Ministry of Finance
of the Czech Republic

Fiscal Outlook
of the Czech Republic

November 2021

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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, usually in November. . It contains forecast of the current and next year (i.e. up to 2022) and also the outlook of some economic indicators to the following 2 years (i.e. up to 2024). The Outlook is available on internet pages of MF CR at:

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> *Fiscal.Outlook@mfcr.cz*

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c. p.	current prices
CR	Czech Republic
CZK	Czech koruna currency code
EC	European Commission
ECB	European Central Bank
ESA 2010	European System of National and Regional Accounts from year 2010
EU, EU27	European Union (EU27 coverage)
EUR	euro currency code
GDP	gross domestic product
MF CR	Ministry of Finance of the Czech Republic
OP	Operational programme
p. a.	*per annum* (per year)
pp	percentage point
ROP	Regional Operational programme
s. p.	constant prices (volumes)

Symbols Used in Tables

A dash (–) in place of number indicates that the phenomenon did not occur or is not possible for logical reasons.

Cut-off Date for Data Sources

Macroeconomic data used pertain to the 29 October 2021 release, fiscal data to the 1 November 2021 release, international comparison to the 21 October 2021 release and government bond yields to the 12 October 2021 release, respectively.

Note

In some cases, published aggregates do not match the sum of individual items to the last decimal point due to rounding. "Billion" means a thousand million.

Introduction and Summary

Global economic development in 2021 is still heavily influenced by the COVID-19 pandemic, which hit the world in early 2020. While much better than in the same period last year thanks to vaccination coverage, the current epidemic situation is deteriorating rapidly. A perceptible increase in costs and a shortage of components for production hamper a more robust economic recovery. With real gross domestic product expected to grow by 2.5% in 2021, we estimate that the Czech economy should reach pre-crisis levels in 2022. Next year should the recovery be stronger at around 4.1%.

Economic recession, anti-epidemic measures and government stimulus instruments have significantly affected the performance of public finances worldwide. In the Czech Republic, we estimate the general government balance for 2021 at −7.2% of GDP and debt at the end of 2021 at 43.3% of GDP. Economic policy needs to strike a balance between a gradual return to neutral fiscal and monetary policy settings, maintaining fragile economic growth and slowing the upward momentum of the price level.

On the fiscal side, the aim is to consolidate public finances. In the Czech Republic, the draft state budget for 2022 foresees a deficit of CZK 376.6 billion (5.8% of GDP). The balance is based on an expenditure framework compatible with a structural deficit of 5.6% of GDP. According to the Act on Fiscal Responsibility Rules, the expenditure framework was derived on the basis of this year's structural balance estimated by the Ministry of Finance in August 2021, increased by half a percentage point. In the following years, the pace of consolidation is also set at minimum of half a percentage point per year.

The minimum pace should not hamper economic growth. Moreover, it will start at a time when we estimate that the economy will again be in an expansionary phase. At the same time, however, if socio-economic conditions allow for faster consolidation, the law does not place any restrictions on proceeding with it. We predict that, with the current public finance settings, the public finances could be around −3.5% of GDP in 2024 and the debt burden could reach 51.3% of GDP.

Accelerating inflation is becoming a significant macroeconomic issue. In September 2021, annual inflation reached 4.9%, well above the upper end of the tolerance band of the Czech National Bank's inflation target. High energy and other commodity prices are gradually feeding through to other price categories, including consumer prices. Supply-side frictions are proving to be a major factor in inflation. The average inflation rate is expected to reach 3.5% this year, then accelerating markedly to 6.1% next year. This is very likely to trigger an increase in government spending during 2022 in order to accommodate extraordinary pension indexation in line with current legislation. The government has also taken several steps to cushion rising energy costs for consumers.

From the perspective of social expenditure, the long-term sustainability of such actions has yet to be resolved. The probable next government coalition has singled out pension reform as a priority. In early December 2020, the Organisation for Economic Cooperation and Development presented a report on the Czech Republic's pension system, in which it made recommendations for adjustments to the social system and the way the old-age security system is set up. Although the details of the emerging coalition proposal remain unknown, from a purely quantitative perspective the scope of the measures required can be demonstrated on three aspects of possible solutions – a rising retirement age, adjustments to the indexation mechanism, and an increase in the system's revenue. Qualitative adjustments to the pension system will then have to take place within the scope set by these scenarios.

The Fiscal Outlook's thematic chapter focuses on the inflow of funding from the funds and other instruments of the European Union, including its impact on the national economy. Between 2004 and 2020, the Czech Republic benefited from around CZK 1.6 trillion; approximately 55% of these funds increased capital expenditure. After taking into account payments to the EU budget from national sources, it received almost CZK 900 billion net. In the period ahead, we should mainly witness economic recovery and increasing resilience among Member States as the epidemic crisis recedes. Both the 2021–2027 financial perspective and the new Next Generation EU will be used for this purpose, with the Czech Republic able to draw on around EUR 30 billion. Resources under the most important Next Generation EU instrument, the Recovery and Resilience Facility, will be allocated in line with the approved National Recovery Plan. It brings together investment and reform actions worth almost CZK 191 billion, 39% of which are focused on achieving climate goals, 21% on digitalisation or 19% on other areas of education, the labour market and health care. We estimate that, at the end of the Fiscal Outlook horizon, the Czech gross domestic product will be more than 5% higher in aggregate than without these EU funds. However, this is only part of the impact. The strengthening and expansion of health care, the digitalisation of public administration, as well as investments in the environment, education, science and research will mostly be reflected in the longer term. As an investment in a better future.

1 Macroeconomic Framework of the Fiscal Forecast

The macroeconomic framework of the fiscal forecast assumes that both the vaccination of the population and the high number of people who have already had COVID-19 will prevent the need to adopt further macroeconomically significant anti-epidemic restrictions. On the other hand, the adverse effects of rising input prices and disruptions to production and supply chains are projected to persist for the remainder of this year and into early next year.

The forecast 2.5% **increase in economic output** this year should be driven by all components of domestic demand, most notably household consumption, inventory change, and fixed capital investment. The problems in global supply chains should have a significant negative impact on exports, while rising investments in fixed capital and inventories should continue to boost imports. Consequently, the external balance should severely inhibit economic growth.

The economy could grow by 4.1% in 2022 on the back of continued recovery in private consumption and fixed capital investment, accompanied by a more favourable contribution from the external balance. In subsequent years, GDP growth could hover around 2%, continuing to be driven by domestic demand.

In 2021, **household final consumption expenditure** should be positively influenced by growth in real disposable income, the momentum of which will benefit not only from a reduction in the effective taxation of wages, salaries and self-employment income, but also from a number of supportive fiscal schemes. On average for the year as a whole, the savings rate should remain more or less at the previous year's level due to the anti-epidemic restrictions imposed during Q1 and Q2, which seriously curtailed households' ability to engage in some areas of spending. Consumption should continue to recover in the second half of the year, but the quarter-on-quarter dynamics are projected to gradually slow down. In 2022, household consumption is expected to benefit from the normalization of the savings rate (though it will remain above the long-term average), as well as from the statistical effect of the recovery in consumer spending in the second half of this year. On the other hand, consumption, especially among low-income households, will be dampened by a significant hike in the cost of living. In this light, household consumption is expected to increase by 3.7% this year and by 4.7% in 2022. In the years further ahead, growth could be around 2%.

After a downturn of more than 7% in 2020, **gross fixed capital formation** should start to recover this year, underpinned by renewed economic growth abroad, loose monetary conditions, higher year-on-year capacity utilisation in industry, and the accelerated depreciation of tangible assets. Private investment could also be spurred on by the easing of restrictive measures and reduced uncertainty about how the epidemic will develop. Investment of the general government sector should also contribute to growth, boosted by the implementation of projects co-financed by EU funds, including new allocations under Next Generation EU.

Gross fixed capital formation could grow by 4.6% in 2021 and is forecast to expand by 5.4% in 2022. After factoring in the purchase of military helicopters, which will be fully reflected in imports of goods, investment could increase by 4.7% in 2023. In 2024, momentum should slip to 0.8% as the EU makes the move to its new multiannual financial perspective.

In the initial phase of the coronavirus pandemic, aggregate supply and demand were constrained, and it was not clear what the implications for inflation would be. The global economy recovered relatively quickly from the downturn in the first half of 2020, helped along by expansionary fiscal and monetary policies. However, the supply side remains profoundly affected by the ongoing pandemic and is unable to match the rising demand. This can be seen in transport disruptions, supply friction, and production shutdowns. Moreover, monetary and fiscal policies are only just starting to exit their expansionary mode. These developments have prompted price increases, which first came to the fore in commodity markets but are now gradually spreading into other price categories, including consumer prices.

Annual **inflation** was 4.9% in September 2021, well above the upper bound of the tolerance band set for the Czech National Bank's inflation target. It is likely to accelerate further over the remainder of this year. We forecast an average inflation rate of 3.5% in 2021, with market factors having the dominating influence. Pro-inflationary factors in 2021 include the aforementioned supply-side frictions, a significant rise in the price of oil and other commodities, and surging unit labour costs. The appreciation of the Czech koruna against both major world currencies and, to some extent, the negative output gap should work in the direction of lower inflation.

In 2022, administrative measures – especially increases in regulated prices – should be reflected more markedly in the average inflation rate. Most significant in this respect will be the increase in the price of electricity and natural gas. As part of changes to indirect taxes, we expect a further (albeit more modest compared to 2021) increase in excise duty on tobacco products. Administrative measures should contribute 2.3 pp to the average inflation rate. Oil prices should be essentially flat next year; if so, this is expected to reduce supply-side pressure on consumer price increases, although supply frictions are likely to persist. Conversely, demand-side factors should have a pro-inflationary effect, as the output gap should be positive by then and household consumption should pick up. The decline in unit labour costs should suppress inflation. The

appreciation of the Czech koruna against both major world currencies could also have a modest anti-inflationary effect. Accordingly, we expect an average inflation rate of 6.1% in 2022. In 2023 and 2024, inflation should be back within the tolerance band and moving towards the CNB's 2% target.

Labour-market developments were only slightly affected by the dismantling of government support schemes. The unemployment rate has virtually stalled at around 3% in recent months, a level which is conducive to earnings growth. Demand for foreign labour remains strong.

Economic recovery will lead to modest quarter-on-quarter improvements in employment from Q3 2021 onwards. However, for this year as a whole, it should fall by 0.5% on account of developments in the first half of the year, and could then rise by 0.8% in 2022. Employment could also increase slightly in the following years. The unemployment rate is expected to average 3.0% this year and gradually decline thereafter to 2.5% in 2024 as the economy grows. Wages and salaries could increase by 5.3% for the full year 2021. Persistent labour-market frictions should once again be the dominant factor in wage developments in the various market sectors. Strong labour demand could add to average wage and employment momentum next year. Wage bill could thus climb by 5.1% in 2022, with growth slightly above 4% in subsequent years.

The current account of the balance of payments reported a sizeable surplus of 3.4% of GDP in Q2 2021, reflecting the fact that the surplus on the balance of goods had peaked on the back of strong external demand for capital goods. However, in the second half of this year, the trade surplus is expected to shrink significantly because of production shutdowns in the export-oriented automotive industry in the wake of component shortages, accompanied by strong momentum in imports for investment purposes. Parallel to this, the profitability of foreign-controlled businesses is forecast to pick up again and the primary income deficit to widen. Therefore, we expect the current account to post a slightly negative balance of −0.1% and −0.3% of GDP this year and next, respectively. The current account could also report a slight deficit in 2023 and 2024.

The forecast is subject to a number of **risks** that we consider, on balance, to be tilted towards lower economic growth. Significant risks include problems in global supply chains, the possibility that inflation expectations remain well above the Czech National Bank's target, and further developments in the epidemic situation in the CR and abroad. In the context of possible structural changes within the economy, matching of supply and demand in the labour market will also be crucial. Internal risks include developments in the automotive industry and the overheating of residential property prices. The fact that households put off consumption during the epidemic, thus creating pent-up demand that could accelerate economic growth, can be identified as a positive risk. On the other hand, however, real consumption, especially among low-income households, could be stifled by a rise in the cost of living. Labour shortages could then provide momentum to productivity-enhancing investment and wage growth.

Graph 1.1: Real GDP

real GDP change in %, contributions in pp

Net exports
Gross capital formation
Final consumption
Gross domestic product
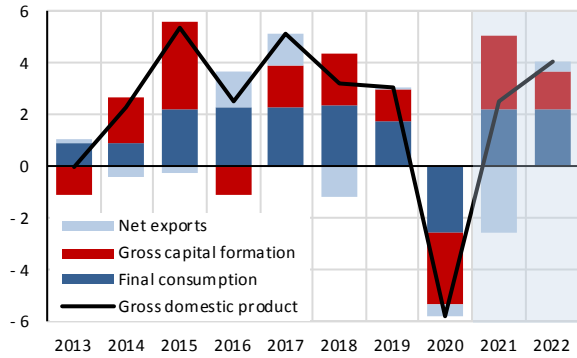
Source: MF CR (2021b).

Graph 1.2: Nominal GDP – Income Approach

nominal GDP change in %, contributions in pp

Balance of taxes and subsidies
Gross operating surplus
Compensation of employees
Gross domestic product
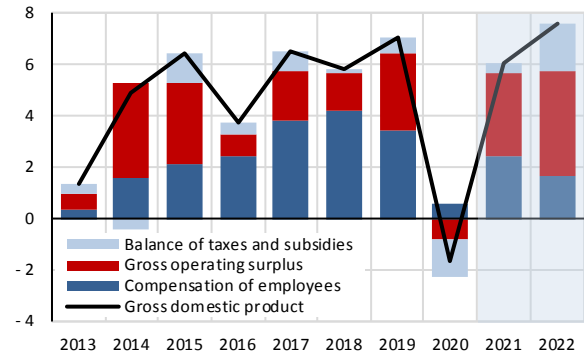
Source: MF CR (2021b).

Graph 1.3: Nominal Households Consumption

change of nominal households consumption in %, contributions in pp

Savings
Taxes and SSC
Earnings, business
Other
Social benefits
Consumption
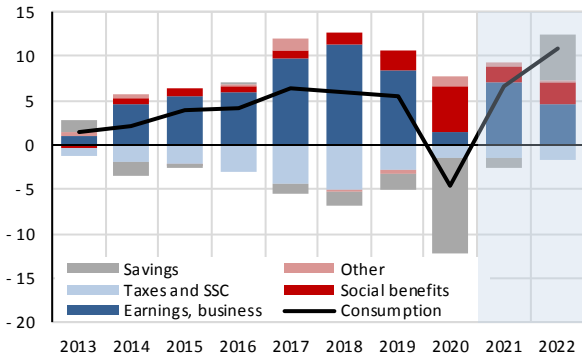
Source: MF CR (2021b).

