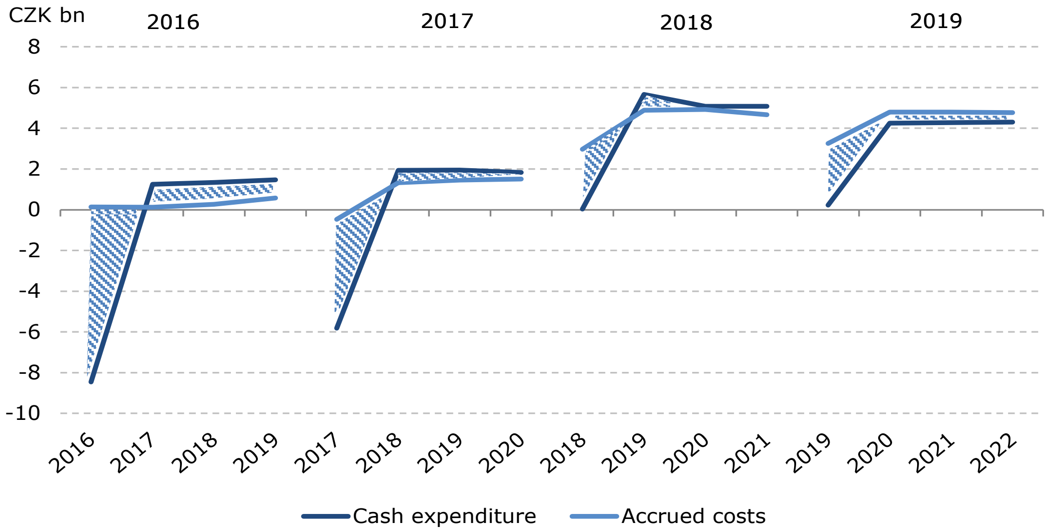
Table 17: Interest Expenditure and Accrued Costs of the Newly Issued State Debt

CZK bn	Nominal value	Net interest expenditure / accrued costs			
		2019F	2020F	2021F	2022F
Cash basis expression	298.1	0.2	4.3	4.3	4.3
Accrued basis expression	298.1	3.3	4.8	4.8	4.8
Gross issuance of T-Bonds	280.9	3.1	4.5	4.5	4.5
Gross issuance of T-Bills	6.8	0.0	0.0	-	-
Gross issuance of savings government bonds	10.4[1]	0.2	0.3	0.3	0.3

[1] Does not include the reinvestment of yields of already issued savings government bonds.
Source: MoF

Net interest expenditure on the same debt shows a similar trend on cash basis, amounting to CZK 0.2 billion in 2019. Between 2020 and 2022, net interest expenditure on the newly issued state debt is expected to amount to approximately CZK 4.3 billion. The newly issued state debt in 2019 brought net cash expenditure of the state budget of approximately CZK 0.2 billion. However, the very low state budget expenditures generated from the state debt issued in 2019 will be compensated in the coming years by higher cash expenditure, while the accrued costs will be gradually decreasing in the following period, especially in the years in which the debt instruments issued in 2019 will mature. The total net cash interest expenditure and total accrued costs of the newly issued state debt will eventually equal each other in the course of the existence of the debt. The following figure illustrates that in 2016 and 2017, the debt issued in each of these years generated cash revenue in the year of issue, mainly due to a continuous decline in market yields to their historical lows at the end of 2016, followed by a gradual rise in market yields in 2017 and 2018. Only if new bond issues with market coupon rates and coupons paid at the end of the year were issued each year, accrued costs and net cash interest expenditure would be the same in the year of issue. For this reason, the accrual expression of state debt costs is more accurate and more meaningful as it is not affected by the re-opening of issues with other than the market coupon rate, which cannot be avoided in the real world, because small volumes of bond issues render these bonds illiquid cause and may cause increased interest costs due to the illiquidity premium. The graph also shows a significant increase in the accrual costs of the new state debt issued in 2018, which is related to an increase in total gross issuance of medium-term and long-term debt instruments, an extension of their maturity and a continuing increase in government bond yields, which was also in 2017 reflected in an increase of accrual costs of the new state debt issued this year. The stabilization of the accrued costs of the new state debt issued in 2019 is mainly related to the prolongation of the maturity of issued medium-term and long-term debt instruments this year, while government bond yields have decreased along the entire yield curve compared to 2018.

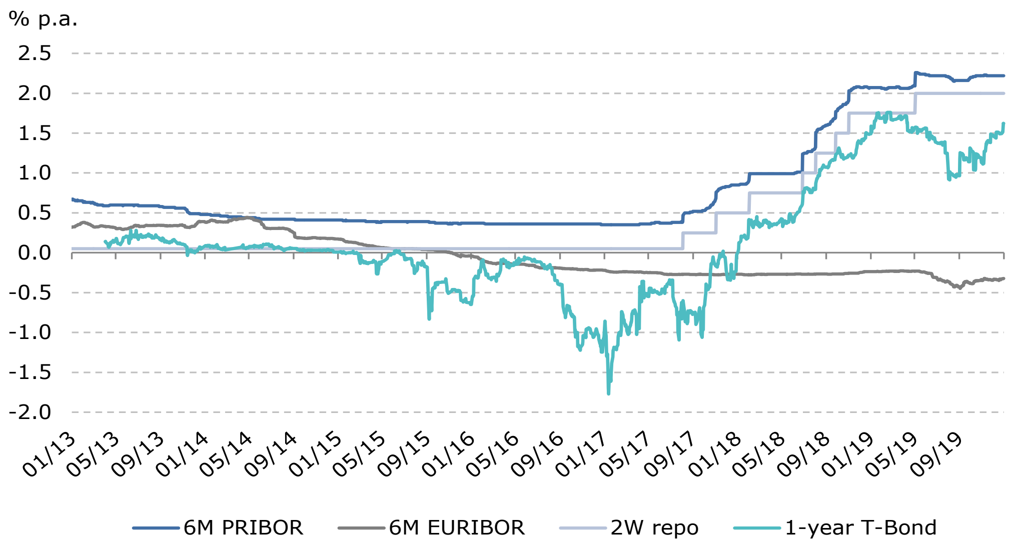
Figure 43: Net Cash Interest Expenditure and Accrued Interest Costs of Newly Issued Debt



Source: MoF

In 2019, the euro money market yield curves declined further. The 6-month EURIBOR rate declined during 2019 with higher volatility compared to previous years. The koruna money market yield curves developed in the opposite direction, rising again in 2019 in connection with the monetary policy of the Czech National Bank, which abandoned the use of the exchange rate as a monetary policy instrument in April 2017 and increased five times in 2018 and once in 2019 its base interest rate (2W repo rate) always by 0.25 p.p. up to 2.00% p.a. The rate of 6-month PRIBOR in response to these steps continued to grow in 2019 with significantly higher volatility.

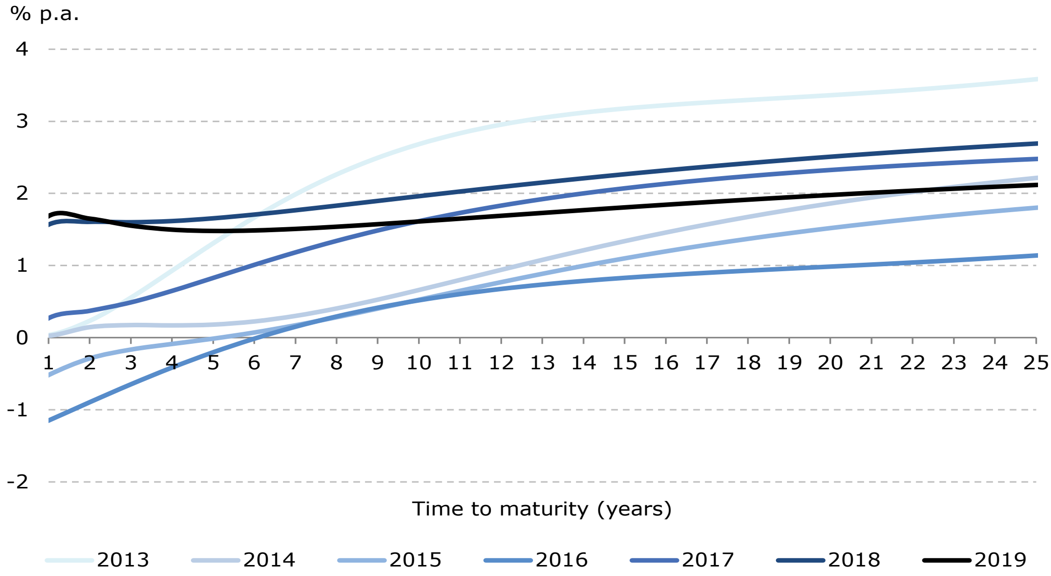
Figure 44: Development of Rates: 6M PRIBOR, 6M EURIBOR, 2W Repo and Government Bond Yields



Source: CNB, MTS, Refinitiv

Government bond yields declined gradually along the whole yield curve during the first half of 2019, but more markedly at its long end, thus further flattening it. After another significant decline in the entire yield curve from late July to mid-August 2019, government bond yields at the short end of the yield curve fluctuated at the lowest level since mid-2018 and at the long end of the yield curve at the lowest since the third quarter of 2017. The yields along the whole yield curve in the remainder of 2019 increased gradually, as yields at the short end of the yield curve fluctuated practically at the levels of end-2018 at the end of 2019, but decreased further at the long end of the yield curve. Thus, at the end of 2019, the yield curve remained flat, with theoretical yields ranging from around 1.50% p.a. to 1.65% p.a. throughout the segment from 1 to 10 years. Moreover, there is an anomaly at the short end of the yield curve, when the medium-term yields were lower or the same as the yields at the shorter end of the yield curve.

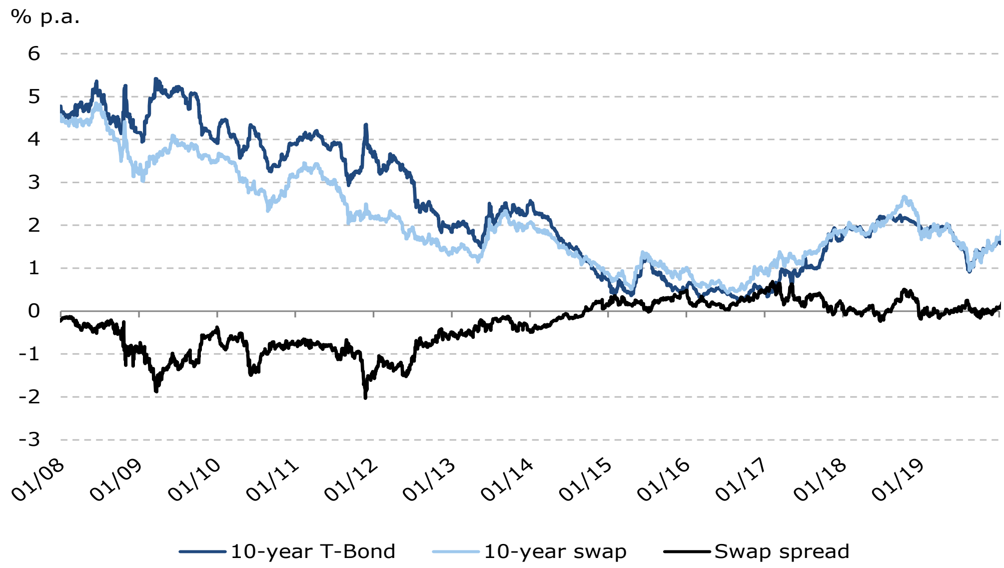
Figure 45: Yield Curve of Government Bonds



Note: "Par" yield curve of CZK-denominated fixed-rate government bonds is constructed on the basis the extended Nelson-Siegel model, called Svensson model.
Source: MoF, Bloomberg, MTS

The difference between the swap rate and the yield of the government bond, the so-called swap spread, fluctuated around zero during 2019 with very low volatility in case of a ten-year maturity, confirming the attractiveness of the Czech Republic as an issuer of government bonds among investors. It reached its highest values mainly in the third quarter, especially in late July and early August, when it was around 25 basis points.

Figure 46: Swap Rate and T-Bond Yield to Maturity



Source: MoF, Bloomberg

Cost-at-Risk of State Debt

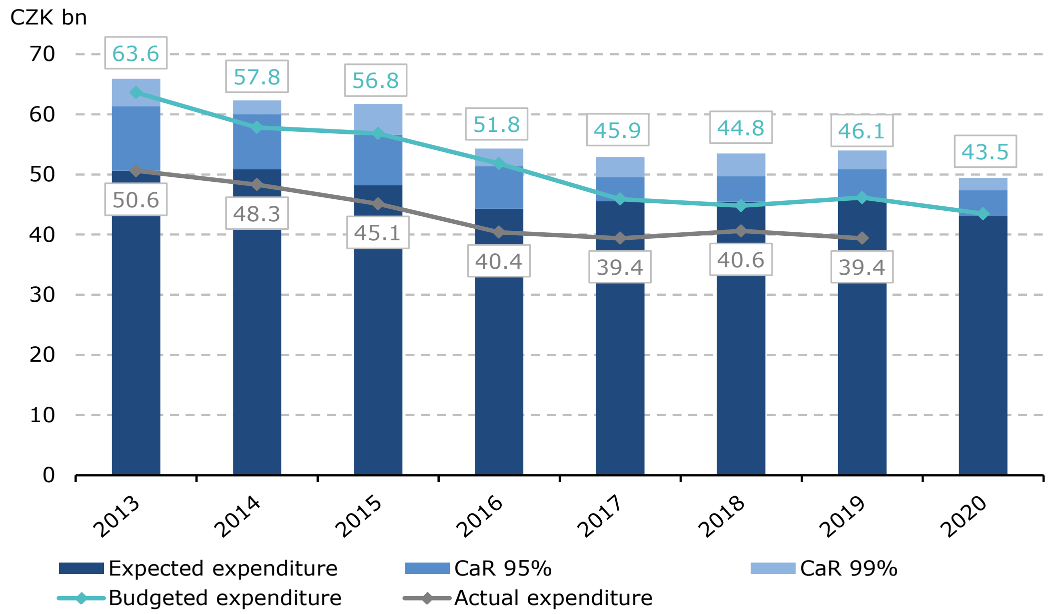
Since 2005, the Ministry has applied a model framework called Cost-at-Risk (CaR) based on the Value-at-Risk methodology, simulating future expected and maximum interest expenditure at a given degree of risk, which is derived from the volatility of the interest rate term structure. The stochastic element of the CaR model is the yield curve, the deterministic element is the dynamic structure of the state debt portfolio, which is based on the baseline scenario of the financing program respecting the stipulated strategic objectives of financial risk management.

The primary objective of the model is to determine the maximum interest expenditure on state debt, which with 95% or 99% probability will not be exceeded (CaR 95% and CaR 99%). The secondary objective of the model is to estimate the actual interest expenditure on state debt. The outcomes of the applied CaR analysis are not just the values of CaR 95% and CaR 99% percentiles, but also whole probabilistic distributions of interest expenditure in any moment of time, which makes this analysis a powerful tool for analysis of state budget expenditure in relation to the issuance and the financial market conditions.

The simulation framework operates separately with interest expenditure and interest revenue. The outcome of aggregation of interest expenditure and interest revenue is the net interest expenditure on state debt. Interest expenditure does not include fees related to state debt service, which are of a deterministic nature.

Over all the years in which the CaR methodology has been applied, the model has fulfilled the primary objective, since the predicted maximum interest expenditure was not exceeded in any of those years.

