# **Ministry of Finance**

of the Czech Republic

# Fiscal Outlook of the Czech Republic

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# **Fiscal Outlook**

of the Czech Republic

November 2018

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The Fiscal Outlook of the Czech Republic is published by the Economic Policy Department of the MF CR, since 2016 annually in November. It contains forecast of the current and next year (i.e. up to 2019) and also the outlook of some economic indicators to the following 2 years (i.e. up to 2021). The Outlook is available on internet pages of MF CR at:

#### http://www.mfcr.cz/FiscalOutlook

As an integral part of the Fiscal Outlook stands the Methodological Manual, which defines, specifies and explains terms, methods and statistics used in the Outlook.

Relevant comments and ideas helping to improve the quality of the publication are welcomed at:

#### Fiscal.Outlook@mfcr.cz

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#### **List of Abbreviations**

bn billion	
c. p current price	25
CNB Czech Nation	nal Bank
CR Czech Reput	olic
CZK Czech korun	a currency code
CZSO Czech Statist	cical Office
EC European Co	ommission
ESA 2010 European Sy	stem of National and Regional Accounts from year 2010
EU, EU28 European Ui	nion (EU28 coverage)
EUR euro currend	cy code
GDP gross domes	tic product
IMF Internationa	l Monetary Fund
MF CR Ministry of F	inance of the Czech Republic
OECD Organisation	ofor Economic Co-operation and Development
QoQ quarter-on-o	quarter
p. a per annum (	per year)
pp percentage	point
s. p constant pri	ces (volumes)
YoY year-on-yea	r

#### Symbols Used in Tables

A dash (–) in place of number indicates that the phenomenon did not occur or is not possible for logical reasons. "Billion" means a thousand million.

#### **Cut-off Date for Data Sources**

Macroeconomic data used pertain to the 10 October 2018 release, fiscal data to the 1 November 2018 release, data for international comparison to the 22 October 2018 release and government bond yields to the 11 October 2018 release, respectively.

#### Note

In some cases, published aggregates do not match the sum of individual items to the last decimal point due to rounding.

# **Introduction and Summary**

In the first half of the year, the Czech economy grew by 3.0% year-on-year. Growth is slowing from last year's 4.3%, basically to potential product growth. Gross domestic product growth was based solely on robust domestic demand. This development is reflected in record public finance surpluses. In 2017, the general government of the Czech Republic ended with a positive balance of 1.5% of GDP; for the first time, all three of the basic components contributed to the surplus: not only local governments and social security funds, but also the central government. The structural balance reached 1.0% of GDP and the Czech Republic, with a considerable margin, met its commitments in the form of the medium-term budgetary objective. The current prediction of general government sector indicates that the positive balance in this and also in the following years will be maintained. In accordance with the expected macroeconomic development and budgetary impact of government policies we estimate for the coming years that the structural balance should continue to be positive and the total balance should be around 1% GDP due to economic growth.

The state budget balance for January to October 2018 reached a surplus of nearly CZK 6 billion. By the end of September, local governments reported a surplus CZK 23 billion, and health insurance companies reported a positive balance CZK 10 billion. National tax revenues keep their dynamics around 8.3%. As a result of the good economic situation, there is a particularly strong growth in the collection of personal income tax, which grew by more than 14%. Similarly, double-digit growth can also be observed for social security contributions or property taxes.

A positive phenomenon, although reducing the balance, is the increase in investment expenditure. After a weaker first quarter, government investment in the second quarter increased by more than 20%, with a marked increase in investments co-financed by EU funds and financial mechanisms. For the first half of the year, the growth of co-funded capital expenditures was about 70%. Thus the risk of non-utilisation of 2014 and 2015 allocations by the end of 2018 according to arranged rules is greatly reduced.

The Act on Fiscal Responsibility Rules, which has completely changed the way in which the budgetary frameworks for state budget and state funds are derived, also introduced institutional control mechanisms within the budgetary process. In January 2018, the National Budget Council started to perform its mandate, as an independent supervisory body for the performance of public finances of the Czech Republic. In cooperation with the Ministry of Finance, a new methodology was developed for the identification of one-off and temporary measures for the purpose of applying the national fiscal rule. Furthermore, the method of adjusting the general government sector balance for the impact of the business cycle was agreed. The National Budget Council has thereby become involved in this year's budgetary process since the beginning. The second institution that started its activity this year is the Committee on Budgetary Forecasts, which assesses the macroeconomic and fiscal forecasts of the Ministry of Finance in terms of their likelihood.

The values and derivations of expenditure frameworks for 2019 to 2021 are contained in the Budgetary Strategy for the General Government Sector of the Czech Republic, approved by the Government on 30 April 2018. Updated framework amounts are the basis for a draft state budget and state fund budgets for 2019 and their medium-term outlooks. The present Fiscal Outlook of the Czech Republic relies on them in particular in public expenditure set-up. Moreover, it is based on the November Macroeconomic Forecast for the Czech Republic prepared by the Ministry of Finance, to which it adds detailed aspects of the fiscal development.

The Fiscal Outlook of the Czech Republic expects for this year a surplus of the general government sector of 1.6% of GDP, which should be spread across all sub-sectors again. For the year 2019, we estimate the surplus at 1.0% of GDP, reflecting the fulfilment of the government's programme priorities in the social area, as well as in the investment expenditures in both physical and human capital. In the following years, we expect surpluses to trend towards 0.8% of GDP in 2021. The structural balance should be positive in all years of the outlook. The Czech Republic should therefore continue to meet its medium-term budgetary objective under the preventive arm of the Stability and Growth Pact. Given the surpluses and nominal GDP growth, general government debt should continue to decrease throughout the outlook and reach 30% of GDP in 2021.

The guantified future expenditure of the pension system in the Czech Republic gives an idea about the causes and magnitude of the risks of its long-term sustainability. The current Eurostat demographic projection foresees a relatively large decline in the population of the Czech Republic in the long term. The ratio of people over the age of 65 to the working age population (15–64 years) should almost double by 2070 and reach approx. 50%. By 2070, expenditure on pensions should increase by 2.8 percentage points from 8.2% of GDP to 10.9% of GDP. The real cost of ageing will also be significantly dependent on possible revisions of the retirement age in line with the expected life expectancy. In addition to the current forecast, the impact of recently approved measures to increase the average level of pensions beyond the normal indexation, i.e. the increase in the flat-rate component and the increase of benefits for those aged at least 85 are also calculated. These changes will lead to an increase in pension expenditure by around 0.3 pp in the long term.

# **1** Macroeconomic Framework of the Fiscal Forecast

From around 5% in the second half of 2017, economic growth slowed down to 3.4% in Q1 2018 and further to 2.7% in Q2. Despite this decrease in dynamics, however, the fundamentals of the Czech economy remain strong. We expect real GDP to grow by 3.0% in 2018, with the pace of growth then gradually slowing down to 2.5% in 2021.

This year, the growth in economic output should be driven exclusively by domestic demand. The main progrowth factor should be investment in fixed capital, as well as final consumption expenditure of both households and the general government sector. Conversely, the change in inventories as well as the foreign trade balance should weigh on economic growth. Export growth should be supported by export markets growth and, though to a limited extent, also by improving export performance. Imports of goods and services should grow faster than exports, primarily due to the dynamics of gross fixed capital formation, which, like exports, is characterized by high import intensity. Domestic demand should remain the main driver of GDP growth also in 2019-2021; the effect of net exports on economic growth should be neutral in 2019 and slightly positive in 2020 and 2021.

Growth in household consumption declined in the first half of this year compared to the same period of 2017, despite significantly higher dynamics of real disposable income. This was due to the YoY increase in the savings rate. Considering the very high level of consumer confidence, we expect that the savings rate will decline marginally in 2018 as a whole, thereby supporting household consumption growth, but we do not expect any further decline for 2019. Household consumption, which could increase by 3.6% in 2018 and 2019, will be therefore almost exclusively influenced by rising disposable income. Households' disposable income is boosted by high wage dynamics (to which increases in the minimum and guaranteed wages contribute), salary increases in the general government sector, discretionary changes in the social area and a robust increase in pensions in 2019 (for more details, see Section 3.2). In 2020 and 2021, household consumption growth could slow down to 2.9% and 2.7%, respectively, as a result of lower expected dynamics of disposable income and a moderate increase in the savings rate.

Gross fixed capital formation was by far the most dynamic component of domestic demand in the first half of this year with its YoY growth reaching almost 9%. Investment activity was driven mainly by private investment, but government sector investment grew by almost 25% YoY in Q2, significantly boosting the overall investment dynamics. Private investment is stimulated by economic growth abroad, loose monetary conditions, a slightly above-average capacity utilization in manufacturing, and growth in gross operating surplus. The increasingly acute shortage of labour and the declining relative cost of capital against labour costs motivate firms to invest with a view to raise labour productivity. In the case of the general government sector, we expect growth in investment expenditure financed from national resources in 2018–2021. Private investment and government sector investment should also be supported by European Union (EU) funds from the 2014–2020 programming period. Gross fixed capital formation could therefore increase by 7.8% this year. The expected slowdown in investment activity to 3.2% in 2019 reflects the high level of this year, tighter monetary conditions, slower growth in major trading partners' economies, and an expected slowdown in the growth of government sector investment. In 2020 and 2021, investment growth could be just below 3%.

Since the beginning of 2017, the YoY growth of consumer prices hovers, with a few exceptions, in the upper half of the tolerance band of the Czech National Bank's 2% inflation target. Given the pro-inflationary effects in the form of wage and salary increases, positive output gap and an increase in CZK price of oil, it can be expected to stay at this level to mid-2019. The average inflation rate could reach 2.2% in 2018 and 2.3% in 2019. Consumer prices should grow at a slightly slower pace in 2020–2021 and the inflation rate should be 1.9% in 2020 and 1.8% in 2021. The contribution of administrative measures to inflation should be small in the entire 2018–2021 horizon.

The labour market situation shows signs of overheating. While the unemployment rate in the Labour Force Survey methodology has apparently already reached its bottom slightly above 2%, registered unemployment is further declining. The number of vacancies is at a record high, employment and participation rates are rising, and dynamics of the wage bill is around 10%. We believe that a further decline in unemployment is no longer likely, and that it should remain at 2.3% in 2018–2021. Employment could increase by 1.3% this year, but it should grow at a considerably slower pace in the following years, namely by 0.2% in 2019 and 2020 and by 0.3% in 2021. There will be two contradictory forces: a decrease in the working age population and an increase in the participation rate, which will also be supported, in addition to rising retirement age, by changes in the structure of the working age population (the share of age groups with a naturally high participation rate will grow). The wage bill should increase very dynamically in 2018 and 2019 - this year by 9.5% and next year by 8.4%. In 2020-2021, the wage bill growth could be above 6%. The rise in wages and salaries will not only be driven by the above-mentioned imbalances in the labour market, but also by the increase in the volume of salaries in the general government sector. For 2019, we also expect an increase in the minimum wage by CZK 1,000 and a corresponding increase in guaranteed wage levels.

The current account of the balance payments has been reaching a surplus since 2014. The current account should show positive balance in the whole horizon of 2018–2021, even with a high surplus on the balance of goods and services and, on the contrary, a significant deficit of primary income.

For the strongly export-oriented Czech economy, the shape of the future relationship between the United Kingdom and the EU is currently the main negative risk, particularly in the area of free movement of goods and services. As part of the negotiations on the conditions under which the United Kingdom will leave the EU at the end of March 2019, consensus on some of the contentious issues (e.g. the common border regime with Ireland) has not been reached yet. The risk that no agreement will be concluded before that date, or that an agreement will be concluded but not approved, is

therefore significantly increasing. Nevertheless, we still expect that an agreement that will minimize the overall effects of the United Kingdom's exit from the EU will eventually be found and approved. Tendencies to increase protectionism, manifested mainly by the rise in tensions in mutual trade relations between the United States and China, also pose a significant external risk.

The main domestic risk is the labour market situation. Taking into account the projected demographic trends, the increase in labour productivity will therefore be key to the continuation of economic growth. However, as a result of lower investment growth (e.g. due to external risks), labour productivity growth could lag behind expectations. In the case of investments, it will be crucial to make good use of EU funds from the 2014–2020 programming period. Negative risks are also associated with the dynamics of mortgages and property prices.

		2017	2018	2019	2020	2021	2017	2018	2019	2020	
		Actual	Curr	ent Forecast	and Outloo	k	April 2018 Convergence Programme				
Gross domestic product, nominal	bn CZK, c.p.	5045	5296	5568	5817	6072	5055	5320	5596	5840	
	% growth, c.p.	5.8	5.0	5.1	4.5	4.4	5.9	5.2	5.2	4.4	
Private consumption	% growth, c.p.	6.7	6.3	6.0	4.9	4.5	6.5	6.6	6.1	4.8	
Government consumption	% growth, c.p.	5.4	7.0	6.4	4.3	4.3	5.4	5.0	5.8	4.3	
Gross domestic product, real	% growth, s.p.	4.3	3.0	2.9	2.7	2.5	4.4	3.6	3.3	2.6	
Private consumption	% growth, s.p.	4.3	3.6	3.6	2.9	2.7	4.0	4.3	4.1	2.9	
Government consumption	% growth, s.p.	1.3	2.5	2.1	1.9	1.9	1.5	1.9	2.0	1.8	
Gross fixed capital formation	% growth, s.p.	3.3	7.8	3.2	2.9	2.8	5.4	5.7	4.4	3.0	
Contr. of net exports to GDP growth	p.p., s.p.	1.1	-0.4	0.0	0.2	0.2	1.0	-0.2	-0.1	0.1	
GDP deflator	% growth	1.5	1.9	2.2	1.7	1.8	1.4	1.5	1.8	1.7	
Inflation	in %	2.5	2.2	2.3	1.9	1.8	2.5	2.1	1.9	1.8	
Employment	% growth	1.6	1.3	0.2	0.2	0.1	1.6	0.7	0.2	0.2	
Unemployment rate	average in %	2.9	2.3	2.3	2.3	2.3	2.9	2.4	2.3	2.3	
Wages and salaries	% growth, c.p.	8.2	9.5	8.4	6.3	6.1	8.3	7.7	6.5	5.5	
Current account balance	in % of GDP	1.1	0.4	0.4	0.6	0.9	1.1	0.4	0.2	0.3	
Assumptions:											
Exchange rate CZK/EUR		26.3	25.5	24.9	24.4	24.0	26.3	25.1	24.7	24.3	
Long-term interest rates	% p.a.	1.0	2.1	2.6	3.0	3.3	1.0	1.9	2.2	2.6	
Crude oil Brent	USD/barrel	54.2	73.9	76.9	73.0	69.6	54.2	65.2	61.4	58.6	
GDP in Eurozone EA19	% growth, s.p.	2.4	2.0	1.7	1.7	1.7	2.3	2.3	1.8	1.8	

Note: Figures for employment and unemployment are based on the Labour Force Survey.

Source: MF CR (2018a, 2018b).

# 2 Short-term Development of General Government Sector Finances

### 2.1 General Government Sector Finances in the CR in 2017

According to data published by the CZSO (2018b), the general government sector performance in 2017 reached a surplus of CZK 78.2 billion, i.e. 1.5% of GDP. The surplus was achieved for the second consecutive year, and at the same time it was the highest value in the entire available time series (i.e. since 1995). In comparison with 2016, it is an improvement by 0.8 pp; after adjustment for the business cycle and one-off or other temporary measures by 0.1 pp.

In comparison with the 2018 Convergence Programme of the CR (MFCR, 2018a) and the April Government Deficit and Debt Notification, the CZSO revised the 2017 data with a negative impact on the overall balance of CZK 2.4 billion. The decrease in surplus was particularly due to up-to-date data for public universities (CZK –1.4 billion), local public allowance organizations (CZK –0.7 billion) and public hospitals (CZK –0.3 billion). The revision has affected both revenue and expenditure sides. The increase of total revenues by CZK 1.8 billion

Table 2.1: General Government Revenue (2012–2018)(in % of GDP)

both higher transfers, was due to current (CZK +1.4 billion) and capital (CZK +2.4 billion). On the other hand, the amount of tax revenues was adjusted downwards by CZK 1.4 billion, of which indirect taxes accounted for CZK 1.1 billion. The expenditure of general government sector increased by CZK 4.2 billion, which was reflected in higher capital transfers (CZK +3.7 billion), investment (CZK +2.6 billion) and intermediate consumption (CZK +1 billion). However, the resulting increase in expenditures as a result of the adjustment is smaller, especially due to lower subsidies (CZK -1.6 billion) and social transfers in kind (CZK -1.2 billion).

The general government debt reached CZK 1,749.5 billion at the end of 2017, accounting for 34.7% of GDP. The growth of the debt ratio of 0.1 pp compared to the April notification is related mainly to the revision of nominal GDP.

	2012	2013	2014	2015	2016	2017	2018
eneral government revenue	40.5	41.4	40.3	41.1	40.2	40.5	41.7
Tax revenue	19.3	19.9	19.1	19.5	19.9	20.2	20.5
Individual income tax	3.6	3.7	3.7	3.6	3.8	4.0	4.4
Corporate income tax	3.1	3.2	3.3	3.4	3.5	3.5	3.4
Value added tax	7.0	7.4	7.4	7.3	7.4	7.7	7.9
Excise taxes	4.3	4.4	3.5	4.0	3.8	3.7	3.5
Other taxes and contributions	1.2	1.2	1.2	1.2	1.3	1.3	1.3
Social security contributions	14.8	14.8	14.6	14.4	14.7	15.1	15.7
Sales	3.6	3.7	3.5	3.4	3.3	3.2	3.2
Other revenues	2.8	3.0	3.1	3.8	2.3	2.1	2.3

Source: CZSO (2018a, 2018b). Year 2018 MF CR.