Graph 1.4: Nominal Investments

change of nominal investments in %, contributions in pp

Private
Government
Investments
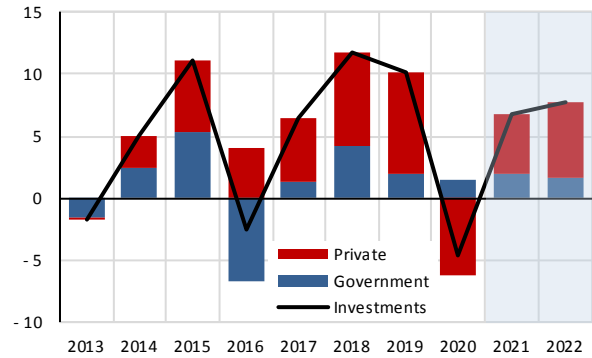
Source: MF CR (2021b).

Graph 1.5: Unemployment Rate

% of labour force, Labour Force Survey methodology
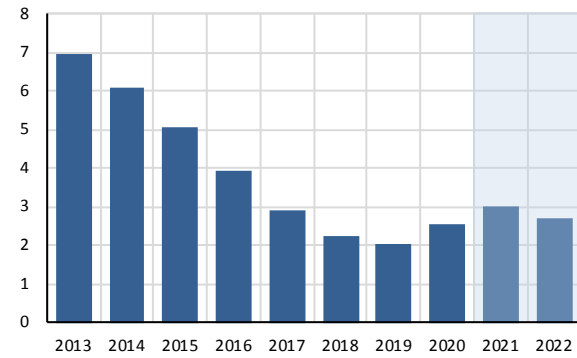
Source: MF CR (2021b).

Graph 1.6: Hours Worked

change in %, contributions in pp, National Accounts methodology

Employment
Average hours worked
Hours worked
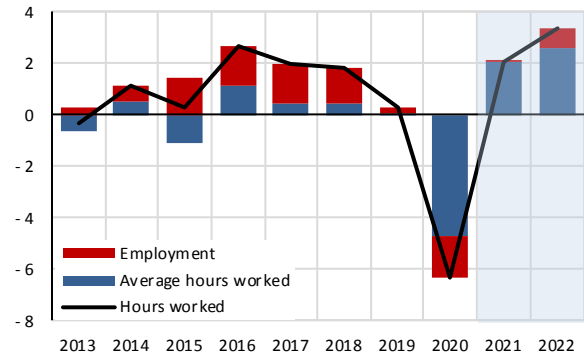
Source: MF CR (2021b).

Graph 1.7: Consumer Prices

average rate of consumer price inflation in %, contributions in pp

Market development
Administrative measures
Consumer prices
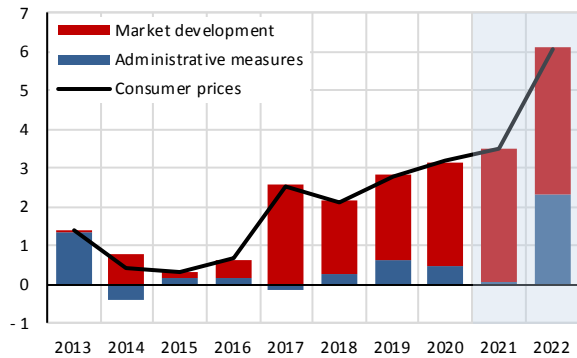
Source: MF CR (2021b).

Graph 1.8: Output Gap

% of potential product
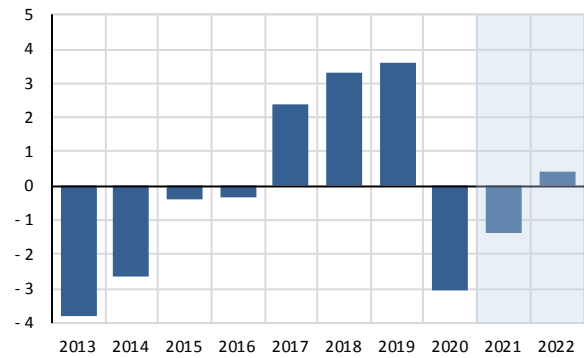
Source: MF CR (2021b).

Table 1.1: Comparison of Fiscal Outlook and Convergence Programme Scenarios

		Fiscal Outlook (November 2021)					Convergence Programme (April 2021)				
		2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
External Assumptions											
GDP growth in EU	%	-6.1	4.9	3.9	2.4	1.6	-6.3	3.6	3.7	1.8	1.6
Prices of oil (Brent)	USD/barrel	41.8	70.0	72.4	67.4	63.7	41.8	63.8	59.9	57.4	56.0
Exchange rate USD/EUR	USD/EUR	1.14	1.20	1.19	1.19	1.18	1.14	1.21	1.21	1.21	1.21
Exchange rate CZK/EUR	CZK/EUR	26.4	25.9	25.5	25.1	24.7	26.4	25.9	25.5	25.1	24.7
Real Values											
GDP	change in %	-5.8	2.5	4.1	2.2	2.0	-5.6	3.1	3.7	1.9	2.1
Households consumption	change in %	-6.8	3.7	4.7	2.0	2.2	-5.2	0.1	5.7	1.8	2.2
Government consumption	change in %	3.4	2.3	0.4	1.0	1.4	3.5	3.4	0.9	1.1	1.5
Gross fixed capital formation	change in %	-7.2	4.6	5.4	4.7	0.8	-8.1	3.8	4.5	4.6	1.2
Contribution of final domestic demand	p.p.	-4.5	3.4	3.7	2.4	1.6	-3.9	1.8	3.9	2.3	1.7
Contribution of foreign trade	p.p.	-0.5	-2.5	0.4	-0.2	0.4	-0.3	0.4	-0.2	-0.3	0.4
Output gap	%	-3.1	-1.4	0.4	0.5	0.3	-3.1	-1.4	0.4	0.5	0.3
Others											
Nominal GDP	CZK bn.	5695	6038	6498	6793	7070	5652	5932	6257	6506	6769
Harmonised index of consumer prices	change in %	3.3	3.0	5.4	2.3	2.0	3.3	2.4	2.3	2.1	1.9
GDP deflator	change in %	4.4	3.4	3.4	2.3	2.1	4.2	1.8	1.7	2.0	1.9
Employment	change in %	-1.7	0.0	0.8	0.2	0.2	-1.5	-1.1	0.1	0.3	0.1
Unemployment rate	%	2.6	3.0	2.7	2.6	2.5	2.6	3.6	3.7	3.5	3.5
Wages and salaries	change in %	0.2	5.3	5.1	4.3	4.3	0.0	0.7	2.3	2.9	3.1
General Government											
Revenue	% of GDP	41.6	40.5	40.0	40.5	39.4	41.3	39.8	39.8	39.7	38.4
Value-added tax	change in %	-3.0	5.4	10.7	4.6	2.5	-3.0	3.8	7.2	3.7	2.5
Excise taxes	change in %	-6.4	5.7	6.7	3.9	0.6	-6.4	12.6	1.2	3.6	0.0
Personal income tax	change in %	4.0	-28.3	-2.1	3.0	3.1	3.3	-33.4	-4.8	2.2	2.3
Corporate income tax	change in %	-8.1	2.6	4.8	13.9	3.0	-22.1	6.0	13.7	8.8	3.7
Social security contributions	change in %	1.6	10.0	4.5	3.7	3.8	1.6	5.9	1.6	2.4	2.7
Expenditure	% of GDP	47.2	47.6	44.5	44.3	42.8	47.5	48.6	45.7	45.1	43.7
Compensation of employees	change in %	10.0	5.8	2.2	2.0	2.0	10.0	5.1	2.5	1.5	2.0
Intermediate consumption	change in %	2.1	5.6	2.4	2.6	2.6	1.9	8.4	0.3	2.6	2.6
Social transfers in kind	change in %	10.6	11.5	-1.0	2.0	2.5	10.6	11.0	-0.5	2.5	2.5
Social benefits other than in kind	change in %	15.9	5.4	6.8	4.8	1.8	15.9	6.1	2.7	2.2	2.2
Gross fixed capital formation	change in %	9.4	11.0	8.4	12.6	-12.3	9.8	13.5	9.8	7.1	-9.9
Balance	% of GDP	-5.6	-7.2	-4.4	-3.8	-3.4	-6.2	-8.8	-5.9	-5.4	-5.2
Structural balance	% of GDP	-2.5	-5.3	-4.8	-4.4	-3.9	-2.7	-6.5	-6.0	-5.5	-5.3
Debt	% of GDP	37.7	43.3	46.2	48.9	51.3	38.1	44.8	48.2	51.5	54.6

Note: The lower deficit of 2020 by CZK 29.9 billion can be attributed to the revenue side, where has been a positive adjustment to income taxes, especially corporate income tax (CZK +26.9 billion). This revision is related to updated data drawn from tax returns and to the settlement of taxes (overpayments or underpayments of taxes), which always affect the previous year on an accrual basis.
Source: MF CR (2021a, 2021b).

2 General Government Development

Fiscal policy, like the development of the economy, remains largely in thrall to the epidemic and its direct, or nowadays mainly indirect, consequences. Public finances now, after mitigating the adverse effects of COVID-19 and measures to contain the spread of the epidemic, are aimed at cushioning external supply shocks following the lockdown in many countries around the world. In 2021, this mainly involves forms of compensation to electricity and gas consumers in response to steep price increases of these utilities, as well as the continuation of measures aimed at covering part of the wage costs due to quarantine or isolation orders.

From 2022 onwards, fiscal policy should be moderately restrictive in order to start reduction of the structural deficit. The speed at which the Czech Republic's public finances regain their medium-term budgetary objective will depend on how ambitious the new Czech government (to be formed following the October elections to the Chamber of Deputies) shows itself to be in its consolidation efforts. The fledgling coalition has already announced that it is determined to pursue deficit reduction more vigorously, with an emphasis on savings on the expenditure side, especially in operational costs and non-capital transfers.

The forecast of the November Fiscal Outlook of the Czech Republic envisages a gradual reduction in the general government deficit to around 3.5% of GDP in 2024, i.e. below the **Maastricht criterion** and the **Stability and Growth Pact** benchmark for excessive deficit just beyond the outlook horizon. The carrier of the public finance deficit will be the state budget, which at the time of the epidemic crisis bore by far the greatest burden of the stabilising function of economic policy and fiscal expansion.

The structural deficit of central government, dominated by the state budget, should be softened by the surplus balances of local governments and health insurance companies. Both these areas of public finances benefited from significant compensation during the epidemic at the expense of the state budget to mitigate the adverse impact of the recession on their revenues. Even so, health insurance companies reported deficits because of their double-digit growth rate of expenditure. As the economy gradually recovers, their resources should be supplemented with revenues flowing from higher economic activity. This should return both subsectors to stable surpluses, which may then gradually increase over time. As both the local governments and social security funds rely on transfers from the state budget for their results, subsequent consolidation will require discussion involving entities across the general government sector. Tax-related anti-epidemic and stimulus measures have exposed further weaknesses in the institutional configuration of public budgets. In the face of an economic recession, it is virtually impossible to pursue an expansionary fiscal policy on the revenue side without affecting the revenues of local governments. In a system where almost all tax revenues of macroeconomic significance are shared, the vehicle for fiscal policy is not central government, but all 14 self-governing regions and 6,253 municipalities. This is impossible to coordinate effectively.

Table 2.1: Fiscal Policy Stance
in % of GDP, fiscal effort in percentage points

	2015	2016	2017	2018	2019	2020	2021 Forecast	2022 Forecast	2023 Outlook	2024 Outlook
General government balance	**-0.6**	**0.7**	**1.5**	**0.9**	**0.3**	**-5.6**	**-7.2**	**-4.4**	**-3.8**	**-3.4**
Cyclical component according to OECD method	-0.1	-0.2	0.7	1.0	1.4	-1.0	-0.4	0.3	0.6	0.6
One-off and other temporary measures	-0.1	-0.1	0.0	-0.1	0.0	-2.1	-1.4	0.0	0.0	0.0
Structural balance according to OECD method	-0.5	1.1	0.8	0.0	-1.1	-2.5	-5.3	-4.8	-4.4	-3.9
Fiscal effort according to OECD method	**0.2**	**1.6**	**-0.3**	**-0.8**	**-1.0**	**-1.5**	**-2.8**	**0.6**	**0.4**	**0.5**
Cyclical component according to ECB method	-0.2	0.0	0.6	0.9	1.2	-0.8	-0.3	-0.1	0.0	0.1
Structural balance according to ECB method	-0.4	0.8	0.9	0.1	-0.9	-2.7	-5.4	-4.3	-3.8	-3.4
Fiscal effort according to ECB method	**0.4**	**1.2**	**0.1**	**-0.8**	**-1.0**	**-1.8**	**-2.8**	**1.1**	**0.5**	**0.4**

Note: The method of Organisation of Economic Co-operation and Development calculates the cyclical component directly from output gap, whereas the European Central Bank models 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 (2021a, 2021b). Forecast and calculations by MF CR.

2.1 Balance, Structural Balance and Expenditure Frameworks

Already at the beginning of the first wave of the epidemic and the deep economic downturn, an amendment to the Act on the Rules of Fiscal Responsibility (Act No. 207/2020 Coll.) was adopted that made possible to increase the structural deficit of public finances above the "medium-term budgetary objective" (Graph 2.1.4) even in a year following the activation of the domestic escape clause. However, the uncertainty associated with both the final form and amount of the impact of the fiscal stimulus approved at the end of 2020 and the further development of the epidemic forced a second amendment (Act No. 609/2020 Coll.). The latter, while maintaining the pace of consolidation, has changed its starting level. Specifically, the 2022 **expenditure framework** of the state budget and state funds is derived from the 2021 structural deficit estimate, which – measured as a percentage of GDP – has been increased by half a percentage point. For subsequent years, the structural balance is to be improved by half a percentage point per year.

The level of the structural balance for 2021, derived for the purposes of applying the **amended fiscal rule**, was determined by the forecast from August 2021 when the draft law on the State Budget of the CR for 2022 and its medium-term outlook were being prepared. Both the macroeconomic forecast and the revenue forecast were assessed by the Committee on Budgetary Forecasts on 30 August 2021, which concluded that both were realistic (CFB, 2021a, 2021b). The general government overall balance was estimated at −7.7% of GDP. After taking into account the impact of the business cycle (−0.2% of GDP) and one-off or other transitory measures (−1.4% of GDP), the value of the underlying structural balance was −6.1% of GDP. Compared to the estimate put forward in April's 2021 Convergence Programme of the CR (Table 1.1), the structural balance was forecast to be 0.4 percentage points better. The **framework for the state budget and state funds**, the derivation procedure for which was agreed by the National Budget Council in its opinion of 14 October 2021 (NBB, 2021), is thus based on a structural deficit of 5.6% of GDP for 2022, a deficit of 5.1% of GDP for 2023 and a deficit of 4.6% of GDP for 2024.