Figure 47: Net Interest Expenditure and Cost-at-Risk



Note: Original budgeted net interest expenditure.
Source: MoF

Table 18: Net Interest Expenditure and Cost-at-Risk

CZK bn	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Budgeted expenditure[1]	63.6	57.8	56.8	51.8	45.9	44.8	46.1	43.5	46.1	49.8
Actual expenditure	50.6	48.3	45.1	40.4	39.4	40.6	39.4	-	-	-
Expected expenditure	50.6	50.9	48.2	44.3	45.6	45.5	45.8	43.1	45.8	49.6
CaR 95%	61.3	60.0	56.6	51.4	49.6	49.7	50.9	47.4	53.0	60.4
CaR 99%	65.9	62.3	61.7	54.3	52.9	53.5	54.0	49.4	57.5	68.1

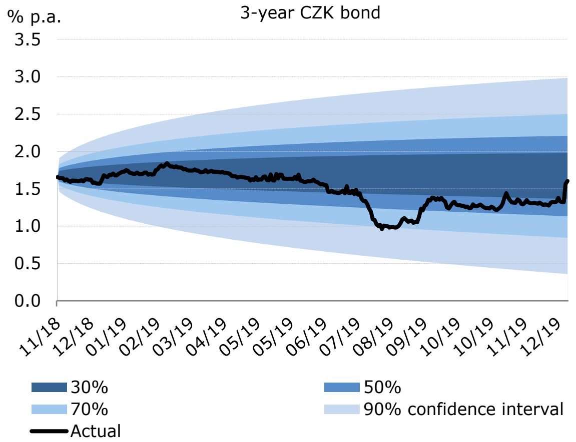
[1] In 2013 through 2020, the original budgeted net interest expenditure. In 2021 and 2022 medium-term outlook.
Source: MoF

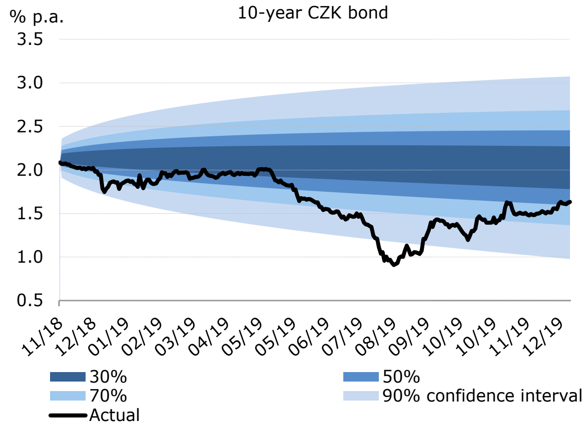
Cost-at-Risk for 2019

The Cost-at-Risk of state debt for 2019 was published in The Czech Republic Government Debt Management Annual Report for 2018. Calculation of the CaR indicator is based on simulations of the time structure of interest rates as at 26 November 2018.

A comparison of the real development of the 3-year and 10-year government bonds interest rates with their simulations for the period from 26 November 2018 to 31 December 2019 is shown in the following figures.

Figure 48: Actual vs. Simulated of CZK-denominated Government Bond Yields in 2019





Source: MoF, Bloomberg

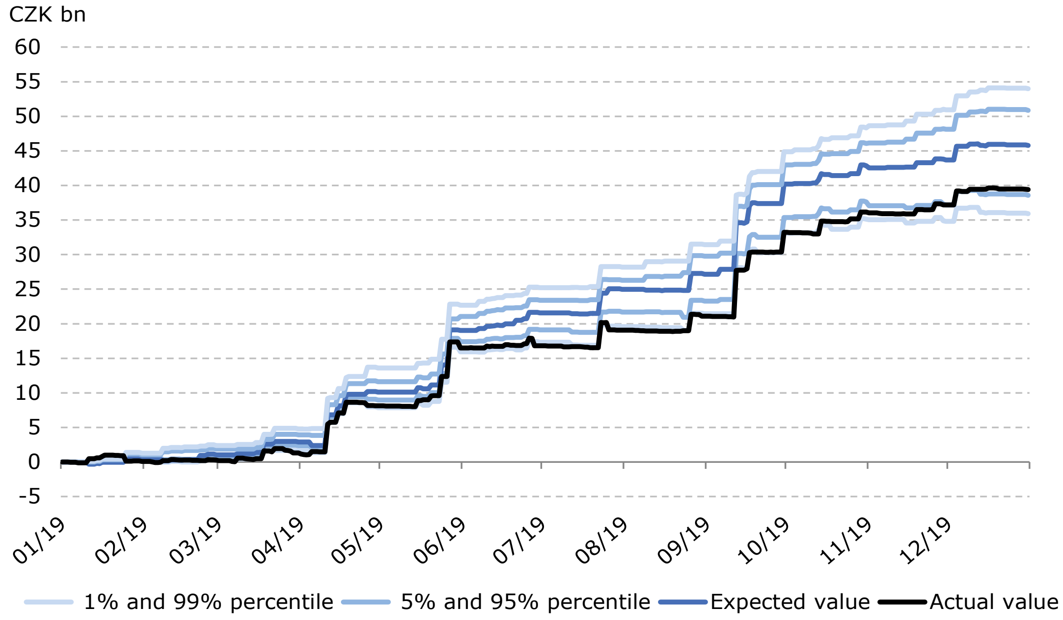
A comparison of the actual net interest expenditure on state debt service with the simulated values of expected expenditure (simulation average) and interest expenditure in CaR (95% and 99% percentile of simulations) in 2018 and 2019 is shown in the following table. In 2019 the net interest expenditure amounted to CZK 39.4 billion, the expected net interest expenditure in 2019 predicted by the model amounted to CZK 45.8 billion.

Table 19: Expected vs. Actual Net Interest Expenditure

CZK bn	2018	2019
Actual expenditure	40.6	39.4
Expected expenditure	45.5	45.8
CaR 95%	49.7	50.9
CaR 99%	53.5	54.0
Difference between expectation and actuality	4.9	6.4

Source: MoF

Figure 49: Actual vs. Simulated Net Interest Expenditure in 2019



Note: Interest expenditure are calculated using the cash principle according to the current state budget methodology.
Source: MoF

The net interest expenditure in 2019 remained below the CaR 95% and CaR 99% level, which were estimated at CZK 50.9 billion and CZK 54.0 billion, respectively. The expected net interest expenditure predicted by the model is CZK 6.4 billion higher than in actuality.

The difference in expected net interest expenditure is mainly due to lower yields of medium-term and long-term government bonds issued on domestic market compared to the expectations of the model, which lasted mainly in the second half of 2019, during which the yield curve gradually flattened. The Ministry responded flexibly on this financial market situation from the beginning of 2019 and increased the issuance on the long end of the yield curve with a residual maturity of more than 10 years. The gross issue in this maturity segment accounted for almost three fifths of the total gross issue of medium-term and long-term government bonds on the domestic market. This fact amounts to a total of CZK 4.2 billion of difference and is given mainly by the change in the structure of the issuance calendar of medium-term and long-term government bonds. The difference of approximately CZK 1.9 billion is due to higher-than-expected state budget revenues from liquidity management operations in the context of rising key interest rates of the Czech National Bank and also to the reduction of state treasury bills throughout 2019. The Ministry continued to benefit from favourable conditions on the euro money and bond markets by issuing medium and long-term government bonds and concluding short-term euro-denominated loans for negative returns. The total additional state budget revenue from these operations amounted to CZK 0.2 billion. Another major factor was the lower levels of the EURIBOR reference interest rate and the stronger koruna-euro exchange rate. For this reason, the difference in expectations is approximately CZK 0.2 billion.

Cost-at-Risk for 2020 to 2022

Net interest expenditure expected by the model in 2020 amounts to CZK 43.1 billion. Net interest expenditure at risk, i.e. CaR 99% amounts to CZK 49.4 billion (CaR 95% amounts to CZK 47.4 billion). Thus, the actual net interest expenditure in 2020 will not be higher by about CZK 6.3 billion compared to the expected expenditure with 99% probability. The budgeted interest expenditure on state debt service in 2020 amounts to CZK 43.5 billion, i.e. by CZK 0.3 billion above expected net interest expenditure and by CZK 3.9 billion below the 95% percentile of the CaR indicator.

The following table shows in detail the development of cumulative net interest expenditure on state debt in 2020 predicted by the model always at the end of the month. It also contains the respective critical values of CaR 95% and CaR 99%.

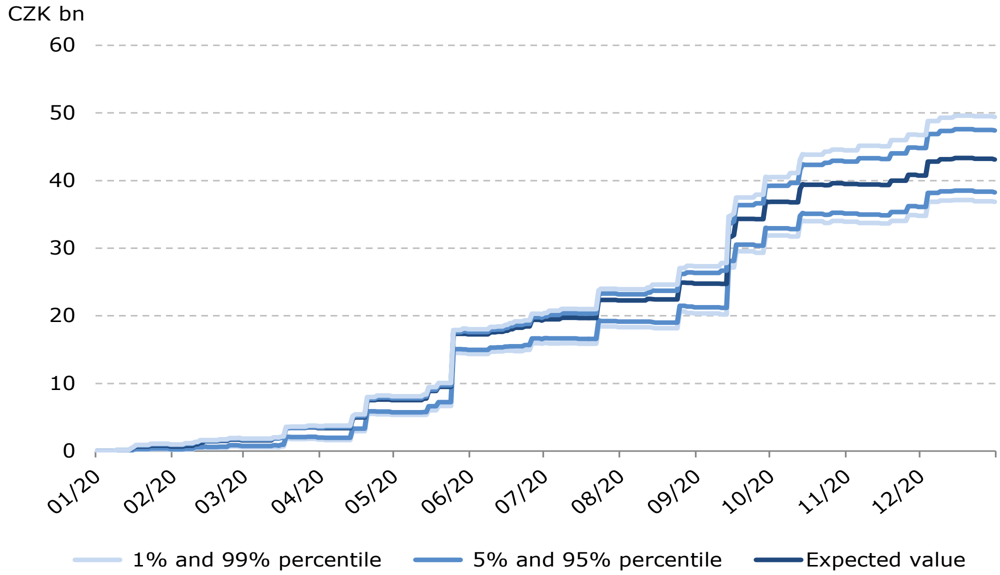
Table 20: Monthly Development of Cumulative Net Interest Expenditure in 2020

CZK bn	1	2	3	4	5	6	7	8	9	10	11	12
Expected expenditure	0.7	1.6	3.4	7.5	17.3	19.3	22.3	24.8	36.8	39.5	40.7	43.1
CaR 95%	0.9	1.7	3.5	7.8	17.6	19.7	23.2	26.3	39.2	42.8	44.8	47.4
CaR 99%	1.0	1.9	3.7	8.1	18.0	20.2	23.9	27.3	40.5	44.5	46.7	49.4

Source: MoF

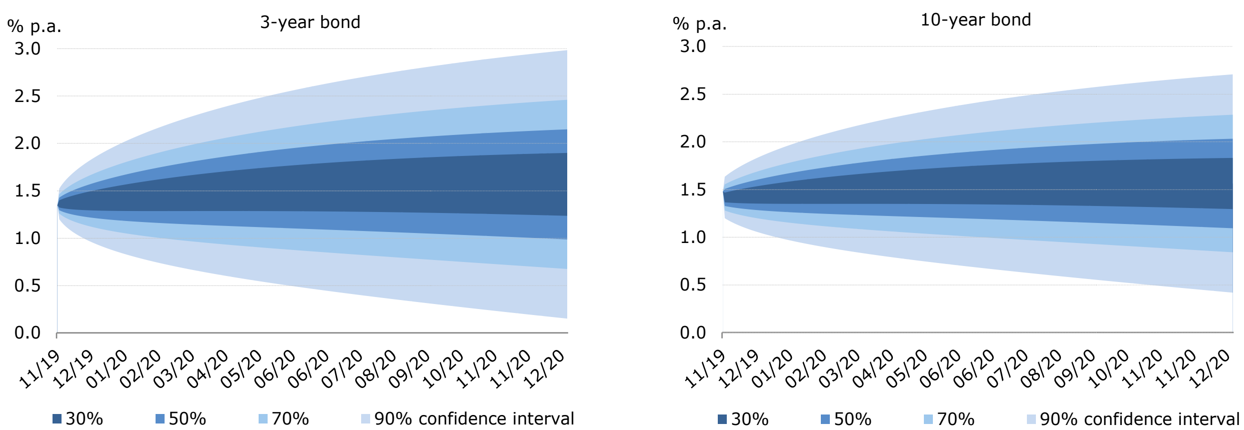
The graphic presentation of simulations of cumulative net interest expenditure on the state debt service in 2020 stipulated on a daily basis is shown in the following figure. The figure also shows the expected values of net expenditure and the respective 5% and 95%, 1% and 99% percentiles of simulated values.

Figure 50: Simulation of Net Interest Expenditure of State Debt in 2020



Note: Development of net interest expenditure on a daily basis.
Source: MoF

Figure 51: Simulation of CZK-denominated Government Bond Yields in 2020



Source: MoF

The Ministry also deals with the problem of interest rates hikes, which could occur e.g. via a sharp increase in the Czech National Bank key interest rate, sudden deterioration of the economic situation in the euro area, a sharp increase of the risk premium of government bonds, etc. The Ministry strives to quantify the impact of these circumstances on net interest expenditure on the state debt service. Each economic event has an effect on a certain part of the yield curve, which is why it is important for the Ministry to observe the shift in the individual parts of the yield curves separately. The following table quantifies the consequences of a potential increase in interest rates at the short end of the yield curve, at the long end of the yield curve and along the entire curve evenly, all over the course of 2020. This analysis also enables the uneven shifting of the short and long end of the yield curve and arbitrary selection of the date of this shift.

Table 21: Development of Net Interest Expenditure in Case of Sudden Interest Rate Hikes

CZK bn	Current model	Shift of rates at the short end of the yield curve by 1 p.p.	Shift of rates at the long end of the yield curve by 1 p.p.	Shift of the whole yield curve by 1 p.p.
Expected expenditure	43.1	44.2	43.3	44.4
CaR 95%	47.4	48.5	47.5	48.6
CaR 99%	49.4	50.5	49.5	50.5

Note:The shock in the form of a one-time shift in the yield curve will occur at the beginning of 2020.
Source: MoF

Assuming the financing of the gross borrowing requirement with an unchanged issuance calendar, a 1 p.p. upward shift in the yield curve of CZK-denominated government bonds at its short end would lead to an increase in expected net interest expenditure of CZK 1.1 billion in 2020. In the case of a 1 p.p. increase in rates at the long end of the yield curve, the expected net interest expenditure would increase by CZK 0.2 billion. A shift of the whole yield curve of government bonds by 1 p.p. upwards would result in an increase in expected net interest expenditure by approximately CZK 1.2 billion.

The Ministry also quantifies the sensitivity of net interest expenditure on state debt service to changes in the koruna's exchange rate. This sensitivity is relatively low, even when compared to the sensitivity of interest expenditure to the shift in the yield curve. At the end of 2019, the net foreign currency exposure of sovereign debt with an impact on the amount of interest expense is denominated exclusively in euro.

Table 22: The Increase of Net Interest Expenditure in Case of EURCZK FX Rate Hike

CZK bn	EURCZK FX rate shift	
	by 1%	**by 10%**
Expected expenditure	0.072	0.724
CaR 95%	0.075	0.751
CaR 99%	0.076	0.760

Note: The shock in form of a one-off depreciation of CZK FX rate will occur at the beginning of 2020.
Source: MoF

If the EURCZK FX rate depreciated by 1% at the beginning of 2020 compared to the level as at the end of 2019, i.e. from 25.410 to 25.664 and remained unchanged during the whole 2020, then the expected net interest expenditure on state debt service would increase approx. by CZK 72 million.

The Ministry also quantifies the impacts of the unplanned increase in the state budget deficit on interest expenditure on state debt service. If the state budget deficit increased by CZK 10.0 billion in 2020 assuming its financing by a uniform increase in the nominal values of CZK-denominated medium-term and long-term government bonds issued in auctions according to the current issue calendar, this change would mean an increase in expected net interest expenditure on state debt service by CZK 0.1 billion. However, the impact on the state budget based on the cash basis is very sensitive to the selected way of financing the deficit increase. In the case of a issuance of bond with premium, i.e. price above par, the increased gross issue may not result in an increase in interest expenditure due to the cash principle of the state budget and will result in a reduction in net interest expenditure. In the case of an accrual approach, an increase in gross issue would take effect immediately.