#### Table 2.2: General Government Expenditure (2012–2018)

(in % of GDP) 2012 2013 2014 2015 2016 2017 2018 General government expenditure 44.5 42.6 42.4 41.7 39.5 39.0 40.1 19.7 Government consumption 19.8 20.2 19.2 19.3 19.2 19.6 Social benefits other than social transfers in kind 13.1 13.3 12.9 12.4 12.2 11.8 11.9 Gross fixed capital formation 4.2 3.7 4.1 5.1 3.3 3.4 3.8 Other expenditures 7.4 5.4 5.7 5.0 4.8 4.5 4.9

Source: CZSO (2018a, 2018b).Year 2018 MF CR.

#### Table 2.3: Balance of General Government and of Subsectors (2012–2018)

(in % of GDP)

	2012	2013	2014	2015	2016	2017	2018
General government balance	-3.9	-1.2	-2.1	-0.6	0.7	1.5	1.6
Central government balance	-3.7	-1.6	-2.2	-1.2	-0.4	0.6	0.7
Local government balance	-0.1	0.3	0.2	0.6	1.0	0.8	0.7
Social security funds balance	-0.2	0.0	-0.1	0.0	0.1	0.2	0.2
Primary balance	-2.5	0.1	-0.8	0.5	1.6	2.3	2.3

Source: CZSO (2018a, 2018b). Year 2018 MF CR.

#### Table 2.4: Debt of General Government and Change in the Gross Debt (2012–2018)

(in % of GDP)

	2012	2013	2014	2015	2016	2017	2018
General government debt	44.5	44.9	42.2	40.0	36.8	34.7	33.0
Central government debt	41.8	42.3	39.7	37.9	35.9	34.4	32.9
Local government debt	2.8	2.8	2.7	2.4	1.9	1.7	1.5
Social security funds debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Change in debt-to-GDP ratio	4.6	0.4	-2.7	-2.2	-3.1	-2.1	-1.6
Primary general government balance	2.5	-0.1	0.8	-0.5	-1.6	-2.3	-2.3
Interest expenditure	1.4	1.3	1.3	1.1	0.9	0.7	0.7
Nominal GDP growth	-0.3	-0.4	-2.2	-2.6	-1.4	-2.0	-1.6
Other factors	1.0	-0.4	-2.6	-0.2	-1.0	1.4	1.6

Note: Difference between the general government debt and the sum of its subsectors is due to consolidation. Source: CZSO (2018a, 2018b). Year 2018 MF CR and Eurostat (2018b).

### 2.2 General Government Sector Finances in the CR in 2018

For 2018, we expect the general government sector to achieve a surplus of 1.6% of GDP, with a positive contribution of all sub-sectors. The estimated surplus this year is also supported by the current cash development of the performance of state budget, budgets of local governments and budgets of health insurance companies. In terms of the structural balance, we estimate 1.1% of GDP, similar to the previous year.

In comparison with the 2018 Convergence Programme of the CR (MF CR, 2018a), we expect an improvement of the general government balance by 0.1 pp. The reason is mainly higher dynamics of the revenue side. Due to cash collection, higher revenues are expected for both direct (by CZK +7.1 billion) and indirect taxes (by CZK +8.5 billion). In addition to better collection of tax revenues, higher revenues are expected, in comparison with the spring forecast, for social security contributions (CZK +15.6 billion). The positive impact of faster revenue growth should be offset by higher final consumption expenditure, namely compensation of employees (CZK +18.3 billion) intermediate consumption and (CZK +3.3 billion). Also, investment expenditure (CZK +7.6 billion) and transfer payments (CZK +6 billion) should grow faster. The forecast of expenditure on cash social benefits (by CZK -2.9 billion) and interest costs of the debt service (by CZK -1.4 billion) have been adjusted downwards. The following part of this subchapter explains these differences.

General government revenues should increase by 8.0% YoY in 2018, to 41.7% of GDP, with tax revenue including social

security contributions being the determining factor. We expect their growth rates to match the growth rate of total revenue. As a result of increasing the efficiency of tax collection and the increase in the relative share of compensation of employees, the overall tax-to- GDP ratio should increase by 1.0 pp to 36.2%.

Indirect tax revenue should increase by 5.4%, primarily due to value-added tax, its collection we expect to increase by 7.4%. Growth will therefore probably exceed the increase in macroeconomic base by more than 1 pp. The high dynamics of revenues from this tax is also indicated by the results of cash performance for the first ten months of the year, according to which the collection of value added tax in public budgets increased by 8.1%. In addition to economic growth, revenues also reflect measures against tax evasion introduced in 2016. Due to VAT reporting, we expect a YoY increase in value added tax revenue of CZK 3 billion, with an estimated CZK 1.5 billion increase in revenue due to electronic registration of sales. The VAT revenue from the increase in the tax rate on tobacco products is likely to be fully offset by the expected lower consumption of tobacco in connection with the so-called anti-smoking law (Act No. 65/2017 Coll.). Measures that negatively affect tax revenues include the additional impact of some measures already introduced in 2017 allowing Czech Television and Czech Radio to claim tax refunds to the same extent as commercial stations and the reclassification of newspapers and magazines from 15% to 10% tax rate. The cumulative budgetary impact of these two measures is CZK 0.4 billion.

The excise tax revenue should increase only by 0.4%. The year 2018 is the last one of the three-year plan when the rate of excise duty on tobacco products was increased (Act No. 315/2015 Coll.). The expected positive effect on the YoY excise tax revenue growth is CZK 1.4 billion. A slightly positive growth is also expected due to the commencement of the second period of excise tax refund on diesel fuel consumed in agricultural primary production by livestock producers (Act No. 453/2016 Coll.). Introduction of three tax rates depending on livestock production intensity, applicable between 1 July 2017 and 31 December 2018, should mitigate the negative YoY effect on revenues by CZK 0.1 billion. These impacts of the said discretionary measures should be offset by the aforementioned Act on the Health Protection from the Harmful Effects of Addictive Substances, effective from the end of May 2017, whose full effect in the consumption of tobacco products will not be seen until this year. Another possible impact on the collection may be the transfer of consumers to alternative products such as electronic cigarettes or heated tobacco products.

Strong wage bill growth is reflected in the dynamics of personal income tax. The YoY revenue from this tax should increase by 15.8%, as evidenced by more than 14% higher tax collection since the beginning of the year. In addition to the impact of the volume of wages bill (9.5%) and changes in its distribution after the increase in minimum and guaranteed wages, the positive contribution of electronic registration of sales is also expected. With effect from 1 January 2018, tax credit for the first child increased by CZK 150 per month (Act No. 200/2017 Coll.), which should lead to a drop in personal income tax by CZK 2.4 billion in 2018. Other measures negatively influencing tax revenue include introduction of new sickness insurance allowances, allowance in particular long-term care (Act No. 310/2017 Coll.) with effect from 1 June 2018 with an expected impact of CZK -0.1 billion.

Similar factors to those applicable to personal income tax also influence the developments of social security contributions; in addition, increased state payments for state insured persons will amount to approx. CZK 3.3 billion per year in 2018. The positive impact of the electronic registration of sales is expected to amount to CZK 0.6 billion. Introduction of new sickness insurance allowances, in addition to the aforementioned long-term care allowance, also paternity leave (Act No. 148/2017 Coll.), for which we expect a total effect of approx. CZK 0.7 billion, should have a contrary effect on revenues in this year. The increase in social security contributions is projected at 9.7% after taking into account the discretionary measures; with health and social insurance revenues increasing by about 10% YoY in up-to-date cash performance.

The increasing share of compensation of employees in GDP is reflected in the profitability of companies. The dynamics of corporate income tax should therefore slow down considerably this year. The expected YoY growth of 1.2% is almost 4 pp lower than that in 2017. Companies' profits are affected not only by higher wage costs but also by slightly

decelerating dynamics of the economy. The positive effect of electronic registration of sales should be reflected here in the amount of CZK 0.3 billion.

In line with the expected gradual acceleration of the implementation of projects co-funded from European structural and investment funds, we expect in 2018 an increase both in current and investment subsidies utilised in the 2014–2020 programming period.

General government sector expenditure should increase by 8.1% YoY to 40.1% of GDP. This growth is due to both current expenditures (mainly compensation of employees and cash social benefits) and investment expenditure.

The dynamics of final general government consumption should accelerate to 7%, and we expect the fastest growth in compensation of employees (11.5%). This reflects the salary increases for almost all employees in the general government sector by 10% (15% for teachers), which occurred already in 2017. Since January 2018, salary scales in healthcare have also risen by 10%.

In addition to compensation of employees, social transfers in-kind should also increase. The primary reason for their expected almost 5% increase is the prognosis of healthcare system revenue, which is to some extent reflected in expenditure adjustment. The YoY increase in social transfers in kind will also be influenced by the discretionary measures of CZK 0.7 billion as a result of higher benefits for people with disabilities (Act No. 301/2017 Coll.) and of 0.4 billion CZK in connection with reduction in protective limits for co-payments for drugs for children under 18 years and pensioners (Act No. 290/2017 Coll.). Estimated growth of social transfers in-kind corresponds to their growth in the first half of this year, when they grew by 5.1% according to quarterly national accounts.

Intermediate consumption should grow at a rate exceeding 4% due to higher real consumption (purchases in medical facilities included in the general government sector and the purchase of goods and services co-financed by the EU) but also due to a higher inflation rate.

The growth rate of cash social benefits should double to 5.5% YoY. This development should reflect both social measures already approved in 2017 as well as the macroeconomic environment. The most important growth item is pension benefits. As a result of the rise in the price level and the substantial real wage growth in recent years, pensions were indexed by 4%, which represents approx. CZK 17 billion. Part of this increase (approximately CZK 2.5 billion) is due to a change in the indexation formula, which, since 2018, is the sum of consumer price index or pensioner cost of living index growth (whichever is higher) and one half of real wage growth, instead of one third (Act No. 203/2017 Coll.).

Other social measures aim to support people with disabilities both by increasing benefits and providing them to a wider range of applicants as well as by supporting their employment. The target group also includes persons with a long-term sickness or their caretakers. Finally, the government aims to support families with children, by increasing social benefits, supporting the return of mothers to the labour market or introducing paternity leave. Excluding the aforementioned impacts in the pension area, the impact of discretionary growth of expenditures on these measures is predicted to be CZK 9.7 billion. Of this, the most significant influence is expected for pro-family policy measures (about CZK 5 billion) and the measures related to the adjustments in the area of sickness insurance (CZK 3 billion). Cash social benefits also include state payments for state-insured persons, which should be up CZK 3.3 billion in 2018 YoY.

For interest expenditure, the forecast envisages a change in the decreasing trend, reflecting the gradual increase in interest rates reflecting the monetary policy tightening in the CR, which affects the financial markets. Despite their slight YoY increase, however, the interest expenditure in relation to GDP should remain at the 2017 level (0.7% of GDP).

The forecast predicts for 2018 acceleration of investment expenditure co-financed by funds from the 2014–2020 financial perspective. Two-thirds of the almost 18% investment growth should be funded from national sources. After a traditionally weaker investment activity at the beginning of the year, the national accounts data show a significant shift in Q2 2018, with a growth rate of gross fixed capital formation of 23%, mainly due to local governments.

As part of other expenditure, we expect a negative discretionary impact in 2018 amounting to approximately CZK 3.3 billion, in connection with the introduction of a 75% fare discounts for students under 26 and senior aged over 65, in effect from September of this year (Government Resolution No. 2016/2018).

The absolute government debt should remain almost unchanged at the end of 2018 compared to 2017, but nominal GDP growth of 5% should result in a YoY decline in relative debt to 33.0% of GDP.

#### Box 1: Changes in the Methodical Classification of Certain Revenue and Expenditure of General Government Sector Changes in sectoral classification of units

With effect from January 2017, except for some state-owned companies in liquidation, OTE a.s. has been included in the general government sector. Its sole shareholder is the CR, while the exercise of shareholder rights is carried out by the Ministry of Industry and Trade. OTE, a.s. is the organizer of the short-term electricity and gas market and performs clearing and settlement of deviations, i.e. differences between the agreed and actually off-taken or produced quantities of electricity and gas. The company also operates in the field of operating support for electricity from renewable sources and other supported energy sources.

Within the general government sector, OTE's activities related to renewable energy sources were registered prior to its classification into this sector. Part of the contribution to renewable energy sources paid as a subsidy from the Ministry of Industry and Trade was reflected as state budget expenditure in the form of transfer to non-financial non-business entities – legal entities (D.31 – Subsidies on production). The remaining part of the contribution charged in energy invoices is newly reclassified through the general government sector as a tax revenue (D.2 – Taxes on production and imports) with a reflection in the transfer item (D.31 – Subsidies on production) on expenditures. The effect of reclassification on the general government sector balance is thus only in the amount of other transactions related to the company's activities.

#### Changes in recording revenues from the sale of UMTS and LTE licences

Adjustments in the recording of revenues from the sale of frequency bands to mobile operators stem from a guidance issued by Eurostat (Eurostat, 2017a). The changes concern the concept of the sale of licences to use the frequency bands as a rent (D.45), thus spreading the impact on the balance over the individual years of validity of the licence. It would have a one-off impact only if the underlying asset (NP – non-produced assets) was sold at the same time. As a consequence, general government sector accounts now record revenues as spread over time for which the rights to use frequencies are granted, while the previous record reflected the sale of frequency bands as a one-off item in general government sector accounts. These adjustments are currently included in the annual and quarterly accounts series from 2014. For the years before 2014, the change will be taken into account when reviewing national accounts in 2020.

### 2.3 International Comparison

#### 2.3.1 General Government Balance

The general government deficit of EU countries was 1.0% of GDP in 2017. In comparison with 2016 it was lower by 0.7 pp. The CR recorded a general government surplus of 1.5% of GDP, which was the fourth highest surplus in the EU in 2017. Only Malta (3.5% of GDP), Cyprus (1.8% of GDP) and Sweden (1.6% of GDP) posted higher surpluses. While in the first two countries, the surplus was due to all sub-sectors (as in the CR), in Sweden it was due only to central government.

However, in 2017 a positive budgetary result was reached by a total of 13 EU countries, including Greece (0.8% of GDP), which had the highest structural surplus in the EU (4.0% of GDP). In contrast, Spain posted the highest government deficit in 2017 (-3.1% of GDP). The other 14 EU countries with deficit balance were under the reference value of the Stability and Growth Pact.

In 2018, 16 EU Member States are expected to have a deficit; however, none of them will probably exceed the reference value of the Stability and Growth Pact. By

7

contrast, the remaining 12 EU Member States are expecting a surplus, the highest in Cyprus (3.0% of GDP), the CR and Sweden (both 1.6% of GDP). Very similar general government sector balances as in 2017 are reported by Belgium, the CR, Finland, France, Ireland, Lithuania, Luxembourg and Romania. Compared to 2017, a worse general government balance in relative terms to GDP is expected in 12 EU Member States, in 5 of which it being a decrease in the surplus. Turnover from surplus to deficit is predicted in Croatia and slightly in Denmark. An opposite trend is expected in Estonia.

#### 2.3.2 General Government Debt

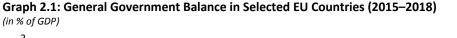
Across the EU, the general government debt reached a consolidated value of 81.6% of GDP in 2017, i.e., 1.7 pp less than in 2016.

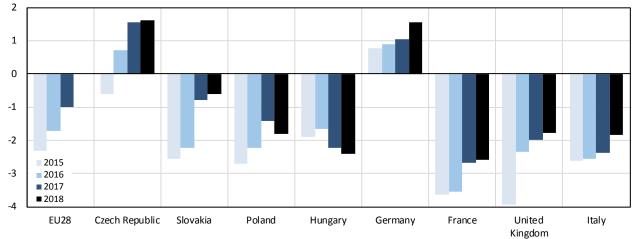
Greece remains the most indebted country. In 2012, part of the general government debt was remitted by private creditors, nevertheless, due to the marked economic decline lasting several years, the relative indicator of general government debt did not decrease significantly, reaching 176.1% of GDP in 2017. Moreover, in 2018, it is expected to increase by 6.9 pp. Although Greece has generated surpluses in recent years, its debt is growing again, both in absolute and relative terms. The reason is the unequal balances of individual parts of the general government sector. Other EU countries with general government sector debt above 100% of GDP are Italy, Portugal and Belgium; France, Spain and in 2018 also Cyprus being close to this threshold.

On the other hand, most EU countries are reducing their relative debt, although in some cases this is mainly due to the impact of economic growth. For example, Romania's debt is expected to increase by more than 25% between 2014 and 2018, yet its relative level is to fall down to 35% of GDP, given the expected increase in GDP by more than 41% over the same period. Sweden, in turn, is characterized by an increase in debt in absolute terms, despite the surpluses generated in 2015–2017, but its relative level has fallen to 40.8% of GDP due to GDP growth and should decline further to 37.7% of GDP in 2018. The deteriorating trend in the growth of the relative general government debt should not be seen in any of the EU Member States; on the contrary, significant reduction should occur in Ireland, Malta, Germany and the Netherlands.

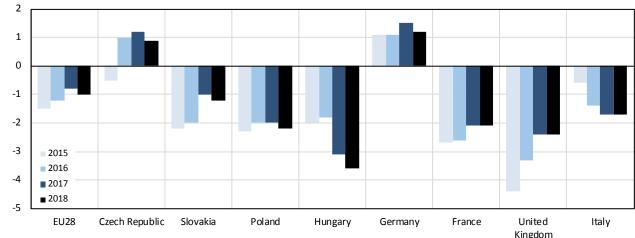
In 2017, the CR had the fourth lowest debt to GDP among EU countries, which should also hold true in 2018. This indicator has consistently been the lowest in Estonia (8.7% of GDP in 2017 and 8.2% of GDP in 2018), then in Luxembourg and Bulgaria. The reference value of 60% of GDP for public debt was not met by 15 EU Member States in the past year; Finland's debt should fall below this limit in 2018.