Understandably, the forecasts were fraught with **significant risks**, which also holds true for current estimates. We are improving the balance forecast for the current year and the years ahead in light of the continuing stronger positive developments in nominal macroeconomic fundamentals and cash receipts. The higher estimates are mainly linked to tax revenue and social security contributions, which improves the future balances of all general government subsectors. The estimate of year 2021 has taken into account

developments in the cash receipts of the public budget's main components as well as national accounts data for the first two quarters of the year. By contrast, the year-on-year worse cash receipts of the state budget over the first 10 months of the year (CZK −335 billion) were counterbalanced by the CZK 20 billion higher surplus year-on-year reported for local governments (CZK 44.7 billion) at the end of September, which benefited from an adjustment in the tax assignment (Act No. 609/2020 Coll.), increasing their tax revenue to the same date by CZK 19.5 billion (MF CR, 2021d). On the other hand, health insurance companies' performance this year, despite a further increase in the payments made on behalf of state-insured individuals, ended with a deficit of CZK 6.8 billion in September, equal to a year-on-year downturn of CZK 12.2 billion.

Thus, **in 2021**, we expect the general government sector to run a deep deficit, currently at 7.2% of GDP (Graph 2.1.1). Main determinants on the revenue and expenditure side are described in sections 2.2 and 2.3, respectively.

A significantly positive **fiscal impulse** (see Graph 2.1.5 and Graph 2.1.6) driven by the expenditure side in 2020 (see Graph 2.1.8). In 2021, a number of anti-crisis support programmes from 2020 continued (Antivirus employment preservation programmes, specific industries' anti-crisis programmes, rent compensation, compensation for the self-employed or tax loss carryback). However, the expenditure fiscal impulse is complemented by a nearly 2% impulse in the form of a reduction in labour income taxation (Graph 2.1.7). The structural balance is therefore estimated to widen by 2.8 pp to −5.3% of GDP.

For 2022, we expect a positive output gap (Graph 1.8), which also means a positive cyclical component of balance, and we do not foresee any one-off measures (Graph 2.1.2). We forecast a narrowing of the deficit to 4.4% of GDP, mainly driven by the end of temporary programmes of 2020 and 2021 aimed to support affected subjects in the national economy (1.4% of GDP, see Graph 2.1.3). The expenditure dynamics (mainly of the state budget) should therefore slow down significantly, whereas the economic recovery shall strengthen the revenue side of all subsectors. We estimate surpluses of local governments, as well as of health insurance companies again.

At the same time, 2022 is the first year when **public finance consolidation** is planned. The structural balance is expected to improve by 0.6 pp to 4.8% of GDP. This will also translate into a negative fiscal impulse for the economy, although it will be dampened by, for example, further reductions in labour taxation.

Table 2.1.1: Calculation of the Medium-Term Expenditure Framework of the State budget and State Funds
in CZK bn.

		2022	2023	2024
General government revenue adjusted by impact of economic cycle and one-off measures	(1)	2 514.7	2 635.2	2 683.0
General government expenditure (derived according to the rule)	(2)	2 874.8	2 976.4	3 003.0
Structural balances of other components of general government	(3)	30.1	30.1	30.4
Structural balance of the state budget and state funds	(4) = (1) - (2) - (3)	**-390.3**	**-371.4**	**-350.5**
Cyclical component of the state budget and state funds	(5)	25.0	27.5	22.8
One-off and other temporary measures of the state budget and state funds	(6)	0.0	0.0	0.0
Overall accrual balance of the state budget and state funds	(7) = (4) + (5) + (6)	**-365.3**	**-343.9**	**-327.7**
Adjustment of the accrual balance of the state budget and state funds to cash balance	(8)	-12.1	-24.8	-21.5
Total cash revenue of the state budget and state funds (including EU/FM)	(9)	1 594.5	1 647.4	1 652.7
Expenditure of the state budget and state funds (including EU/FM)	(10) = (9) - (7) - (8)	1 971.9	2 016.0	2 001.9
Expenditure framework of the state budget and state funds (including EU/FM, rounded)	(11) = rounded (10)	**1 972.0**	**2 016.0**	**2 002.0**

Note: EU/FM stands for revenue from the EU budget and financial mechanisms.
Source: MF CR.

Table 2.1.2: General Government Development

		2015	2016	2017	2018	2019	2020	2021 Forecast	2022 Forecast	2023 Outlook	2024 Outlook
Total revenue	% of GDP	**41.3**	**40.5**	**40.5**	**41.5**	**41.4**	**41.6**	**40.5**	**40.0**	**40.5**	**39.4**
	growth in %	8.4	1.6	6.6	8.6	6.7	-1.0	3.0	6.5	5.8	1.2
Total expenditure	% of GDP	**41.9**	**39.8**	**39.0**	**40.6**	**41.1**	**47.2**	**47.6**	**44.5**	**44.3**	**42.8**
	growth in %	4.7	-1.7	4.5	10.3	8.2	13.1	6.9	0.5	4.3	0.4
General government balance	% of GDP	**-0.6**	**0.7**	**1.5**	**0.9**	**0.3**	**-5.6**	**-7.2**	**-4.4**	**-3.8**	**-3.4**
Central government	% of GDP	-1.2	-0.4	0.5	0.2	-0.5	-6.0	-7.4	-5.0	-4.4	-3.9
Local governments	% of GDP	0.6	1.0	0.8	0.4	0.6	0.5	0.4	0.4	0.4	0.4
Social security funds	% of GDP	0.0	0.1	0.2	0.3	0.2	0.0	-0.2	0.1	0.1	0.1

Source: CZSO (2021a, 2021b). Forecast and calculations by MF CR.

Graph 2.1.1: General Government Balance
% of GDP
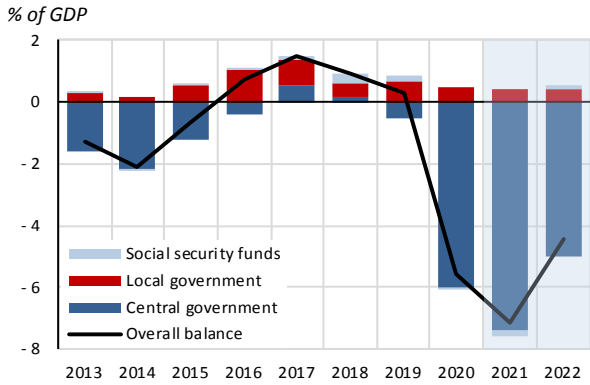
Source: CZSO (2021a, 2021b). MF CR forecast.

Graph 2.1.2: Overall and Structural Balance
% of GDP
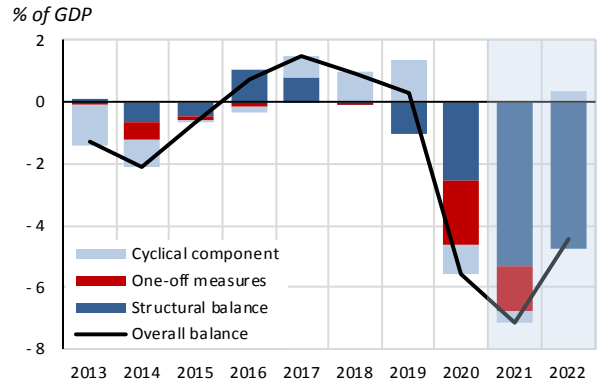
Source: CZSO (2021a, 2021b). MF CR calculations and forecast.

Graph 2.1.3: One-off and Temporary Measures
% of GDP
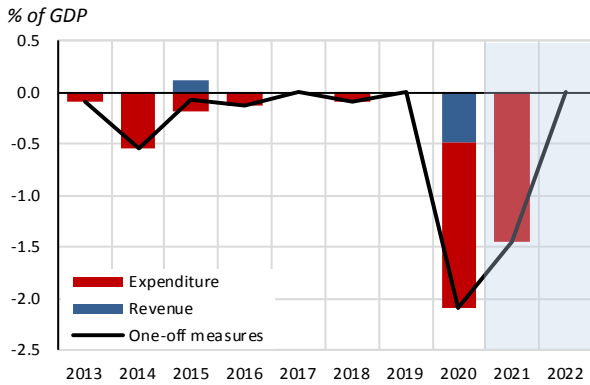
Source: MF CR.

Graph 2.1.4: Structural Balance and MTO
% of GDP
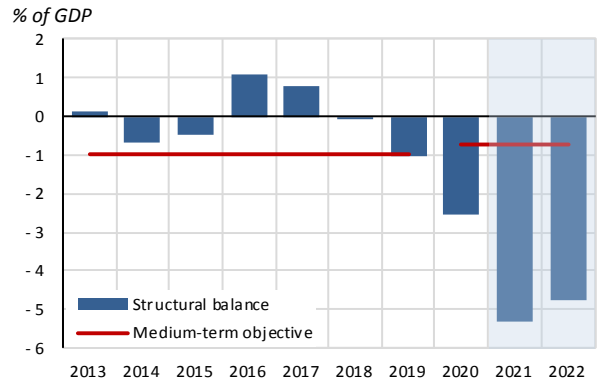
Source: MF CR.

Graph 2.1.5: Fiscal Effort and Fiscal Impulse
in percentage points, fiscal effort with opposite sign
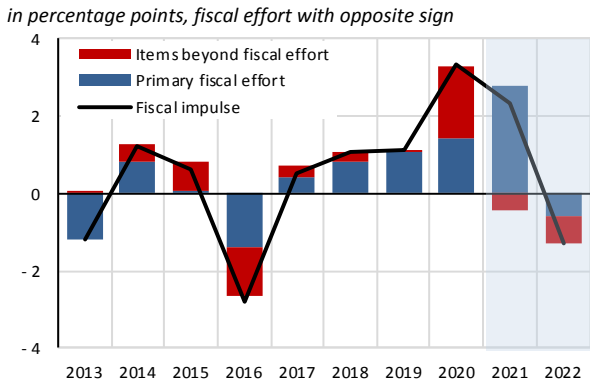
Source: MF CR.

Graph 2.1.6: Overall Fiscal Impulse
in percentage points
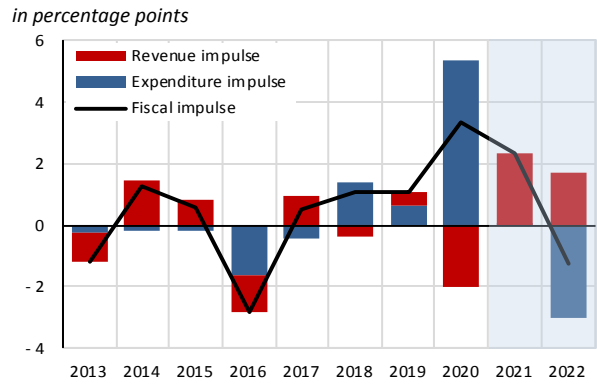
Source: MF CR.

Graph 2.1.7: Revenue Fiscal Impulse
in percentage points
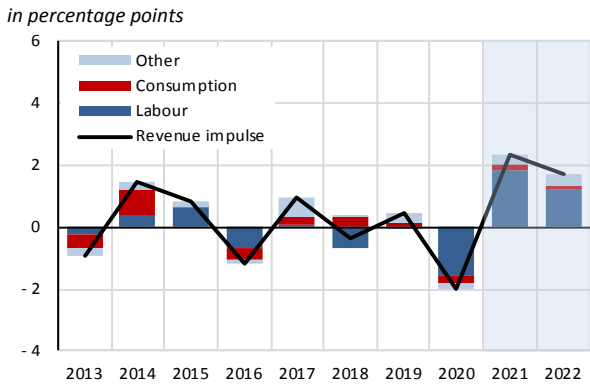
Source: MF CR.

Graph 2.1.8: Expenditure Fiscal Impulse
in percentage points
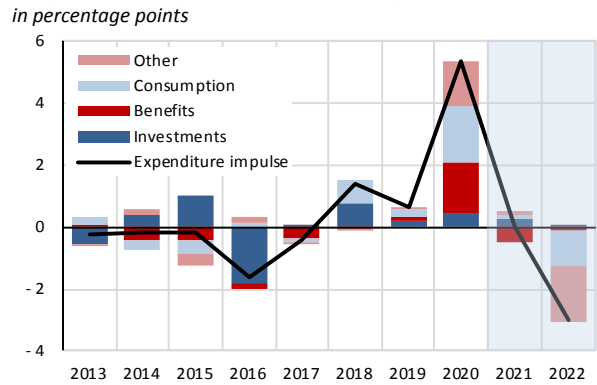
Source: MF CR.

2.2 General Government Revenue

Total revenue should grow by 3.0% in 2021, but in relative terms the 6% nominal GDP growth rate will reduce this by 1.2 pp to 40.5% of GDP. The growth rate (Graph 2.2.2) is inhibited by expected decline in tax revenue, which should fall by 4.0% as a result of the approved "2021 tax package" (Act No. 609/2020 Coll.). In this context, we also project that **the tax-to-GDP ratio will fall by 1.3 pp to 34.6% of GDP**. Although revenue is forecast to accelerate to 6.5% in 2022, we expect tax revenue still to show lower momentum. The tax-to-GDP ratio will therefore fall to 33.8% of GDP (Graph 2.2.1).

According to the current forecast, revenue from income taxes will report a year-on-year decline of 16.4% this year, caused by a 28.3% **drop in personal income tax revenue** following a reduction in the effective tax rate, with an estimated impact on public finances of CZK 99 billion (Act No. 609/2020 Coll.). On 1 January 2021, a flat-rate income tax regime for tradesmen with annual income up to CZK 1 million came into force (Act No. 540/2020 Coll.), along with an extension of the tax incentive for employee meals, and the abolition of the tax credit ceiling. The increase in the limit for the deduction for gifts to 30% of the tax base (Act No. 609/2020 Coll.) also has an additional negative impact. The overall impact of these measures is thought to be around CZK 1.3 billion. The increase in the amounts of the child-related tax concession (excluding the first-child credit) for 2021 will come at a cost of approximately CZK 2.7 billion (Act No. 285/2021 Coll.). The decline in the income-related taxation of labour is expected to continue in 2022 in the wake of a further increase in the tax credit per taxpayer that will have an impact of CZK 12.3 billion, resulting in a further 2.1% decline in its revenue.