Within the three-year simulation horizon, the Ministry also constructs CaR indicators for 2021 and 2022. Net interest expenditure is expected to reach CZK 45.8 billion in 2021 and CZK 49.6 billion in 2022, mainly due to the use of a less conservative model for sovereign risk premium and current relatively low government bond yields.

In the medium-term outlook of the state budget for 2021 and 2022, the expenditure frameworks of Chapter 396 – State Debt lie below the 95% percentile. For 2021, the expenditure framework amounts to CZK 46.1 billion and is CZK 6.9 billion below the 95%

interest rate percentile. For 2022, the expenditure framework amounts to CZK 49.8 billion, which is CZK 10.6 billion below the 95% interest rate percentile. The rising trend in the medium-term outlook for both budgeted and simulated interest expenditure is mainly due to interest rate volatility, which increases with the simulation horizon increasing. Given that the state budget is always prepared only for the following year, the horizon of the simulation of interest expenditure when drawing up the budget for the following year will be shorter and assuming unchanged market conditions it can be expected that the value of CaR 95% and CaR 99% indicators will decrease due to the lower volatility of the interest rate prediction.

Efficient Frontier and Alternative Debt Portfolios

The primary focus of the Ministry is always a smooth financing of the gross borrowing requirement while minimizing the costs related to a specific level of risk. Given that the gross borrowing requirement financing in 2020 consists predominantly of government bonds, it is important to issue bonds with parameters that meet investors' demand. Another important factor that the Ministry must monitor is the liquidity of the secondary government bond market. In order to maintain a certain level of liquidity in the secondary government bond market, it is necessary to ensure a relatively high total nominal value for each bond issue. According to portfolio theory, it may be that issuing bonds according to the issuance calendar so as to meet investors' requirements and guarantee the liquidity of the secondary government bond market will create some inefficiency in the management of the debt portfolio. Eliminating this inefficiency could theoretically be achieved by concluding swap operations, which, however, entails additional costs and the need for credit risk management. To compare the real financing strategy with other alternative strategies in terms of costs and risk, the Ministry has been performing an analysis based on CaR methodology since 2012 with the aim of constructing the so-called efficient frontier.

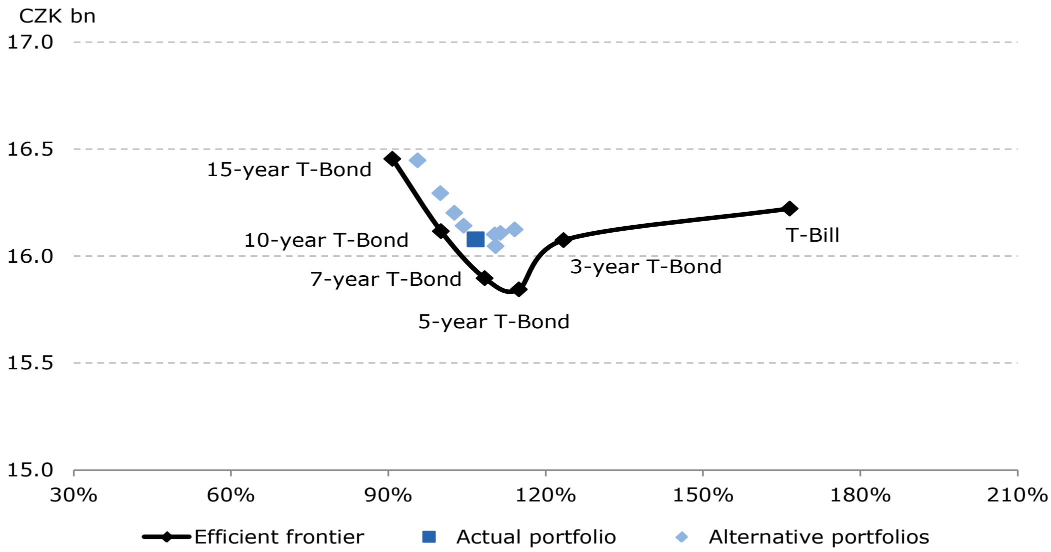
In classic portfolio management, the yields and risk of individual possible investments within a given portfolio are compared directly with each other. On the contrary, the main factor affecting the portfolio's structure in debt portfolio management is the time to maturity of individual instruments. Fluctuation of yield curves and the refinancing needs (refixing) then cause every refinancing (refixing) to carry the risk of increased costs. Portfolios with higher proportion of instruments bearing interest at the short end of the yield curve are exposed to the risk of higher costs than portfolios with a higher proportion of instruments bearing interest at the long end of the yield curve.

The efficient frontier shows a curve that combines the risk and expected cost of alternative debt portfolios, which contain only bonds with one specific constant time to maturity. Bonds in this portfolio are always issued with a constant time to maturity, i.e. no re-openings are considered, and on the maturity date, bonds with this constant time to maturity are replaced. In the case of a rising yield curve shape, the efficient frontier has a decreasing shape and represents a boundary of the combination of risk and expected costs that cannot be exceeded by any other alternative debt portfolio. Therefore, there is no debt portfolio that would allow the risk to be mitigated and reduce expected costs below risk and the expected costs of portfolios containing only fixed-term bonds. In the case of the inverse shape of the yield curve, which has been occurring at the short end of the yield curve in the case of Czech government bonds since the end of the first quarter of 2019, the efficient frontier is initially declining and then increasing. Reduction of short-term instruments thus leads to lower risk and the expected costs.

For all alternative debt portfolios in the performed analysis, all financing of gross borrowing needs in the following years takes place on the days of actually planned auctions using only bonds as defined by the alternative portfolio (without considering the re-opening of issues). The efficient frontier is made up by six alternative debt portfolios containing only newly issued bonds with a constant maturity. These bonds are: state treasury bills and 3-year, 5-year, 7-year, 10-year and 15-year medium-term and long-term government bonds. Compared to the efficient frontier constructed in the previous year, the impact of the decline in the yield curve, especially at its long end, is apparent, as well as the impact of a decline in gross borrowing needs during the three-year simulation horizon, which is reflected in a decrease in expected costs in the coming years. Further, compared to the effective level constructed in the previous year, another significant flattening of the yield curve and relatively low yields at the long end of the yield curve are also apparent, as the expected cost difference between the issuance of 15-year government bonds and the issuance of short-term government bond is lower.

In addition to the six alternative portfolios at the efficient frontier, the Ministry analyzed eight other alternative portfolios with instruments that were more in line with real investor demand. These eight alternative portfolios are created analogously to those on the efficient frontier, a mix of government bonds with different maturities to finance the gross borrowing requirement in the coming years.

Figure 52: Efficient Frontier and Alternative Debt Portfolios



Source: MoF

Two alternative portfolios consider zero net issuance of state treasury bills in all years, with government bonds with maturities of 3, 5, 7, 10 and 15 years being equally issued in the first portfolio. In the case of the second portfolio, bonds with different maturities are also issued, ensuring an average maturity of the debt portfolio of 6.0 years in the medium term. The third and fourth alternative portfolios finance the gross borrowing requirement with one tenth of state treasury bills and nine tenths of medium-term and long-term government bonds, those are 15-year government bonds and 10-year government bonds. In the case of the fifth and sixth alternative portfolios, one tenth issuance consists of state treasury bills and nine tenths of medium-term and long-term government bonds with a maturity of 10 or 15 years, whereas the chosen instruments are issued equally in case of the former alternative portfolio and the time to maturity of 9.5 year of the whole newly issued debt is maintained at the end of each year in the latter alternative portfolio. For the seventh and eighth alternative portfolios, 3-year, 5-year, 7-year, 10-year and 15-year government bonds and state treasury bills are issued, while for one strategy debt instruments are issued equally and while in the second case one tenth of the state treasury bills and nine tenths of medium-term and long-term government bonds are issued, with the maturity ratio within the groups being uniform. The expected costs of the individual debt portfolios represent the cumulated expected costs of the newly issued state debt service between 2020 and 2022. In all cases, the costs are expressed on an accrual basis, thus achieving a comparable position for the individual alternative portfolios. In the case of an actual portfolio, this is achieved by adjusting for the re-opening effect, which in the short simulation horizon leads to an overestimation of both risk and expected costs. The cumulative CaR 99% between 2020 and 2022 is used to determine the degree of risk for individual debt portfolios. Specifically a possible percentage increase in expected costs at which the cumulated CaR 99% will be achieved is shown on the horizontal axis.

The picture shows that no alternative or real debt portfolio, which contains a mix of government bonds with different times to maturity, is not at the efficient frontier. However, the actual debt portfolio, containing the current actual funding strategy for financing of gross borrowing needs, and alternative portfolios are very close to the efficient frontier. The current debt portfolio is close to a cluster of alternative portfolios that consist of a mix of bonds with similar average maturities. Accumulated expected accrued costs of newly issued debt according to actual issuance calendars amount to CZK 16.1 billion with a risk of approximately 107%. Therefore, there is a risk that the actual realized costs for the next three years will exceed the expected costs by 107%, in absolute terms, by CZK 17.2 billion. Compared to the previous year, the expected costs thus decreased significantly and the risk increased.

In the context of efficient frontier analysis, it should be noted that there is no optimal portfolio that can be obtained by quantitative optimization. In the real world where it is not possible to issue only new issues of government bonds in each auction and not take into account the needs of investors, only the portfolio approaching the efficient frontier can be chosen. The choice of the part of efficient frontier, where this approach occurs, primarily depends on the risk preference or aversion of management.

6 - Evaluation of Primary Dealers and Secondary Government Bond Market

Primary Dealers and Recognized Dealers in Czech Government Securities

The status of a primary dealer in Czech government securities was contractually formalized on 1 October 2011, when the Primary Dealer Agreement for Czech Government Securities (hereinafter the Agreement), became valid. According to best international practice, the Agreement specifies the rights and obligations of individual members of the group of primary dealers, and provides an institutional framework for cooperation between the Ministry and financial institutions in funding and state debt management. A primary dealer who has concluded this Agreement with the Ministry has the right as of 1 January 2012 to participate in auctions according to the currently valid Rules for the Primary Sale of Government Securities Organized by the Czech National Bank (official notification of CNB as of 7 January 2019 regarding 3rd version of the Primary Sale of Government Securities Organized by the Czech National Bank).

A new two-stage institutional framework of cooperation was established starting from 1 January 2019, by adding the status of Recognized Dealer in Czech Government Securities. Thus, Ministry had responded flexibly to increasing regulatory costs and changes of market makers business strategies of foreign market makers in Czech government securities. During the period from 2013 to 2019 all privileges and rights of Primary Dealer had been terminated to The Royal Bank of Scotland plc (1 November 2013), Barclays Bank plc (1 January 2016), Deutsche Bank AG and Morgan Stanley & Co International PLC (1 January 2017), HSBC Bank plc and Goldman Sachs International (1 January 2019).

Recognized Dealer in Czech Government Securities has limited rights and obligation compared to Primary Dealer, clearly specified in Recognized Dealer Agreement for Czech Government Securities. Only Primary Dealer together with Recognized Dealer is granted access to primary auctions of government bonds according to valid Rules for the Primary Sale of Government Securities organized by the Czech National Bank. Recognized Dealer has right to be participant only in the competitive part of the primary auction of Czech government securities. Compared to Primary Dealer, there is no access to the non-competitive part of the primary auctions for Recognized Dealer.

Primary dealers and recognized dealers may participate in the Ministry's operations on the secondary market, such as buybacks and exchanges of government bonds, tap sales, lending facilities (in the form of repo operations and since December 2015 also in the form of collateralized loans of medium-term and long-term government bonds) or reverse repo operations.

Primary dealers are also the Ministry's counterparts for foreign issues, private placements and other state's financial operations. Primary dealers also have an exclusive right to participate in regular meetings with the representatives of the Ministry, at least twice a year, and to be involved among others in the preparation of issuance calendars for government bonds as well as to propose alternative instruments for financing the borrowing requirement, including follow-up operations for risk management purposes.

A primary dealer's obligation is to purchase at least 3% of the total nominal value of medium-term and long-term government bonds sold in the primary auctions (including non-competitive parts) during four consecutive quarters. Another important obligation is for the participant to fulfil the quoting obligations on a secondary market through the Designated Electronic Trading System (DETS) with the aim of achieving a highly liquid secondary market of government bonds. For 2020 and 2021, MTS Czech Republic was chosen as such platform once again based on the decision taken by the Primary Dealers Committee on 19 December 2019. The system of notifications sent in the case of failure to meet one of the two basic obligations has proven to be useful also during 2019 and the Ministry will continue to apply this practice.

Recognized dealer is not compulsory to fulfill quoting obligation on the secondary market and does not have the obligation to purchase not less than 3% of the total nominal amount of government bonds in primary auctions. The main obligation of recognized dealer is to be active market participant on the DETS, act in accordance with its market rules and contribute on best effort basis to liquidity of secondary market trading of the government bonds.

The group of primary dealers and recognized dealers in Czech government securities is confirmed by the Ministry for every calendar year. In 2019, the Czech Republic had a total of 8 primary dealers. Compared to 2018 there had been two primary dealers less in the group of primary dealers. All privileges and obligations of Goldman Sachs International and HSBC Bank plc arising from the Agreement are not in force as of 1 January 2019. On the other side, Goldman Sachs International acquired status of Recognized Dealer as of 1 January 2019. System of primary dealership ran smoothly in 2019 and Ministry did not receive any proposals to amend the current institutional arrangement of the market.

Table 23: List of Primary Dealers and Recognized Dealers in Czech Government Securities in 2019

Primary Dealers	
Citibank Europe plc	J.P. Morgan Securities plc
Erste Group Bank AG / Česká spořitelna, a.s.	PPF banka, a.s.
KBC Bank NV / Československá obchodní banka, a. s.	Société Générale / Komerční banka, a.s.
ING Bank N. V.	UniCredit Bank Czech Republic and Slovakia, a.s.
Recognized Dealers	
Goldman Sachs International	

Source: MoF

Evaluation Results of the Primary Dealers

The modification of evaluation of the primary dealers in force for 2019 maintains two primary evaluation criteria and their weights; one is focused on the primary market another on the secondary market. The importance of a functional and liquid secondary market is demonstrated by the allocation of high weight to the latter criterion, which allows the appraisal of active market-makers in relation to their performance in government bond auctions on the primary market. The maximum evaluation of each primary dealer is 100 points, calculated on a relative basis.

The method of evaluating primary dealers is described in more detail in the Appendix I to this document. The activity of the primary dealers is thus evaluated every quarter based on the APEI defined in Annex I to the Agreement, always for four consecutive evaluation periods. The evaluation period according to Article 1 of the Agreement is every calendar quarter. Quarterly evaluation is transparently released in Debt Portfolio Management Quarterly Report. Overall evaluation for the last year is released in The Czech Republic Government Debt Management Annual Report.