Note: In the context of the Autumn Government Deficit and Debt Notification, Eurostat maintains, in accordance with Article 15(1) of Council Regulation (EC) No. 479/2009, as amended, a reservation expressed in spring 2018 against Hungary for not including certain entities established by the Hungarian National Bank in the general government sector, which allegedly distorted the debt by 0.1% to 0.2% of GDP in 2015–2017. On the other hand, Eurostat no longer expresses reservations made against France in the spring of 2018 on the quality of data of the governmental development agency having the status of a public financial institution (*Agence française de développement*), as well as the incorrect registration of capital transfer to the stateowned company AREVA focusing on nuclear power.





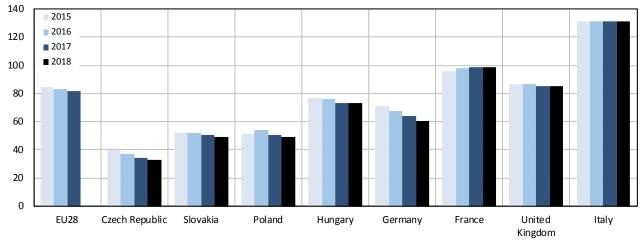
Note: Data of the United Kingdom are for the financial year (1 April of year T to 31 March of year T+1). Source: Eurostat (2018b).



Graph 2.2: Structural Balance of the General Government in Selected EU Countries (2015–2018) (in % of GDP)

Source: EC (2018a).

Graph 2.3: General Government Debt in Selected EU Countries (2015–2018) (in % of GDP)



Note: Data of the United Kingdom are for the financial year (1 April of year T to 31 March of year T+1). Source: Eurostat (2018b).

#### 2.3.3 General Government Debt Financing

In 2018, yields on government bonds are rising moderately in most EU countries (Graph 2.4). The evolution of EU bond yields is not only affected by the perception of their fiscal policy and economic stability by financial markets, but also a gradual tightening of monetary policy. Between January and September 2018, there was a slight decline in government bond yields for convergence purposes only in Bulgaria, Greece, Croatia and Sweden.

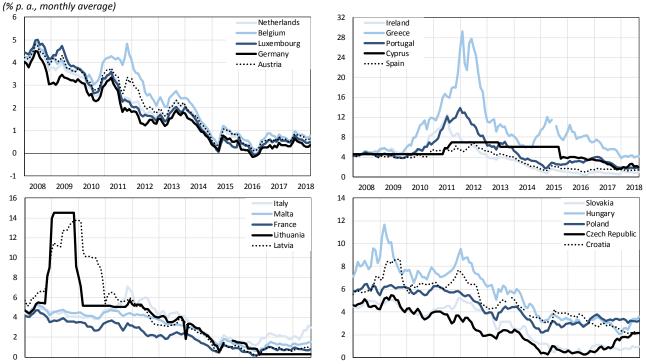
The high confidence of financial markets in the German economy is reflected in low yields on government bonds (Graph 2.4, top left panel). At present, they have the lowest yields among EU Member States. Some fluctuations were noted during the negotiations on the new German government at the beginning of 2018. The yield on Belgian government bonds is higher in comparison with the countries in this group, mainly due to higher debt of the general government sector. The top right panel in Graph 2.4 shows the development in EU countries that accepted assistance from EU and IMF rescue funds in the past. The bond yields of these countries have decreased significantly since the outbreak of the debt crisis. The lowest value in this group is reported by Ireland, which, thanks to the economic structure, managed to quickly restore economic growth and improve fiscal indicators after the crisis. Since March 2016 Greece's bond yields have stabilized following the implementation of reforms required by creditors, reflecting the progress in implementing rescue programs leading to the abandonment of the last program in August 2018. After that, the country should be able to secure funds on the bond market. However, as early as 2017, Greece successfully issued government bonds on the financial market after a three-year pause.

The bottom left panel shows countries with marked fluctuations in interest income during the debt crisis which, unlike the groups in the upper right panel of chart, did not accept assistance from EU or IMF rescue funds. France's government bond yields reflect, on the one hand, the country's structural problems, and on the other hand the improving performance of the general government sector and the end of the excessive deficit procedure conducted by the European Commission since 2009. In Latvia and Lithuania, the levels of yields have remained, after the end of the financial crisis, at low levels in recent years. The rise in interest rates, attributable in particular to the still unresolved problems of the banking sector, is reflected in an increase in bond yields in Italy, up to almost double the value from the end of 2017. By rescuing the third largest Italian bank in June 2017, the situation became partially stabilized, but the planned budget deficit and discretionary government measures exacerbate uncertainty in the financial markets, which is also reflected in the risk premium.

The bottom right panel of chart shows the countries of Central Europe and Croatia. In this group, Slovakia currently has the lowest yield rates, still benefiting from a relaxed monetary policy in the Euro area when issuing its bonds. In 2018, Czech bond yields increased, reflecting the development of macroeconomic indicators, especially monetary policy tightening with respect to inflation. Government bond yields of the CR for convergence purposes are slightly above the 2% level.

Issuance of government bonds is not the only way to cover the general government sector debt. There are countries in the EU with another important source of funding, which is loans. It follows from the National Autumn Government Deficit and Debt Notifications that in 2017 loans made up the major part of total funds for covering the consolidated debt in three Member States: in Estonia (84.8% of total debt), Greece (80.8%) and in Cyprus (64.1%). While this share has been more or less constant in Estonia due to long-term loans from the European Investment Bank and very low general government indebtedness, it has shot up in Greece and Cyprus in recent years. In 2011, the share of loans was 29% in Greece and 31.1% in Cyprus. The change in the debt structure by instrument reflects loans from the IMF and EU stabilization mechanisms.

Graph 2.4: Yields of Government Bonds of Selected EU Countries (January 2008 to September 2018)



2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Note: These are yields of ten-year bonds for convergence means of the specific country. The data for Luxembourg are comparable since May 2010, which is the start of Luxembourg government bonds emissions. Before that, private bond issuers were taken into account. Source: ECB (2018).

# 3 Medium-term Fiscal Outlook

Since 2017, the Czech Republic has been among countries that have modern fiscal rules at national levels. The rule for the state budget and state funds sets the limits for the fiscal policy framework. From 2018, the rule for local governments has also begun to apply, limiting the indebtedness of each municipality or region. In the spring of 2019, fiscal rules will be evaluated ex-post for the first time. At the same time, two new institutions set up by the Act on Fiscal Responsibility Rules became fully operational in 2018. These are the National Budget Council and the Committee on Budgetary Forecasts. Both institutions bring an element of external and independent evaluation into the budgetary process.

### 3.1 Fiscal Policy Objectives

Based on the results of the October Government Deficit and Debt Notification, the general government sector reported a surplus of 1.5% of GDP in 2017, which should further increase to 1.6% of GDP in 2018 (Eurostat, 2018b). The robust performance of the economy and measures against tax evasion have had a positive effect. These measures include VAT reporting in effect since January 2016, and electronic registration of sales which has been gradually introduced since December 2016. Between 2019 and 2021, the surplus should be decreased to around 1.0% of GDP.

Positive values should also remain in the structural balance, which reached its highest level in the history of the CR in 2017, namely 1.0% of GDP. It should reach similar values in 2018. In the coming years, we expect it to converge gradually to 0.3% of GDP (see Table 3.1). The predicted development of general government revenue and expenditure is detailed in Subchapter 3.2.

The concept of structural balance is closely related to the institution of medium-term budgetary objective, which corresponds to -1% of GDP for the CR and which is being implemented with substantial reserve. This should not, however, affect the consolidation effort at the level of the State budget. The problem of the general government sector in the CR is an imbalance in the performance of its parts. The sub-sector of social security funds (primarily health insurance companies) has balanced or slightly

surplus budgets and does not have any debt. The subsector of local governments has been consistently in surplus in recent years. In 2016, the surplus was 1.0% of GDP; in 2017 it was 0.8% of GDP. However, both subsectors achieve their results also due to transfers from the state budget and changes in the tax assignment, which have been implemented in the last years always for the benefit of municipalities and regions. For example, the last change in the tax assignment, effective from 1 January 2018, reallocates almost CZK 10 billion to municipalities from the state budget. However, since 2002, when the detailed national accounts data became available, the state budget was in surplus only once (in 2017), as measured by accrual methodology. However, in the case of need of an active fiscal policy in times of economic downturn or redistribution of income in the society, virtually the entire burden lies on the state budget. It is therefore necessary for public finances to be managed prudently and to create reserves at a time of significant economic prosperity not only as a whole, but also with regard to individual parts and their functions. It is therefore positive to see that the draft state budget for 2019 has been prepared with a deficit of CZK 10 billion lower than that envisaged in the mediumterm outlook. The Ministry of Finance strives to continue the trend of reducing the planned deficits as long as the economic policy conditions permit.

## Table 3.1: Fiscal Policy Stance (2015–2021) (in % of GDP, fiscal effort in percentage points)

	2015	2016	2017	2018	2019	2020	2021
General government balance	-0.6	0.7	1.5	1.6	1.0	0.9	0.8
Cyclical component according to OECD method	0.1	-0.1	0.5	0.5	0.6	0.6	0.5
One-off and other temporary measures	-0.1	-0.1	0.0	-0.1	0.0	0.0	0.0
Structural balance according to OECD method	-0.6	0.9	1.0	1.1	0.5	0.4	0.3
Fiscal effort (Change in structural balance) - OECD method	0.2	1.5	0.1	0.1	-0.6	-0.1	0.0
Cyclical component according to ECB method	-0.3	-0.2	0.1	0.3	0.4	0.3	0.1
Structural balance according to ECB method	-0.3	1.0	1.4	1.4	0.6	0.7	0.7
Fiscal effort according to ECB method	0.5	1.3	0.4	-0.1	-0.7	0.0	0.1

Note: Different development of the cyclical component of the balance (and therefore of the structural balance) according to the Organisation of Economic Cooperation and Development and the European Central Bank is caused because the method of Organisation of Economic Co-operation and Development uses the cycle calculated directly from output gap, while the other method models the cyclical development of cyclically-dependent items of revenue and expenditure to the cyclical development of specific macroeconomic bases (compensation of employees in the private sector, wages in the private sector, net operating surplus, consumption of households and unemployment). These bases have different cyclical behaviour than the GDP and its potential. Source: CZSO (2018a, 2018b). Forecast and calculations by MF CR.

### 3.2 General Government Medium-term Outlook

The general government sector consists of central government, local governments and social security funds. The state budget is the dominant element in the central government. The overall expenditure framework of the state budget and state funds is determined by the fiscal rule derived from the CR's medium-term budgetary objective.

The Government of the CR approved, through its Resolution No. 281 of 30 April 2018 on the Budgetary Strategy for the General Government Sector of the CR, a cash-based consolidated expenditure framework of the CR's state budget and state funds of CZK 1,496 billion for 2019, CZK 1,533 billion for 2020 and CZK 1,579 billion for 2021. Based on a new forecast of the state budget and state funds revenues, it was possible to increase the expenditure framework for 2019 by CZK 63.9 billion, with two thirds of this increase being tax revenue, including social security contributions, and one-third of the increase being other revenues (in particular transfer from the privatization account). The influence of the business cycle on revenue change was then estimated at CZK 0.8 billion in 2019 and slightly above CZK 1 billion in the outlook years. The updated amount of the consolidated expenditure framework of the state budget and state funds for 2019, after rounding to CZK billions, is CZK 1,583 billion. The expenditure frameworks for 2020 and 2021 have been adjusted in a similar way to 2019 and the new frameworks amount to CZK 1,604 billion for 2020 and CZK 1,667 billion for 2021 (Table 3.2).

The current expenditure frameworks are compatible with the state budget deficit of CZK 40 billion, which should, under the expected conditions, lead to meeting the medium-term budgetary objective over the entire outlook.

For social security funds, we expect – due to their past performance and predicted revenues – maintaining moderate surpluses, but with a decreasing trend. In addition to the approved increase of state budget payments for the state-insured person by approximately CZK 3.5 billion annually until 2020 (for 2021, we have the technical assumption of a similar increase for the state-insured person), we expect strong dynamics of the wage bill, especially at the beginning of the forecast period, which should gradually diminish. This should, also with regard to the stable development of the expenditure side, fully cover the needs of the healthcare system in 2019–2021.

Local governments show considerable surpluses especially in recent years. This is due not only to the increase in revenues (whether through a change in the tax assignment, economic development or sharing the effects of the measures against tax evasion), but also by low investment expenditure. However, recent development of cash performance indicates turnover in capital expenditure in line with previous forecasts. With the slowdown in tax revenue, local government surpluses should decrease slightly (Table 3.3).

2018

1.6

0.7

0.7

0.2

41.7

8.0

40.1

8.1

6.6

39.0

4.4

2019

1.0

0.3

0.6

0.1

41.7

5.2

40.7

6.6

2020

0.9

0.3

0.5

0.1

41.6

4.3

40.7

4.5

2021

0.8

0.4

0.4

0.0

41.6

4.3

40.8

4.6

 Table 3.2: Adjustments of the Original Medium-Term Expenditure Framework (in CZK bn.)

			2019	2020	2021
Consolidated expenditure framework according to Government Resolution 281/2018		CZK bn	1 496	1 533	1 579
Adjustment in state budget and state funds cash revenues *	+	CZK bn	63.9	71.6	89.7
Cyclical component in adjusted state budget and state funds revenues	-	CZK bn	0.8	1.1	1.3
Change in EU and financial mechanisms revenues forecast	+	CZK bn	23.9	-	-
Adjusted consolidated expenditure framework of state budget and state funds (rounded)		CZK bn	1 583	1 604	1667

arowth in %

growth in %

% of GDP

Note: \* EU and financial mechanisms revenues excluded. Source: MF CR.

#### Table 3.3: General Government Development

(in % of GDP, growth in %)		
		2017
General government balance	% of GDP	1.5
Central government	% of GDP	0.6
Local governments	% of GDP	0.8
Social security funds	% of GDP	0.2
Total revenue	% of GDP	40.5

Source: Year 2017 CZSO (2018a, 2018b). Forecast and calculations by MF CR.

**Total expenditure** 

#### 3.2.1 General Government Revenue

General government revenue development in the forecast years should be affected mainly by favourable macroeconomic environment. Measures aimed at more efficient tax collection should affect revenue mainly at the beginning of the forecast horizon. We expect an average increase in general government revenue of 4.6%, of which tax revenues (including social security contributions) of 5.0%.

We predict that the personal income tax revenue will grow at an average rate of 8.5%; however, the dynamics should slow down slightly. If we take into account wage distribution and the method of tax calculation, the growth rates in individual years are influenced by the forecast of wage bill developments in the economy, and to a certain extent also by the distribution of discretionary measures, including an increase in minimum and guaranteed wages. In 2019 and 2020, tax revenues will be positively influenced by electronic registration of sales (Act No. 112/2016 Coll.), increasing the revenues by CZK 1.1 billion in 2019 and 2020. The starting of the two remaining phases of the electronic registration of sales according to the government draft (Chambers of Deputies Print No. 205) is scheduled for mid-2019 and should include all occupations under phases 3 and 4 according to the original timetable. The draft responds to the decision of the Constitutional Court (No. Pl. CC 26/16) and to the existing application practice where the law, not only the decree, will specify the group of entities subject to the legislation. Concerning other discretionary measures, only about CZK -0.2 billion is envisaged in the forecast due to the introduction of a care leave since mid-2018.

Similar factors to those applicable to personal income tax will influence the developments of social security contributions; in addition, increased state payments for state insured persons will amount to approx. CZK 3.5 billion per year. The average social security contributions growth is predicted at 6% in the years of the outlook after taking into account the discretionary measures. It should grow also due to an increase in the tax assessment base for entrepreneurs as a result of introduction of electronic registration of sales. We expect discretionary measures for social and health insurance, in connection with the Act on Registration of Sales coming into effect, at approx. CZK 0.3 billion in 2019 and 2020. However, it will only affect health insurance, as the setting of minimum advances is relatively more stringent, unlike in the case of social insurance. The introduction of the long-term care allowance has the opposite effect on the revenue of the social and health insurance system; its impact is expected in the amount of about CZK -0.4 billion. The

reduction in social security revenues is accompanied by a proposal to abolish the no-payment period in the first three days of sickness insurance (Chamber of Deputies Print No. 109). The increased cost for employers is to offset the reduced rate for sickness insurance by this proposal by 0.2 percentage points, with an impact of CZK –1.8 billion in 2019 and 2020.

Corporate income tax revenue should grow on average by 3.1%. The dynamics of this tax is primarily driven by the development of a gross operating surplus. We expect there will be an increase in revenue of this tax as a result of introduction of electronic registration of sales, amounting to, in YoY terms, CZK 0.4 billion in 2019 and in 2020. A positive impact of CZK 0.2 billion should also be the introduction of measures under Council Directive 2016/1164 EU laying down rules against tax avoidance practices (the so-called ATAD Directive).

As regards value added tax revenue, we expect an average growth by 5.0% in the years of the outlook. Autonomous development corresponds to the growth of nominal household consumption and part of final consumption expenditure and gross fixed capital formation of the general government, which we predict at an average rate of 5% in the years of the outlook. The expected effect of the Act on Registration of Sales is estimated as CZK 1.2 billion in 2019 and 2020. The Amendment to the Sales Registration Act also includes the transfer of certain services and commodities to lower rates (labour-intensive services, water and sewerage services, etc.), which should lead to a decrease in revenue by CZK 1.6 billion in 2019 and 2020. Positive effect on the value added tax revenue is expected from the regulation of excessive deductions in the draft law amending some tax laws and some other laws (Chamber of Deputies Print No. 206), in the amount of CZK 0.6 billion from 2019.