Corporate income tax is projected to grow by 2.6% in 2021 and accelerate to 4.8% in the following year. Although we forecast that the growth in profits (gross operating surplus) will average almost 8% in 2021 and 2022, the tax yield will be negatively affected by the tax exemption applicable to government bond yields (with an estimated impact of CZK 1.5 billion in 2021 and CZK 2.2 billion in the following year), the extension of the tax incentive for employee meals with an impact of CZK 1.7 billion, and the increase in the limit for applying a gift deduction to 30% of the tax base. The continuation of extraordinary depreciation in 2021 will reduce tax revenue by another CZK 9.6 billion. However, tax revenue should be boosted by CZK 15 billion in 2022 and by CZK 12.9 billion in 2023 as a result of this. Conversely, the adverse impact of the increase in the entry price threshold for the depreciation of tangible assets should decrease by CZK 0.8 billion year-on-year in 2021 and then be eliminated, turning into a positive impact of CZK 1.6 billion. Momentum in 2022 will be weakened when the effect of the change in the method used for the creation and tax deductibility of insurance companies' technical provisions (Act No. 364/2019 Coll.), which generated additional revenues of CZK 5.3 billion in 2020

and 2021, comes to an end. In particular, the high level of discretion in 2023 due to extraordinary depreciation will see revenue climb at an average rate of more than 8% in the years covered by this outlook.

Social security contributions are expected to increase by 10.0% this year. This growth rate is based on the forecast of wages and salaries in the national economy and the unwinding of one-off measures mitigating the socio-economic impact of the anti-epidemic restrictions last year (the remissions of minimum advances required of the self-employed, the Antivirus Programme – Line C). The increase in the state's payments on behalf of state-insured individuals will add a further approx. CZK 30 billion to the public health insurance system (Act No. 231/2020 Coll.). An extraordinary contribution of up to CZK 370 per day for employees in mandatory quarantine has been calculated to have a one-off impact of CZK 1.1 billion (Act No. 121/2021 Coll., as amended by Act No. 182/2021 Coll.). The effects of the flat-rate income tax scheme and the extension of the tax incentive for employee meals should more or less cancel each other out. A slowdown to 4.5% in 2022 is expected due to the withdrawal of the above-mentioned one-off factors, as well as a relatively smaller increase in the payment on behalf of state-insured individuals. That payment will rise by CZK 200 from 1 January 2022 and will have an impact of CZK 14.4 billion (Government Regulation No. 253/2021 Coll.). In subsequent years, the rise in social security contributions should slow further, to just below 4%.

We forecast that **value-added tax** revenue will grow by 5.4% in 2021, followed by an acceleration to 10.7% next year. Autonomous developments are corrected by a number of discretionary measures that have a negative effect. The temporary waiver of the tax on electricity and gas supplies in November and December this year in response to the current spectacular growth in energy prices on the market will result in a shortfall estimated at CZK 5.4 billion (Government Resolution No. 907). However, this is a one-off effect that will actually add significantly to the dynamics of 2022. The reclassification of selected goods and services to the second reduced tax rate in the first half of 2020 (Act No. 256/2019 Coll.) will probably reduce revenue by CZK 1.4 billion this year; an additional effect of CZK 0.7 billion will be felt in 2022. The reduction in the rate for accommodation services, ski lifts and cultural and sports events from 1 July 2020 (Act No. 299/2020 Coll.) will push down tax revenue year-on-year by CZK 1 billion, followed by a further CZK 2.1 billion in 2022. Finally, the waiver of value-added tax on diagnostic medical devices for COVID-19 testing and on vaccines against this disease (Government Resolution No. 1326/2020), together with a temporary tax waiver on respirators (Government Resolutions No. 99/2021, 272, 504, 755 and 908), will reduce revenue by a total of CZK 2.7 billion in 2021. This effect will decrease to zero in the following two years, thus increasing revenue by CZK 2.0 and 0.7 billion respectively.

The revenue from **excise duties** (excluding renewable energy subsidies) is projected to rise by an average of 6.2% this and next year. The positive effect can mainly be ascribed to changes in the rates on tobacco products (Act No. 609/2020 Coll.), estimated at CZK 5.2 billion in 2021; this is counteracted by greater restrictions on cross-border purchases. Rate increases are also in place for 2022 and 2023 and will generate additional annual revenue of around CZK 2.5 billion. We expect receipts from mineral oil tax to grow as the economy recovers; this growth will be dampened by the impact of the CZK 1 per litre reduction in the diesel tax rate, totalling CZK 5.6 billion (Act No. 609/2020 Coll.). An increase in the rates levied on solar power for installations commissioned in 2010 is expected to generate

CZK 3.0 billion from 2022 (Act No. 382/2021 Coll.). In the field of other taxes on production and imports, the introduction and subsequent expansion of a register of excluded individuals will reduce gambling tax revenue by CZK 1.5 billion in 2021 and CZK 1.2 billion in 2022.

Regarding **other revenue** (Graph 2.2.7), we expect **investment grants** to grow by almost 35% this year in relation to projects funded by the EU budget. If annual allocations under the Recovery and Resilience Facility are drawn in full and the use of funds from the outgoing 2014–2020 programming period is accelerated, the growth in investment grants should quicken further to an annual rate of over 50% next year. We also forecast that **property income** will report significant growth of more than 20% in 2021, driven by dividend income (mainly from ČEZ).

Table 2.2.1: General Government Revenue Outlook

		2015	2016	2017	2018	2019	2020	2021 Forecast	2022 Forecast	2023 Outlook	2024 Outlook
Total revenue	bn CZK	1910	1941	2069	2246	2395	2371	2443	2602	2752	2786
	growth in %	8.4	1.6	6.6	8.6	6.7	-1.0	3.0	6.5	5.8	1.2
Tax revenue	bn CZK	916	972	1043	1106	1179	1138	1092	1150	1224	1253
	growth in %	8.0	6.1	7.2	6.1	6.6	-3.5	-4.0	5.3	6.5	2.3
Taxes on production and imports	bn CZK	562	587	626	647	688	651	686	739	781	796
	growth in %	9.5	4.4	6.7	3.4	6.3	-5.3	5.3	7.8	5.6	1.9
Value added tax	bn CZK	333	354	388	409	435	422	445	493	516	529
	growth in %	4.3	6.2	9.5	5.4	6.6	-3.0	5.4	10.7	4.6	2.5
Excise taxes	bn CZK	154	158	164	165	168	157	166	177	184	185
	growth in %	23.2	3.0	3.6	0.8	1.7	-6.4	5.7	6.7	3.9	0.6
Current taxes	bn CZK	354	385	416	458	491	486	406	410	443	457
	growth in %	5.6	8.8	8.0	10.1	7.0	-0.9	-16.4	1.0	8.0	3.0
Personal income tax	bn CZK	187	207	229	261	287	299	214	209	216	222
	growth in %	3.0	10.9	10.5	13.8	10.2	4.0	-28.3	-2.1	3.0	3.1
Corporate income tax	bn CZK	157	167	176	187	192	177	181	190	216	223
	growth in %	8.8	6.8	5.2	6.3	2.9	-8.1	2.6	4.8	13.9	3.0
Social contributions	bn CZK	663	703	760	834	895	909	1 000	1 045	1 083	1 124
	growth in %	5.5	6.1	8.0	9.8	7.3	1.6	10.0	4.5	3.7	3.8
Property income	bn CZK	37	37	31	35	32	37	45	41	43	43
	growth in %	-0.4	0.8	-17.9	14.3	-7.5	14.6	20.4	-7.0	3.7	-0.2
Other	bn CZK	294	228	236	271	290	287	307	366	402	366
	growth in %	18.6	-22.3	3.4	14.9	6.7	-0.8	6.9	19.4	9.6	-8.9
Revenues from the EU	mld. Kč	101	30	38	60	64	65	83	134	163	122
	změna v %	56.0	-70.6	27.1	57.5	6.8	2.2	26.7	62.3	21.6	-25.0
Tax burden	% of GDP	34.1	34.9	35.3	35.9	35.8	35.9	34.6	33.8	34.0	33.6

Note: Excise taxes are adjusted for subsidies on renewable energy resources.
Source: CZSO (2021b). Forecast and calculations by MF CR.

Table 2.2.2: Discretionary Revenue Measures
in CZK bn.

	2015	2016	2017	2018	2019	2020	2021 Forecast	2022 Forecast	2023 Outlook	2024 Outlook
Total revenue measures	2.3	25.5	20.7	18.2	13.1	-37.6	-87.7	7.2	14.0	-2.5
Labour taxation	-0.2	8.6	13.2	13.5	13.6	-18.3	-69.5	-11.2	-	-0.1
Taxes on capital	-	-0.5	1.5	0.3	-	-6.5	-12.0	9.5	11.2	-2.2
Consumption taxation	-3.5	17.4	9.2	2.6	-0.3	-7.9	-10.9	10.1	3.1	-
Other revenue	6.0	-0.1	-3.2	1.8	-0.3	-4.9	4.6	-1.2	-0.3	-0.2

Note: Figures represent YoY discretional changes that are stemming from all envisaged and approved measures on revenue side. Positive values mean YoY improvement of a balance.
Source: MF CR.

Graph 2.2.1: Tax Revenue Structure
% of GDP
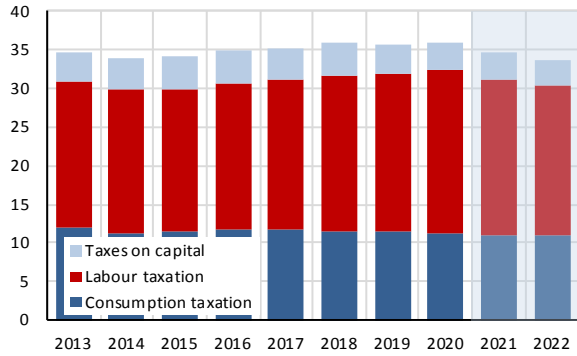
Source: CZSO (2021a, 2021b). MF CR forecast.

Graph 2.2.2: Tax Revenue Development
change in %, contributions in percentage points
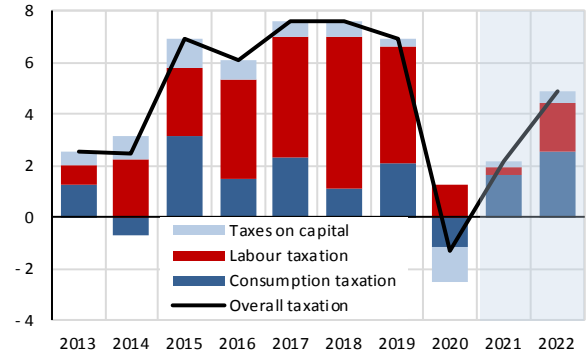
Source: CZSO (2021b). MF CR forecast.

Graph 2.2.3: Taxation of Consumption
change in %, contributions in percentage points
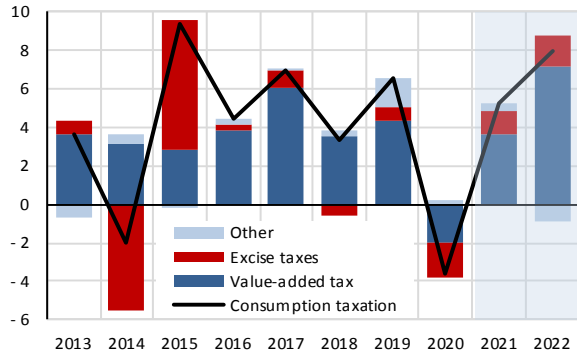
Source: CZSO (2021b). MF CR forecast.

Graph 2.2.4: Taxation of Labour
change in %, contributions in percentage points
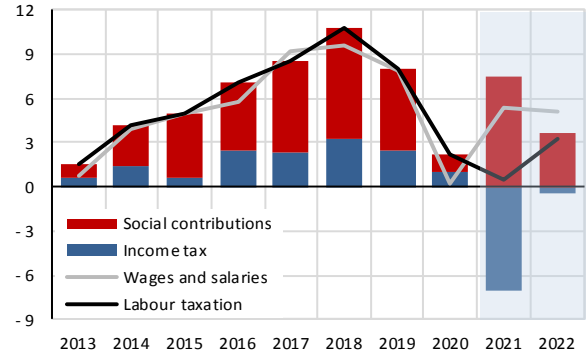
Source: CZSO (2021a, 2021b). MF CR forecast.

Graph 2.2.5: Taxation of Capital
change in %, contributions in percentage points
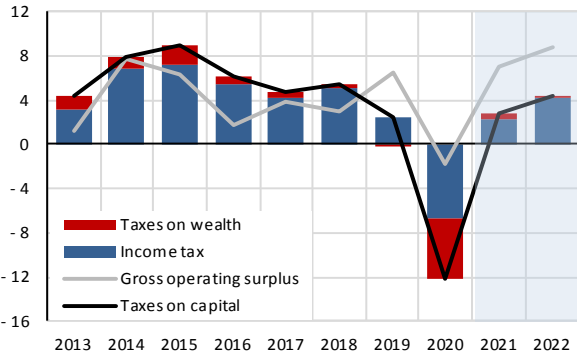
Source: CZSO,(2021a, 2021b). MF CR forecast.

Graph 2.2.6: Discretionary Tax Measures
% of GDP
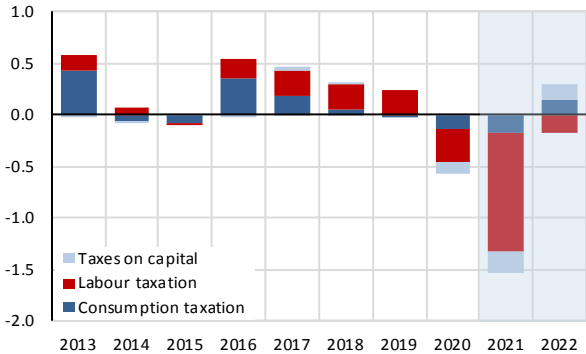
Source: MF CR.

Graph 2.2.7: Other Revenue
change in %, contributions in percentage points
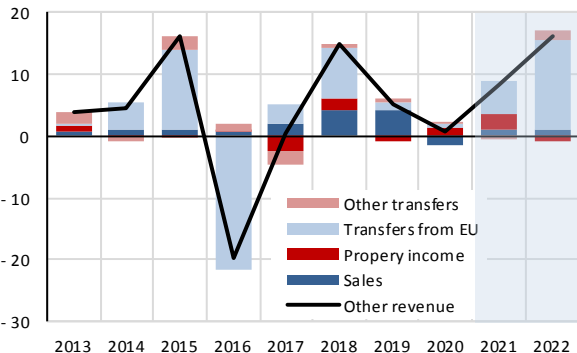
Source: CZSO (2021b). MF CR forecast.

Graph 2.2.8: Tax and Social Revenue by Subsectors
% of GDP
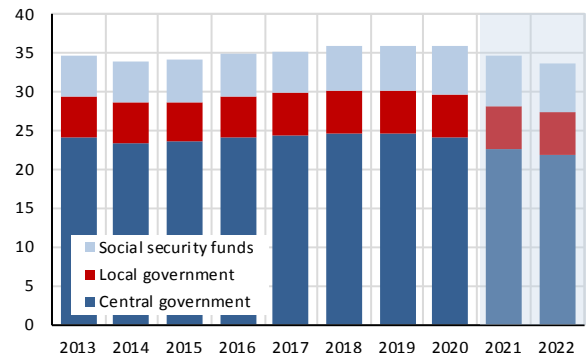
Source: CZSO (2021a, 2021b). MF CR forecast.