Table 24: Overall Evaluation of Primary Dealers

Ranking	Primary Dealer	Points
1.	**KBC Bank NV / Československá obchodní banka, a. s.**	**76.0**
2.	Erste Group Bank AG / Česká spořitelna, a.s.	59.9
3.	PPF banka a.s.	58.0
4.	Société Générale / Komerční banka, a.s.	56.0
5.	Citibank Europe plc	46.8

Note: Maximum possible number of points in overall evaluation is 100.
Source: MoF

Table 25: Evaluation of Primary Dealers on Primary Market

Ranking	Primary Dealer	Points
1.	**KBC Bank NV / Československá obchodní banka, a. s.**	**43.5**
2.	Erste Group Bank AG / Česká spořitelna, a.s.	40.0
3.	Société Générale / Komerční banka, a.s.	39.0
4.	PPF banka a.s.	30.1
5.	J.P. Morgan Securities plc	21.6

Note: Maximum possible number of points in this criterion is 55.
Source: MoF

Table 26: Evaluation of Primary Dealers on Secondary Market

Ranking	Primary Dealer	Points
1.	**KBC Bank NV / Československá obchodní banka, a. s.**	**32.5**
2.	PPF banka a.s.	27.9
3.	Citibank Europe plc	25.7
4.	Erste Group Bank AG / Česká spořitelna, a.s.	19.9
5.	UniCredit Bank Czech Republic and Slovakia, a.s.	19.2

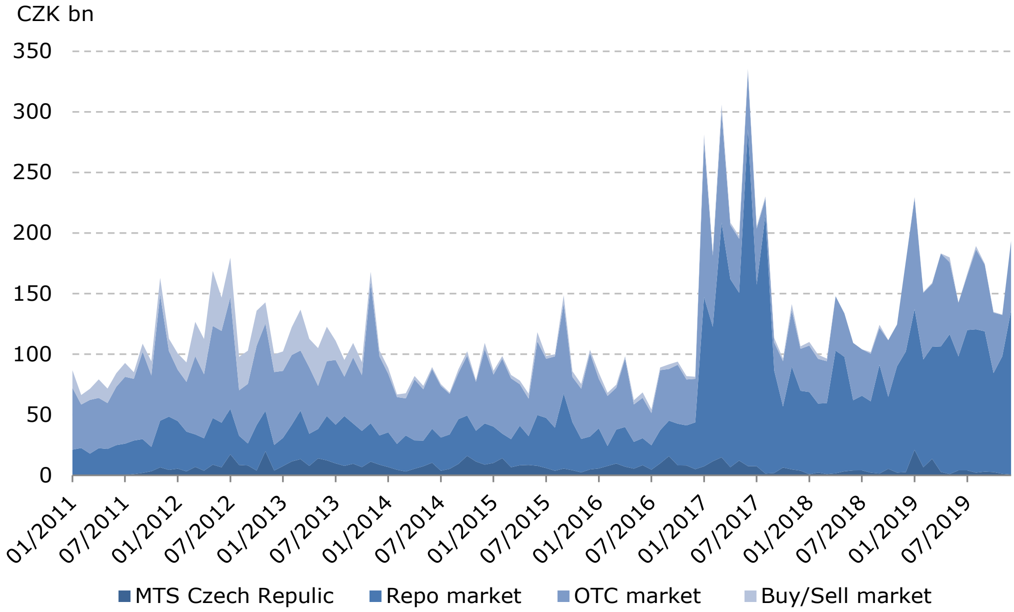
Note: Maximum possible number of points in this criterion is 45.
Source: MoF

MTS Czech Republic and Secondary Government Bond Market

One of the long-term objectives for state debt management is to support the maximum possible liquidity of issues of government bonds on the secondary market, which was fulfilled through the implementation of the MTS Czech Republic electronic trading platform for the secondary market. Pilot operation was launched on 11 July 2011, continuing with live operation after three months. To support the secondary market liquidity the Ministry may consider executing secondary market operations such as tap sales, exchanges of illiquid short term bonds for benchmark bonds with longer time to maturity and buybacks of illiquid bonds with short time to maturity.

The MTS Czech Republic electronic trading platform also enables monitoring of the behaviour of market participants and compliance with the set rules in real time as a basis for the subsequent evaluation of their performance and point awarding. Implementation of this platform also enabled expansion of the group of primary dealers by new foreign market-makers of the domestic market. The MTS Czech Republic electronic trading platform became an integrated part of the whole secondary market for government bonds. Market participants are provided with transparent information on price development of the Czech government bonds and with the continual access to the offer of Czech government bonds.

Figure 53: Nominal Value of Trades Carried out on Secondary Market



Note: Expressed in nominal value of traded government bonds in individual segments of secondary market; repo market and buy/sell market adjusted for double-counting of transactions. Including Ministry's operations on MTS Czech Republic,repo market and OTC market. Custody transactions are not included. OTC market consists of outright purchases out of MTS Czech Republic.
Source: MoF, CDCP, MTS

Since January 2017, unusually high trading activity has been recorded on the secondary government bond market. Realized nominal value in January reached CZK 281.3 billion, in February CZK 183.6 billion, and in March, even CZK 306.1 billion. The reason for the historically highest trading activity on the overall secondary market was the expectation that the Czech National Bank would quit the exchange rate commitment. Total trading activity on the secondary market peaked in June, when the nominal value reached CZK 335.5 billion.

During 2018, there was another period of normalization of trading activity on the secondary market towards an average historical level. Relatively high trading activity was reported in April (CZK 147.9 billion) and in May (CZK 133.7 billion). Highest trading activity was reached in December (CZK 176.5 billion). In January 2019, nominal trading volume increased to CZK 229.8 billion. In 2019, the monthly average trading volume reached CZK 169.7 billion, which represents a year-on-year increase of CZK 49.8 billion. The growth in trading activity on the government bond market corresponded to the Ministry´s issuance activity to cover relatively high financing needs.

An effective secondary market in terms of minimizing transaction costs and maintaining market depth and price stability is a necessary condition for the issuance activity and smooth and cost-effective funding over the long term. Liquid and deep secondary market also helps to absorb potential shocks on financial markets. In order to meet this task, the Ministry updated the list of benchmark issues from 1 January 2020, based on a previous discussion with primary dealers at the Primary Dealer Committee, as well as the MTS Czech Republic Committee (composed of the representatives of the Ministry and the primary dealers), by the government bonds whose nominal value outstanding was sufficient to allow the fulfilment of quoting obligations of the market maker. These benchmark issues with lower outstanding amount will be also reopened, which will have another positive impact on the liquidity of new benchmark bonds.

In 2020, no new issues were included in the benchmark list. Compared to previous year, the change resulted mainly from the natural shifts in maturities of the current bonds list. In accordance with the Agreement Government Bond of the Czech Republic, 2018-2021, 0.75% has been removed from the benchmark issues due to a residual maturity of less than 1.25 years since 1 January 2020. Due to relatively low outstanding amount, high ratio in portfolios holding to maturity and long term to maturity, the minimum nominal traded volume of Czech Republic Treasury Bond, 2006-2036, 4.20% was retained to CZK 10 million. The government bond with maturity in 2036 enables the Ministry to estimate the long end of the benchmark curve more accurately.

As a result of the changes in benchmark issues, the total number of bonds in 2020 subjected to quoting obligation decreased by 1 to 12 benchmark bonds.

Table 27: Benchmark Issues of Government Bonds as at 1 January 2020

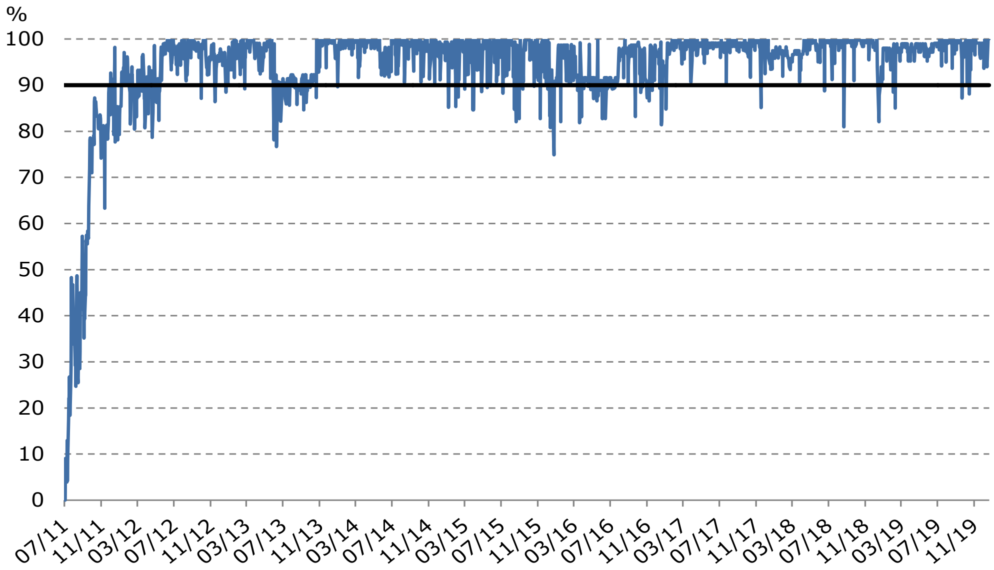
Issue no.	Issue	ISIN	Coupon	Maturity date	Maturity basket	Minimum quoted nominal value (CZK mil)
61	ČR, 3.85 %, 21	CZ0001002851	3.75%	29/9/2021	A	50
52	ČR, 4.70 %, 22	CZ0001001945	4.70%	12/9/2022	A	50
97	ČR, 0.45 %, 23	CZ0001004600	0.45%	25/10/2023	B	50
58	ČR, 5.70 %, 24	CZ0001002547	5.70%	25/5/2024	B	50
89	ČR, 2.40 %, 25	CZ0001004253	2.40%	17/9/2025	B	50
95	ČR, 1.00 %, 26	CZ0001004469	1.00%	26/6/2026	B	50
100	ČR, 0.25 %, 27	CZ0001005037	0.25%	10/2/2027	C	40
78	ČR, 2.50 %, 28	CZ0001003859	2.50%	25/8/2028	C	40
105	ČR, 2.75 %, 29	CZ0001005375	2.75%	23/7/2029	C	40
94	ČR, 0.95 %, 30	CZ0001004477	0.95%	15/5/2030	C	40
103	ČR, 2.00 %, 33	CZ0001005243	2.00%	13/10/2033	D	30
49	ČR, 4.20 %, 36	CZ0001001796	4.20%	4/12/2036	D	10[1]

[1] Minimum traded volume of government bond ČR, 4.20 %, 36 was reduced at CZK 10 mil, based on agreement with primary dealers.
Source: MoF

The primary dealer who fulfils the role of market-maker on the secondary market quotes the bid and offer prices for all bonds subject to quoting obligations in the minimum quoted total nominal value, which varies depending on the 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 government bond subject to quoting obligations as the weighted 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 in the MTS Czech Republic Committee, and the respective calculations are available to all participants in the system. The Ministry monitors compliance with quoting obligation on a daily basis, the evaluation of the performance and activity of participants takes place on a monthly basis. In 2019, primary dealers successfully managed to fulfil their quoting obligations on average, especially because of flexible approach to competitive spread, which allows better adjustment to underlying financial conditions on the secondary market. In the course of 2019, daily compliace ratio limit 90% was met on average with the exception of 3 days in year.

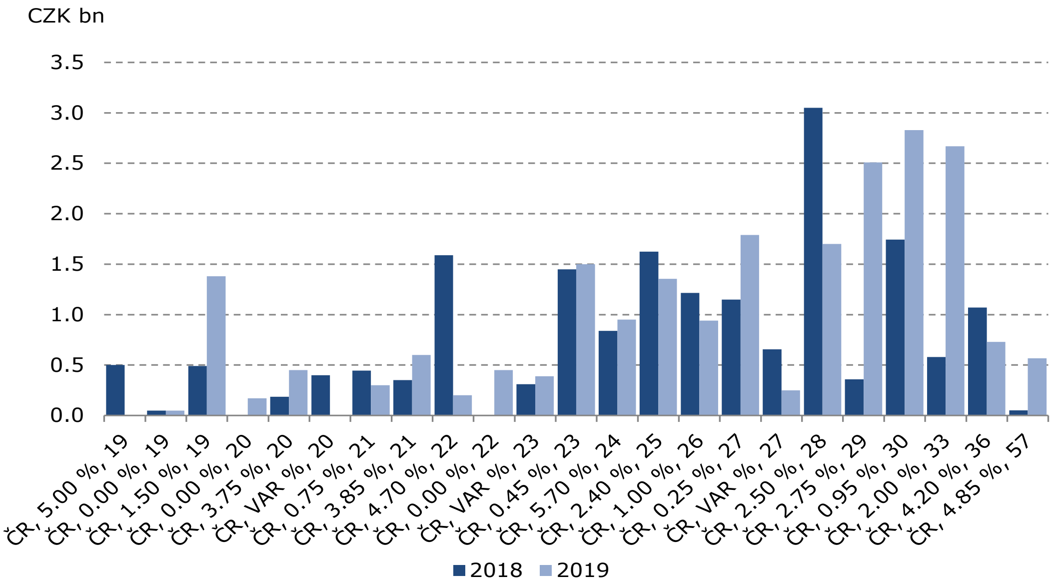
Figure 54: Average Daily Primary Dealer Compliance Ratio on MTS Czech Republic



Source: MoF, MTS

In 2019, the monthly average traded nominal value on the MTS Czech Republic was only CZK 1.8 billion. It was the second lowest trading activity since the formation of the official inter-dealer market. Obviously, two factors stand for the decrease of inter-dealer activity: fewer primary dealers and historically high gross borrowing requirement. Sufficient, permanent and diversified supply of Czech government bonds in primary auctions might create less incentives and needs for active trading on the official secondary market. Total trading activity was relatively evenly distributed over the course of the year. Low levels were recorded in March (CZK 0.9 billion) and in December (CZK 0.5 billion). Contrary, higher trading activity was reached in January (CZK 4.0 billion), June (CZK 2.6 billion) and September (CZK 2.8 billion). According to particular issues of government bonds, the highest trading volume recorded: Government Bond of the Czech Republic, 2015-2030, 0.95% (CZK 2.8 billion), Government Bond of the Czech Republic, 2017-2033, 2.00% (CZK 2.7 billion), Government Bond of the Czech Republic, 2018-2029, 2.75% (CZK 2.5 billion) and Government Bond of the Czech Republic, 2017-2027, 0.25% (CZK 1.8 billion). In line with the Ministry's issuance activity on the primary market, increased trading activity on the MTS platform was recorded mainly at the longer end of the yield curve.

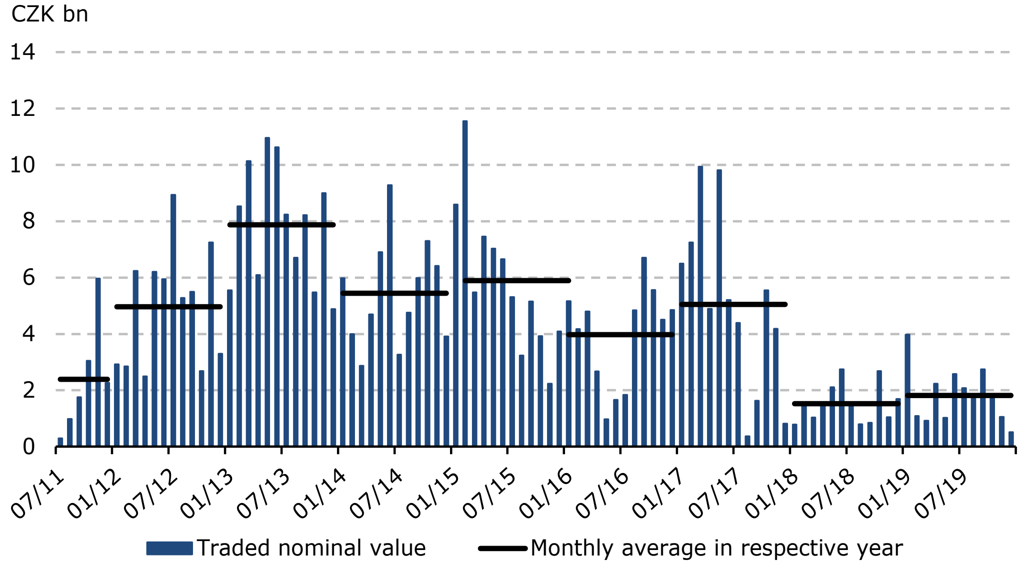
Figure 55: Traded Nominal Value on MTS Czech Republic by Government Bonds



Note: Excl. trades of the Ministry on the secondary market.
Source: MoF, MTS

One of the reasons for the entrance of Ministry to exchange operations and taps sales on the MTS Czech Republic was the active support of the liquidity of the Czech government bonds and the activity of primary dealers. In 2019, traded nominal value including Ministry's operations on the MTS Czech Republic reached monthly average of CZK 5.0 billion and was higher by CZK 2.5 billion compared to last year.