The revenue from excise tax should grow only moderately over the entire horizon, with an average rate of less than 0.5%. The highest growth should be around 0.6% in 2019 with the refund of excise tax on diesel fuel for all agricultural primary production activities (Act No. 453/2016 Coll.). Starting this third phase should reduce the initial negative impact of this measure on revenue by CZK 0.6 billion. In the following years we do not expect any discretionary measure and the revenue is determined by the growth in real household consumption.

As regards other income, for 2019–2021 we expect growth in investment subsidies in line with gradual increase in implementation of projects from EU funds in the 2014–2020 programming period.

#### Table 3.4: General Government Revenue

		2017	2018	2019	2020	2021
	bn CZK					
Total revenue		2044	2208	2323	2422	2528
Tax revenue		1018	1086	1136	1182	1229
Taxes on production and imports		628	662	677	700	722
Value added tax		388	416	440	461	482
Excise taxes		164	165	166	167	167
Current taxes on income, wealth, etc.		390	424	459	483	506
Personal income tax		202	234	263	281	299
Corporate income tax		176	178	184	189	195
Capital taxes		0	0	0	0	0
Social contributions		760	833	895	944	994
Property income		31	32	30	29	27
Other		236	257	261	268	278
	growth in %					
Total revenue		6.6	8.0	5.2	4.3	4.3
Tax revenue		7.3	6.7	4.7	4.0	3.9
Taxes on production and imports		7.1	5.4	2.3	3.3	3.3
Value added tax		9.5	7.4	5.7	4.7	4.6
Excise taxes		3.6	0.5	0.7	0.3	0.4
Current taxes on income, wealth, etc.		7.8	8.8	8.3	5.2	4.9
Personal income tax		10.4	15.8	12.4	6.8	6.4
Corporate income tax		5.1	1.2	3.3	3.1	2.9
Capital taxes		70.6	42.4	-26.4	1.6	1.4
Social contributions		8.0	9.7	7.4	5.4	5.3
Property income		-18.2	4.4	-6.1	-4.4	-5.3
Other		3.4	9.0	1.4	2.6	3.8
Tax burden	% of GDP	35.2	36.2	36.5	36.6	36.6

Note: Excise taxes are adjusted for subsidies on renewable energy resources. Source: Year 2017 CZSO (2018b). Forecast and calculations by MF CR.

#### Table 3.5: Structure of Discretionary Measures (2019–2021)

		2019	2020	2021
Total revenue measures		18.8	0.8	0.5
Direct taxes		18.0	1.3	0.6
Personal income tax		4.6	1.2	0.1
Corporate income tax		0.6	0.4	0.0
Social security contributions		12.8	-0.3	0.5
Indirect taxes		0.8	-0.4	0.0
Value added tax		0.2	-0.4	0.0
Excises		0.6	0.0	0.0
Other revenues		0.0	-0.1	0.0
Total expenditure measures		-43.2	-0.9	-1.0
Social benefits		-14.5	0.1	0.0
Compensation of employees		-30.0	-1.0	-1.0
Healthcare		0.0	0.0	0.0
Other expenditures		1.3	0.0	0.0
Total impact on balance		-24.3	-0.1	-0.5
	% GDP	-0.4	0.0	0.0

Note: Figures in the table represent YoY discretional changes that are stemming from all envisaged and approved measures on revenue and expenditure side of the general government budget. Source: MF CR.

#### 3.2.2 General Government Expenditure

In 2019–2021, we estimate an average YoY increase in general government expenditure to 5.2%. In relation to GDP, expenditure should be broadly stable over the entire forecast horizon, ranging between 40% and 41% of GDP.

We are expecting a substantial increase in 2019 in the area of cash social benefits, reflecting both the approved measures, especially in the field of pension benefits, and the economic development. With effect from 1 January 2019, the flat rate component of pensions is increased from 9% to 10% of the average wage. At the same time, the recipients of pension benefits aged over 85 will receive an extra CZK 1,000 per month (Act No. 191/2018 Coll.). Together with autonomous developments in inflation and real wage growth, pensions will rise by 7.3% in total by January 2019. The impact of discretionary measures alone exceeds CZK 14 billion. Another measure that increases social benefits is long-term care allowance with an impact of CZK 0.6 billion in 2019. Thus, cash social benefits in total will increase by almost 7% in 2019. In the outlook, we expect growth of around 4% due to autonomous development.

General government final consumption will be driven mainly by increasing compensation of employees and social transfers in kind, to a lesser degree by intermediate consumption. In 2019, we expect a growth of compensation of employees expenditure at 10%. It reflects an approved increase in salaries for virtually all employees in the general government sector ranging from 7.4% (for soldiers and civil servants) to about 15% (pedagogical workers, civil servants of state prosecutors' offices). As a result of a relatively rapid growth in state employee salaries, we expect that the growth will slow down to an average of around 6% in the outlook years after 2019.

The growth of social transfers in kind is expected around 4%, which is close to their long-term average growth rate. The gradual slowdown in the dynamics of wage bill in the economy, leading to a slowdown in health insurance growth, should support the efforts of health insurance companies to increase their expenditure more steadily and gradually return to balanced budgets.

The intermediate consumption growth rate should be 3% in the years of the outlook. The pace of involving European Structural and Investment Funds should slow down from 2019 onwards due to a higher increase in 2018 to the level common to this phase of the financial perspective. Moreover, after 2019, the effect of lower price dynamics (for more details see Chapter 1) should be seen.

		2017	2018	2019	2020	2021
	CZK bn					
Total expenditure		1966	2126	2265	2368	2476
Final consumption expenditure		968	1037	1103	1151	1200
Collective consumption		444	487	541	566	587
Individual consumption		525	550	562	585	613
Social benefits in kind		152	160	166	173	180
Transfers of individual non-market goods and services		373	390	396	412	433
Social transfers other than in kind		597	630	673	701	730
Interest		38	38	41	45	48
Subsidies		110	116	125	129	134
Gross fixed capital formation		171	201	215	230	249
Other		82	104	109	113	115
Compensation of employees		462	515	567	601	637
Total social transfers		750	790	839	874	910
gro	wth in %					
Total expenditure		4.4	8.1	6.6	4.5	4.6
Final consumption expenditure		5.4	7.0	6.4	4.3	4.3
Collective consumption		2.3	9.8	11.1	4.5	3.8
Individual consumption		8.2	4.7	2.2	4.1	4.8
Social benefits in kind		3.1	4.9	4.0	4.0	4.0
Transfers of individual non-market goods and services		10.4	4.6	1.5	4.2	5.3
Social transfers other than in kind		2.7	5.5	6.8	4.2	4.:
Interest		-13.7	0.4	8.8	8.5	7.9
Subsidies		1.7	5.5	8.0	3.5	3.
Gross fixed capital formation		10.3	17.6	6.8	6.9	8.5
Other		8.2	27.6	4.0	3.8	1.9
Compensation of employees		10.1	11.5	10.0	6.0	6.0
Total social transfers		2.8	5.3	6.2	4.2	4.1

Table 3.6: General Government Expenditure

Source: Year 2017 CZSO (2018b). Forecast and calculations by MF CR.

For fixed capital investments, we forecast dynamics of just below 7% in 2019 and 2020. This is due to a higher base in 2018; next year the investment should reach its current level within the EU fund absorption cycle. In these years, investments co-financed by EU funds should grow around 10% per year. This development leaves room for accelerating the implementation of co-financed projects at the end of the current financial perspective, i.e. in line with the n+3 rule between 2021 and 2023. For 2021, we expect acceleration of investment activity to 8.5%, with investments co-financed from EU funds expected to increase by 14%. Financial resources from EU funds should complement national resources mainly in the areas of investment in infrastructure, science and research, and employment.

A significant increase should also be seen in subsidies in 2019. An 8% growth reflects the impact of 75% fare discounts for students under 26 and senior citizens aged over 65 introduced in September 2018. The YoY impact of this change is estimated at around CZK 7 billion for 2019. On the other hand, transfers should decrease slightly after the one-off payment in connection with the Adularya power plant in Turkey this year.

Also with regard to the expected developments of Czech and Euro-area monetary policy we expect a gradual growth in interest rates, which should lead, in absolute terms, to an increase in interest expenditure in the outlook years. The second factor is the refinancing of issues at the short end of the yield curve (which have recently benefited from negative yields) by longer-term issues with correspondingly higher yields. In relative terms, interest expenditure should increase by 0.1 pp over the entire outlook period to 0.8% of GDP. For more details, see Subchapter 3.2.3.

#### 3.2.3 General Government Debt

By the end of 2018, we expect the government sector debt to be 33% of GDP. The YoY decline in debt by 1.6 pp is the result of the positive performance of the general government sector (in particular, the state budget is expected to be balanced at the end of 2018) and the dynamics of nominal GDP. The relative debt ratio of the general government sector has been significantly decreasing in recent years. From 2013, it should decrease by almost 12 pp., which now puts the CR's public finances among the least indebted in the EU (see sub-chapter 2.3.2 below) and safely meets the Maastricht debt criterion (60% of GDP). This creates a fiscal space in the event of major shocks. The level of the debt quota is also fulfilled by the national rule laid down in Act No. 23/2017 Coll., on fiscal responsibility rules, which assesses the level of general government debt, adjusted for the cash reserve arisen within the debt management strategy, against the 55% of GDP threshold. For the year 2017, the value of this adjusted debt reached 34.6% of GDP (NBC, 2018), and in 2018 it is expected to reach 33% of GDP.

We also predict a further decrease in the debt-to-GDP ratio in the following years, in total by 1.9 pp down to 30% of GDP (Table 3.7). The absolute amount of the general government debt for 2019–2021 derived, in particular, from the planned state budget performance and the expected state debt development, as well as from the expected surplus of local governments.

Interest expenditure should increase from 0.7% of GDP in 2018 to 0.8% of GDP at the end of the outlook horizon. Growth is due to maturities of the issuance of government bonds with negative yield and their replacement by bonds with higher yield to maturity. The rise in yields to maturity reflects developments in macroeconomic indicators, notably tightening monetary policy with regard to inflation. The long-term interest rate indicator for convergence purposes should therefore increase from 2.1% in 2018 to 3.3% in 2021. The positive perception of Czech fiscal discipline in the financial markets is emphasised by both international institutions and credit rating agencies. Standard & Poor's and Scope Ratings confirmed their ratings of the CR in the first half of 2018, Moody's even improved its outlook from stable to positive, while confirming the A1 rating of long-term obligations in local and foreign currencies (MF CR, 2018d). In July 2018, JCR also improved the rating of the CR from AA- to AA for longterm obligations in local currency and from A+ to AAfor long-term obligations in foreign currency, both with stable outlook. In August 2018, Fitch Ratings also increased the rating of the CR's long-term obligations in local and foreign currencies to the AA- grade with a stable outlook. In the international comparison with the EU countries, the CR has for several years had better rating than is the Euro-area average.

The current forecast does not anticipate any significant privatisation revenue under Act No. 92/1991 Coll., on conditions of transfer of state property to other persons, as amended.

The highest share in the general government debt is represented by the central government sub-sector (Table 3.7). In 2018, the value of the debt is expected to be over 1,740 billion CZK, which is approx. a 96% share in the total general government debt. The local government subsector debt represents the remaining approx. 4% of the total debt. We expect it to be CZK 79 billion in 2018 and to gradually fall in 2019–2021 due to projected surplus performance and, to a certain extent, also due to effect of Act No. 23/2017 Coll., on fiscal responsibility rules. The Act stipulates for local governments the minimum amount of principal repayment above a prudent level of debt (for details see MF CR, 2016). The subsector of social security funds has been showing negligible debts for a long period of time.

#### **Table 3.7: Gross Consolidated Government Debt**

		2016	2017	2018	2019	2020	2021
General government	CZK bn	1755	1750	1750	1774	1798	1822
Central government	CZK bn	1714	1734	1741	1770	1799	1828
Local government	CZK bn	89	85	79	74	69	64
Social security funds	CZK bn	0	0	0	0	0	0
General government debt to GDP ratio	% of GDP	36.8	34.7	33.0	31.9	30.9	30.0
Contributions to change in debt-to-GDP ratio							***********
Change in debt	p.p.	-3.1	-2.1	-1.6	-1.2	-0.9	-0.9
Primary balance	p.p.	-1.6	-2.3	-2.3	-1.8	-1.7	-1.6
Interest	p.p.	0.9	0.7	0.7	0.7	0.8	0.8
Nominal GDP growth	p.p.	-1.4	-2.0	-1.6	-1.6	-1.4	-1.3
Stock-flow adjustment	p.p.	-1.0	1.4	1.6	1.5	1.3	1.2
Difference between cash and accruals	p.p.	0.2	-0.5	0.0	0.0	0.0	0.0
Net acquisition of financial assets	p.p.	-1.2	2.2	1.7	1.4	1.3	1.3
Revaluation effects and other	p.p.	0.1	-0.3	-0.1	0.1	0.1	-0.1

Source: Data on general government sector and subsectors debt up to 2017 CZSO (2018b). Forecast and calculations by MF CR.

#### 3.2.4 Cyclical Development and Fiscal Impulse

The output gap in 2017 reached 1.5% of the potential product; we expect that this value will not vary much over the entire outlook horizon. As a result, the cyclical component of the general government sector balance should also remain positive, so the cyclically-adjusted balance should be lower than the overall balance.

When calculating the structural balance, we also take into account one-off and other temporary measures. In 2018 we include a one-off transfer to finance the Czech Export Bank's receivable from the Adularya company for the construction of a power plant in Turkey in the amount of CZK 4.3 billion. In the outlook years, we do not expect any one-off and temporary measures.

The impact of fiscal policy on economic development is most often judged by the change in the structural balance (fiscal effort). However, this concept interprets the real impact of fiscal policy too simply and incompletely. That is why the fiscal effort is adjusted for relations between the Czech general government budgets and the EU budget, subsidies for renewable resources and interest costs (Table 3.9). The fiscal impulse so calculated captures the initial effects of public finance on macroeconomic aggregates.

The fiscal impulse was slightly positive in 2017; however, given that the expansionary impact of growth in compensation of employees, cash social benefits and public investment was offset by an increase in cyclicallyadjusted tax revenues, including social security contributions, it is, with positive fiscal effort, essentially a consequence of a fall in interest rates payments and increased revenue from EU funds. In 2018, the fiscal impulse is expected to be virtually zero. Conversely, we estimate a positive fiscal impulse of 0.6 pp of GDP for 2019. The fiscal impulse is focused on transfers to households (primarily pension benefits), government final consumption expenditure (salary policy) and investment expenditure from national and European sources (see Section 3.2.2). We expect the fiscal policy to be almost neutral in 2020 and 2021.

		2017	2018	2019	2020	2021
Real GDP growth	%	4.3	3.0	2.9	2.7	2.5
Potential gross value added growth	%	2.7	3.0	2.9	2.7	2.7
Output gap	% PP	1.5	1.5	1.5	1.5	1.4
General government balance	% of GDP	1.5	1.6	1.0	0.9	0.8
Cyclical budgetary component	% of GDP	0.5	0.5	0.6	0.6	0.5
Cyclically adjusted balance	% of GDP	1.0	1.0	0.5	0.4	0.3
One-off and other temporary measures	% of GDP	0.0	-0.1	0.0	0.0	0.0
Structural balance	% of GDP	1.0	1.1	0.5	0.4	0.3
Change in structural balance (fiscal effort)	p.p.	0.1	0.1	-0.6	-0.1	0.0
Interest	% of GDP	0.7	0.7	0.7	0.8	0.8
Structural primary balance	% of GDP	1.8	1.8	1.2	1.1	1.1
Change in structural primary balance	p.p.	-0.1	0.0	-0.6	-0.1	0.0

Source: MF CR.

#### Box 2: National Methodology for the Classification of One-off and Other Temporary Measures

The introduction of the fiscal rule for consolidated expenditures of the state budget and state funds into the Czech fiscal system pursuant to Act No. 23/2017, on fiscal responsibility rules, amended the methodology for classification of one-off and other temporary measures. The Ministry of Finance with the National Budget Council have developed a new national methodology, although significantly influenced by the original methodology of the Ministry of Finance and the methodology of the European Commission (Lang et al., 2018). The first application of the new methodology was carried out in April 2018, with the derivation of the state budget and state fund expenditure frameworks for 2019 to 2021.

When identifying one-off measures, the original methodology of the Ministry of Finance was largely based on definitions and delimitation of the EC (2004). In principle, it has maintained that measures need to be identified and their impact quantifiable, they must also be clearly temporary and should not be linked to the introduction of measures of a structural nature. The measures were taken symmetrically, i.e. measures that worsen the balance were not ignored.

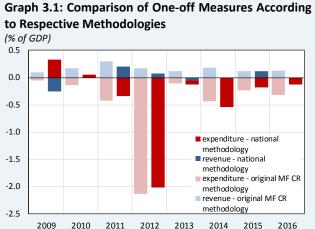
According to the national methodology (MF CR and NBC, 2018) a one-off measure is an exceptional measure that is not of a structural nature and is:

- 1) temporary the measure only has a limited duration,
- 2) unrepeatable limited frequency or likelihood of occurrence of measures, with more frequent repetition of measures of the same nature meaning a structural nature,
- 3) transitional after the end of its validity, the measure does not lead to a permanent change in the level of income or expenditure, but to a return to an autonomous level.

One-off measures are reported according to the following principles:

- 1) symmetry the measure can improve or worsen the balance,
- 2) significance the effect on revenue or expenditure is higher than 0.05% of GDP over the period of the measure,
- 3) accrual methodology quantified in the current methodology of the European system of national accounts used by the CZSO.