2.3 General Government Expenditure

General government expenditure is forecast to grow by 6.9% in 2021 and climb to 47.2% as a share of GDP. This reflects substantial growth in subsidies and capital transfers in reaction to socio-economic difficulties caused by the adverse epidemic situation. As these factors abate, expenditure is expected almost to stagnate (growth of 0.5% in 2022, see (Graph 2.3.2), falling to 44.3% of GDP in relative terms (Graph 2.3.1).

Final consumption expenditure (Graph 2.3.8), projected to rise by 6.8%, is being driven by social transfers in kind, compensation of employees, and intermediate consumption. A number of factors are related to the epidemic and transitory. As such, we expect the momentum to slow to 2.4% in 2022.

This year, **salaries** have been increased for workers in education, health care and social services; in other areas, it has remained fixed (Graph 2.3.3). Nevertheless, public-sector wage bill is expected to rise by 5.8% as it incorporates special bonuses for workers in the health care sector, social services, and armed forces in response to the epidemic. A 3.5% increase for teachers and a CZK 1 400 monthly increase for other public-sector workers has been approved for 2022. In the health sector, we expect salaries to rise by 6%. However, due to the extraordinary bonuses in 2021, the rate is expected to be 2.2%. In subsequent years, we expect consolidation efforts to limit pay rises to no more than inflation.

Growth in **social transfers in kind** is estimated at 11.5% in 2021. This should continue the relatively strong momentum of the previous two years, as this expenditure is still burdened by the epidemic situation and the vaccination of the population. Health insurers were also meant to pay CZK 12 billion in remuneration to health care workers in private facilities. In addition, health insurers' prevention funds were used to cover the contribution to the self-testing of employees and the self-employed at a cost of CZK 1.9 billion (Government Resolutions No. 191, 242, 293, 313, Act No. 161/2021 Coll.). As society makes the transition to relatively normal operations, social transfers in kind should also decrease slightly year-on-year in 2022.

The higher 5.6% growth in **intermediate consumption** this year partly compensates for subdued developments last year due to the closure of schools and other public institutions. In health care, purchases of COVID-19 vaccines (CZK 8.9 billion) and testing kits should be reflected in intermediate consumption. In addition to higher real consumption, we also project rising energy prices. For the most part, these, together with certain current expenditure financed by the Recovery and Resilience Facility, will be reflected in 2022. Therefore, next year, after these one-off factors have dissipated, intermediate consumption should grow by 2.4%.

This year's 5.4% increase in **cash social benefits** reflects both the statutory indexation of pension insurance

benefits and the increase in transfers to public health insurance. Similar influences (Graph 2.3.4) will determine the momentum next year, which is expected to reach 6.8%. With effect from 1 January 2021, Government Regulation No. 381/2020 Coll. increased the average old-age pension by CZK 839. In 2022, the average pension would increase by CZK 505 according to the statutory indexation scheme, but an additional increase in the earnings-related component by CZK 300 has been approved further (Act No. 323/2021 Coll.). The accelerating inflation rate is very likely to be in excess of 5% at the beginning of next year, triggering an extraordinary round of pension indexation. In this light, we are anticipating a 5.6% increase in the earning-related part of pension benefits. Act No. 323/2021 Coll. will also significantly affect the increase in benefits in 2023, pushing them up by almost 5%. This entails the introduction of a contribution of CZK 500 for each child raised, with a projected impact of over CZK 18 billion. In addition, there will be a standard indexation from 1 January 2023, the dynamics of which will be affected in the first months by the extraordinary indexation from June 2022.

The introduction and subsequent modification of the amount of the crisis carer's allowance, as well as its extension to cover a wider range of children, resulted in temporarily increased spending by CZK 4.3 billion (Act No. 438/2020 Coll., Act No. 173/2021 Coll., Government Resolutions No. 1053/2020, 1260/2020, and 446/2021). Changes to certain benefits supporting families with children, such as an increase in child allowances or an adjustment in the payment of the parental allowance (Act No. 285/2021 Coll.) require an estimated CZK 2.7 billion in 2021 and an additional CZK 3.3 billion in 2022. This includes the impact of extending the paternal post-natal support period up to 2 weeks (Act No. 330/2021 Coll.). The forecast also takes into account the impact of substitute maintenance payments (Act No. 588/2020 Coll.), effective from the second half of 2021 with a negative impact of CZK 0.4 billion this and next year. The pace of cash social benefits is further affected by an increase in the payment for state-insured individuals, which is expected to rise by about CZK 30 billion year-on-year in 2021 and by CZK 14.4 billion in 2022.

In view of the performance of the general government sector in 2020 and 2021 and the projected evolution of interest rates, **interest costs** should go up by 4.9% this year. In subsequent years, we expect interest costs to rise in absolute terms until the end of the outlook, when they should amount to 0.9% of GDP (Graph 2.3.7).

Fixed capital investment is forecast to grow at a rate of 11% As indicated by national accounts data for the first two quarters of this year, it should be driven primarily by central government investment. In terms of financing, we already expect the Recovery and Resilience Facility to be

involved to some degree, but this should only be fully reflected from 2022 onwards (Graph 2.3.6). On top of that, numerous 2020 programmes have yet to be completed and the funds available under them have been transferred to the needs of individual budgetary headings so that investments can be financed in 2021. Then, in 2022 and 2023, the approaching end of the 2014–2020 programming period, the full ramp-up of Next Generation EU, and the military equipment purchases expected in 2023 will undoubtedly play a role.

COVID-19-related support schemes are the reason for the double-digit growth of **subsidies** in 2021, especially Antivirus (CZK 22.4 billion), COVID-Housing II (CZK 3.0 billion) and COVID-Rent (CZK 4.8 billion). In sport, we are anticipating a sum of approximately CZK 4 billion, while culture should be supported with around CZK 3 billion. CZK 3 billion has been allocated to Agricovid Food Industry (Government Resolutions No. 1052 and 1138/2020, 100 and 506/2021). CZK 3.2 billion has been

disbursed under Covid – Gastro – Closed Establishments (Government Resolution No. 10/2021). The compensation approved for businesses this year takes the form of the schemes COVID 2021 (Government Resolutions No. 277, 437, and 530) and COVID – Uncovered Costs (Government Resolutions No. 278, 437, 531, 756, and 834), with a total estimated impact of CZK 15.9 billion. By contrast, as these schemes are to be closed down, subsidies are expected to fall by more than 30% in 2022, with only a slight increase expected in subsequent years.

Other forms of support, such as the compensation bonus, with an impact of CZK 17.4 billion (Act No. 461/2020 Coll., as amended and Act No. 95/2021 Coll.) or the loss carryback scheme, estimated at CZK 4.2 billion (Act No. 299/2020 Coll.), are classified as **capital transfers**, which should grow by 3.4% this year. As such, in absolute terms they retain a large scope this year; capital transfers should fall to their normal level as these schemes come to an end.

Table 2.3.1: General Government Expenditure

		2015	2016	2017	2018	2019	2020	2021 Forecast	2022 Forecast	2023 Outlook	2024 Outlook
Total expenditure	CZK bn	1 940	1 907	1 992	2 196	2 378	2 689	2 875	2 889	3 012	3 024
	growth in %	4.7	-1.7	4.5	10.3	8.2	13.1	6.9	0.5	4.3	0.4
Compensation of employees	CZK bn	398	419	462	521	576	633	670	685	698	712
	growth in %	4.8	5.4	10.1	12.8	10.5	10.0	5.8	2.2	2.0	2.0
Intermediate consumption	CZK bn	284	291	296	326	339	346	366	375	384	394
	growth in %	3.5	2.8	1.6	10.0	4.1	2.1	5.6	2.4	2.6	2.6
Social benefits other than in kind	CZK bn	591	605	624	658	709	822	866	925	969	987
	growth in %	2.6	2.5	3.1	5.5	7.7	15.9	5.4	6.8	4.8	1.8
Social transfers in kind	CZK bn	142	148	152	160	177	196	218	216	220	226
	growth in %	1.4	4.3	3.1	4.7	10.9	10.6	11.5	-1.0	2.0	2.5
Property income	CZK bn	49	44	38	40	41	44	46	51	57	63
	growth in %	-13.0	-10.6	-14.2	6.7	1.5	6.7	4.3	11.4	12.0	11.4
Subsidies	CZK bn	105	108	110	119	128	173	193	133	134	134
	growth in %	5.6	2.6	1.7	8.8	7.3	35.1	11.5	-31.3	0.8	0.1
Gross fixed capital formation	CZK bn	236	155	171	224	253	276	307	333	375	329
	growth in %	32.8	-34.3	10.2	31.3	12.6	9.4	11.0	8.4	12.6	-12.3
Capital transfers	CZK bn	41	36	30	35	36	66	68	37	38	39
	growth in %	-32.3	-12.8	-14.9	16.2	1.3	85.1	3.4	-46.4	3.0	2.6
Other expenditure	CZK bn	95	100	109	113	120	133	142	136	137	140
	growth in %	6.6	5.6	9.1	3.6	6.0	11.1	6.7	-4.0	0.5	2.0

Source: CZSO (2021b). Forecast and calculations by MF CR.

Table 2.3.2: Discretionary Expenditure Measures
in CZK bn.

	2015	2016	2017	2018	2019	2020	2021 Forecast	2022 Forecast	2023 Outlook	2024 Outlook
Total expenditure measures	**-28.3**	**-19.6**	**-51.4**	**-63.6**	**-47.4**	**-210.8**	**-24.9**	**90.2**	**-18.6**	**-0.5**
Social benefits	-5.7	-4.5	-3.8	-11.5	-17.3	-50.0	19.7	-15.1	-18.6	-0.5
Compensation of employees*	-12.0	-20.6	-28.4	-31.0	-30.0	-35.2	-14.8	19.7	-	-
Healthcare	1.4	-5.3	-10.1	-13.0	-	-46.9	-24.1	-0.3	-	-
Subsidies	-1.0	-8.3	-3.9	-3.1	-4.4	-44.0	-17.9	63.4	-	-
Capital transfers	-1.3	7.8	-1.0	-4.3	4.3	-27.8	6.3	21.5	-	-
Other expenditure	-9.7	11.4	-4.3	-0.7	-	-6.9	6.0	0.9	-	-

*Note: Figures represent YoY discretional changes that are stemming from all envisaged and approved measures on expenditure side. Positive values mean YoY improvement of balance. *) Compensation of employees are updated not earlier than the final agreement on the state budget proposal.*
Source: MF CR.

Graph 2.3.1: Total Expenditure Structure
% of GDP

Subsidies and transfers
Operating and others
Investments
Social and health
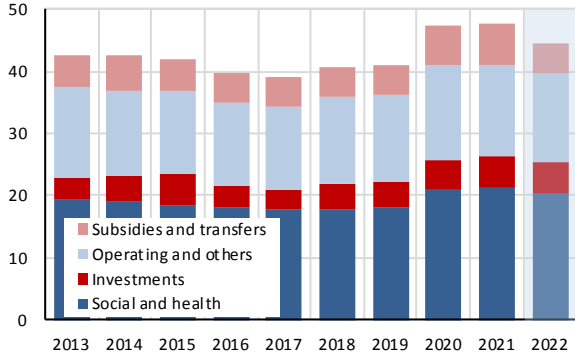
Source: CZSO (2021a, 2021b). MF CR forecast.

Graph 2.3.2: Total Expenditure Development
change in %, contributions in percentage points

Subsidies and transfers
Operating and others
Investments
Social and health
Total expenditure
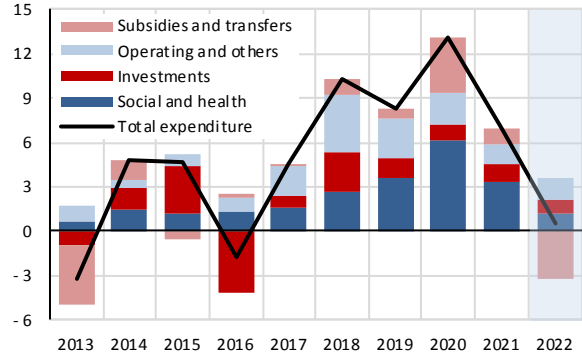
Source: CZSO (2021b). MF CR forecast.

Graph 2.3.3: Compensation of Employees
change in %, contributions in percentage points

Other
Security
Education
Healthcare
Compensations
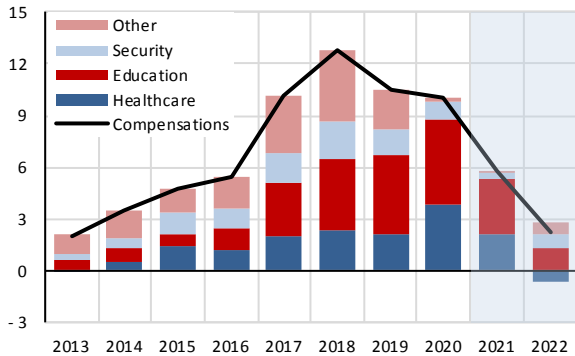
Source: CZSO (2021b). MF CR forecast.

Graph 2.3.4: Social Benefits in Cash
change in %, contributions in percentage points

Imputed and other
Assistance benefits
Sickness benefits
Pension benefits
Social benefits in cash
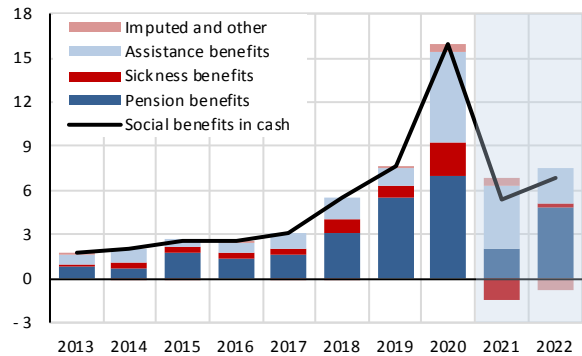
Source: CZSO (2021a, 2021b). MF CR forecast.

Graph 2.3.5: Discretionary Expenditure Measures
% of GDP

Other
Subsidies and transfers
Health care
Social security
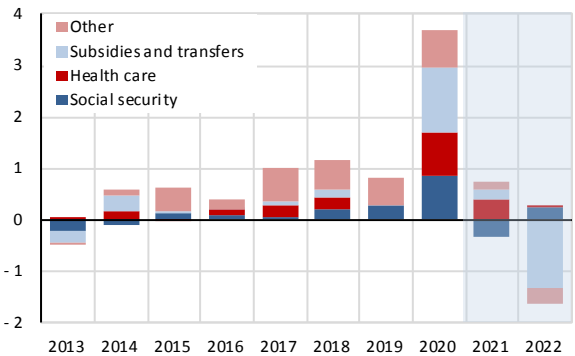
Source: MF CR.