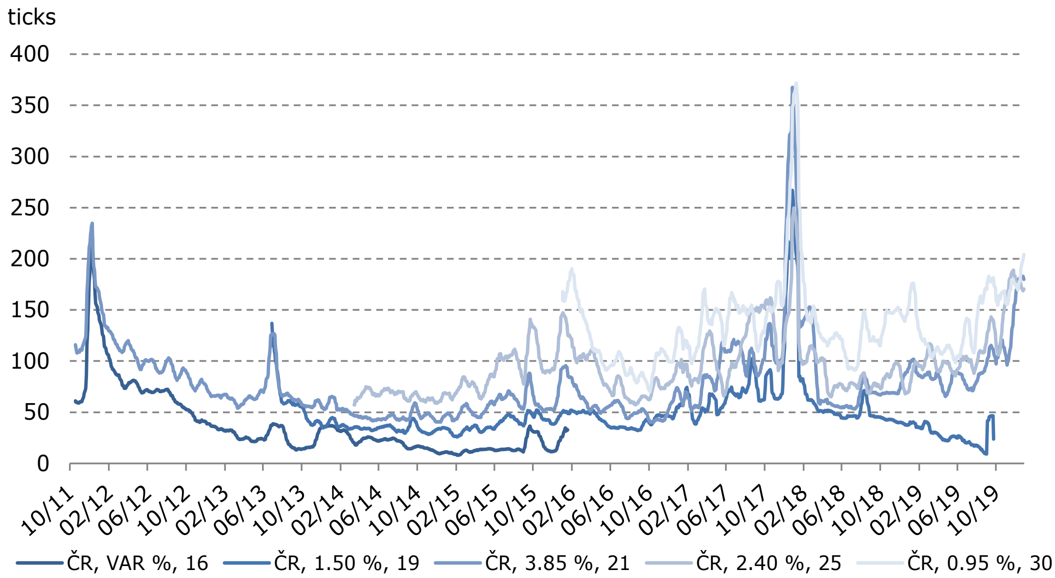
Figure 56: Traded Nominal Value on MTS Czech Republic



Note: Excl. trades of the Ministry on the secondary market.
Source: MoF, MTS

During 2019 the bid-offer spreads went through an unstable and volatile period. The bid-offer spreads were gradually reduced between mid-January and the end of February 2019. Subsequently, the bid-offer spreads were stabilized at these levels until May. Since the start of July, bid-offer spreads trend started to increase. An unprecedented increase in the bid-offer spreads especially for regulatory reasons that occurred at the end of 2017 was not seen in 2019. Market stabilization and the long-term low levels of price spreads are also supported by the fact that the mandatory bid-offer spread is built on a relative basis compared to the market average of all primary dealers. This enables significant flexibility and adaptation to the continually changing and poorly predictable market environment as opposed to the fixed spreads.

Figure 57: Bid-Offer Spreads of Selected Government Bonds on MTS Czech Republic



Note: The bid-offer spreads are listed in 14-day moving averages.
Source: MoF, MTS

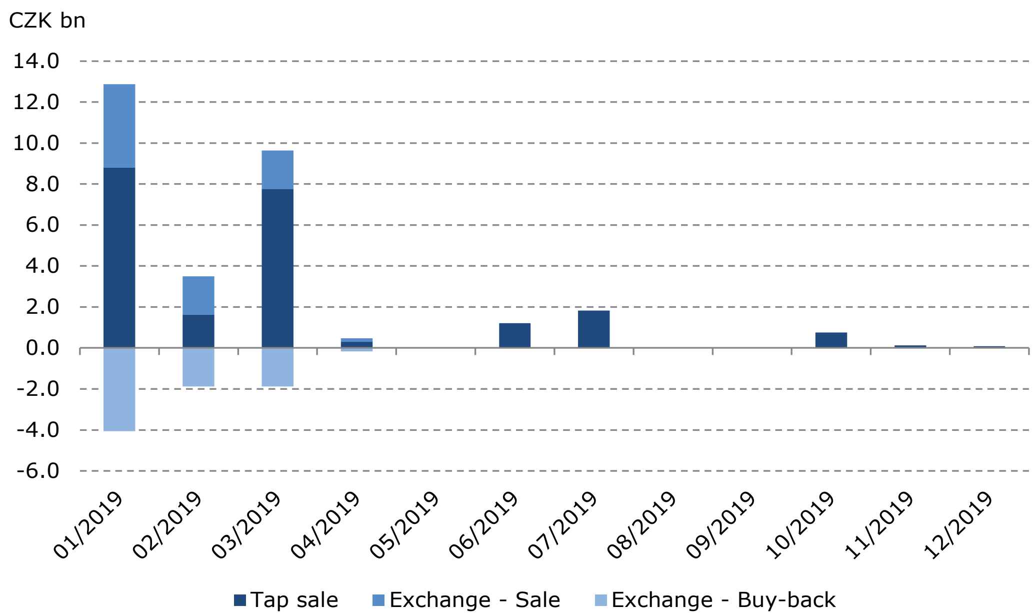
The strategy in relation to the development of the secondary market via MTS Czech Republic primarily focuses on the flexible use of all available electronic platform instruments; smooth running of the system and achievement of consistency with the valid regulatory and institutional framework. The Ministry evaluates very positively the development of the fulfilment of the quotation, particularly with regard to the significant volatility on the financial markets, regulatory impacts on the market-makers' balance sheets, decreasing number of primary dealers and due to the limited auction offer of government bonds subject to quoting in 2019. Lending facilities in the form of repo operations and now also in the form of collateralized loans will continue to be the tools actively used by the Ministry for its direct impact on the secondary market liquidity in 2020.

Operations on the Secondary Market

Since December 2011, the Ministry has been operating actively on the secondary market, primarily through the MTS Czech Republic electronic trading platform. In order to ensure maximum transparency, the Ministry informs all primary dealers and recognized dealers about the intention to conduct a buyback, exchange or a tap sale on the secondary market (type of transaction, government bond, the maximum nominal value of transactions, time limit, the conversion rate for exchanges, settlement date, contact person) at least one business day prior to the date on which the transaction is to occur. The Ministry publishes the result of the transactions (total nominal value of the transactions carried out within one buyback, exchange or tap sale, number of transactions and weighted average price) regularly on its website on the settlement date of the transactions.

All operations on the secondary market are executed flexibly depending on the Ministry's needs and the situation on the financial markets. In the course of 2019, due to the financial market conditions on the short end of the yield curve, the Ministry did not carry out any buybacks on the secondary market. Tap sales were executed all over the year with the exception in May, August and September. Total nominal value of executed taps sales in 2019 was historically highest at CZK 22.5 billion, which was by CZK 16.3 billion higher than previous year.

Figure 58: Nominal Value of Tap Sales and Exchange Operations



Source: MoF, MTS

In 2019, nominal value of exchange operations increased, the Ministry exchanged government bonds of a total nominal value of CZK 8.0 billion for governments bond in same total nominal value with longer time to maturity. In exchanges (buy-back leg) the Ministry focused primarily on Czech Republic Treasury Bond, 2009-2019, 5.00% (CZK 3.8 billion) and 2013-2019, 1.50% (CZK 3.8 billion). The remaining buy-backed bond was Czech Republic Treasury Bond, 2005-2020, 3.75% (CZK 0.4 billion).

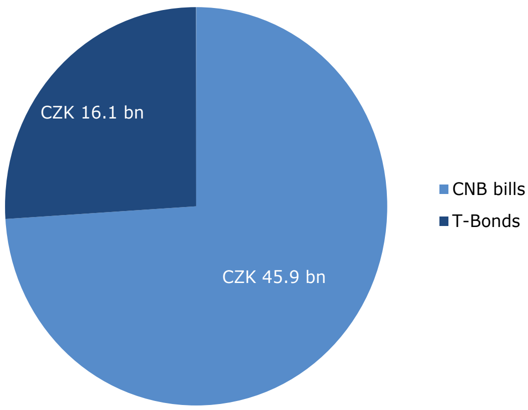
Due to the lack of a source government bond in the primary dealers' balance sheets and the market situation at the short end of the yield curve (government bond yields below CNB 2W repo rate), the Ministry executed a limited amount of exchange operations in following three quarters of the year. In the event of changes in market conditions, the Ministry will continue to use government bond exchanges to manage the state debt maturity profile as well as to support the market liquidity of the secondary government bond market.

The Ministry continued executing extensively the short-term lending facilities of medium-term and long-term government bonds for primary dealers and recognized dealers in the form of repo operations and also in the form of loans of securities. Loans of securities, which are standard financial instrument in the world, will be supported by the Ministry also in the next period. Ministry observes steadily growing trend in demand for loan of securities mainly due to higher repo rates on the money market, which brings repo more costly. In 2019, loans of securities (non-cash collateral) became the main tool for supporting secondary market liquidity. Similar to repo operations a primary dealer and recognized dealer may borrow securities from Ministry's asset accounts for a fee 20 basis points for a period up to 90 days against the non-cash collateral in the form of state treasury bills, CNB bills or medium-term and long-term government bonds. The advantage of loans of securities is the bidirectional support of liquidity on the secondary market with no impact on the gross borrowing requirement of the Ministry and the debt portfolio's risk indicators.

Parallel market in the form of loans of securities has its importance when the repo market freezes or if some dysfunctions occurs, which could result in an increase in bid-offer spreads. Loans of securities are fully covered by the standard contractual documentation, i.e. the Master agreement for financial transactions and the international Global Master Securities Lending Agreement. Loans of securities also help primary dealers and recognized dealers to optimize their business portfolio irrespective of their liquidity position as well as significantly reduce their dependence on the repo market.

Following the increasing trend on the Czech government bond market in 2019, the total volume of the lending facility expressed as the nominal value of provided collateral increased from CZK 51.7 billion in 2018 to CZK 67.7 billion in 2019 (average monthly level was CZK 5.6 billion). Repo operation provided by Ministry accounted CZK 6.7 billion (9.9%) and loans of securities collateralized by non-cash collateral accounted CZK 61.0 billion (90.2%). Demand for lending facilities in the form of repo operations and in the form of loans of securities was strong mainly in the last quarter of 2019 due to the adjustment of the trading portfolios of primary dealers when average monthly nominal amount of lending facilities reached CZK 6.4 billion. In December 2019 total provided nominal value of lending facilities rose to a level of over CZK 9.1 billion. This was influenced by the strong demand of primary dealers, who accumulated significant short position during 2019. Ministry's lending facilities have allowed smooth operating of the secondary market without any price distortions, Ddue to limited supply of government bonds in primary auctions in the last month of the year. At the same time the Ministry during 2019 accepted collateral in the nominal value of CZK 62.0 billion. The important change in collateral structure in favour of T-bonds occurred compared to last years. Its ratio rose to 26.0% that means year-on-year increase by 5.7 p.p.

Figure 59: Received Collateral within Collateralized Loans of Securities in 2019



Note: Excl.T-Bonds issued on foreign markets.
Source: MoF

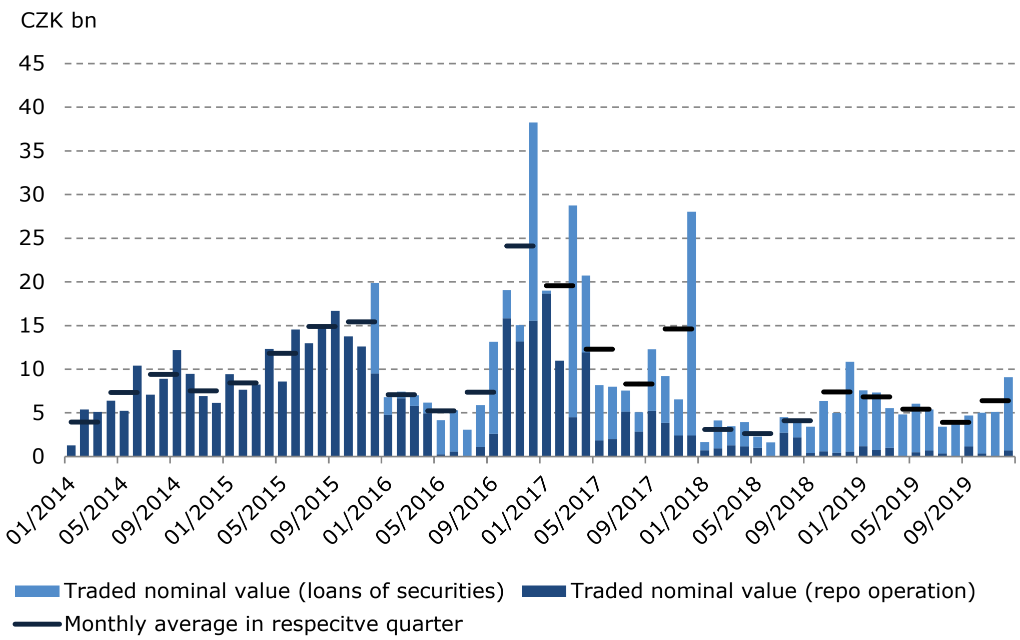
Interest in the short-term lending facilities in the form of repo operations in 2019 continued relatively low due to higher monetary policy rate, which resulted into higher costs of repo operations against loan of securities collateralized by non-cash collateral. The total amount of received cash resources from short-term lending facilities in 2019 was CZK 6.6 billion. Repo transactions were used mainly by the primary dealers and recognized dealers without relevant loan of securities documentation. Overall in 2019, Ministry executed 26 transactions in the form of repo operations and 289 in the form of loans of securities.

From the primary dealers' point of view, the Ministry's short-term lending facilities enable to cover their short positions and thus contribute to the smooth fulfilment of quoting obligations, maintaining sufficient depth of market and liquidity of government bonds even at times of unusual fluctuations on financial markets. The difference between the nominal value of trades on the MTS Czech Republic electronic trading platform and demand of primary dealers for government bonds may be filled through short-term lending facilities. Lending facilities thus form an important alternative for obtaining government bonds in the case of worsened conditions on the secondary market and contribute significantly to the business activity of primary dealers. It enables stabilisation of the market spread of quoted bonds, which is directly reflected in the reduction of the illiquidity premium as well as the end-investors' demand for Czech government bonds.

Although the primary objective of these operations is to increase the liquidity of government bonds on secondary market, especially in case of the short-term excess of demand over the supply of the particular bond, income from lending facilities has a positive impact on revenue of the state budget. The funds obtained from the repo operations, unless they are cash-neutral, are further invested for higher return on the money market within the efficient state treasury liquidity management. This enables increase in the investment income of the Ministry. In 2019, the contribution of the lending facilities to the total revenue from the investment activity amounted CZK 8.7 million.

In connection with the lending facilities and secondary market operations, the Ministry actively manages the balance of government bonds in its asset accounts with respect to the demand of primary dealers and recognized dealers. In 2019, the largest part of lending facilities in terms of nominal value of the provided bond was comprised of Government Bond of the Czech Republic, 2015-2030, 0.95% (CZK 7.1 billion), Government Bond of the Czech Republic, 2014-2027, VAR% (CZK 6.7 billion), Government Bond of the Czech Republic, 2017-2027, 0.25% (CZK 6.6 billion), Government Bond of the Czech Republic, 2015-2026, 1.00% (CZK 6.5 billion) and Government Bond of the Czech Republic, 2015-2023, 0.45% (CZK 5.7 billion). For other bonds, the demand was evenly distributed along the entire yield curve.

Figure 60: Nominal Value of Carried out Lending Facilities



Note: The medium-term and long-term government bonds lending facilities are stated in the nominal value of collateral provided from the Ministry's asset account.
Source: MoF

Appendix I

Evaluation Methodology for Primary Dealers Valid for 2019

In order to support the participation of primary dealers in the sale of medium- and long-term government bonds denominated in foreign currency, the Ministry newly decided to define different weights for government bonds in domestic and foreign currency.