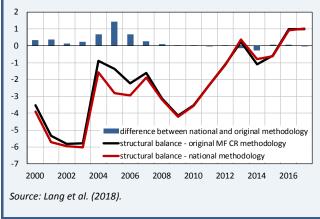
The National Budget Council is involved not only by its participation in the methodology but also by the verification of concrete measures. Pursuant to the fiscal responsibility rules act, the Ministry of Finance sets the list and the amount of one-off measures. However, the National Budget Council then assesses them and issues its opinion. This greatly reduces the potential for deviation from the principles of the national methodology and the subsequent distortion of the calculation of structural balance.



Note: Before 2009, there are no measures which would be classified in the national methodology as one-offs. Source: Lang et al. (2018).



(% of GDP)



Graph 3.1 contains a comparison of one-off operations according to the original and new methodologies. It is clear that new one-off measures are defined more narrowly and the methodology also differs in the measure's significance threshold. In the original methodology, the minimum amount of a measure for inclusion was CZK 0.1 billion; in the current methodology it is 0.05% of GDP (i.e. approx. CZK 2.6 billion in 2018). The original methodology of the Ministry of Finance aimed to capture one-off effects as much as possible.

The methodologies, however, also contain other differences. In the case of a one-off expenditure linked to one-off revenue, the maximum amount equal to the one-off revenue is now used. The new methodology also emphasizes that one-off measures do not have long-term effects. An example here is the capture of irrecoverable foreign receivables. While they were included in the original methodology because they are the consequences of one-off decisions, they are not included in the new methodology, as depreciation of irredeemable foreign receivables generally occurs relatively often. Differences also lie in access to expenditure due to losses caused by natural hazards. The new methodology captures as one-offs only expenditures related to the elimination of the consequences of catastrophic disasters, such as floods in the CR in 2002 or 2009, not compensatory expenditures for agricultural producers affected by drought or frost covered under the original methodology, where the probability of frequent repetition is not negligible.

The development of the structural balance according to both methodologies is illustrated in Graph 3.2. The assessment of the character of fiscal policy is not affected by the change in classification, even though in 2004 and 2006 the differences are more than 0.5% of GDP, in 2005 even around 1.5% of GDP, mainly due to the absence of irredeemable foreign receivables or lease of combat aircraft. In general, the new methodology rather points to higher structural mismatch between general government revenue and expenditure in the past.

#### **Table 3.9: Fiscal Effort and Fiscal Impulse**

(in percentage points)

	2017	2018	2019	2020	2021
Fiscal effort with opposite sign (expenditure – revenue)	-0.1	-0.1	0.6	0.1	0.0
Difference of fiscal effort and fiscal impulse	-0.3	-0.1	0.0	0.0	0.0
Difference in revenue	-0.1	-0.3	-0.1	-0.1	-0.1
Revenue from EU funds	-0.1	-0.3	-0.1	-0.1	-0.1
Excise taxes on renewable energy sources	0.0	0.0	0.0	0.0	0.0
Differnce in expenditure	-0.1	0.1	0.1	0.1	0.1
Adjusted interest expenditure	-0.1	0.0	0.1	0.1	0.1
EU budget contributions	0.0	0.1	0.0	0.0	0.0
Subsidies on renewable energy sources	0.0	0.0	0.0	0.0	0.0
Fiscal impulse - input approach	0.2	0.0	0.6	0.1	0.1

Note: The basis for calculation of the fiscal impulse is the YoY change in the structural balance with the opposite sign, adjusted for: interest payments, income from EU Funds and financial mechanisms, contributions to the EU budget and excise taxes and subsidies on renewable energy resources (see also Box 1). Further adjustment of the impulse for activating science and research and payments for state-insured persons do not affect the balance; however, due to various multiplicators they may influence the output impulse calculation. Source: MF CR.

### 3.3 Sensitivity Analysis

The sensitivity analysis is conducted by means of a dynamic general equilibrium model developed by the MF CR. The model enables us to analyse the impact of both macroeconomic and fiscal shocks on the economy. In the case of the small, open Czech economy, economic development is largely dependent on the development of the external environment, in particular within EU countries. Sensitivity analyses focus on this aspect and show the importance of the impacts of worse than expected growth dynamics in the EU on the domestic economy. Another alternative scenario simulates the impacts of an unexpected sharp increase in the domestic interest rate on the Czech economy. All alternative scenarios are derived from the macroeconomic framework of the Fiscal Outlook of the CR.

#### 3.3.1 Lower GDP Growth in the EU in 2019

The first scenario is based on an assumption that GDP growth in the EU will be 2 pp lower in 2019 compared to the baseline scenario. This difference approximately corresponds to the amount of standard deviation of growth for the period from 2002 to 2017.

Considering the close relationship of the Czech economy with the EU where more than three quarters of Czech exports are directed to EU countries, this scenario would impact negatively on real growth in the CR primarily through export channel. Lower foreign demand would lead to a decrease in export activity and a deterioration of the current account balance; however, this would be partially compensated by lower imports. A worse result for foreign trade would be negatively reflected in real GDP growth which would grow slower by 0.5 pp in 2019 and by 0.1 pp in 2020. The lower economic growth would affect unemployment, especially in 2019. Unemployment may slightly increase but only temporarily; given the current labour market situation, we do not expect a significant impact on the labour market. Influences on inflation in this scenario would stem mainly from lower demand for domestic goods, both by domestic and foreign entities.

Household consumption would record a decrease in the growth rate of approximately 0.1 pp, in particular as a consequence of lower wage growth (and a higher unemployment rate).

The general government balance would be affected by lower income tax revenue from both individuals and companies, as well as by lower taxes on consumption. Together with an increase in the expenditure side by unemployment benefits paid out, the general government surplus would decrease by 0.1–0.2 pp in the years of the outlook. Lower surpluses would lead to a slower debt decrease to 30.4% of GDP in the last year of the outlook.

During the subsequent recovery of foreign demand in 2020, the growth of the Czech economy would be brought closer to the baseline scenario.

#### 3.3.2 Permanently Lower GDP Growth in the EU

The second scenario analyses long-term unfavourable economic development in the EU, defined similarly as in the previous scenario. This means a lower economic growth by 2 pp, but this time in all outlook years.

Under this scenario, the Czech economy's negative response in each year of the presumed pessimistic development in the EU would be caused by the same mechanisms as in the previous scenario. The most significant differences from baseline scenario would occur from the second year of the forecast. The projected scenario of a steadily lower growth in the EU (or a slight decline in economic activity) would reduce the dynamics of the Czech economy by 0.5 pp compared to the baseline scenario not only in 2019 but also in 2020 and 2021. For the general government sector, the fall in the debt-to-GDP ratio would slow down by roughly 0.4 pp in 2021 compared to the baseline scenario.

		2018	2019	2020	2021
Baseline Scenario					
Gross domestic product	Y-0-Y in %	3.0	2.9	2.7	2.5
Private consumption	Y-o-Y in %	3.6	3.6	2.9	2.7
Gross fixed capital formation	Y-o-Y in %	7.8	3.2	2.9	2.8
Exports	Y-o-Y in %	4.5	4.8	4.5	4.5
Imports	Y-o-Y in %	5.5	5.2	4.5	4.6
Inflation (CPI)	Y-o-Y in %	2.2	2.3	1.9	1.8
Unemployment rate	in %	2.3	2.3	2.3	2.3
General government balance	% of GDP	1.6	1.0	0.9	0.8
Gross government debt	% of GDP	33.0	31.9	30.9	30.0
Alternative Scenario I - Lower GDP Growth in EU in 2019					
Gross domestic product	Y-o-Y in %	3.0	2.4	2.7	2.5
Private consumption	Y-o-Y in %	3.6	3.5	2.8	2.6
Gross fixed capital formation	Y-o-Y in %	7.8	3.1	2.8	2.7
Exports	Y-o-Y in %	4.5	3.0	4.1	4.4
Imports	Y-o-Y in %	5.5	4.2	4.1	4.5
Inflation (CPI)	Y-o-Y in %	2.2	2.2	1.7	1.8
Unemployment rate	in %	2.3	2.5	2.4	2.3
General government balance	% of GDP	1.6	0.8	0.8	0.7
Gross government debt	% of GDP	33.0	32.0	31.1	30.4
Alternative Scenario II - Permanently Lower GDP Growth in EU					
Gross domestic product	Y-o-Y in %	3.0	2.4	2.2	2.0
Private consumption	Y-o-Y in %	3.6	3.5	2.8	2.5
Gross fixed capital formation	Y-o-Y in %	7.8	3.1	2.8	2.6
Exports	Y-o-Y in %	4.5	3.0	2.7	2.7
Imports	Y-o-Y in %	5.5	4.2	3.4	3.4
Inflation (CPI)	Y-o-Y in %	2.2	2.2	1.7	1.6
Unemployment rate	in %	2.3	2.5	2.5	2.5
General government balance	% of GDP	1.6	0.8	0.7	0.6
Gross government debt	% of GDP	33.0	32.0	31.2	30.4
Alternative Scenario III - Higher Interest Rate					
Gross domestic product	Y-o-Y in %	3.0	2.7	2.6	2.5
Private consumption	Y-o-Y in %	3.6	3.5	2.7	2.5
Gross fixed capital formation	Y-o-Y in %	7.8	3.0	2.7	2.6
Exports	Y-o-Y in %	4.5	4.5	4.3	4.4
Imports	Y-o-Y in %	5.5	5.1	4.4	4.5
Inflation (CPI)	Y-o-Y in %	2.2	2.2	1.7	1.8
Unemployment rate	in %	2.3	2.4	2.4	2.3
General government balance	% of GDP	1.6	0.8	0.7	0.7
Gross government debt	% of GDP	33.0	32.4	31.7	30.9

Source: Baseline scenario MF CR (2018b). MF CR calculations.

#### 3.3.3 Rise in the Domestic Interest Rate

The last considered scenario models an expected surge in the short-term domestic interest rate by 1.2 pp in 2019. This value approximates the standard deviation of the interest-rate development since 2002.

The higher interest rate would dampen domestic demand. This would be primarily reflected through private investment in fixed capital (more expensive corporate loans). The increased business costs would translate into lower wage growth. The slower growth of wages along with the elevation of the interest rate would negatively affect household consumption. The growth

rate of household consumption would also decrease, which would also be affected by increased business costs through lower wage growth. The share of savings could grow at the expense of consumption, especially for the high-income class. A slightly lower domestic price level would act against as a beneficial effect, which would rather support real consumption.

This scenario would have negative consequences on foreign trade due to gradual moderate appreciation of the koruna, and a subsequent decrease in the export volume. A stronger koruna exchange rate would also help imports, the volumes of which would grow. That would, overall, cause a slight deterioration in the balance of foreign trade, thus contributing to a decline in GDP. The aforementioned effects would be reflected cumulatively in a slower GDP growth in the outlook horizon, approximately by 0.1–0.2 pp, and concomitant higher unemployment against the baseline scenario.

As in the case of lower GDP growth in the EU, but to a lesser extent, general government balance would be negatively affected by lower tax revenue both from businesses and individuals, and higher unemployment benefits. The deteriorated balance development against the baseline scenario would again be reflected in the debt; the yield curve would also be increased by the interest rate growth itself.

### 3.4 Long-term Sustainability of General Government Finance

At the end of September 2017, the Czech Republic's long-term projections for pension expenditures were assessed within the Ageing Working Group in the EU Economic Policy Committee and the results are contained in the Ageing Report (EC 2018).

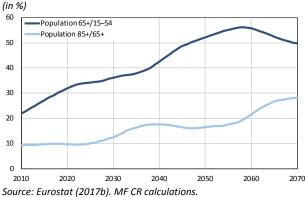
Factors that affect new projections include, in addition to the common macroeconomic and demographic assumptions and projections (Table 3.11), the approved pension reform measures known at the time of the projection.

First and foremost, as far as the pension system parameters are concerned, mention should be made of development of the statutory retirement age. Historically, the retirement age limit was first shifted to 63 years and subsequently to 65 years (with age being differentiated for women by the number of children raised). In 2011, there was another adjustment, when it was adopted that the retirement age should keep increasing above this limit by 2 months a year and be unified at about 67 years. However, the law was changed again in 2017 with effect from 1 January 2018 (Act No. 203/2017 Coll.). Under the current legislation, the retirement age will increase until unification at 65 years, which should be around 2030. The law envisages the Ministry of Labour and Social Affairs' periodical reporting, every five years, on the pension system to the Government. The Report will evaluate the current retirement age and, where applicable, determine any proposals for its adjustment based on the developments of life expectancy so that insured persons can spend a quarter of their lives in retirement. Moreover, changes to the retirement age should not apply to persons who are over 55 years of age at the time of revision. The Government will thus be able to commission the Ministry of Labour and Social Affairs, based on the Report submitted, with preparation of respective proposals on changes to the pension system, especially determining the retirement age. The developments of the statutory retirement age also influence the conditions for permanent widows and widowers pensions, where the age limit is associated with old-age pensions. As regards early retirements, the limit has been gradually shifting from three to five years before the statutory retirement age. This maximum fiveyear period may be used, at the cost of significant

penalties, by persons whose statutory retirement age is 65 years or more.

Pension indexation is determined as a sum of consumer price index or pensioner cost of living index growth (whichever is higher) and one half of real wage growth. This rule will applies from 1 January 2018 also following the adoption of Act No. 203/2017 Coll. Previously, the indexation formula was a sum of consumer price index growth and one third of real wage growth. Moreover, given the low inflation rate in the recent past, a change in the indexation of pensions was approved that, with effect from 2017, returned limited discretion to the government (Act No. 212/2016 Coll.). Should the increase in the average pension not reach 2.7% under the standard indexation formula, the government may order indexation of pensions up to that value. In other cases it is proceeded strictly in accordance with the statutory indexation formula.

Disability pensions were reformed in 2010. The number of disability pensions increased from two (full and partial) to three groups. Part of previously full disability pensions thus moved to the second degree (with a lower rate of previously partial pensions), and the group of previously partial disability pensions moved to the first degree, with a rate equalling two thirds of previously partial disability pensions. The effect of this change, which proved to be significant, remains. If, in 2009, just before the start of the new system, total disability spending was 1.5% of GDP (relatively stable at 1.4% of GDP since 2000), a year later it dropped by 0.4 percentage points YoY. The last known value from 2017 was 0.8% of GDP.



Graph 3.3: Dependency Ratio and 85+/65+ Ratio

		2016	2020	2030	2040	2050	2060	2070
Labour productivity growth	per hour	1.1	2.0	2.0	1.9	1.7	1.6	1.5
Real GDP growth	%	2.2	1.9	1.8	1.1	1.1	1.5	1.4
Participation rate males (aged 20–64)	%	87.7	87.9	87.0	85.6	86.8	87.5	86.4
Participation rates females (aged 20–64)	%	72.0	72.9	73.7	71.8	72.7	74.3	73.0
Total participation rate (aged 20–64)	%	80.0	80.5	80.4	78.8	79.8	81.0	79.8
Unemployment rate (aged 20–64)	%	3.9	3.1	4.0	4.0	4.0	4.0	4.0
Population aged 65+	% of total population	18.6	20.3	22.6	25.7	29.1	30.4	28.3

#### Table 3.11: Demographic and Macroeconomic Assumptions of Projections

Source: EC (2017), Eurostat (2017b).

The last population projection foresees a relatively large decline in the population of the CR in the long term. The dependency rate measured as the ratio of people over the age of 65 to the working age population (15–64 years) should almost double by 2070 and reach approximately 50%. That is, of course, not only a consequence of the decline in the working age population but also of increasing average life expectancy. The share of people aged 85 and older in the population of people aged 65 and older should more than double in the forecast horizon. Both indicators are shown in Graph 3.3.

The economic activity rates for age cohorts above 54 years are increasing in the projection until 2030 in line with the statutory retirement age increase. However, they remain approximately constant after 2030, which reflects the institutional set-up of the pension system. The pension system includes, as described earlier, a revision mechanism that should evaluate, every five years, life expectancy changes and, where applicable, shift the statutory retirement age. However, the revision mechanism does not oblige the government to present an amendment to the retirement age to the Parliament for approval; it is only a recommendation. For this reason, the Commission rejected a proposal for application of this revision mechanism in long-term projections. The projection thus works with retirement age as a fixed ceiling at 65 years from 2030 onwards.

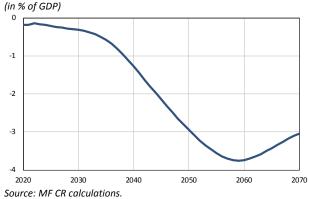
The development of pension expenditure was relatively favourable in the past years, especially due to the macroeconomic situation. The initial value of expenditure in previous projections was 9.0% of GDP in 2013, whereas pension expenditure was 0.8 pp lower in the base year 2016. Conversely, higher wage bill growth in the economy led to a dynamic growth in the revenue side of the system. This positively affected the balance of the system, which was -0.3% of GDP in 2016, and almost balanced in 2017.

The trend of long-term pension projections is primarily determined by the demographic development and the statutory retirement age. For these reasons, pension expenditure until 2030 should be (in relation to GDP)

basically stable at the level of the value of the base year 2016. After 2030 the increase in retirement age will stop and people born in strong years in the 1970s will gradually retire. That will lead to a relatively dramatic expenditure increase to 11.7% of GDP just before 2060, followed by a decline to 10.9% of GDP at the end of the forecast horizon in 2070. The decline in expenditure is due to demographic factors, where people born in weaker years in the 1990s will retire, replacing those born in stronger years.

The revenue of the pension system is considered throughout the projection horizon as constant in relation to GDP. That is based on the assumption of development of wage bill in the economy in line with labour productivity. As a result, the share of the labour factor of production in GDP, from which the fixed rate of pension insurance at 28% of gross wage or salary is deducted, remains constant. The system's revenue thus reaches the level of the base year 2016 and is at 7.9% of GDP.