Graph 2.3.6: General Government Investment
change in %, contributions in percentage points

EU financed
Domestic investment
Total investments
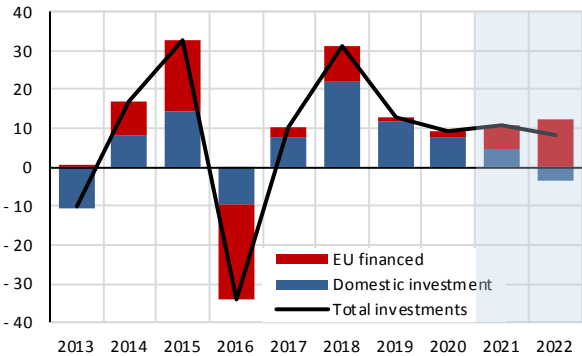
Source: CZSO (2021b). MF CR forecast.

Graph 2.3.7: Interest Expenditure
change in %, contributions in percentage points

Implicit interest rate
Government debt
Interest payments
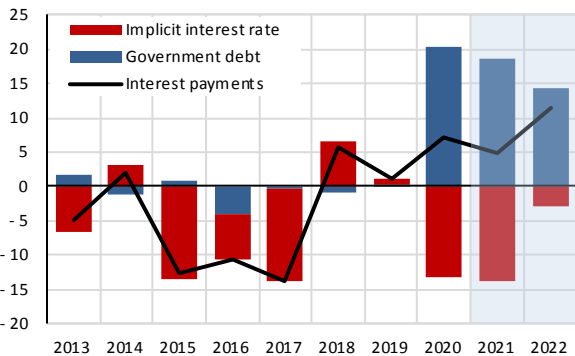
Source: CZSO (2021b). MF CR forecast.

Graph 2.3.8: Final Consumption Expenditure
change in %, contributions in percentage points

Other
Social transfers in kind
Interm. consumption
Comp. of employees
Gov. consumption
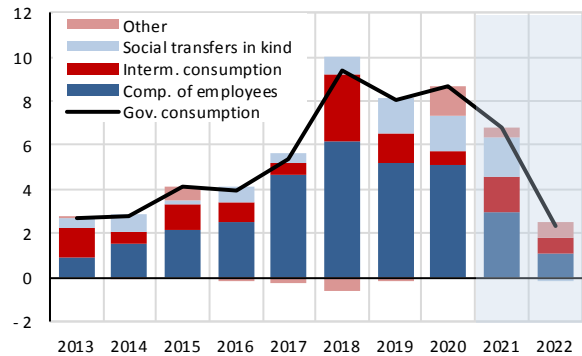
Source: CZSO (2021b). MF CR forecast.

2.4 General Government Debt

At the end of 2021, we expect the **general government debt** to stand at 43.3% of GDP. The 5.5 pp year-on-year increase in debt is the result of an expected rise in state debt by almost CZK 500 billion from 36.0% to 41.9% of GDP. This reflects the impact that the pandemic and economic crisis have had on public finances.

Autonomous developments in the general government sector suggest a gradual economic recovery and a decrease of public deficits. The economic performance will have to be in line with the consolidation trajectory set by the Act on Fiscal Responsibility Rules. Nevertheless, the rise of indebtedness can be expected to carry on over the outlook horizon. In 2022, we expect the debt ratio to grow by less than 3 pp to 46.2% of GDP. With the reduction of general government (and state budget) deficits and stable economic growth, we expect the rise in the debt-to-GDP ratio will slow slightly and reach value around 51% of GDP at the end of the outlook horizon.

This means that the CR should meet the **Maastricht debt criterion** and the **criterion under the Stability and Growth Pact** (60% of GDP). The debt-to-GDP ratio also complies with the **national rule** established by the Act on Fiscal Responsibility Rules, which assesses the amount of general government debt adjusted for the reserve of cash created by financing the state debt relative to a level equal to 55% of GDP (Table 2.4.1).

Factors contributing to the change in debt are dominated by the general government deficit and interest payments. These are expected to remain at 0.8% of GDP until almost the end of the outlook, but we project a slight increase to 0.9% of GDP in 2024. Interest expenditure was last at this level in 2016. The forecast anticipates that government bond yields will rise. The long-term interest rate for convergence purposes should move up from its current level, just short of 2%, by 0.5 pp. Conversely, economic growth should hamper the increase in the debt-to-GDP ratio.

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

The largest share of general government debt can be found in the central government (Table 2.4.1), where the debt is expected to approach CZK 2 700 billion in 2021. This is tantamount to around 97% of total (unconsolidated) general government debt. The remaining 3% is local government debt. We estimate that this will come to CZK 86.1 billion in 2021 and will rather stagnate in the coming years based on the predicted surpluses. The social security funds subsector has consistently reported a negligible indebtedness. As to health insurance companies, we forecast a return to consistent surpluses after 2021.

Table 2.4.1: Gross Consolidated Government Debt

		2015	2016	2017	2018	2019	2020	2021 Forecast	2022 Forecast	2023 Outlook	2024 Outlook
General government	CZK bn	**1 836**	**1 755**	**1 750**	**1 735**	**1 740**	**2 149**	**2 614**	**3 002**	**3 324**	**3 628**
Central government	CZK bn	1 740	1 714	1 734	1 752	1 792	2 223	2 693	3 110	3 461	3 794
Local government	CZK bn	111	89	85	84	84	87	86	85	84	83
Social security funds	CZK bn	1	0	0	0	0	1	0	0	0	0
General government debt to GDP ratio	% of GDP	**39.7**	**36.6**	**34.2**	**32.1**	**30.0**	**37.7**	**43.3**	**46.2**	**48.9**	**51.3**
Contributions to change in debt-to-GDP ratio											
Change in debt	p.p.	-2.2	-3.1	-2.3	-2.2	-2.0	7.7	5.5	2.9	2.7	2.4
Primary deficit	p.p.	**-0.4**	**-1.6**	**-2.2**	**-1.7**	**-1.0**	**4.8**	**6.4**	**3.6**	**3.0**	**2.5**
Interest	p.p.	**1.1**	**0.9**	**0.7**	**0.7**	**0.7**	**0.8**	**0.8**	**0.8**	**0.8**	**0.9**
Nominal GDP growth	p.p.	**-2.5**	**-1.4**	**-2.2**	**-1.9**	**-2.1**	**0.5**	**-2.1**	**-3.1**	**-2.0**	**-1.9**
Stock-flow adjustment	p.p.	**-0.3**	**-1.0**	**1.4**	**0.6**	**0.4**	**1.6**	**0.5**	**1.6**	**0.9**	**0.9**
Diff. between cash and accruals	p.p.	-0.4	0.1	-0.5	0.2	0.0	-0.7	0.1	0.4	0.4	0.3
Net acquisition of fin. assets	p.p.	0.3	-1.2	2.2	0.3	0.5	2.2	0.5	1.1	0.5	0.7
Revaluation effects and other	p.p.	-0.1	0.1	-0.3	0.1	-0.1	0.1	-0.1	0.0	-0.0	-0.0
Debt for Act No. 23/2017 Coll. [1]	% of GDP	39.3	36.5	34.2	32.1	30.0	37.7	43.3	46.2	48.9	51.3
Liquid financial assets [2]	% of GDP	12.7	12.8	14.8	14.7	13.9	16.2	15.8	15.8	15.6	15.7
Net financial debt [3]	% of GDP	26.6	23.8	19.4	17.4	16.1	21.5	27.5	30.4	33.3	35.6

1) Public sector institutions debt according to Act No. 23/2017 Coll. is defined as the difference between the general government debt and disposable cash reserves created according to Act No. 218/2000 Coll.

2) Liquid financial assets are monetary gold, Special Drawing Rights, currency and deposits, market value of securities other than shares (in market value), shares and other equity quoted in stock exchange.

3) Net financial debt is the difference between the debt according to Act No. 23/2017 Coll. and liquid financial assets.

Source: CZSO (2021b). Forecast and calculations by MF CR.

Graph 2.4.1: General Government Debt
% of GDP
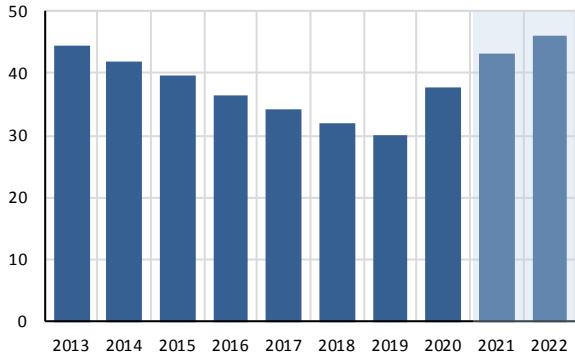
Source: CZSO (2021a, 2021b). MF CR forecast.

Graph 2.4.2: Change in the Debt Ratio
in percentage points
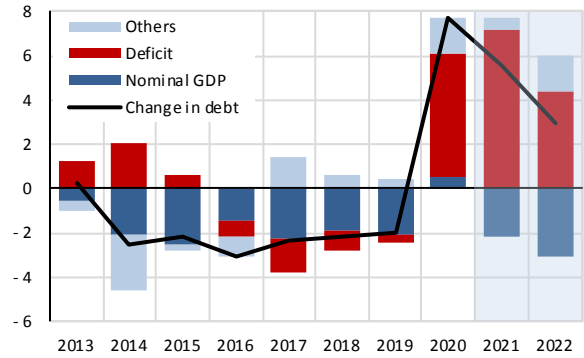
Source: CZSO (2021a, 2021b). MF CR forecast.

Graph 2.4.3: Government Debt by Type of Instrument
% of GDP
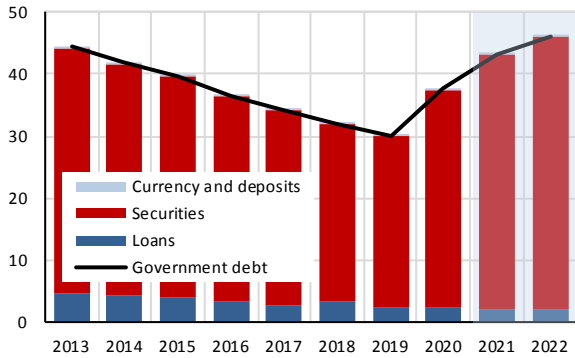
Source: CZSO (2021a, 2021b). MF CR forecast.

Graph 2.4.4: Net and Gross Government Debt
% of GDP
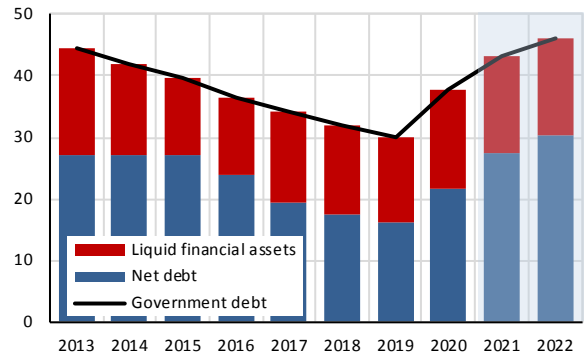
Source: CZSO (2021a, 2021b). MF CR forecast.

Graph 2.4.5: State Debt Financing Needs
% of GDP
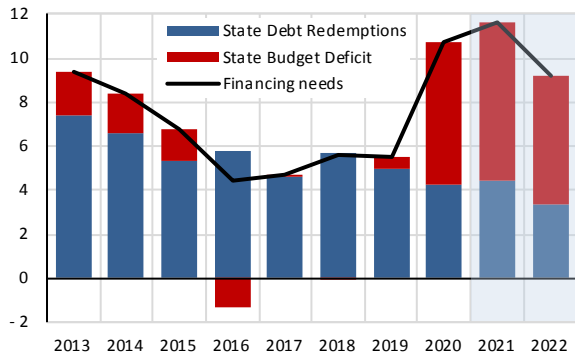
Source: CZSO (2021b). MF CR forecast.

Graph 2.4.6: Government Bond Yields by Maturity
% of GDP
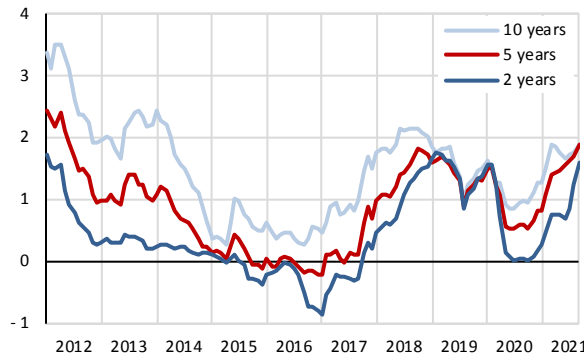
Source: CNB (2021).

Graph 2.4.7: Government Securities by Type of Holder
% of total government securities outstanding, end-of-year values
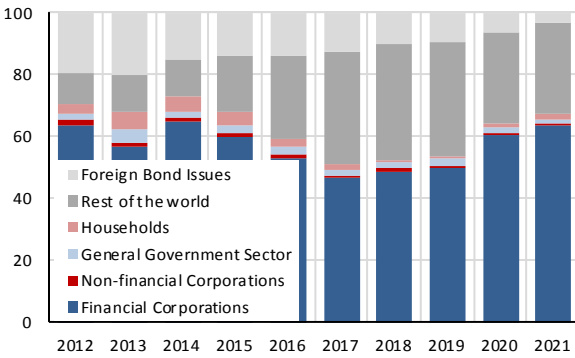
Note: The value for 2021 reflects the state at the end of September.
Source: MF CR.

Graph 2.4.8: Government Securities by Type of Instrument
% of total government securities outstanding, end-of-year values
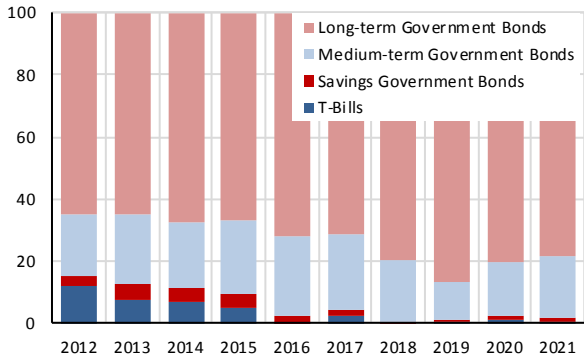
Note: The value for 2021 reflects the state at the end of September.
Source: MF CR.