As part of criterion A. Primary market participation, the share of the particular primary dealer in 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 to the total nominal value of the submitted bids, the Ministry monitors the willingness of investors to hold medium-term and long-term government bonds. The important aspects of evaluating participation on the primary market include the auction pricing strategy, in which the Ministry evaluates the willingness of primary dealers to pay the highest price weighted by the nominal value of a government bond auction. In another sub-criterion, a primary dealer is evaluated with more points if he is a regular participant at auctions, regardless of the evaluation period. The maximum number of points in the final sub-criterion is received by the primary dealer who subscribes the largest share of state treasury bills sold by the Ministry during the particular period.

Quantitative assessment under criterion B. Secondary market participation and market transactions, which is based primarily on the available statistical and monitoring tools of the MTS Czech Republic electronic trading platform, focuses on quotation activity, its quality, traded nominal values and operations carried out with the Ministry. The evaluation of the fulfilment of quoting obligations is further subject to the first sub-criterion. The quality of quotation activity means the evaluation of the average quoted spread weighted by time and total nominal value, which is further adjusted for the time to maturity of the given bond. Similarly, another sub-criterion that monitors the total traded nominal value is weighted by the time to maturity of the bond. In the following sub-criterion, the primary dealer is evaluated on the basis of the nominal value of the trades carried out by him within four groups of instrument types traded on the secondary market. The overall rating for the sub-criterion is then determined by the weighted average of these shares for the four groups identified. The fifth sub-criterion assesses the willingness of primary dealers to pay the highest price or receive the lowest price weighted by the total nominal value and the time to maturity of tap sales, buy-backs or exchanges of government bonds on the secondary market.

This methodology of primary dealers evaluation valid for 2019 remains unchanged for 2020.

Table 28: Criteria for Evaluation of Primary Dealers Valid for 2019

A. Primary Market Participation	55 points	B. Secondary Market Participation and Market Transactions	45 points
A.1. Primary Auctions Share – T-Bonds	30 points	B.1. Quoting Obligations Performance on DETS	10 points
A.2. Dependability	5 points	B.2. Qualitative Performance on DETS	10 points
A.3. Auction Pricing Strategy	5 points	B.3. Traded Volume on DETS	10 points
A.4. Auction Participation	5 points	B.4. Ministry of Finance Market Transactions	10 points
A.5. Primary Auctions Share – T-Bills	10 points	B.5. Tap Issuance, Buy-Backs and Exchanges Pricing Strategy	5 points

Source: MoF

Appendix II

Table 29: State Debt and State Financial Assets Portfolios Parameters

	31/12/ 2018	31/3/ 2019	30/6/ 2019	30/9/ 2019	31/12/ 2019
Total state debt (CZK bn)	**1,622.0**	**1,731.6**	**1,712.6**	**1,685.2**	**1,640.2**
Market value of state debt (CZK bn)	1,700.7	1,820.4	1,821.0	1,804.2	1,731.4
Short-term state debt (%)	17.8	20.0	14.9	15.1	12.7
Medium-term state debt (%)	57.3	53.8	54.5	51.8	48.5
T-Bills and other money market instruments (%)	2.7	1.9	1.4	1.0	1.1
Average time to maturity (years)	5.4	5.6	5.9	6.0	6.2
Interest re-fixing up to 1 year (%)	33.6	33.2	28.1	28.7	24.6
Average time to re-fixing (years)	4.7	4.9	5.3	5.4	5.6
Variable-rate state debt (%)	13.4	12.5	12.5	13.0	13.2
Modified duration (years)	4.3	4.4	4.9	5.0	5.1
Net foreign-currency exposure with the impact on the state debt level (%)	10.3	9.7	9.7	10.0	10.1
Net foreign-currency exposure with the impact on the level of interest expenditure on state debt service (%)	10.3	9.7	9.7	10.0	10.1
Foreign currency state debt (%)	11.9	11.2	11.2	11.6	11.6
Share of € in state debt level net foreign currency exposure (%)	96.3	96.3	96.2	96.1	96.2
Share of € in interest expenditure on state debt net foreign currency exposure (%)	100.0	100.0	100.0	100.0	100.0
Non-marketable state debt (%)[1]	5.1	4.2	3.7	3.3	3.1
Share of savings government bonds on state debt (%)	0.3	0.5	0.4	0.7	0.8
Marketable state debt (CZK bn)	**1,534.1**	**1,650.1**	**1,643.2**	**1,617.3**	**1,575.9**
Market value of marketable state debt (CZK bn)	1,613.2	1,739.2	1,751.8	1,736.4	1,667.5
Short-term marketable state debt (%)	15.8	18.7	13.8	14.3	12.0
Medium-term marketable state debt (%)	56.5	53.1	54.2	51.8	48.4
T-Bills and other money market instruments (%)	0.3	0.2	0.2	0.1	0.3
Average time to maturity (years)	5.5	5.6	5.9	6.0	6.2
Interest re-fixing up to 1 year (%)	30.4	30.8	26.0	26.7	22.5
Average time to re-fixing (years)	4.9	5.1	5.5	5.5	5.7
Variable-rate marketable state debt (%)	11.7	10.9	10.9	11.1	11.4
Modified duration (years)	4.5	4.6	5.0	5.2	5.2
Net foreign-currency exposure with the impact on the marketable state debt level (%)	8.4	8.3	8.9	9.6	9.7
Net foreign-currency exposure with the impact on the level of interest expenditure on marketable state debt service (%)	8.4	8.3	8.9	9.6	9.7
Foreign-currency marketable state debt (%)	10.0	9.9	10.4	11.2	11.3
Share of € in marketable state debt level net foreign currency exposure (%)	95.2	95.5	95.7	95.7	95.9
Share of € in interest expenditure on marketable state debt net foreign currency exposure (%)	100.0	100.0	100.0	100.0	100.0
Investment portfolios (CZK bn)[2]	**51.9**	**52.4**	**53.1**	**53.5**	**72.5**
Share of assets up to one year on total state debt (%)	3.0	2.9	2.9	3.0	4.3
Average yield (%)	1.8	1.8	1.9	2.0	1.9
Average time to maturity (years)	0.3	0.3	0.3	0.2	0.2
Modified duration (years)	0.2	0.2	0.2	0.2	0.1

[1] Excl. savings government bonds.
[2] Incl. nuclear and pension portfolio.
Source: MoF

Table 30: Medium-Term and Long-Term Government Bonds Issued on Domestic Market as at 31/12/2019

Issue name	Issue no.	ISIN	Maturity date	Nominal value outstanding	Nominal value booked on MoF's asset accounts
ČR, 0.00 %, 20	101	CZ0001005011	10/2/2020	50,053,880,000	0
ČR, 3.75 %, 20	46	CZ0001001317	12/9/2020	74,625,000,000	0
ČR, VAR %, 20	91	CZ0001004113	9/12/2020	33,923,370,000	2,050,000,000
ČR, 0.75 %, 21	104	CZ0001005367	23/2/2021	26,068,110,000	550,000,000
ČR, 3.85 %, 21	61	CZ0001002851	29/9/2021	76,535,000,000	1,100,000,000
ČR, 0.00 %, 22	102	CZ0001005029	24/2/2022	5,565,780,000	280,000,000
ČR, 4.70 %, 22	52	CZ0001001945	12/9/2022	87,324,900,000	569,000,000
ČR, VAR %, 23	63	CZ0001003123	18/4/2023	87,197,380,000	1,900,000,000
ČR, 0.45 %, 23	97	CZ0001004600	25/10/2023	58,810,390,000	6,189,610,000
ČR, 5.70 %, 24	58	CZ0001002547	25/5/2024	87,600,000,000	2,400,000,000
ČR, 2.40 %, 25	89	CZ0001004253	17/9/2025	99,931,590,000	0
ČR, 1.00 %, 26	95	CZ0001004469	26/6/2026	98,185,600,000	1,814,400,000
ČR, 0.25 %, 27	100	CZ0001005037	10/2/2027	87,740,550,000	2,259,450,000
ČR, VAR %, 27	90	CZ0001004105	19/11/2027	58,592,400,000	1,000,000,000
ČR, 2.50 %, 28	78	CZ0001003859	25/8/2028	99,000,000,000	1,000,000,000
ČR, 2.75 %, 29	105	CZ0001005375	23/7/2029	99,000,000,000	1,000,000,000
ČR, 0.95 %, 30	94	CZ0001004477	15/5/2030	98,630,240,000	1,369,760,000
ČR, 2.00 %, 33	103	CZ0001005243	13/10/2033	98,034,050,000	1,965,950,000
ČR, 4.20 %, 36	49	CZ0001001796	4/12/2036	49,325,620,000	674,380,000
ČR, 4.85 %, 57	53	CZ0001002059	26/11/2057	17,665,100,000	334,900,000
		Total CZK		**1,393,808,960,000**	**26,457,450,000**
ČR, 0.00 %, 21	109	CZ0001005706	20/8/2021	1,000,000,000	0
		Total EUR		**1,000,000,000**	**0**

Note: Excl. nominal values of government bonds provided and/or received by the Ministry as collateral when realizing repo operations under treasury single accounts liquidity management and/or under lending facilities.
Source: MoF

Table 31: Medium-Term and Long-Term Government Bonds Issued on Foreign Markets as at 31/12/2019

ISIN	Currency	Maturity date	Nominal value outstanding	Nominal value booked on MoF's asset accounts
XS0215153296	EUR	18/3/2020	1,000,000,000	0
XS0541140793	EUR	14/4/2021	2,000,000,000	0
XS0750894577	EUR	24/5/2022	2,750,000,000	0
XS0240954361	JPY	16/1/2036	30,000,000,000	0
	Total EUR		**5,750,000,000**	**0**
	Total JPY		**30,000,000,000**	**0**

Note: Excl. nominal values of government bonds provided and/or received by the Ministry as collateral when realizing repo operations under treasury single accounts liquidity management and/or under lending facilities.
Source: MoF

Table 32: Issued State Treasury Bills as at 31/12/2019

Issue no.	Maturity (weeks)	ISIN	Maturity date	Nominal value outstanding	Nominal value booked on MoF's asset accounts
809	4	CZ0001005839	10/1/2020	3,625,000,000	0
810	4	CZ0001005847	17/1/2020	905,000,000	0
		Total		**4,530,000,000**	**0**

Note: Excl. nominal values of government bonds provided and/or received by the Ministry as collateral when realizing repo operations under treasury single accounts liquidity management and/or under lending facilities.
Source: MoF

Table 33: Issued Savings Government Bonds as at 31/12/2019

Issue name	Issue no.	ISIN	Maturity date	Nominal value outstanding	Nominal value booked on MoF's asset accounts
SSD-I ČR, CPI %, 20	83	CZ0001003990	12/6/2020	402,534,828	0
SSD-I ČR, CPI %, 20 II	87	CZ0001004204	12/12/2020	2,170,048,394	0
SSD-V ČR, VAR %, 20	93	CZ0001004311	12/12/2020	30,582,365	0
SD-R ČR, FIX %, 25	106	CZ0001005623	1/2/2025	2,923,245,940	0
SD-R ČR, FIX %, 25 II	107	CZ0001005631	1/4/2025	900,551,308	0
SD-R ČR, FIX %, 25 III	108	CZ0001005649	1/7/2025	381,042,200	0
SD-I ČR, CPI %, 25	110	CZ0001005714	1/7/2025	4,995,894,108	0
SD-R ČR, FIX %, 25 IV	111	CZ0001005730	1/10/2025	56,389,169	0
SD-I ČR, CPI %, 25 II	112	CZ0001005722	1/10/2025	1,119,582,173	0
SD-F ČR, 1,50 %, 25	113	CZ0001005748	1/10/2025	23,201,524	0
		Total		**13,003,072,009**	**0**

Source: MoF

Table 34a: Medium-Term and Long-Term Government Bonds Issued in 2019

Issue name	Issue/ tranche no.		Auction date	Settlement date	Maturity date	CCY	Max. nominal value offered in the competitive part of auction	Total nominal value sold
ČR, 0.25 %, 27	100	13	9/1	11/1	10/2/2027	CZK	8,000,000,000	8,456,820,000
ČR, 4.20 %, 36	49	15	9/1	11/1	4/12/2036	CZK	3,000,000,000	1,247,000,000
ČR, 2.75 %, 29	105	10	23/1	25/1	23/7/2029	CZK	7,000,000,000	10,051,040,000
ČR, 2.00 %, 33	103	10	23/1	25/1	13/10/2033	CZK	5,000,000,000	5,163,810,000
ČR, 0.25 %, 27	100	14	6/2	8/2	10/2/2027	CZK	5,000,000,000	5,573,320,000
ČR, 2.75 %, 29	105	11	6/2	8/2	23/7/2029	CZK	5,000,000,000	10,478,470,000
ČR, 0.95 %, 30	94	17	6/2	8/2	15/5/2030	CZK	3,000,000,000	7,944,700,000
ČR, 2.75 %, 29	105	12	27/2	1/3	23/7/2029	CZK	5,000,000,000	5,332,270,000
ČR, 0.95 %, 30	94	18	27/2	1/3	15/5/2030	CZK	5,000,000,000	10,171,750,000
ČR, 4.20 %, 36	49	16	27/2	1/3	4/12/2036	CZK	2,000,000,000	2,344,670,000
ČR, 1.00 %, 26	95	16	6/3	8/3	26/6/2026	CZK	5,000,000,000	5,369,320,000
ČR, 2.00 %, 33	103	11	6/3	8/3	13/10/2033	CZK	5,000,000,000	6,880,900,000
ČR, 4.85 %, 57	53	3	6/3	8/3	26/11/2057	CZK	500,000,000	200,000,000
ČR, 0.25 %, 27	100	15	20/3	22/3	10/2/2027	CZK	5,000,000,000	3,927,370,000
ČR, 2.75 %, 29	105	13	20/3	22/3	23/7/2029	CZK	8,000,000,000	4,183,060,000
ČR, 0.95 %, 30	94	19	20/3	22/3	15/5/2030	CZK	3,000,000,000	4,061,340,000
ČR, 1.00 %, 26	95	17	3/4	5/4	26/6/2026	CZK	5,000,000,000	6,337,020,000
ČR, 2.00 %, 33	103	12	3/4	5/4	13/10/2033	CZK	5,000,000,000	5,872,250,000
ČR, 0.95 %, 30	94	20	10/4	12/4	15/5/2030	CZK	5,000,000,000	5,998,990,000
ČR, 4.85 %, 57	53	4	10/4	12/4	26/11/2057	CZK	500,000,000	562,080,000
ČR, 1.00 %, 26	95	18	24/4	26/4	26/6/2026	CZK	3,000,000,000	3,270,190,000
ČR, 2.00 %, 33	103	13	24/4	26/4	13/10/2033	CZK	3,000,000,000	3,741,210,000
ČR, 4.20 %, 36	49	17	24/4	26/4	4/12/2036	CZK	2,000,000,000	2,399,580,000
ČR, 0.25 %, 27	100	16	15/5	17/5	10/2/2027	CZK	3,000,000,000	3,708,030,000
ČR, 2.00 %, 33	103	14	15/5	17/5	13/10/2033	CZK	3,000,000,000	5,840,110,000
ČR, 4.85 %, 57	53	5	15/5	17/5	26/11/2057	CZK	500,000,000	644,590,000
ČR, 1.00 %, 26	95	19	29/5	31/5	26/6/2026	CZK	3,000,000,000	5,541,090,000
ČR, 2.75 %, 29	105	14	29/5	31/5	23/7/2029	CZK	3,000,000,000	3,438,110,000
ČR, 4.85 %, 57	53	6	29/5	31/5	26/11/2057	CZK	500,000,000	1,157,710,000
ČR, 1.00 %, 26	95	20	12/6	14/6	26/6/2026	CZK	3,000,000,000	3,875,970,000
ČR, 2.00 %, 33	103	15	12/6	14/6	13/10/2033	CZK	4,000,000,000	4,628,190,000
ČR, 2.00 %, 33	103	16	26/6	28/6	13/10/2033	CZK	4,000,000,000	4,238,000,000
ČR, 4.85 %, 57	53	7	26/6	28/6	26/11/2057	CZK	500,000,000	1,459,670,000
ČR, 0.25 %, 27	100	17	10/7	12/7	10/2/2027	CZK	3,000,000,000	3,392,770,000
ČR, 2.00 %, 33	103	17	10/7	12/7	13/10/2033	CZK	4,000,000,000	4,149,890,000
ČR, 2.00 %, 33	103	18	24/7	26/7	13/10/2033	CZK	4,000,000,000	4,876,160,000
ČR, 4.85 %, 57	53	8	24/7	26/7	26/11/2057	CZK	1,000,000,000	1,231,050,000
ČR, 0.45 %, 23	97	19	28/8	30/8	25/10/2023	CZK	2,000,000,000	4,820,170,000
ČR, 2.00 %, 33	103	19	28/8	30/8	13/10/2033	CZK	4,000,000,000	2,240,000,000
ČR, 1.00 %, 26	95	21	11/9	13/9	26/6/2026	CZK	4,000,000,000	2,204,750,000
ČR, 0.45 %, 23	97	20	25/9	27/9	25/10/2023	CZK	4,000,000,000	1,940,580,000
ČR, 0.25 %, 27	100	18	25/9	27/9	10/2/2027	CZK	2,000,000,000	4,367,730,000
ČR, 2.00 %, 33	103	20	25/9	27/9	13/10/2033	CZK	2,000,000,000	4,432,170,000
ČR, 0.25 %, 27	100	19	9/10	11/10	10/2/2027	CZK	4,000,000,000	4,591,480,000