The resulting pension system balance projection (Graph 3.4) in relation to the constant income copies the course of pension expenditure. We expect that until 2030 this balance will be relatively stable at a level around the base year's -0.3% of GDP. Subsequently, the balance will deteriorate and fall almost to -4% of GDP around 2060. Finally, the deficit should start decreasing in the last decade of the projection.



### **Graph 3.4:** Projection of Pension Account Balance (*in % of GDP*)

#### Table 3.12: Pension Expenditure Projections 2016–2070

(in % of GDP)

	2016	2020	2030	2040	2050	2060	2070
Total pensions	8.2	8.1	8.2	9.2	10.8	11.6	10.9
Old-age pensions	6.8	6.7	6.8	7.7	9.4	10.2	9.5
Disability pensions	0.9	0.8	0.8	0.8	0.8	0.7	0.8
Survivors' pensions	0.5	0.6	0.6	0.7	0.7	0.7	0.7

Note: The sum of values for each type of pension expenditure is not necessarily equal to the total expenditure due to rounding. Source: MF CR calculations.

Compared to the previous projection (EC, 2015), where the balance fell to a minimum of less than -2% of GDP, the long-term sustainability of the system has deteriorated. The effects of the deterioration of the balance of the pension system can be divided into two groups: assumptions (e.g. different demographics) and changes in the pension system (different indexation formula and, in particular, retirement age ceiling).

While updates to the assumptions play a role in the dynamics of expenditure over time, favourable developments in the past years act against it. The initial value of 8.2% of pension expenditure in 2016 was 0.8 percentage points lower than in the previous projection. Although expenditure grows more dynamically in the current 2018 projection, it grows from a lower base and will end at virtually the same level in 2060 as it did in the previous 2015 projection (9.7% of GDP). The higher deficit is thus caused mainly by system changes. The balance of the pension system in 2060 is worsened by approx. 1.6 pp. due to the retirement age ceiling, and by about 0.3 pp due to the change in the indexation formula. (Table 3.14). In other words, absolute retirement age ceiling would increase pension expenditures by about CZK 75 billion in today's terms, and changing the indexation formula by an additional CZK 15 billion.

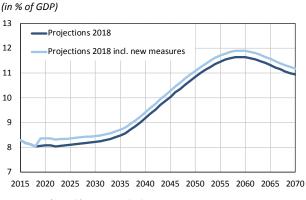
Table 3.13 shows, in addition to the linking retirement age to life expectancy scenario, the impact of the other alternative demographic assumptions (higher life expectancy, different migration, lower fertility rate) or macroeconomic development (different total factor productivity growth, different total employment, higher employment of older workers).

Act No. 191/2018 Coll. made two major changes affecting pension expenditure through a higher

replacement rate, which are no longer included in the 2018 projections. One of them increases the flat-rate component of all types of pensions from 9% of the average wage to 10% from 2019, and the other is an increase in the monthly pension benefit of all beneficiaries aged 85 and older by CZK 1,000. The impact of these measures compared to the 2018 projection is illustrated in Graph 3.5. In summary, these new measures sharply increase the expenditure by 0.2–0.3% of GDP over the projection horizon.

This overall expenditure gives a fairly clear picture of future risks to the long-term sustainability of the pension system. However, if the retirement age adequately increases, linked to life expectancy, future expenditure of the pension system may be significantly reduced. A report on the pension system, which will potentially propose the first revision of the retirement age after its ceiling in 2017, will be submitted by the Ministry of Labour and Social Affairs to the Government in the first half of 2019.

# Graph 3.5: Impact of Newly Approved Measures on Pension System Expenditure



Source: EC (2018b). MF CR calculations.

#### Table 3.13: Pension Expenditure Projection under Different Scenarios

(in % of GDP, deviations from the baseline in p. p.)

	2016	2020	2030	2040	2050	2060	2070
Baseline	8.2	8.1	8.2	9.2	10.8	11.6	10.9
Higher life expectancy (2 extra years)	0.0	0.0	0.1	0.2	0.3	0.5	0.7
Higher total factor productivity growth (+0.4 pp.)	0.0	0.0	0.0	-0.1	-0.3	-0.5	-0.5
Lower total factor productivity growth (-0.4 pp.)	0.0	0.0	0.0	0.1	0.4	0.5	0.6
Higher employment rate (+2 pp.)	0.0	0.0	-0.2	-0.3	-0.3	-0.3	-0.3
Lower employment rate (-2 pp.)	0.0	0.0	0.2	0.3	0.3	0.4	0.4
Higher employment of older workers (+10 pp.)	0.0	-0.1	-0.6	-0.8	-0.4	0.2	0.3
Higher migration (+33%)	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.3
Lower migration (-33%)	0.0	0.0	0.1	0.2	0.4	0.4	0.3
Lower fertility	0.0	0.0	0.0	0.1	0.6	1.2	1.8
Linking retirement age to increases in life expectancy	0.0	0.0	-0.2	-0.7	-1.1	-1.4	-1.6

Source: MF CR calculations.

#### Table 3.14: Comparison of 2015 and 2017 Pension Expenditure Projections

(in % of GDP) 2016 2020 2030 2040 2050 2060 2070 2015 Projection 8.9 9.0 9.0 9.0 9.6 9.7 -Level effect of initial position -0.7 -0.7 -0.7 -0.7 -0.7 -0.7 \_ Effect of new assumptions (demography and macro) 0.0 -0.3 -0.2 0.2 0.5 0.7 \_ Impact of retirement age ceiling at age 65 0.0 0.0 0.0 0.4 1.2 1.6 1.7 Impact of indexation formula adjustment 0.0 0.1 0.2 0.3 0.3 0.3 0.3 2018 Projection 8.2 8.1 8.2 9.2 10.8 11.6 10.9 Impact of Act no. 191/2018 Coll. 0.0 0.3 0.2 0.2 0.2 0.3 0.2 2018 Projection including impact of Act no. 191/2018 Coll. 8.2 8.4 8.5 9.4 11.1 11.9 11.2

Note: The sum of partial effects is not necessarily equal to the total difference in projections due to rounding. Source: EC (2015), EC (2018b). MF CR calculations.

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# A Annex of Tables – ESA 2010 Methodology

The data on general government sector aggregates are consolidated at the relevant levels.

Table A.1: General	<b>Government Revenue</b>
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	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CZK bn										
Total revenue	1556	1523	1558	1626	1646	1695	1740	1888	1917	2044
Current taxes on income, wealth, etc.	313	278	269	282	282	294	315	332	361	390
Social contributions <sup>1)</sup>	599	560	578	593	600	607	629	663	703	760
Taxes on production and imports <sup>2)</sup>	417	425	441	481	502	522	511	562	587	628
Capital taxes <sup>3)</sup>	0	0	0	0	0	0	0	0	0	0
Property income	36	38	38	35	35	38	37	37	38	31
Interest	14	12	11	10	11	10	9	7	7	5
Other property income	22	26	26	25	25	28	29	30	31	26
Sales <sup>4)</sup>	135	140	138	146	148	150	152	155	158	163
Other current transfers and subsidies	24	29	36	35	39	44	42	48	40	40
Investment grants	27	50	53	50	35	36	49	81	23	26
Other capital transfers	3	3	5	4	4	5	5	9	8	6
% growth										
Total revenue	2.0	-2.1	2.3	4.4	1.2	2.9	2.7	8.5	1.5	6.6
Current taxes on income, wealth, etc.	-7.0	-11.1	-3.3	4.8	0.0	4.0	7.4	5.3	8.8	7.8
Social contributions <sup>1)</sup>	3.9	-6.6	3.3	2.5	1.3	1.1	3.6	5.5	6.1	8.0
Taxes on production and imports <sup>2)</sup>	3.0	1.9	3.9	9.0	4.3	4.0	-2.1	10.1	4.4	7.1
Capital taxes <sup>3)</sup>	-44.8	-8.2	-3.4	0.9	0.9	-33.3	-93.5	10.0	54.5	70.6
Property income	16.7	4.0	-0.5	-6.9	0.8	7.0	-0.9	-0.5	0.9	-18.2
Interest	-16.7	-17.2	-4.0	-12.3	6.8	-5.5	-12.9	-20.3	-6.9	-21.0
Other property income	58.4	17.9	1.1	-4.6	-1.6	12.5	3.5	5.6	2.7	-17.6
Sales <sup>4)</sup>	6.7	3.2	-0.9	5.6	1.2	1.1	1.8	2.0	1.6	3.5
Other current transfers and subsidies	-7.1	22.7	21.3	-0.7	10.5	13.5	-4.5	13.9	-17.7	1.5
Investment grants	86.1	84.7	4.9	-6.0	-29.0	1.5	36.3	66.6	-72.1	15.4
Other capital transfers	-61.8	-9.2	88.2	-25.8	9.3	18.6	-10.6	103.3	-11.3	-21.3
% of GDP										
Total revenue	38.7	38.7	39.3	40.3	40.5	41.4	40.3	41.1	40.2	40.5
Current taxes on income, wealth, etc.	7.8	7.1	6.8	7.0	6.9	7.2	7.3	7.2	7.6	7.7
Social contributions <sup>1)</sup>	14.9	14.2	14.6	14.7	14.8	14.8	14.6	14.4	14.7	15.1
Taxes on production and imports <sup>2)</sup>	10.4	10.8	11.1	11.9	12.4	12.7	11.8	12.2	12.3	12.5
Capital taxes <sup>3)</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property income	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.6
Interest	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1
Other property income	0.5	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.5
Sales <sup>4)</sup>	3.4	3.6	3.5	3.6	3.6	3.7	3.5	3.4	3.3	3.2
Other current transfers and subsidies	0.6	0.7	0.9	0.9	1.0	1.1	1.0	1.1	0.8	0.8
Investment grants	0.7	1.3	1.3	1.2	0.9	0.9	1.1	1.8	0.5	0.5
Other capital transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1

Note: <sup>1)</sup> Compulsory and voluntary payments of employers (on behalf of employees), employees, self-employed and self-payers to social security institutions and health insurance enterprises.

<sup>2)</sup> Compulsory payments, which are levied by general government, in respect of the production or import and/or usage of production factors (for example VAT, excises etc.).

<sup>3)</sup> Irregular taxes to the government on the values of the property, assets or net worth owned by institutional (e.g. inheritance tax, gift tax).

<sup>4)</sup> Consists of market output, output produced for own final use and payments for other non-market output.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CZK bn	*****						~~~~~~	*****		
Taxes and social contributions	1330	1263	1289	1356	1384	1422	1455	1557	1651	1777
Current taxes on income, wealth, etc.	313	278	269	282	282	294	315	332	361	390
Individuals or households	141	136	131	143	144	151	161	165	183	202
Corporations	162	132	127	129	127	133	144	157	167	176
Levy on lottery revenue	-	-	-	-	-	-	-	-	-	-
Other current taxes	10	10	10	10	10	10	10	11	11	12
Social security contributions	599	560	578	593	600	607	629	663	703	760
Actual contributions of employers	380	350	368	378	383	387	401	423	450	488
Imputed contributions of employers	0	1	1	1	1	1	1	1	1	1
Actual contributions of households	219	209	209	214	217	218	227	239	252	270
Additional contributions of households	-	-	-	-	-	-	-	-	-	-
Taxes on production and imports	417	425	441	481	502	522	511	562	587	628
Taxes on products <sup>1)</sup>	401	409	421	457	479	501	489	538	562	601
Value added tax	260	259	263	277	286	304	319	333	354	388
Excises	128	140	148	171	176	179	151	183	181	186
Other taxes on products <sup>2)</sup>	12	10	10	10	17	19	19	22	27	28
Other taxes on production <sup>3)</sup>	16	16	20	24	23	21	21	24	25	28
Capital taxes	0	0	0	0	0	0	0	0	0	0
% growth										
Taxes and social contributions	0.8	-5.0	2.0	5.2	2.1	2.7	2.3	7.1	6.0	7.6
Current taxes on income, wealth, etc.	-7.0	-11.1	-3.3	4.8	0.0	4.0	7.4	5.3	8.8	7.8
Individuals or households	-9.7	-3.8	-3.1	8.7	1.0	4.5	6.9	2.2	11.3	10.4
Corporations	-5.4	-18.3	-3.7	1.3	-1.2	4.0	8.5	8.8	6.8	5.1
Levy on lottery revenue	-	-	-	-	-	-	-	-	-	-
Other current taxes	8.2	1.7	0.0	-1.6	1.8	-1.4	0.0	5.4	2.2	4.4
Social security contributions	3.9	-6.6	3.3	2.5	1.3	1.1	3.6	5.5	6.1	8.0
Actual contributions of employers	4.5	-7.9	5.1	2.7	1.4	1.3	3.4	5.5	6.4	8.6
Imputed contributions of employers	10.0	162.3	-17.3	31.8	-5.1	4.6	-21.5	40.1	-1.9	16.1
Actual contributions of households	2.9	-4.6	0.3	2.2	1.2	0.7	4.1	5.4	5.4	6.9
Additional contributions of households	-	-	-	-	-	-	-	-	-	-
Taxes on production and imports	3.0	1.9	3.9	9.0	4.3	4.0	-2.1	10.1	4.4	7.1
Taxes on products <sup>1)</sup>	3.1	2.0	3.0	8.5	4.8	4.7	-2.3	10.0	4.4	6.9
Value added tax	12.1	-0.7	1.9	5.0	3.5	6.2	5.2	4.3	6.2	9.5
Excises	-11.1	9.1	5.6	15.4	2.9	1.6	-15.4	21.0	-0.8	2.3
Other taxes on products <sup>2)</sup>	-0.4	-14.6	-4.3	-1.3	75.9	10.5	-0.2	17.7	20.4	3.9
Other taxes on production <sup>3)</sup>	0.7	-2.4	25.6	20.1	-4.9	-9.8	2.7	12.5	3.4	11.0
Capital taxes	-44.8	-8.2	-3.4	0.9	0.9	-33.3	-93.5	10.0	54.5	70.6

*Note: <sup>1)</sup> Taxes that are payable per unit of good or service produced or transacted.* 

<sup>2)</sup> This item contains, for example, customs duty, taxes from imported agricultural products, taxes from financial and capital transactions, payments from entertainment, lottery, game and betting taxes and other.

<sup>3)</sup> All taxes that enterprises incur as a result of engaging in production, independently of the quantity or value of the goods and services produced or sold (real estate tax, road tax, waste water toll etc.).

### Table A.3: General Government Tax Revenue and Social Contributions (in % of GDP)

(in % of GDP)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Taxes and social contributions	33.0	32.1	32.5	33.6	34.1	34.7	33.7	33.9	34.6	35.2
Current taxes on income, wealth, etc.	7.8	7.1	6.8	7.0	6.9	7.2	7.3	7.2	7.6	7.7
Individuals or households	3.5	3.4	3.3	3.5	3.6	3.7	3.7	3.6	3.8	4.0
Corporations	4.0	3.4	3.2	3.2	3.1	3.2	3.3	3.4	3.5	3.5
Levy on lottery revenue	-	-	-	-	-	-	-	-	-	-
Other current taxes	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Social security contributions	14.9	14.2	14.6	14.7	14.8	14.8	14.6	14.4	14.7	15.1
Actual contributions of employers	9.4	8.9	9.3	9.4	9.4	9.5	9.3	9.2	9.4	9.7
Imputed contributions of employers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Actual contributions of households	5.4	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.3	5.3
Additional contributions of households	-	-	-	-	-	-	-	-	-	-
Taxes on production and imports	10.4	10.8	11.1	11.9	12.4	12.7	11.8	12.2	12.3	12.5
Taxes on products <sup>1)</sup>	10.0	10.4	10.6	11.3	11.8	12.2	11.3	11.7	11.8	11.9
Value added tax	6.5	6.6	6.6	6.9	7.0	7.4	7.4	7.3	7.4	7.7
Excises	3.2	3.6	3.7	4.2	4.3	4.4	3.5	4.0	3.8	3.7
Other taxes on products <sup>2)</sup>	0.3	0.3	0.2	0.2	0.4	0.5	0.4	0.5	0.6	0.5
Other taxes on production 3)	0.4	0.4	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5
Capital taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: <sup>1)</sup> Taxes that are payable per unit of good or service produced or transacted.

<sup>2)</sup> This item contains, for example, customs duty, taxes from imported agricultural products, taxes from financial and capital transactions, payments

from entertainment, lottery, game and betting taxes and other. <sup>3)</sup> All taxes that enterprises incur as a result of engaging in production, independently of the quantity or value of the goods and services produced or sold (real estate tax, road tax, waste water toll etc.).

Source: CZSO (2018b).