2.5 Sensitivity Analysis

The sensitivity analysis is calculated using the MF CR's dynamic stochastic general equilibrium model. Alternative scenarios focus on certain issues of immediate interest for possible future developments. The first scenario contemplates lower economic growth in the EU and its effects on the highly open Czech economy, which is dependent on the external environment. Another alternative scenario assesses a possible sudden increase in interest rates. The third scenario responds to the uncertainty surrounding how the COVID-19 pandemic will develop and analyses a situation where it re-emerges and could hamper economic activity. The last scenario quantifies the impact of a significant increase in energy and other commodity prices on world markets. All alternative scenarios are derived from the Fiscal Outlook baseline scenario. In the alternative scenarios, we assume that the situation progresses differently from the baseline scenario, always in the first half of 2022.

Economic developments of EU trading partners are a pivotal factor for the economic growth of the CR's small open economy. First scenario assumes **slower GDP growth in the EU** by 2.6 pp in 2022, which corresponds to standard deviation in 2002–2020.

Initially, the reduction in external demand for domestic products would be reflected in a drop in net exports. However, subsequent pressure on currency depreciation would cushion the negative effect on net exports by making imports more expensive. A worse external trade result would slow the growth of the CR's real GDP by 0.6 pp in 2022 compared to the baseline scenario. Lower growth in corporate profits due to weaker exports would see investment growth decelerate by 0.6 pp. The lower output of firms would also have a negative impact on labour demand and, subsequently, would reduce nominal wage growth. A negative income effect in the form of relatively lower wages and returns on capital would slow down household consumption growth by 0.3 pp.

The impact on the general government balance is a negative 0.1 pp in the first year of the outlook, but the difference is negligible in subsequent years. The lower economic performance has an impact on taxes and social security contributions on the revenue side; on the expenditure side it mainly leads to an increase in spending on unemployment benefits. In the years of the outlook, the effect of lower inflation on the statutory indexation of pension benefits is moderately positive. Debt would then increase by 0.4 pp more in 2022 than in the baseline scenario and, thereafter, this difference would remain constant in the years of the outlook. In addition to a higher deficit, this would reflect a lower level of nominal GDP over the entire horizon.

The dynamic model in the second scenario simulates the **additional tightening of monetary policy** in 2022

by 1.1 pp above the baseline scenario. This figure is consistent with the standard deviation of developments in the short-term interest rate in the period from 2002 to 2020.

A more restrictive monetary policy would have a negative effect on economic developments. Pressure on the Czech currency to appreciate would increase price of exports, while imported goods would become relatively cheaper. In view of the high import intensity of exports, a slight slowdown in exports by 0.3 pp would exert downward pressure on imports. Lower income and a fall in the profits of economic entities would have a similar effect. The result would be a slight reduction in import growth compared to the baseline scenario.

Lower household incomes due to slower wage growth would also affect consumption adversely. Furthermore, a higher interest rate would motivate households to save and therefore put off consumption until some point further in the future. As a result, contractionary monetary policy would lead to a slowdown in household consumption growth by 0.2 pp.

Businesses would see their profitability decrease due to a decline in both foreign and domestic demand. They would respond to the drop in profits and the increase in the cost of borrowing by cutting investment growth by 0.2 pp. A slowdown in aggregate demand would also increase the unemployment rate by 0.3 pp compared to the baseline scenario. In addition, it would lower wage growth.

Amid the negative impact of higher interest rates on investment, consumption and exports, the resulting effect on GDP growth would also be negative by 0.3 pp. Slower economic growth would reduce the inflation rate by 0.6 pp.

The impact on public finances in this scenario is relatively negligible. The effects on revenues and expenditures almost cancel each other out, with the most important expenditure items, i.e. social expenditure "benefiting" from lower inflation and real wage dynamics. At the level of the state budget, we project that the impact will be in the lower billions of CZK. As a result, the general government debt ratio at the end of the outlook horizon differs from the baseline scenario by only 0.2 pp.

The third scenario anticipates a **worsening of the epidemic situation in the Czech Republic** in the first half of 2022, similar to the situation at the beginning of 2021. However, we assume that the anti-epidemic measures introduced would be less extensive in view of the higher vaccination coverage and efforts to mitigate other negative economic impacts as much as possible (the assumed level of economic lockdown has a significant impact on the simulated results). The scenario also assumes compensation for businesses, as

well as transfers to households. In the analysis, we technically work with the closure of establishments mainly in the service sector, combined with partial constraints for manufacturing firms, either due to temporarily fewer able-bodied workers or problems in securing inputs.

The simulation results show that a reduction in companies' output and a temporary increase in costs would slow down investment growth by almost 6 pp compared to the baseline scenario.

The reduction in the supply of services would suppress the growth rate of household consumption by more than 7 pp. Price increases would likely accelerate in the latter part of the year in particular, once these problems had eased. Despite the higher prices, which could offset businesses' losses to some extent, the unemployment rate would probably rise by an additional 1.0 pp.

Lower output and, subsequently, comparatively higher prices would have an impact on exports, which would grow 2.5 pp more slowly than in the baseline scenario. As a result of the slowdown in export activity and the decline in household consumption, import growth would slacken by 4.2 pp.

In 2023, economic growth would pick up year-on-year and real GDP would climb 1.6 pp faster than in the baseline scenario. This would be boosted not only by deferred household consumption, with 3.0 pp faster growth, but also by investment, which would accelerate by an additional 2.4 pp. There would be an additional increase in the inflation rate by around 1 pp that year as a consequence of higher corporate costs and increased consumer demand. The unemployment rate would gradually return to the trajectory of the baseline scenario.

This scenario implies a significant direct and indirect impact on public finances. If the economy were to be locked down at least partially, this would be reflected in all areas of taxes, including social security contributions. On the expenditure side, the worsening of the epidemic situation would imply an increase in social benefits linked to sickness and care for relatives. Parallel to this, social transfers in kind would rise, reflecting the increased financial demands in health care. In terms of intermediate consumption, we anticipate a virtually zero net effect, as lower operating expenditure by public institutions would be offset by purchases of medical supplies such as protective equipment and tests. A higher unemployment rate compared to the baseline scenario would lead to a renewed increase in unemployment benefits. As to subsidies and capital transfers, we assume a "rigid" structure of aid to the economy, i.e. a compensation bonus, schemes targeting the labour market and job retention and programmes to cover losses. As noted above, since the scenario also considers smaller-scale restrictions due to the higher

vaccination coverage, the financial impact of hypothetical government measures is correspondingly reduced compared to the expenditure incurred this year. In terms of the institutional composition of public finances, the greatest impact would be borne by the state budget, which – compared to the above – would also be forced to increase the total transfer to helath care on behalf of state-insured individuals. Health insurance companies would also experience a more significant deterioration in their balance.

The impact on the balance would be highest in 2022, and would then decrease significantly as the epidemic recedes and the accompanying measures intended to slow its spread come to an end. We estimate that the general government balance would be 1.6 pp worse off, and in subsequent years the difference should be much smaller. The level of general government debt would increase by 3 pp in 2022 relative to the baseline scenario, with the difference declining slightly thereafter. At the end of the outlook horizon, however, the debt ratio would still be more than 2 pp higher.

The last alternative scenario works with possible **stronger growth of commodity prices in world markets** in 2022. It also includes the assumption that energy suppliers would fully reflect the higher prices in their price lists for end-users. We estimate that the inflation rate could thus rise by 1.5 pp above the baseline scenario.

Further increases in energy prices would be reflected in additional costs for firms and, as a result, in slower investment growth rates by 0.5 pp in 2022 and 0.6 pp in 2023. Moreover, a 0.3 pp higher increase in the wage bill, driven by inflationary pressures, would be reflected in firms' costs this year. There would also be an increase in the unemployment rate of around 0.2–0.3 pp.

Although the increase in wage bill would have a positive effect on household consumption, the higher price level, together with additional unemployment, would have the opposite effect, and the growth rate of household consumption would consequently slow down by 0.2–0.3 pp.

Lower corporate output would slow the growth rate of exports by 0.3–0.4 pp and that of imports by 0.1 pp, partly due to lower consumer demand.

The moderate impact on the balance would be around −0.1 pp in the outlook years. The main causes would be lower economic output, together with additional spending, especially on unemployment benefits, and higher indexation of pension benefits in later years. These effects would outweigh the positive impact of price increases, and hence of nominal variables, on tax collection.

Table 2.5.1: Baseline Scenario of the Fiscal Outlook

		2021 Forecast	2022 Forecast	2023 Outlook	2024 Outlook
Gross domestic product (real)	*Y-o-Y in %*	**2.5**	**4.1**	**2.2**	**2.0**
Private consumption	*Y-o-Y in %*	3.7	4.7	2.0	2.2
Gross fixed capital formation	*Y-o-Y in %*	4.6	5.4	4.7	0.8
Exports	*Y-o-Y in %*	6.4	5.7	4.6	3.3
Imports	*Y-o-Y in %*	11.0	5.5	5.1	2.9
Inflation (CPI)	*Y-o-Y in %*	**3.5**	**6.1**	**2.5**	**2.2**
Employment	*Y-o-Y in %*	**-0.5**	**0.8**	**0.1**	**0.1**
Wage bill	*Y-o-Y in %*	**5.3**	**5.1**	**4.3**	**4.3**
Unemployment rate	*in %*	**3.0**	**2.7**	**2.6**	**2.5**
General government balance	*% of GDP*	**-7.2**	**-4.4**	**-3.8**	**-3.4**
Gross government debt	*% of GDP*	**43.3**	**46.2**	**48.9**	**51.3**

Source: MF CR (2021b). MF CR forecast.

Table 2.5.2: Model Scenarios of Macroeconomic Simulations

		2021	2022	2023	2024
Alternative Scenario I - Lower GDP Growth in EU in 2022					
Gross domestic product (real)	*Y-o-Y in %*	**2.5**	**3.4**	**2.3**	**2.0**
Private consumption	*Y-o-Y in %*	3.7	4.4	1.9	2.2
Gross fixed capital formation	*Y-o-Y in %*	4.6	4.7	4.5	0.8
Exports	*Y-o-Y in %*	6.4	4.2	4.5	3.3
Imports	*Y-o-Y in %*	11.0	4.3	4.7	2.9
Inflation (CPI)	*Y-o-Y in %*	**3.5**	**6.0**	**2.5**	**2.1**
Employment	*Y-o-Y in %*	**-0.5**	**0.3**	**0.2**	**0.2**
Wage bill	*Y-o-Y in %*	**5.3**	**4.3**	**4.2**	**4.3**
Unemployment rate	*in %*	**3.0**	**3.2**	**2.6**	**2.5**
General government balance	*% of GDP*	**-7.2**	**-4.5**	**-3.8**	**-3.4**
Gross government debt	*% of GDP*	**43.3**	**46.6**	**49.3**	**51.7**
Alternative Scenario II - Increase in Domestic Interest Rate					
Gross domestic product (real)	*Y-o-Y in %*	**2.5**	**3.8**	**2.2**	**1.9**
Private consumption	*Y-o-Y in %*	3.7	4.5	1.9	2.2
Gross fixed capital formation	*Y-o-Y in %*	4.6	5.2	4.8	0.9
Exports	*Y-o-Y in %*	6.4	5.5	4.4	3.3
Imports	*Y-o-Y in %*	11.0	5.4	5.0	2.9
Inflation (CPI)	*Y-o-Y in %*	**3.5**	**5.5**	**2.2**	**2.0**
Employment	*Y-o-Y in %*	**-0.5**	**0.7**	**0.1**	**0.1**
Wage bill	*Y-o-Y in %*	**5.3**	**4.9**	**4.2**	**4.3**
Unemployment rate	*in %*	**3.0**	**3.0**	**2.6**	**2.5**
General government balance	*% of GDP*	**-7.2**	**-4.4**	**-3.8**	**-3.4**
Gross government debt	*% of GDP*	**43.3**	**46.3**	**49.1**	**51.5**
Alternative Scenario II - Worsening of Epidemic Situation in the CR					
Gross domestic product (real)	*Y-o-Y in %*	**2.5**	**0.2**	**3.9**	**2.6**
Private consumption	*Y-o-Y in %*	3.7	-2.6	5.0	2.5
Gross fixed capital formation	*Y-o-Y in %*	4.6	-0.5	7.1	3.0
Exports	*Y-o-Y in %*	6.4	3.3	5.8	3.8
Imports	*Y-o-Y in %*	11.0	1.3	6.9	3.5
Inflation (CPI)	*Y-o-Y in %*	**3.5**	**8.0**	**3.6**	**2.2**
Employment	*Y-o-Y in %*	**-0.5**	**-0.2**	**0.1**	**0.1**
Wage bill	*Y-o-Y in %*	**5.3**	**3.9**	**4.1**	**4.4**
Unemployment rate	*in %*	**3.0**	**3.7**	**2.7**	**2.5**
General government balance	*% of GDP*	**-7.2**	**-6.0**	**-4.1**	**-3.6**
Gross government debt	*% of GDP*	**43.3**	**49.2**	**51.3**	**53.4**
Alternative Scenario IV - Higher Energy and Commodity Prices					
Gross domestic product (real)	*Y-o-Y in %*	**2.5**	**3.6**	**1.9**	**1.9**
Private consumption	*Y-o-Y in %*	3.7	4.4	1.8	2.2
Gross fixed capital formation	*Y-o-Y in %*	4.6	4.9	4.1	0.7
Exports	*Y-o-Y in %*	6.4	5.3	4.3	3.3
Imports	*Y-o-Y in %*	11.0	5.4	5.0	2.9
Inflation (CPI)	*Y-o-Y in %*	**3.5**	**7.6**	**3.4**	**2.2**
Employment	*Y-o-Y in %*	**-0.5**	**0.5**	**-0.2**	**0.1**
Wage bill	*Y-o-Y in %*	**5.3**	**5.1**	**4.6**	**4.4**
Unemployment rate	*in %*	**3.0**	**3.0**	**3.0**	**2.6**
General government balance	*% of GDP*	**-7.2**	**-4.5**	**-3.9**	**-3.5**
Gross government debt	*% of GDP*	**43.3**	**46.3**	**49.1**	**51.6**

Source: MF CR (2021b). MF CR calculations and simulations.

3 International Comparison

The global COVID-19 pandemic, the slump in economic performance, public compensation for losses, and the decline in private revenues have made public finances much worse off in all EU countries. On average, the general government deficit widened by 6.3 pp year-on-year to 6.9% of GDP in 2020, and general government debt increased by almost 13 pp year-on-year to 90.1% of GDP. The deficit widened because of a sharp increase in financing needs, which was primarily met by borrowing on the bond market. As a result, the volume of government bonds outstanding in EU countries increased by 13.2% year-on-year in 2020; a comparable year-on-year increase is expected this year.

Strong investor demand for government bonds and the European Central Bank's unconventional monetary policy in the form of government bond purchase programmes prompted a decline in 10-year government bond yields for convergence purposes in EU countries by 0.4 pp on average in 2020. This allowed governments to finance their deficits and bond repayments at comparatively lower interest costs. However, in 2021, due to the economic recovery and rising inflation, 10-year government bond yields have increased by 0.3 pp on average year-on-year, yet remain below their pre-crisis level in half of EU countries.