Issue name	Issue/ tranche no.		Auction date	Settlement date	Maturity date	CCY	Max. nominal value offered in the competitive part of auction	Total nominal value sold
ČR, 2.00 %, 33	103	21	9/10	11/10	13/10/2033	CZK	4,000,000,000	4,150,980,000
ČR, 0.45 %, 23	97	21	30/10	1/11	25/10/2023	CZK	2,000,000,000	2,073,840,000
ČR, 1.00 %, 26	95	22	30/10	1/11	26/6/2026	CZK	2,000,000,000	2,876,440,000
ČR, 2.00 %, 33	103	22	30/10	1/11	13/10/2033	CZK	3,000,000,000	2,573,470,000
ČR, 0.25 %, 27	100	20	13/11	15/11	10/2/2027	CZK	2,000,000,000	2,285,290,000
ČR, 2.00 %, 33	103	23	13/11	15/11	13/10/2033	CZK	3,000,000,000	3,473,500,000
ČR, 0.45 %, 23	97	22	27/11	29/11	25/10/2023	CZK	2,000,000,000	2,286,700,000
ČR, 2.00 %, 33	103	24	27/11	29/11	13/10/2033	CZK	3,000,000,000	3,089,050,000
ČR, 0.25 %, 27	100	21	4/12	6/12	10/2/2027	CZK	2,000,000,000	2,168,210,000
ČR, 2.00 %, 33	103	25	4/12	6/12	13/10/2033	CZK	4,000,000,000	3,988,000,000
ČR, 0.45 %, 23	97	-	18/12	20/12	25/10/2023	CZK	2,000,000,000	0
ČR, 2.00 %, 33	103	26	18/12	20/12	13/10/2033	CZK	3,000,000,000	3,450,000,000
				Total CZK				**224,760,860,000**
ČR, 0.00 %, 21	109	1	20/2	22/2	20/8/2021	EUR	100,000,000	100,000,000
ČR, 0.00 %, 21	109	2	10/4	12/4	20/8/2021	EUR	100,000,000	100,000,000
ČR, 0.00 %, 21	109	3	19/6	21/6	20/8/2021	EUR	200,000,000	200,000,000
ČR, 0.00 %, 21	109	4	17/7	19/7	20/8/2021	EUR	165,000,000	165,000,000
ČR, 0.00 %, 21	109	5	11/9	13/9	20/8/2021	EUR	100,000,000	100,000,000
				Total EUR				**665,000,000**

Source: MoF, CNB

Table 34b: Medium-Term and Long-Term Government Bonds Issued in 2019

Issue name	Issue / tranche no.		Coupon	Average net price	Average yield to maturity (% p.a.)	Bid-to-cover ratio	Sold in the competitive part of the auction/ Max. nominal value offered (%)	Sold in the non-competitive part of the auction/ Max. nominal value offered (%)
ČR, 0.25 %, 27	100	13	0.25%	88.399	1.806	1.45	100.00	5.71
ČR, 4.20 %, 36	49	15	4.20%	126.286	2.379	1.21	40.33	1.23
ČR, 2.75 %, 29	105	10	2.75%	107.211	1.980	1.49	131.63	11.96
ČR, 2.00 %, 33	103	10	2.00%	96.031	2.321	1.13	100.00	3.28
ČR, 0.25 %, 27	100	14	0.25%	88.952	1.740	1.75	100.00	11.47
ČR, 2.75 %, 29	105	11	2.75%	108.310	1.866	1.28	182.98	26.59
ČR, 0.95 %, 30	94	17	0.95%	89.428	2.008	1.60	247.70	17.12
ČR, 2.75 %, 29	105	12	2.75%	107.743	1.920	1.71	100.00	6.65
ČR, 0.95 %, 30	94	18	0.95%	88.898	2.070	1.37	175.60	27.83
ČR, 4.20 %, 36	49	16	4.20%	122.646	2.592	1.85	107.00	10.23
ČR, 1.00 %, 26	95	16	1.00%	93.988	1.889	1.75	100.00	7.39
ČR, 2.00 %, 33	103	11	2.00%	94.778	2.429	1.99	119.46	18.16
ČR, 4.85 %, 57	53	3	4.85%	145.108	2.896	1.10	40.00	0.00
ČR, 0.25 %, 27	100	15	0.25%	87.633	1.957	3.95	56.98	21.57
ČR, 2.75 %, 29	105	13	2.75%	107.248	1.967	1.07	40.13	12.16
ČR, 0.95 %, 30	94	19	0.95%	89.005	2.064	1.87	100.00	35.38
ČR, 1.00 %, 26	95	17	1.00%	94.656	1.795	2.79	107.87	18.87
ČR, 2.00 %, 33	103	12	2.00%	96.322	2.300	1.93	100.00	17.45
ČR, 0.95 %, 30	94	20	0.95%	89.454	2.021	3.81	100.00	19.98
ČR, 4.85 %, 57	53	4	4.85%	146.189	2.859	1.16	100.00	12.42
ČR, 1.00 %, 26	95	18	1.00%	94.878	1.767	2.21	100.00	9.01
ČR, 2.00 %, 33	103	13	2.00%	97.077	2.238	2.46	107.50	17.21
ČR, 4.20 %, 36	49	17	4.20%	124.376	2.474	2.08	105.61	14.37
ČR, 0.25 %, 27	100	16	0.25%	89.198	1.755	3.86	111.27	12.33
ČR, 2.00 %, 33	103	14	2.00%	97.615	2.194	4.08	170.23	24.44
ČR, 4.85 %, 57	53	5	4.85%	147.096	2.827	2.67	117.00	11.92
ČR, 1.00 %, 26	95	19	1.00%	95.416	1.693	2.85	161.13	23.57
ČR, 2.75 %, 29	105	14	2.75%	109.458	1.725	4.09	100.00	14.60
ČR, 4.85 %, 57	53	6	4.85%	148.913	2.768	1.88	218.97	12.57
ČR, 1.00 %, 26	95	20	1.00%	96.390	1.546	1.92	111.67	17.53
ČR, 2.00 %, 33	103	15	2.00%	101.435	1.884	2.72	100.00	15.70
ČR, 2.00 %, 33	103	16	2.00%	103.072	1.755	1.49	104.53	1.43
ČR, 4.85 %, 57	53	7	4.85%	155.093	2.574	2.21	275.60	16.33
ČR, 0.25 %, 27	100	17	0.25%	91.713	1.410	1.79	100.00	13.09
ČR, 2.00 %, 33	103	17	2.00%	103.741	1.702	1.74	98.01	5.73
ČR, 2.00 %, 33	103	18	2.00%	104.789	1.620	2.60	101.00	20.90
ČR, 4.85 %, 57	53	8	4.85%	158.087	2.483	2.90	107.10	16.01
ČR, 0.45 %, 23	97	19	0.45%	98.072	0.925	1.59	235.50	5.51
ČR, 2.00 %, 33	103	19	2.00%	111.131	1.142	1.11	56.00	0.00
ČR, 1.00 %, 26	95	21	1.00%	98.292	1.264	1.16	55.12	0.00
ČR, 0.45 %, 23	97	20	0.45%	96.893	1.236	4.30	45.75	2.76
ČR, 0.25 %, 27	100	18	0.25%	92.843	1.273	3.87	200.00	18.39
ČR, 2.00 %, 33	103	20	2.00%	107.708	1.392	2.82	213.50	8.11
ČR, 0.25 %, 27	100	19	0.25%	93.363	1.201	3.73	100.00	14.79

Issue name	Issue / tranche no.		Coupon	Average net price	Average yield to maturity (% p.a.)	Bid-to-cover ratio	Sold in the competitive part of the auction/ Max. nominal value offered (%)	Sold in the non-competitive part of the auction/ Max. nominal value offered (%)
ČR, 2.00 %, 33	103	21	2.00%	109.616	1.247	2.20	100.00	3.77
ČR, 0.45 %, 23	97	21	0.45%	97.109	1.198	3.28	90.00	13.69
ČR, 1.00 %, 26	95	22	1.00%	98.001	1.316	1.53	127.05	16.77
ČR, 2.00 %, 33	103	22	2.00%	107.270	1.422	1.10	80.00	5.78
ČR, 0.25 %, 27	100	20	0.25%	91.764	1.457	3.09	100.00	14.26
ČR, 2.00 %, 33	103	23	2.00%	105.227	1.578	1.80	100.00	15.78
ČR, 0.45 %, 23	97	22	0.45%	96.860	1.280	2.74	100.00	14.34
ČR, 2.00 %, 33	103	24	2.00%	105.985	1.518	2.28	100.00	2.97
ČR, 0.25 %, 27	100	21	0.25%	91.810	1.460	2.27	102.50	5.91
ČR, 2.00 %, 33	103	25	2.00%	105.017	1.593	1.45	97.13	2.58
ČR, 0.45 %, 23	97	-	0.45%	-	-	-	-	-
ČR, 2.00 %, 33	103	26	2.00%	104.159	1.660	1.49	115.00	0.00
Average CZK						**2.21**	**115.58**	**12.32**
ČR, 0.00 %, 21	109	1	0.00%	100.070	-0.030	1.92	100.00	-
ČR, 0.00 %, 21	109	2	0.00%	100.278	-0.118	5.23	100.00	-
ČR, 0.00 %, 21	109	3	0.00%	100.671	-0.309	2.21	100.00	-
ČR, 0.00 %, 21	109	4	0.00%	100.749	-0.357	2.80	100.00	-
ČR, 0.00 %, 21	109	5	0.00%	100.870	-0.447	1.49	100.00	-
Average EUR						**2.73**	**100.00**	**-**

Source: MoF, CNB

Table 35: State Treasury Bills Issued in 2019

Issue no.	Maturity (weeks)	Auction date	Issue date	Maturity date	Max. nominal value offered	Total nominal value sold	Yield to maturity (% p.a.)
805	39	3/1	4/1	4/10/2019	5,000,000,000	1,150,000,000	1.545
806	26	17/1	18/1	19/7/2019	5,000,000,000	1,120,000,000	1.565
807	39	31/1	1/2	1/11/2019	5,000,000,000	0	-
808	4	3/10	4/10	1/11/2019	5,000,000,000	40,000,000	1.000
809	4	12/12	13/12	10/1/2020	5,000,000,000	3,625,000,000	-0.100
810	4	19/12	20/12	17/1/2020	5,000,000,000	905,000,000	-0.100
811	3	27/12	30/12	24/1/2020	5,000,000,000	0	-
Total						**6,840,000,000**	**0.456**[1]

[1] *Average weighted yield to maturity of state treasury bills issued in 2019.*
Source: MoF, CNB

Table 36: Savings Government Bonds Issued in 2019

Issue name	Issue no.	Settlement date	Maturity date	Original maturity (years)	Total nominal value sold
SD-R ČR, FIX %, 25	106	1/2	1/2/2025	6.0	2,923,245,940
SD-R ČR, FIX %, 25 II	107	1/4	1/4/2025	6.0	900,551,308
SSD-I ČR, CPI %, 20[1]	83	12/6	12/6/2020	7.0	5,925,849
SSD-I ČR, CPI %, 20 II[1]	87	12/6	12/12/2020	7.0	32,192,664
SSD-V ČR, VAR %, 20[1]	93	12/6	12/12/2020	6.5	296,591
SD-R ČR, FIX %, 25 III	108	1/7	1/7/2025	6.0	381,042,200
SD-I ČR, CPI %, 25	110	1/7	1/7/2025	6.0	4,995,894,108
SD-R ČR, FIX %, 25 IV	111	1/10	1/10/2025	6.0	56,389,169
SD-I ČR, CPI %, 25 II	112	1/10	1/10/2025	6.0	1,119,582,173
SD-F ČR, 1,50 %, 25	113	1/10	1/10/2025	6.0	23,201,524
SSD-I ČR, CPI %, 20[1]	83	12/12	12/6/2020	7.0	4,975,306
SSD-I ČR, CPI %, 20 II[1]	87	12/12	12/12/2020	7.0	27,034,240
SSD-V ČR, VAR %, 20[1]	93	12/12	12/12/2020	6.5	321,604
Total					**10,470,652,676**

[1] *Incl. tranches issued in the form of reinvestment of yields.*
Source: MoF

Table 37a: Realized Lending Facilities of Government Bonds in the Form of Repo Operations in 2019

Issue name	ISIN	Collateral nominal value	Financial resources received	Financial resources paid[1]
ČR, 0.00 %, 22	CZ0001005029	50,000,000	47,910,000	47,908,137
ČR, 0.45 %, 23	CZ0001004600	3,673,000,000	3,533,830,138	3,533,423,397
ČR, 5.70 %, 24	CZ0001002547	358,000,000	444,951,250	444,929,221
ČR, 1.00 %, 26	CZ0001004469	316,000,000	304,845,063	304,833,208
ČR, 0.25 %, 27	CZ0001005037	1,135,000,000	1,003,322,822	1,003,275,703
ČR, 2.50 %, 28	CZ0001003859	518,000,000	554,396,961	554,375,401
ČR, 2.75 %, 29	CZ0001005375	485,000,000	541,515,450	541,489,109
ČR, 2.00 %, 33	CZ0001005243	30,000,000	29,199,452	29,197,181
ČR, 4.20 %, 36	CZ0001001796	80,000,000	107,902,333	107,889,670
Total		**6,645,000,000**	**6,567,873,470**	**6,567,321,028**

[1] Incl. financial resources from lending facilities realized in 2019, which has not been paid during this period.
Note: The average interest rate achieved under lending facilities during 2019 amounted to -0.18% p.a
Source: MoF

Table 37b: Realized Lending Facilities of Government Bonds in the Form of Collateralized Loans of Securities in 2019