#### **Table A.4: Central Government Revenue**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CZK bn										
Total revenue	1115	1079	1107	1167	1180	1202	1222	1339	1372	1461
Current taxes on income, wealth, etc.	211	187	182	190	190	193	207	218	236	258
Social contributions	392	352	365	374	378	379	391	413	439	478
Taxes on production and imports	330	338	351	387	406	420	404	451	464	493
Capital taxes	0	0	0	0	0	0	-	-	-	-
Property income	27	30	30	28	27	30	30	31	31	24
Sales	66	67	68	75	76	75	78	81	81	85
Other revenue	89	105	111	112	103	105	112	145	121	123
% growth										
Total revenue	1.4	-3.2	2.6	5.4	1.1	1.9	1.7	9.5	2.5	6.5
Current taxes on income, wealth, etc.	-7.6	-11.2	-2.9	4.8	0.0	1.3	7.5	5.3	8.1	9.2
Social contributions	4.3	-10.4	3.7	2.7	0.9	0.4	3.2	5.6	6.2	9.0
Taxes on production and imports	0.5	2.4	3.9	10.2	4.9	3.4	-3.7	11.5	2.9	6.3
Capital taxes	-45.7	-10.4	-2.7	-2.3	3.8	-33.5	-	-	-	-
Property income	17.3	9.2	2.5	-8.3	-3.0	11.4	-1.4	2.8	0.1	-20.7
Sales	4.8	2.1	1.8	9.8	0.9	-1.1	4.4	3.1	1.1	4.2
Other revenue	10.5	18.7	5.6	0.9	-8.0	1.8	6.4	30.1	-16.7	1.2

#### Table A.5: Local Government Revenue

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CZK bn										
Total revenue	461	482	488	483	455	478	506	544	535	581
Current taxes on income, wealth, etc.	103	91	87	92	92	101	108	114	125	132
Social contributions	0	0	0	0	1	1	0	1	1	1
Taxes on production and imports	87	87	90	94	96	102	107	112	123	135
Capital taxes	0	0	0	0	0	0	0	0	0	0
Property income	8	7	7	7	8	8	8	7	7	7
Sales	69	72	70	71	72	75	74	75	76	78
Other revenue	194	224	233	219	187	192	209	237	203	228
% growth										
Total revenue	2.6	4.6	1.1	-0.9	-5.8	4.9	5.8	7.6	-1.6	8.5
Current taxes on income, wealth, etc.	-5.8	-11.0	-4.2	4.9	0.0	9.8	7.2	5.3	10.2	5.0
Social contributions	-13.4	567.2	-10.9	43.8	17.7	-0.3	-19.9	50.4	1.9	10.9
Taxes on production and imports	13.8	0.0	3.7	4.4	1.9	6.5	4.2	4.7	10.3	9.9
Capital taxes	50.0	83.3	-18.2	77.8	-37.5	-30.0	42.9	10.0	54.5	70.6
Property income	6.3	-9.0	-5.8	0.1	16.5	-4.3	0.8	-13.1	4.8	-5.4
Sales	8.6	4.3	-3.3	1.6	1.7	3.3	-0.7	0.8	2.2	2.7
Other revenue	0.8	15.4	3.9	-5.9	-14.6	2.8	8.7	13.4	-14.3	12.5

Source: CZSO (2018b).

#### Table A.6: Social Security Funds Revenue

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CZK bn										
Total revenue	211	211	216	221	225	230	239	252	267	284
Current taxes on income, wealth, etc.	-	-	-	-	-	-	-	-	-	-
Social contributions	207	208	213	218	222	227	237	249	264	281
Taxes on production and imports	-	-	-	-	-	-	-	-	-	-
Capital taxes	-	-	-	-	-	-	-	-	-	-
Property income	1	1	1	0	1	0	0	0	0	0
Sales	0	0	0	0	0	0	0	0	0	0
Other revenue	2	2	2	3	2	2	3	3	3	3
% growth										
Total revenue	3.6	0.2	2.1	2.4	1.8	2.2	4.3	5.2	5.9	6.5
Current taxes on income, wealth, etc.	-	-	-	-	-	-	-	-	-	-
Social contributions	3.2	0.4	2.6	2.2	2.0	2.2	4.3	5.2	5.8	6.5
Taxes on production and imports	-	-	-	-	-	-	-	-	-	-
Capital taxes	-	-	-	-	-	-	-	-	-	-
Property income	108.0	-24.2	-46.3	-18.7	9.7	-47.2	-5.2	-28.1	-21.7	-95.1
Sales	-14.4	-2.5	-1.7	20.2	-16.1	3.5	-5.9	-1.8	0.0	-6.4
Other revenue	3.5	-5.0	-14.5	29.2	-19.3	8.1	11.2	10.1	9.3	12.2

#### Table A.7: General Government Expenditure

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CZK bn										
Total expenditure	1635	1737	1724	1736	1806	1746	1831	1916	1883	1966
Compensation of employees	334	352	354	350	359	367	380	398	419	462
Intermediate consumption	279	292	290	281	259	270	274	283	291	296
Social benefits other than in kind $^{1)}$	475	509	518	527	533	545	556	568	581	597
Social benefits in kind	108	120	121	124	130	133	140	142	148	152
Property income	40	49	52	53	59	55	57	49	44	38
Interest	40	48	52	53	58	55	56	49	44	38
Other property income	0	0	0	0	1	0	1	0	0	0
Subsidies	58	69	71	91	91	96	99	105	108	110
Gross fixed capital formation	212	237	202	181	169	152	178	236	155	171
Capital transfers <sup>2)</sup>	54	47	46	45	121	39	60	41	36	31
Investment grants <sup>3)</sup>	31	26	25	32	31	21	18	15	13	15
Other capital transfers	23	20	21	13	89	18	42	26	23	16
Other expenditure	74	62	71	84	84	89	87	94	100	109
Final consumption expenditure	781	825	825	813	804	826	849	883	919	968
Collective consumption <sup>4)</sup>	396	412	410	387	375	388	395	415	434	444
Individual consumption	385	413	416	427	429	438	454	468	485	525
% growth										
Total expenditure	5.5	6.2	-0.7	0.7	4.0	-3.3	4.8	4.7	-1.8	4.4
Compensation of employees	4.6	5.3	0.4	-1.0	2.7	2.0	3.5	4.8	5.4	10.1
Intermediate consumption	4.8	4.8	-0.9	-3.1	-7.7	4.1	1.5	3.4	2.8	1.6
Social benefits other than in kind $^{1)}$	4.1	7.1	1.7	1.9	1.2	2.1	2.0	2.3	2.3	2.7
Social benefits in kind	5.3	11.4	0.3	2.6	4.7	2.6	4.8	1.4	4.3	3.1
Property income	-2.1	20.8	7.4	2.1	9.9	-5.8	2.6	-13.0	-10.6	-14.2
Interest	-2.6	20.7	7.7	1.9	9.1	-4.9	2.0	-12.7	-10.6	-13.7
Other property income	247.3	29.4	-30.1	40.6	117.2	-69.4	119.1	-44.4	-1.8	-91.2
Subsidies	2.2	19.6	2.3	29.2	0.0	5.1	3.8	5.6	2.7	1.7
Gross fixed capital formation	16.3	11.7	-14.6	-10.6	-6.4	-10.0	16.8	32.8	-34.3	10.3
Capital transfers <sup>2)</sup>	-18.8	-13.3	-1.8	-2.6	169.8	-67.5	53.4	-32.3	-12.8	-13.4
Investment grants <sup>3)</sup>	-5.9	-15.3	-5.8	28.6	-1.8	-32.2	-14.5	-19.1	-12.8	15.0
Other capital transfers	-31.5	-10.4	3.3	-39.4	598.0	-79.8	133.5	-37.9	-12.8	-29.3
Final consumption expenditure	4.7	5.7	0.0	-1.5	-1.1	2.7	2.8	4.0	4.0	5.4
Collective consumption <sup>4)</sup>	4.9	4.2	-0.7	-5.6	-3.0	3.5	1.7	5.2	4.4	2.3
Individual consumption	4.5	7.3	0.7	2.6	0.6	2.0	3.8	3.0	3.7	8.2

Note: <sup>1)</sup> Social benefits, which should serve households to relieve their costs or losses stemming from existence or development of some risks or needs. Mainly benefits paid in case of old age, disability, sickness, motherhood, unemployment, work injury, work sickness, current social need etc.

<sup>2)</sup> Transactions of capital distribution, which have no influence either on beneficiary's ordinary income or these transaction's payer but on amount of their net property. Both in cash and in kind.

<sup>3)</sup> Capital transfers in cash or in kind made by governments to other institutional units to finance all or part of the costs of their gross fixed capital formation.

<sup>4)</sup> Value of all collective services provided to the whole society or to specific groups, i.e. expenditure for public services, defence, security, justice, health protection, environmental protection, research and development, infrastructure development and economy. Source: CZSO (2018b), MF CR.

#### Table A.8: General Government Expenditure (in % of GDP)

(in % of GDP)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total expenditure	40.6	44.2	43.5	43.0	44.5	42.6	42.4	41.7	39.5	39.0
Compensation of employees	8.3	9.0	8.9	8.7	8.9	8.9	8.8	8.7	8.8	9.2
Intermediate consumption	6.9	7.4	7.3	7.0	6.4	6.6	6.4	6.2	6.1	5.9
Social benefits other than in kind	11.8	12.9	13.1	13.1	13.1	13.3	12.9	12.4	12.2	11.8
Social benefits in kind	2.7	3.1	3.0	3.1	3.2	3.3	3.2	3.1	3.1	3.0
Property income	1.0	1.2	1.3	1.3	1.4	1.3	1.3	1.1	0.9	0.7
Interest	1.0	1.2	1.3	1.3	1.4	1.3	1.3	1.1	0.9	0.7
Other property income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subsidies	1.4	1.8	1.8	2.3	2.2	2.3	2.3	2.3	2.3	2.2
Gross fixed capital formation	5.3	6.0	5.1	4.5	4.2	3.7	4.1	5.1	3.3	3.4
Capital transfers	1.3	1.2	1.2	1.1	3.0	1.0	1.4	0.9	0.7	0.6
Investment grants	0.8	0.7	0.6	0.8	0.8	0.5	0.4	0.3	0.3	0.3
Other capital transfers	0.6	0.5	0.5	0.3	2.2	0.4	1.0	0.6	0.5	0.3
Other expenditure	1.8	1.6	1.8	2.1	2.1	2.2	2.0	2.0	2.1	2.2
Final consumption expenditure	19.4	21.0	20.8	20.2	19.8	20.2	19.7	19.2	19.3	19.2
Collective consumption	9.8	10.5	10.3	9.6	9.2	9.5	9.2	9.0	9.1	8.8
Individual consumption	9.6	10.5	10.5	10.6	10.6	10.7	10.5	10.2	10.2	10.4

Source: CZSO (2018b), MF CR.

#### **Table A.9: Central Government Expenditure**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CZK bn										
Total expenditure	1197	1258	1249	1259	1331	1266	1318	1395	1392	1432
Compensation of employees	171	181	179	172	179	183	190	200	210	231
Intermediate consumption	141	148	144	139	123	128	131	141	143	140
Social benefits other than in kind	453	485	491	501	530	540	552	564	577	594
Social benefits in kind	2	3	4	5	9	12	14	15	14	13
Interest	37	46	50	52	56	54	55	48	43	37
Subsidies	28	34	33	54	53	57	59	63	65	65
Gross fixed capital formation	123	128	107	88	88	76	80	122	92	89
Capital transfers	54	55	52	53	119	36	56	48	42	35
Other expenditure	187	178	190	195	174	179	181	195	205	228
% growth										
Total expenditure	3.9	5.1	-0.7	0.7	5.7	-4.9	4.1	5.8	-0.2	2.9
Compensation of employees	4.2	5.6	-1.3	-3.4	3.7	2.4	3.7	5.1	5.3	9.9
Intermediate consumption	3.1	4.5	-2.5	-3.7	-11.3	4.2	2.5	7.3	1.8	-2.2
Social benefits other than in kind	3.7	7.0	1.4	2.0	5.6	2.0	2.1	2.3	2.3	3.0
Social benefits in kind	-18.2	36.6	53.3	20.0	83.4	37.2	15.4	1.8	-1.1	-8.7
Interest	-4.0	24.3	9.9	2.2	8.9	-4.2	1.9	-12.9	-10.4	-13.7
Subsidies	-0.4	21.2	-5.1	64.4	-0.5	6.9	2.7	7.0	3.4	-0.4
Gross fixed capital formation	9.4	4.0	-17.0	-17.5	0.2	-14.2	6.0	52.0	-24.8	-2.5
Capital transfers	-15.4	2.1	-5.0	2.4	123.5	-69.3	55.1	-15.1	-13.0	-16.7
Other expenditure	11.5	-4.5	6.4	2.7	-10.9	3.0	1.0	7.9	5.2	11.1

#### Table A.10: Local Government Expenditure

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CZK bn										
Total expenditure	469	507	503	495	458	466	498	518	486	539
Compensation of employees	159	167	171	174	177	180	186	194	205	226
Intermediate consumption	135	142	142	140	134	139	140	141	146	154
Social benefits other than in kind	22	24	26	26	4	4	4	4	4	3
Social benefits in kind	3	3	2	3	0	-	-	-	-	-
Interest	3	3	2	2	2	1	1	1	1	1
Subsidies	29	35	38	38	38	39	41	42	43	45
Gross fixed capital formation	88	108	95	92	81	77	97	114	63	82
Capital transfers	18	12	12	7	11	10	12	5	5	6
Other expenditure	10	14	14	14	12	15	16	17	18	22
% growth										
Total expenditure	6.9	8.2	-0.8	-1.6	-7.5	1.8	6.9	4.1	-6.3	11.0
Compensation of employees	4.8	4.9	2.4	1.5	1.9	1.7	3.3	4.5	5.6	10.4
Intermediate consumption	6.4	4.7	0.6	-1.9	-4.4	4.4	0.7	0.0	3.9	5.6
Social benefits other than in kind	13.4	9.3	7.6	-1.5	-85.2	17.8	-11.1	7.0	0.1	-28.3
Social benefits in kind	-11.3	0.2	-16.4	11.1	-99.0	-	-	-	-	-
Interest	17.9	-20.9	-32.3	-7.5	16.6	-23.3	4.0	-9.2	-19.9	-12.2
Subsidies	4.8	18.1	9.6	-1.0	0.6	2.6	5.3	3.6	1.7	4.8
Gross fixed capital formation	27.2	22.2	-11.7	-2.7	-12.6	-5.1	27.1	17.3	-44.6	28.8
Capital transfers	-30.3	-31.7	-1.3	-42.1	55.8	-11.2	25.8	-63.4	6.5	23.0
Other expenditure	-0.7	36.0	-1.5	2.8	-16.2	31.1	0.9	8.8	7.3	22.3

Source: CZSO (2018b).

#### Table A.11: Social Security Fund Expenditure

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CZK bn										*******
Total expenditure	201	222	224	228	232	229	242	250	262	276
Compensation of employees	4	4	4	4	4	4	4	4	4	4
Intermediate consumption	2	3	3	3	3	2	2	2	2	2
Social benefits other than in kind	0	0	0	0	0	0	0	0	0	0
Social benefits in kind	103	115	114	116	121	121	125	127	133	139
Interest	0	0	-	0	-	-	-	-	-	0
Subsidies	-	-	-	-	-	-	-	-	-	-
Gross fixed capital formation	1	1	1	1	1	0	1	0	0	0
Capital transfers	-	-	0	-	-	-	-	-	-	-
Other expenditure	91	99	102	104	104	102	110	117	122	130
% growth										
Total expenditure	7.1	10.5	1.2	1.5	1.7	-1.3	5.9	3.3	4.7	5.3
Compensation of employees	12.0	9.6	-0.2	-2.3	-3.0	-0.6	2.5	4.9	2.6	5.3
Intermediate consumption	21.8	26.3	9.9	-21.5	1.3	-15.8	-1.0	-6.4	-3.5	-7.4
Social benefits other than in kind	-	600.0	0.0	-28.6	-20.0	12.5	-22.2	28.6	11.1	-20.0
Social benefits in kind	6.4	11.2	-0.5	1.8	3.8	0.0	3.7	1.4	5.0	4.4
Interest	-50.0	0.0	-	-	-	-	-	-	-	-
Subsidies	-	-	-	-	-	-	-	-	-	-
Gross fixed capital formation	64.4	48.4	-15.7	-14.1	-23.7	-59.6	119.0	-22.6	-18.7	-6.3
Capital transfers	-	-	-	-	-	-	-	-	-	-
Other expenditure	7.1	9.0	3.1	2.1	-0.3	-2.1	8.5	5.7	4.7	6.6

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CZK bn										
General government	-80	-214	-166	-110	-160	-51	-91	-28	35	78
Central government	-82	-179	-142	-92	-151	-64	-96	-56	-20	28
Local governments	-8	-25	-15	-11	-2	12	8	26	50	42
Social security funds	10	-11	-9	-7	-7	1	-3	2	5	8
% of GDP										
General government	-2.0	-5.5	-4.2	-2.7	-3.9	-1.2	-2.1	-0.6	0.7	1.5
Central government	-2.0	-4.6	-3.6	-2.3	-3.7	-1.6	-2.2	-1.2	-0.4	0.6
Local governments	-0.2	-0.6	-0.4	-0.3	-0.1	0.3	0.2	0.6	1.0	0.8
Social security funds	0.2	-0.3	-0.2	-0.2	-0.2	0.0	-0.1	0.0	0.1	0.2

Source: CZSO (2018b).