Issue name	ISIN	Nominal value	Revenue[1]
ČR, 5.00 %, 19	CZ0001002471	200,000,000	2,671
ČR, 1.50 %, 19	CZ0001003834	550,000,000	17,611
ČR, 0.00 %, 20	CZ0001005011	4,749,000,000	404,493
ČR, 3.75 %, 20	CZ0001001317	50,000,000	4,123
ČR, 0.75 %, 21	CZ0001005367	2,990,000,000	496,863
ČR, 3.85 %, 21	CZ0001002851	4,914,000,000	360,751
ČR, 0.00 %, 22	CZ0001005029	2,140,000,000	196,590
ČR, 4.70 %, 22	CZ0001001945	810,000,000	76,115
ČR, VAR %, 23	CZ0001003123	2,110,000,000	163,815
ČR, 0.45 %, 23	CZ0001004600	5,735,000,000	534,722
ČR, 5.70 %, 24	CZ0001002547	2,045,000,000	296,326
ČR, 2.40 %, 25	CZ0001004253	1,000,000,000	32,709
ČR, 1.00 %, 26	CZ0001004469	6,515,000,000	453,322
ČR, 0.25 %, 27	CZ0001005037	6,576,000,000	522,141
ČR, VAR %, 27	CZ0001004105	6,682,000,000	376,539
ČR, 2.50 %, 28	CZ0001003859	1,785,000,000	116,753
ČR, 2.75 %, 29	CZ0001005375	923,000,000	86,709
ČR, 0.95 %, 30	CZ0001004477	7,110,000,000	553,466
ČR, 2.00 %, 33	CZ0001005243	400,000,000	25,650
ČR, 4.20 %, 36	CZ0001001796	2,195,000,000	172,123
ČR, 4.85 %, 57	CZ0001002059	540,000,000	53,738
Total		**60,019,000,000**	**4,947,230**

[1] Incl. financial resources from lending facilities realized in 2019, which has not been terminated during this period.
Source: MoF

Table 38: Tap Sales of Government Bonds in 2019

Issue name	Issue no.	Settlement date	Maturity date	Average price	CCY	Nominal value
ČR, 4.85 %, 57	53	4/1/2019	26/11/2057	144.090	CZK	50,000,000
ČR, 0.00 %, 20	101	7/1/2019	10/2/2020	98.350	CZK	5,000,000
ČR, 0.00 %, 20	101	16/1/2019	10/2/2020	98.239	CZK	20,000,000
ČR, 0.00 %, 20	101	17/1/2019	10/2/2020	98.239	CZK	50,000,000
ČR, 0.00 %, 22	102	18/1/2019	24/2/2022	94.980	CZK	500,000,000
ČR, 0.00 %, 22	102	21/1/2019	24/2/2022	94.980	CZK	500,000,000
ČR, 4.20 %, 36	49	21/1/2019	4/12/2036	126.600	CZK	200,000,000
ČR, 0.00 %, 20	101	22/1/2019	10/2/2020	98.231	CZK	500,000,000
ČR, 0.00 %, 20	101	23/1/2019	10/2/2020	98.250	CZK	1,000,000,000
ČR, 4.20 %, 36	49	23/1/2019	4/12/2036	126.300	CZK	200,000,000
ČR, 0.00 %, 20	101	24/1/2019	10/2/2020	98.250	CZK	2,000,000,000
ČR, 0.00 %, 22	102	28/1/2019	24/2/2022	95.070	CZK	500,000,000
ČR, 0.95 %, 30	94	28/1/2019	15/5/2030	88.360	CZK	506,000,000
ČR, 0.00 %, 22	102	31/1/2019	24/2/2022	95.130	CZK	500,000,000
ČR, 4.20 %, 36	49	31/1/2019	4/12/2036	125.690	CZK	100,000,000
ČR, 4.20 %, 36	49	1/2/2019	4/12/2036	126.022	CZK	200,000,000
ČR, 0.00 %, 20	101	4/2/2019	10/2/2020	98.300	CZK	1,708,000,000
ČR, 4.20 %, 36	49	4/2/2019	4/12/2036	126.100	CZK	270,000,000
ČR, 0.00 %, 22	102	5/2/2019	24/2/2022	95.330	CZK	500,000,000
ČR, 4.85 %, 57	53	5/2/2019	26/11/2057	148.320	CZK	50,000,000
ČR, 0.00 %, 22	102	7/2/2019	24/2/2022	95.330	CZK	500,000,000
ČR, 0.00 %, 22	102	11/2/2019	24/2/2022	95.400	CZK	500,000,000
ČR, 4.85 %, 57	53	13/2/2019	26/11/2057	148.300	CZK	75,000,000
ČR, 4.20 %, 36	49	6/3/2019	4/12/2036	122.700	CZK	500,000,000
ČR, 2.75 %, 29	105	13/3/2019	23/7/2029	108.150	CZK	100,000,000
ČR, 4.85 %, 57	53	21/3/2019	26/11/2057	145.750	CZK	200,000,000
ČR, 2.00 %, 33	103	26/3/2019	13/10/2033	96.250	CZK	550,000,000
ČR, 4.20 %, 36	49	26/3/2019	4/12/2036	124.250	CZK	400,000,000
ČR, 2.75 %, 29	105	27/3/2019	23/7/2029	108.150	CZK	200,000,000
ČR, 0.95 %, 30	94	27/3/2019	15/5/2030	90.250	CZK	500,000,000
ČR, 2.75 %, 29	105	28/3/2019	23/7/2029	108.150	CZK	1,000,000,000
ČR, 0.95 %, 30	94	28/3/2019	15/5/2030	90.250	CZK	600,000,000
ČR, 2.75 %, 29	105	29/3/2019	23/7/2029	108.250	CZK	2,075,000,000
ČR, 2.75 %, 29	105	1/4/2019	23/7/2029	108.400	CZK	1,000,000,000
ČR, 4.20 %, 36	49	1/4/2019	4/12/2036	125.050	CZK	120,000,000
ČR, 2.00 %, 33	103	2/4/2019	13/10/2033	96.800	CZK	300,000,000
ČR, 4.85 %, 57	53	2/4/2019	26/11/2057	146.750	CZK	200,000,000
ČR, 0.95 %, 30	94	4/4/2019	15/5/2030	90.060	CZK	100,000,000
ČR, 4.85 %, 57	53	9/4/2019	26/11/2057	146.250	CZK	5,000,000
ČR, 0.25 %, 27	100	18/4/2019	10/2/2027	89.060	CZK	200,000,000
ČR, 0.00 %, 20	101	5/6/2019	10/2/2020	98.939	CZK	150,000,000
ČR, 2.50 %, 28	78	11/6/2019	25/8/2028	107.900	CZK	200,000,000
ČR, 2.50 %, 28	78	12/6/2019	25/8/2028	107.900	CZK	155,590,000
ČR, 0.75 %, 21	104	19/6/2019	23/2/2021	98.660	CZK	200,000,000
ČR, 0.95 %, 30	94	19/6/2019	15/5/2030	93.080	CZK	200,000,000
ČR, 4.20 %, 36	49	19/6/2019	4/12/2036	132.660	CZK	200,000,000
ČR, 0.00 %, 22	102	27/6/2019	24/2/2022	96.113	CZK	100,000,000

Issue name	Issue no.	Settlement date	Maturity date	Average price	CCY	Nominal value
ČR, 0.00 %, 20	101	8/7/2019	10/2/2020	99.160	CZK	200,000,000
ČR, 0.00 %, 22	102	8/7/2019	24/2/2022	96.180	CZK	400,000,000
ČR, 0.45 %, 23	97	9/7/2019	25/10/2023	96.362	CZK	400,000,000
ČR, 4.20 %, 36	49	9/7/2019	4/12/2036	134.830	CZK	260,000,000
ČR, 0.00 %, 20	101	10/7/2019	10/2/2020	99.168	CZK	250,000,000
ČR, 0.00 %, 22	102	10/7/2019	24/2/2022	96.189	CZK	200,000,000
ČR, 0.00 %, 22	102	23/7/2019	24/2/2022	96.710	CZK	120,000,000
ČR, 0.00 %, 20	101	18/10/2019	10/2/2020	99.643	CZK	300,000,000
ČR, 0.75 %, 21	104	18/10/2019	23/2/2021	99.430	CZK	250,000,000
ČR, 2.75 %, 29	105	29/10/2019	23/7/2029	113.000	CZK	200,000,000
ČR, 4.20 %, 36	49	5/11/2019	4/12/2036	141.300	CZK	30,000,000
ČR, 4.85 %, 57	53	5/11/2019	26/11/2057	169.700	CZK	100,000,000
ČR, 2.75 %, 29	105	19/12/2019	23/7/2029	111.150	CZK	85,530,000
			Total CZK			**22,485,120,000**
ČR, 0.00 %, 21	109	12/3/2019	20/8/2021	100.122	EUR	250,000,000
ČR, 0.00 %, 21	109	17/5/2019	20/8/2021	100.363	EUR	85,000,000
			Total EUR			**335,000,000**

Source: MoF

Table 39: Realized Exchange Operations of Government Bonds in 2019

Settlement date	Tap-sale			Buy-back		
	Issue name	Nominal value	Average price	Issue name	Nominal value	Average price
4/1/2019	ČR, 2.40 %, 25	500,000,000	103.770	ČR, 5.00 %, 19	500,000,000	100.854
4/1/2019	ČR, 2.40 %, 25	475,000,000	103.770	ČR, 1.50 %, 19	475,000,000	99.794
7/1/2019	ČR, 2.75 %, 29	700,000,000	108.850	ČR, 1.50 %, 19	700,000,000	99.796
7/1/2019	ČR, 2.00 %, 33	215,000,000	99.150	ČR, 5.00 %, 19	215,000,000	100.828
7/1/2019	ČR, 2.00 %, 33	25,000,000	99.150	ČR, 1.50 %, 19	25,000,000	99.796
16/1/2019	ČR, 0.25 %, 27	200,000,000	88.500	ČR, 5.00 %, 19	200,000,000	100.748
16/1/2019	ČR, 0.25 %, 27	100,000,000	88.500	ČR, 1.50 %, 19	100,000,000	99.802
16/1/2019	ČR, 2.75 %, 29	80,000,000	107.881	ČR, 1.50 %, 19	80,000,000	99.802
17/1/2019	ČR, 0.25 %, 27	800,000,000	88.610	ČR, 5.00 %, 19	800,000,000	100.739
17/1/2019	ČR, 0.25 %, 27	450,000,000	88.610	ČR, 1.50 %, 19	450,000,000	99.802
17/1/2019	ČR, 2.75 %, 29	120,000,000	108.100	ČR, 5.00 %, 19	120,000,000	100.739
1/2/2019	ČR, 0.25 %, 27	200,000,000	88.781	ČR, 5.00 %, 19	200,000,000	100.616
1/2/2019	ČR, 0.25 %, 27	190,000,000	88.781	ČR, 1.50 %, 19	190,000,000	99.811
5/2/2019	ČR, 2.75 %, 29	800,000,000	109.256	ČR, 5.00 %, 19	800,000,000	100.580
5/2/2019	ČR, 2.75 %, 29	300,000,000	109.125	ČR, 1.50 %, 19	300,000,000	99.814
5/2/2019	ČR, 2.75 %, 29	125,000,000	109.125	ČR, 3.75 %, 20	125,000,000	103.126
6/2/2019	ČR, 2.00 %, 33	450,000,000	97.720	ČR, 5.00 %, 19	450,000,000	100.572
12/2/2019	ČR, 2.00 %, 33	200,000,000	97.380	ČR, 5.00 %, 19	200,000,000	100.519
11/3/2019	ČR, 4.20 %, 36	350,000,000	122.900	ČR, 5.00 %, 19	350,000,000	100.263
13/3/2019	ČR, 0.95 %, 30	100,000,000	89.525	ČR, 1.50 %, 19	100,000,000	99.839
13/3/2019	ČR, 4.20 %, 36	75,000,000	124.000	ČR, 1.50 %, 19	75,000,000	99.839
15/3/2019	ČR, 4.20 %, 36	195,000,000	124.050	ČR, 1.50 %, 19	195,000,000	99.840
19/3/2019	ČR, 2.00 %, 33	100,000,000	96.125	ČR, 1.50 %, 19	100,000,000	99.842
19/3/2019	ČR, 4.20 %, 36	100,000,000	124.210	ČR, 1.50 %, 19	100,000,000	99.842
26/3/2019	ČR, 2.00 %, 33	105,000,000	96.250	ČR, 1.50 %, 19	105,000,000	99.847
26/3/2019	ČR, 2.00 %, 33	150,000,000	96.250	ČR, 3.75 %, 20	150,000,000	102.852
26/3/2019	ČR, 4.20 %, 36	260,000,000	124.250	ČR, 1.50 %, 19	260,000,000	99.847
26/3/2019	ČR, 4.85 %, 57	200,000,000	145.750	ČR, 1.50 %, 19	200,000,000	99.847
28/3/2019	ČR, 2.75 %, 29	150,000,000	108.150	ČR, 1.50 %, 19	150,000,000	99.848
28/3/2019	ČR, 2.75 %, 29	50,000,000	108.150	ČR, 3.75 %, 20	50,000,000	102.842
29/3/2019	ČR, 2.75 %, 29	50,000,000	108.250	ČR, 3.75 %, 20	50,000,000	102.836
4/4/2019	ČR, 0.95 %, 30	170,000,000	90.060	ČR, 1.50 %, 19	170,000,000	99.852
Total		**7,985,000,000**			**7,985,000,000**	

Source: MoF

Table 40: Detailed Overview of Budgetary Transfers from the State Debt Chapter Realized in 2019

Chapter number	Chapter	Funds allocation	Amount (CZK)
307	Ministry of Defence	Purchase of a small transport aircraft	350,000,000
314	Ministry of Interior	Purchase of service vehicles for the service of security corps	550,000,000
329	Ministry of Agriculture	Reducing the negative impacts of climate change - supporting water management projects	300,000,000
314	Ministry of Interior	Purchase of service vehicles for the service of security corps - Part II.	450,000,000
335	Ministry of Health	Specialized education and transformation of psychiatric hospitals	200,000,000
329	Ministry of Agriculture	Reducing the negative impacts of climate change - supporting water management projects - Part II.	200,000,000
328	Czech Telecommunication Office	Increase in the binding indicator „Net costs representing an unfair financial burden on postal license holders"	1,000,000,000
317	Ministry of Regional Development	Funds for semi-budgetary organization Czech Tourism	100,000,000
329	Ministry of Agriculture	Financing of water management projects	500,000,000
334	Ministry of Culture	Financing of living art	250,000,000
334	Ministry of Culture	Funds for the Czech Film Fund for movie production incentives	500,000,000
314	Ministry of Interior	Covering of the deficit in the area of social benefits - increase in expenditures for the payment of the retirement allowance	300,000,000
313	Ministry of Labour and Social Affairs	Increasing in sickness insurance benefits	300,000,000
327	Ministry of Transport	Covering of the budget deficit of The State Fund for Transport Infrastructure in 2019	1,000,000,000
		Total	**6,000,000,000**

Source: MoF

Key Information 2019

- State debt at the level of CZK 1,640.2 bn, i.e. 29.0% GDP
- Share of the state debt, which is not connected to any net interest expenditure: 6.1%
- Financing needs: CZK 317.9 bn
- Gross borrowing requirement: CZK 309.4 bn
- Gross issue of T-Bonds on domestic market denominated in local currency: CZK 255.2 bn
- Gross issue of T-Bonds on domestic market denominated in euro: EUR 1.0 bn
- Gross issue of T-Bonds on foreign markets: CZK 0.0 bn
- Gross issue of savings government bonds: CZK 10.5 bn
- Redemptions of T-Bonds issued on domestic market denominated in local currency: CZK 238.5 bn
- Redemptions of T-Bonds issued on domestic market denominated in euro: EUR 0.0 bn
- Redemptions of T-Bonds issued on foreign markets: CZK 0.0 bn
- Redemptions of savings government bonds: CZK 2.7 bn
- Average weighted time to maturity of sold T-Bonds denominated in local currency: 11.1 years
- Average weighted time to maturity of sold T-Bonds denominated in euro: 2.3 years
- Average weighted yield to maturity of sold T-Bonds denominated in local currency: 1.82% p.a.
- Average weighted yield to maturity of sold T-Bonds denominated in euro: -0.21% p.a.
- Net revenue within liquidity management and borrowing operations with negative yield: CZK 3.9 bn
- Average time to maturity of state debt: 6.2 years
- Short-term state debt: 12.7%
- Average time to re-fixing of state debt: 5.6 years
- Interest re-fixing of the debt portfolio within 1 year: 24.6%

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The publication was prepared based on the information available on 14 February 2020 and is also available online at:

www.mfcr.cz/statedebt

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