#### Table A.13: General Government Debt by Instruments

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
СZК b	n									
General government debt	1137	1319	1480	1606	1805	1840	1819	1836	1755	1750
Currency and deposits	10	10	9	3	8	7	10	5	9	6
Securities other than shares	967	1125	1280	1408	1603	1639	1623	1648	1593	1602
Loans	160	184	191	195	194	194	186	183	153	141
Central government debt	1049	1224	1383	1506	1698	1734	1714	1740	1714	1734
Currency and deposits	10	10	9	3	8	7	15	15	54	74
Securities other than shares	943	1109	1265	1394	1592	1627	1613	1638	1581	1591
Loans	97	105	110	109	98	100	86	87	79	70
Local government debt	92	99	101	103	113	116	116	111	89	85
Currency and deposits	-	-	-	-	-	-	-	-	-	-
Securities other than shares	26	17	17	15	15	16	13	13	13	13
Loans	66	82	84	88	97	100	103	98	76	72
Social security funds debt	0	0	0	0	0	2	1	1	0	0
Currency and deposits	-	-	-	-	-	-	-	-	-	-
Securities other than shares	-	-	-	-	-	-	-	-	-	-
Loans	0	0	0	0	0	2	1	1	0	0
% growt	h									
General government debt	7.8	16.0	12.2	8.5	12.4	1.9	-1.2	0.9	-4.4	-0.3
Currency and deposits	10.3	-0.1	-11.7	-61.1	153.8	-18.7	45.7	-46.1	58.5	-30.5
Securities other than shares	8.8	16.3	13.8	10.0	13.9	2.2	-1.0	1.6	-3.4	0.6
Loans	1.9	15.2	3.8	1.9	-0.8	0.5	-4.3	-1.9	-16.0	-7.8
Central government debt	8.0	16.6	13.1	8.9	12.7	2.1	-1.2	1.6	-1.5	1.2
Currency and deposits	6.6	-0.1	-11.5	-60.8	151.8	-18.4	121.4	-0.3	257.0	35.6
Securities other than shares	9.1	17.7	14.1	10.2	14.2	2.2	-0.9	1.6	-3.5	0.6
Loans	-1.6	8.0	4.6	-1.0	-9.8	2.0	-14.4	1.6	-9.6	-10.7
Local government debt	3.9	7.9	1.5	2.6	9.2	3.2	-0.1	-4.8	-19.2	-5.1
Currency and deposits	-	-	-	-	-	-	-	-	-	-
Securities other than shares	-0.4	-33.3	-0.6	-11.5	2.4	5.0	-17.1	-2.9	1.3	-2.5
Loans	5.7	23.8	1.9	5.4	10.4	3.0	2.6	-5.0	-22.0	-5.6
Social security funds debt	62.7	-44.8	-26.4	415.4	-9.0	928.4	-43.1	-41.1	-85.1	213.8
Currency and deposits	-	-	-	-	-	-	-	-	-	-
Securities other than shares	-	-	-	-	-	-	-	-	-	-
Loans	62.7	-44.8	-26.4	415.4	-9.0	928.4	-43.1	-41.1	-85.1	213.8

Note: Government debt consists of following financial instruments: currency and deposits, securities issued other than shares excluding financial derivatives and loans. The debt is expressed in the nominal value, which is considered equivalent to the face value. Government debt is consolidated, i.e. the debt in holding of other subjects of a subsector resp. the government sector is omitted. Source: CZSO (2018b).

Table A.14: General Government Debt by Instruments (in % of G
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(in % of GDP)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
General government debt	28.3	33.6	37.4	39.8	44.5	44.9	42.2	40.0	36.8	34.7
Currency and deposits	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.1
Securities other than shares	24.0	28.6	32.3	34.9	39.5	40.0	37.6	35.9	33.4	31.8
Loans	4.0	4.7	4.8	4.8	4.8	4.7	4.3	4.0	3.2	2.8
Central government debt	26.1	31.1	34.9	37.3	41.8	42.3	39.7	37.9	35.9	34.4
Currency and deposits	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.3	1.1	1.5
Securities other than shares	23.4	28.2	31.9	34.6	39.2	39.7	37.4	35.6	33.2	31.5
Loans	2.4	2.7	2.8	2.7	2.4	2.4	2.0	1.9	1.6	1.4
Local government debt	2.3	2.5	2.5	2.6	2.8	2.8	2.7	2.4	1.9	1.7
Currency and deposits	-	-	-	-	-	-	-	-	-	-
Securities other than shares	0.6	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
Loans	1.6	2.1	2.1	2.2	2.4	2.4	2.4	2.1	1.6	1.4
Social security funds debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency and deposits	-	-	-	-	-	-	-	-	-	-
Securities other than shares	-	-	-	-	-	-	-	-	-	-
Loans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: Government debt consists of following financial instruments: currency and deposits, securities issued other than shares excluding financial derivatives and loans. The debt is expressed in the nominal value, which is considered equivalent to the face value. Government debt is consolidated, i.e. the debt in holding of other subjects of a subsector resp. the government sector is omitted. Source: CZSO (2018b).

			Balance					Debt		
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
EU28	-2.9	-2.3	-1.7	-1.0	•	86.4	84.4	83.3	81.6	•
EA19 <sup>1)</sup>	-2.5	-2.0	-1.6	-1.0	•	91.8	89.9	89.1	86.8	
Austria	-2.7	-1.0	-1.6	-0.8	-0.3	84.0	84.8	83.0	78.3	74.2
Belgium	-3.1	-2.5	-2.4	-0.9	-1.0	107.6	106.5	106.1	103.4	101.9
Bulgaria	-5.4	-1.7	0.2	1.1	0.5	27.1	26.2	29.6	25.6	22.5
Croatia	-5.1	-3.4	-0.9	0.9	-0.5	84.0	83.7	80.2	77.5	74.5
Cyprus	-9.0	-1.3	0.3	1.8	3.0	108.0	108.0	105.5	96.1	103.3
Czech Republic	-2.1	-0.6	0.7	1.5	1.6	42.2	40.0	36.8	34.7	33.0
Denmark	1.1	-1.5	-0.4	1.1	0.0	44.3	39.9	37.9	36.1	35.1
Estonia	0.7	0.1	-0.3	-0.4	0.8	10.5	9.9	9.2	8.7	8.2
Finland	-3.2	-2.8	-1.7	-0.7	-0.7	60.2	63.6	63.0	61.3	59.9
France	-3.9	-3.6	-3.5	-2.7	-2.6	94.9	95.6	98.2	98.5	98.7
Germany	0.6	0.8	0.9	1.0	1.6	74.5	70.8	67.9	63.9	60.6
Greece	-3.6	-5.6	0.5	0.8	0.4	178.9	175.9	178.5	176.1	183.0
Hungary	-2.6	-1.9	-1.6	-2.2	-2.4	76.6	76.6	75.9	73.3	72.9
reland	-3.6	-1.9	-0.5	-0.2	-0.1	104.1	76.8	73.4	68.4	64.0
taly	-3.0	-2.6	-2.5	-2.4	-1.8	131.8	131.6	131.4	131.2	130.9
Latvia	-1.5	-1.4	0.1	-0.6	-0.9	40.9	36.8	40.3	40.0	39.2
Lithuania	-0.6	-0.3	0.3	0.5	0.6	40.5	42.6	39.9	39.4	34.8
Luxembourg	1.3	1.3	1.6	1.4	1.5	22.7	22.2	20.7	23.0	21.8
Malta	-1.7	-1.0	0.9	3.5	1.1	63.7	58.6	56.3	50.9	46.9
Netherlands	-2.2	-2.0	0.0	1.2	0.8	67.9	64.6	61.9	57.0	53.1
Poland	-3.7	-2.7	-2.2	-1.4	-1.8	50.4	51.3	54.2	50.6	49.2
Portugal	-7.2	-4.4	-2.0	-3.0	-0.7	130.6	128.8	129.2	124.8	121.2
Romania	-1.3	-0.7	-2.9	-2.9	-3.0	39.2	37.8	37.3	35.1	35.0
Slovakia	-2.7	-2.6	-2.2	-0.8	-0.6	53.5	52.2	51.8	50.9	49.4
Slovenia	-5.5	-2.8	-1.9	0.1	0.5	80.4	82.6	78.7	74.1	70.3
Spain	-6.0	-5.3	-4.5	-3.1	-2.7	100.4	99.3	99.0	98.1	97.1
Sweden	-1.6	0.2	1.1	1.6	1.0	45.5	44.2	42.4	40.8	37.7
United Kingdom <sup>2)</sup>	-4.8	-3.9	-2.4	-2.0	-1.8	86.5	86.4	86.5	85.6	85.4

# Table A.15: General Government Balance and Debt of EU Countries (2014–2018) (*in % of GDP*)

Note: <sup>1)</sup> 19 current member states – Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia, Spain.

<sup>2)</sup> Data for the financial year (1 April of year T to 31 March of year T+1).

Source: Eurostat (2018b).

(In % of GDP)	<b>D</b>	r	Compen. of	Cash social	Collective	Individual	1	Interest
	Revenue	Expenditure	employees	benefits	consumption	consumption	Investments <sup>1</sup>	expenditure
EU28	44.9	45.8	9.9	15.8	7.4	12.8	2.7	2.0
EA19 <sup>2)</sup>	46.2	47.1	9.9	16.8	7.5	12.9	2.6	2.0
Austria	48.4	49.1	10.6	18.3	7.2	12.3	3.0	1.8
Belgium	51.2	52.2	12.3	17.2	7.8	15.6	2.2	2.5
Bulgaria	36.1	35.2	9.3	11.5	8.1	8.0	2.1	0.8
Croatia	45.7	45.0	11.3	13.3	9.5	10.0	2.7	2.7
Cyprus	39.9	38.1	12.2	13.6	7.3	7.6	2.7	3.2
Czech Republic	40.4	38.8	9.1	11.8	8.8	10.4	3.3	0.7
Denmark	53.0	51.9	15.5	16.4	7.2	17.8	3.5	1.1
Estonia	39.9	40.2	11.6	11.7	9.0	11.3	5.6	0.0
Finland	53.2	53.7	12.5	19.0	7.6	15.5	3.9	1.0
France	53.9	56.5	12.7	19.8	8.2	15.5	3.4	1.8
Germany	45.2	43.9	7.6	15.5	6.8	12.7	2.2	1.1
Greece	48.8	48.0	12.1	19.3	11.5	8.6	4.6	3.2
Hungary	44.5	46.5	10.8	12.2	9.9	10.2	4.4	2.8
Ireland	25.7	26.1	7.0	7.7	3.9	8.1	1.9	2.0
Italy	46.6	48.9	9.6	19.9	7.6	11.0	2.0	3.8
Latvia	37.5	38.0	10.3	10.4	9.3	8.9	4.0	0.9
Lithuania	33.8	33.3	9.6	11.0	7.2	9.5	3.2	1.1
Luxembourg	44.4	42.9	9.1	15.5	6.9	10.0	4.0	0.3
Malta	40.5	36.5	11.4	9.6	5.6	9.7	2.2	1.9
Netherlands	43.7	42.6	8.5	10.9	8.1	16.2	3.5	1.0
Poland	39.6	41.2	10.1	15.1	8.0	9.7	3.7	1.6
Portugal	42.9	45.9	11.0	16.7	8.0	9.6	1.8	3.9
Romania	30.5	33.4	9.7	10.8	7.7	7.4	2.8	1.3
Slovakia	39.4	40.4	9.2	13.5	9.0	10.4	3.2	1.4
Slovenia	43.1	43.1	11.1	14.9	7.6	10.6	2.9	2.5
Spain	37.9	41.0	10.6	15.3	7.8	10.7	2.0	2.6
Sweden	50.5	49.1	12.6	12.9	6.9	19.1	4.6	0.4
United Kingdom	39.1	40.9	9.0	13.0	6.4	11.9	2.7	2.7

#### Table A.16: Transactions of General Government of EU Countries in 2017

(in % of GDP)

Note: <sup>1)</sup> Gross fixed capital formation. <sup>2)</sup> 19 current member states – Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia, Spain.

Source: Eurostat (2018a).

# **B** Glossary

Accrual methodology means that economic transactions are recorded at the time an economic value is created, transformed or cancelled or when amounts due or claims increase or decrease, regardless of when the transaction will be paid (unlike the cash principle employed in the budgeting process of the state budget).

**Capital transfers** include acquisition or loss of an asset without equivalent consideration. They may be made in cash or in kind. **Capital transfer in cash** is defined as cash transfer without expected consideration from the unit which received the transfer. **Capital transfer in kind** is based on the transfer of ownership of an asset, other than inventory and cash, or decommitment by a creditor for which no consideration was received, eventually assumption of debt, etc.

**Cyclically adjusted balance** of the general government sector is used to identify the fiscal policy stance because it does not include impact of those parts of revenues and expenditures which are generated by the position of the economy in the business cycle.

**Discretionary measures** are direct interventions of the government in the structure of general government revenue and expenditure.

Government final consumption expenditure includes government payments which are subsequently used for consumption of individuals in the household sector (mainly reimbursement of health care by health insurance companies for services provided by medical facilities) or they are consumed by the entire society (such as expenditure on army, police, judiciary, state administration, etc.). General government services, provided for consumption to the entire society, are usually valued at the level of one's own costs for a given service because they do not pass through a market which would value them. For the above reasons, consumption consists mainly of intermediate consumption (i.e. goods and services, except fixed assets, consumed in the process of production of another good or service), compensation of employees (gross wages and salaries including social contributions paid by employer), social transfers in kind for households or fixed capital consumption. The value calculated is not the entire value of these transactions but only the value associated with the production valued as one's own costs. The costs of creation of activities which pass a market fully or partly and for which the sector receives payment are excluded from general government consumption expenditure.

**Fiscal effort** is an annual change in the structural balance indicating expansive of restrictive fiscal policy in a given year.

**Fiscal impulse** is used to assess the impact of the government's fiscal policy on economic growth. It is usually expressed in annual terms, where a decrease in certain government revenues or an increase in certain government expenditures represents a positive impulse, and an increase in certain revenues or a decrease in certain expenditures represents a negative impulse.

The **general government sector** is defined by internationally harmonized rules at the EU level. In the CR, the general government sector includes, in the ESA 2010 methodology, three main subsectors: central government, local government and social security funds.

**Government Deficit and Debt Notification** is quantification of fiscal indicators submitted by each EU Member State twice a year to the European Commission. It is compiled for the general government sector using the accrual methodology. The Czech Statistical Office processes data for the past four years t-4 to t-1; MF CR supplies prediction for the current year t. Notification includes a basic set of notification tables, which include mainly key indicators such as balance and debt, including explanations of the link to balance in the national methodology as well as a number of additional questionnaires such as a table of state guarantees, etc.

**Gross fixed capital formation** expresses net acquisition of fixed capital, i.e. its acquisitions less disposals, achieved by production activities of production and institutional units. It represents investment activities of units.

**Medium-Term Objective** (MTO) is expressed in the structural balance and implies long-term sustainability of public finance of the country. For the CR it currently corresponds to the level of structural balance of -1% of GDP.

**One-off and other temporary operations** are measures on the expenditure or revenue side which only have a temporary impact on general government balance, and they often stem from events outside the direct control of the government (e.g. expenditures on removing the consequences of floods).

**Output gap** is the difference between real and potential product (often expressed as a ratio to potential product). It determines the position of the economy in the business cycle.

**Social security benefits in cash** are social security benefits (e.g. pensions, social benefits) paid out from the government to households.

**Structural balance** is the difference between cyclically adjusted balance, and one-off and temporary operations (for both components see above).

# C Lists of Thematic Chapters and Boxes of Previous Fiscal Outlooks of the Czech Republic

### List of Thematic Chapters of Previous Fiscal Outlooks of the Czech Republic

Published	Торіс
November 2011	Causes of the European Debt Crisis and its Consequences for Czech Public Finances
November 2012	Pension Reform – Introducing an Opt-Out
November 2013	Excessive Deficit Procedure in EU Member States
November 2014	Long-term Pension Projections
November 2015	Fiscal Impulse Fiscal Framework Reform in the Czech Republic
November 2016	Long-term Projections of Public Expenditure on Health Care
November 2017	Fiscal Councils

#### List of Thematic Boxes of Previous Fiscal Outlooks of the Czech Republic

Published	Box Topic
May 2011	Box 1: Ruling of the Constitutional Court of the Czech Republic and Public Finances
November 2011	Box 1: Selected Changes in Methodology for General Government Statistics Box 2: Settlement of the Property Relations of the State and the Churches
May 2012	Box 1: Accident Insurance – Current State of Affairs Box 2: Stability and Growth Pact versus the Treaty on Stability Coordination and Governance in the EMU
November 2012	Box 1:Drawing of EU Funds and Impact on the Public Finances Balances Box 2:European System of Trading in Greenhouse Gas Emission Allowances
May 2013	Box 1: Satellite Account of Public Sector Box 2: The Seventh Enlargement of the European Union – Croatia
November 2013	Box 1: Government Sector Investment in 2009–2012 Box 2: EU Funds and their Uptake Box 3: Floods in 2013
May 2014	Box 1: Drawing of EU Structural Funds in the 2007–2013 Programming Period Box 2: Financial Resources from the 2014–2020 Programming Period
November 2014	Box 1: Basic Changes in General Government Sector Statistics in relation with Transition to ESA 2010 Box 2: Changes in General Government Sector Statistics in the System of National Accounts Box 3: Planned Measures against Tax Evasion Box 4: Impact of New Estimates of Elasticities of Cyclically Sensitive Revenue and Expenditure on the Cyclical Component of Balance
May 2015	Box 1: Expansion of the General Government Sector
November 2015	Box 1: Expansion of the General Government Sector Box 2: Czech Economy Growth and the Tax Revenue Development in 2015 Box 3: Expenditure Rule Technique
November 2016	Box 1: Effect of Supply Factors on Health-Care Expenditure
November 2017	Box 1: Requirements of Directive 2011/85/EU and Regulation No 473/2013 on establishment of national fiscal councils
November 2018	<ul> <li>Box 2: Selected recommendations of the European Fiscal Board for the implementation of fiscal policy and public budgeting in the euro-area countries for 2018</li> <li>Box 1: Changes in the Methodical Classification of Certain Revenue and Expenditure of General Government Sector</li> <li>Box2: National Methodology for the Classification of One-off and Other Temporary Measures</li> </ul>

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public finance, public budgets, cash flows, general government, national accounts, international comparison, medium-term fiscal outlook, expenditure framework, long-term sustainability of public finance, outlook, expenditure framework, long-term sustainability of public finance, fiscal projection, net lending, net borrowing, public debt, macroeconomic development, fiscal policy objectives, development of macroeconomic development, fiscal policy objectives, development of public finance, public budgets, cash flows, general government, national accounts, international comparison, medium-term fisca fiscal projection, net lending, net borrowing, public debt, macroeconomic development, fiscal policy objectives, development of public finance, public budgets, cash flo accounts, international comparison, medium-term fiscal outlook, expenditure framework, long-term sustainability of public finance, fiscal projection, net lending, net borrov development, fiscal policy objectives, development of public finance, public budgets, cash flows, general government, national accounts, international comparison, mediun relopment of public finance, publ ω 569003" > nent, national