3.1 Public Balance and Debt in the EU Countries

The general government **deficit** as a share of GDP widened most in Greece (by 11.2 pp to 10.1%), in Malta (by 10.2 pp to 9.7%), and in Austria (by almost 9 pp to 8.3% of GDP). In Slovenia, Spain, Italy, Lithuania, and Croatia, the balance worsened by around 8 pp. Spain was also the EU country reporting the largest deficit (11.0% of GDP) in 2020.

Denmark and Sweden, with deficits of 0.2% and 2.8% of GDP respectively, were the only two countries below the **Stability and Growth Pact reference value** in 2020. However, only Romania remained subject to the **Excessive deficit procedure** for its 2019 deficit, as this exceedance was not the result of a sudden economic downturn due to exceptional circumstances. Other EU countries are protected for at least 2020 and 2021 by the activation of the general escape clause in March 2020, enabling them to deviate from the budgetary requirements set by the European fiscal framework.[1]

In 2021, Malta – according to its autumn government deficit and debt notification – is the only country expected to have a double-digit deficit (11.1% of GDP); Luxembourg is expected to have almost balanced public finances (a deficit equal to 0.6% of GDP). Denmark and Sweden are also likely to remain below the reference value of the Stability and Growth Pact this year. Eight countries, including the CR, are forecasting a higher deficit than in the previous year (most notably Latvia, by 4.8 pp); of the remaining 19 countries, Croatia is estimating the largest year-on-year decline in its deficit – by 3.5 pp. Compared to its spring notification of government deficit and debt[2] for 2021, Latvia is reporting the highest change in the balance (its deficit has widened by 5.4 pp due to an increase in absolute terms by about 2.4 times); in the opposite direction, Estonia is reporting a 3.4 pp improvement in the

deficit due to its reduction in absolute terms to almost half and GDP growth of about 7%.

Comparatively successful reductions in the relative level of general government **debt** recorded in past years were interrupted by the pandemic. There is now no country in the EU whose debt has not increased in absolute or relative terms year-on-year. The fiscal debt criterion of 60% of GDP for 2020 has not already been met by 13 member states, with Finland and Germany joining the previous 11. The relative indebtedness increased most in Greece (by 25.6 pp), followed by Spain and Cyprus (by more than 24 pp). Conversely, Ireland's recorded the smallest debt increase in relative terms, thanks to economic growth (by 1.2 pp).

Belgium, France, Cyprus, and Spain exceeded the **threshold of 100% of GDP** in 2020, joining Italy, Portugal, and Greece. In Greece, debt has actually surpassed **200% of GDP**. Estonia still retains the lowest debt-to-GDP ratio (19.0% of GDP), although its general government debt more than doubled in absolute terms in the critical year of 2020.

In 2021, 16 EU countries are expected to show year-on-year drop of indebtedness, most notably Cyprus, which, along with Denmark, is forecast to report a year-on-year reduction also in absolute terms, followed by Greece and Portugal. Other countries, on the other hand, are expected to see their indebtedness rise further. In 2021, 15 EU countries – most recently Malta and Slovakia – will be above the **60% of GDP reference threshold**; the Netherlands will be very close. Ireland is the only country where relative debt in 2021 is expected to fall below the pre-crisis 2019 level, thanks to high GDP growth of around 15%.

Compared to the spring notification of government deficit and debt[2] for 2021, Cyprus is reporting the highest change in debt, which it has decreased by 7.4 pp due to a slight absolute reduction and, in particular, higher GDP growth. By contrast, Latvia's debt has increased the most, by 2.9 pp, due to the increase in deficit by 5.4 pp.

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[1] Articles 5(1) and 6(3) for euro area countries and Articles 9(1) and 10(3) for Member States under Council Regulation (EC) No 1466/97, and Articles 3(5) and 5(2) of Council Regulation (EC) No 1467/97.

[2] In spring 2021, Finland, France, Ireland, and Italy did not provide complete data and are therefore not included in the comparison.

3.2 Public Debt Financing in the EU Countries

In financial markets, the coronavirus pandemic started to exhibit itself in March 2020. It led to halt the trend of decreasing yields to maturity for government bonds in EU countries. In the second quarter of 2020, government bond yields increased in the short term due to a rise in the risk premium, with different components contributing to the increase in different countries.[3] According to Corradin *et al.* (2021), for example, the default risk premium had a high share in Italy and Spain during this period, while in France or Germany, the expectation of future short-term risk-free interest rates and the term premium had a significant impact. The European Central Bank reacted to this situation with monetary policy measures, notably by launching the Pandemic Emergency Purchase Programme (see MF CR 2021c for details), with a current total allocation of EUR 1,850 billion available until March 2022, and by keeping interest rates unchanged (the deposit interest rate remained at −0.5%, interest rate on main refinancing operations at 0.0%). Monetary policy was eased in countries outside the euro area by lowering interest rates (e.g. in the CR the 2-week repo rate was reduced by 2 pp to 0.25%, and in Hungary the base rate was cut by 0.3 pp to 0.6%); in other countries (Poland, Hungary) the central bank also started buying government bonds. Large-scale purchases of government bonds by the European Central Bank (see Box 1) very quickly reduced government bond risk premiums. By the end of 2020, only in three countries (Bulgaria, Croatia, and Hungary) were 10-year government bond yields for convergence purposes (hereafter 10-year government bonds) on average 0.04 pp above pre-crisis levels. In five EU countries (Estonia, Ireland, Latvia, Slovakia, and Slovenia), whose 10-year government bond yields averaged 0.1% p. a. before the crisis, they even went into negative territory. Negative yields were therefore reported in 13 EU countries. In the context of expectations of a recovery in economic growth, rising inflation, and a subsequent reaction by central banks in the form of interest rate hikes, 10-year government bond yields started to rise again in the first quarter of 2021 in almost all EU countries (except Bulgaria and Latvia) by an average of 0.2 pp compared to the end of 2020. Among EU countries, the largest increases in yields over this period were reported in the CR (by 0.6 pp), Hungary (0.5 pp) and Denmark (0.4 pp, but with negative yields still persisting). In the second quarter, 10-year government bond yields continued to increase, but at a lower rate than in the previous quarter (by 0.1 pp on average in EU countries). Despite the sustained rise in yields, at the end of September 2021 the yields in 10 EU countries were below their pre-crisis levels, and in 7 countries they were actually negative.

Of the countries that have received assistance from EU rescue funds and the International Monetary Fund in the past, only Ireland has achieved negative 10-year government bond yields. Following the crisis, Ireland rapidly resumed economic growth thanks to the structure of its economy, and improved its public finances. As a result, it has long reported the lowest government bond yields in this group of countries. However, other countries have also experienced significant yields reductions and are at levels much lower than in the pre-crisis period (by 0.8 pp on average).

Among Central European countries, Slovakia has the lowest government bond yields. It benefits from the euro area's loose monetary policy when issuing bonds. It is also the only country in this group to achieve negative yields to maturity on 10-year government bonds. In contrast, the 10-year Czech, Hungarian, Polish, and Romanian government bond yields are among the highest in the EU, mainly due to the tighter monetary policy of national central banks compared to the European Central Bank.

However, government bond issues are not the only way to cover public debt. Some countries in the EU have a significant proportion of **financing loans**. The autumn notification of general government deficit and debt show that, in 2020, loans accounted for a high share of general government debt in Greece (78.4% of total debt), Estonia (57.9%), and Cyprus (32.9%). In Estonia, the share of loans from the European Investment Bank in total debt decreased by 30 pp year-on-year, driven by high year-on-year growth in debt covered by government bonds (their share in total debt increased by 31 pp). Therefore, in the context of the pandemic's impact, the Estonian government issued bonds with a maturity of more than 1 year only for the third time since 1990 (the last time was in 2002). In Greece, on the other hand, the share of loans (from the International Monetary Fund and EU stability mechanisms) in debt financing has been relatively stable in recent years.

EU countries can now finance specific investments and reforms by drawing on concessional loans from the **Recovery and Resilience Facility**, which has allocated EUR 385.5 billion for loans to member states. Italy in particular intends to make use of this financing instrument (EUR 122.6 billion in approved loans), while Romania (EUR 14.9 billion), Greece (EUR 12.7 billion), and Portugal (EUR 2.7 billion) plan lower amount of loans. In Slovenia and Cyprus, the envisaged amount of loans is up to EUR 1 billion. Other EU countries are not yet considering the use of this financing instrument.

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[3] According to Krishnamurthy *et al.* (2018), a bond's yield can be broken down into: (i) expected future short-term risk-free interest rates and a term premium; (ii) default risk premium; (iii) redenomination risk premium; (iv) liquidity risk premium; and (v) segmentation premium.

Box 1: Yield "Anomaly" on the Bond Market in EU Countries

The expansionary fiscal policy of 2020 and 2021 has had significant adverse effects on EU countries' public finance, resulting in increased financing needs. This is primarily carried out by borrowing operations (in particular through increased issuance of government bonds), which pushes up indebtedness of the general government sector. According to economic theory, strong increase in the deficit or debt should lead to an rise in interest rates, which in turn translates into higher government bond yields. This transmission channel has been empirically confirmed in numerous studies (e.g. Baldacci (2010), Poghosyan (2012), Akram (2019), Zhou (2020)), where an error correction model established the statistical significance of both short-term (e.g. a change in the primary balance) and long-term determinants (the level of general government debt) influencing the growth of long-term government bond yields. However, as Graph 3.1 shows, the bond market situation is different particularly in those countries reporting the largest year-on-year increases in government debt (Greece, Spain, Italy, and Cyprus).

Graph 3.1: General Government Debt and 10-year Government Bond Yields for Convergence Purposes in the EU
pp, vertical axis: change of yields, horizontal axis: change of debt

Note: This concerns the year-on-year change (Q1 2021-Q1 2020) in the level of general government debt and 10-year government bond yields for convergence purposes. The average values are marked.
Source: ECB (2021a), Eurostat (2021a). MF CR calculations.

In these countries, despite the rapid deficit and debt growth, the yield curve of government bonds fell steeply in 2020 and 2021. In some countries (e.g. Greece), government bonds at the shorter end of the yield curve are actually generating negative yields. This can be explained by the ECB's unconventional monetary policy.

Since 2015, the ECB has been implementing a scheme aimed at purchasing public sector assets in secondary markets (PSPP), the primary objective of which is to mitigate future inflation risks in euro area countries. The ECB and national central banks may purchase euro-denominated debt securities issued by the central government of a euro area member state at a proportion reflecting their share in the ECB's capital key. One of the eligibility criteria for debt securities (Article 3(2a) of ECB Decision (EU) 2015/774) marketable under this programme is that the issuer's credit quality be at least level 3 on the Eurosystem's harmonised rating scale, i.e. according to reputable rating agencies the worst possible rating for long-term liabilities is BBB– (Fitch), Baa3 (Moody's), or BBB– (S&P). However, this credit quality threshold is not met by Greece meaning the Greek government bonds cannot be purchased under this programme.

The PSPP has been used heavily since its establishment by Italy and Spain, whose government bonds account for 28.3% of total net purchases. Thanks to the PSPP, 10-year government bond yields for convergence purposes were reduced in 2014–2019 by 0.6 pp in Italy, 1.4 pp in Spain, 2.4 pp in Portugal, and 5.4 pp in Cyprus.

Graph 3.2: Net Purchases of Government Bonds under the PSPP Programme
EUR bn.

Source: ECB (2021b). MF CR calculations.

In 2019, the suspension of the PSPP was being considered. However, in March 2020, in response to the onset of the coronavirus pandemic, the ECB decided to supplement the APP (Asset Purchase Programme) with an additional EUR 120 billion and to resume net asset purchases of EUR 20 billion per month. It also launched the Pandemic Emergency Purchase Programme (PEPP) for the purchase of government and corporate bonds. This scheme currently has a total allocation of EUR 1,850 billion (it started with an initial EUR 750 billion, which was increased by EUR 600 billion in June 2020 and by a further EUR 500 billion in December 2020). It will run until at least the end of March 2022. The reinvestment of sums from maturing bonds will then continue until at least the end of 2023. Unlike the PSPP, the ECB has adopted an exemption for marketable Greek government bonds (Article 3 of ECB Decision 2020/17), irrespective of their credit quality, provided that they meet the condition that their lowest possible yield is at least equal to the deposit facility rate. If the yield is lower, purchases are permitted only insofar as is strictly necessary. Under the PSPP, all eligible marketable debt securities are subject to an aggregate limit of 33% of the issuer's securities balance after the consolidation of holdings in all Eurosystem central banks' portfolios.

Graph 3.3: Net Purchases of Government Bonds under the PEPP Programme

EUR bn.
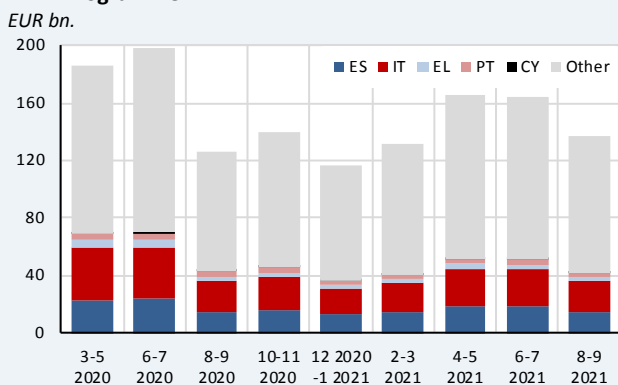
Source: ECB (2021c). MF CR calculations.

Graph 3.4: Cumulative Net Purchases of Government Bonds under PSPP and PEPP Programmes and ECB Capital Key

in %

Note: Capital key are recomputed relative to Eurozone countries only, dropping the capital share of the ECB owned by national central banks outside the euro area.
Source: ECB (2018, 2021b, 2021c). MF CR calculations.

The asset purchase programmes described above affect government bond yields via several channels. For example, Gambetti (2017), Benigno *et al.* (2020) mention that the ECB has implicitly become a "guarantor" of government bond issuers for primary market investors because an institutional investor not subject to any default risk operates on the secondary market of government bonds. This leads to a reduction in government bond yields due to a decrease in the issuer default risk premium. The issuer's actual credit quality is therefore not reflected in the risk premium. This is illustrated by the issuance of government bonds by highly indebted countries that issue very long-term government bonds at yields hovering around the level of the yields of 10-year government bonds in countries with debt that is several times lower, such as the CR and Bulgaria (e.g. this year Greece, for the first time since 2008, issued 30-year government bonds with an average yield to maturity of 1.7% p. a.; Spain has realized 5 auctions of 30-year bonds with an average yield to maturity of 1.4% p. a., and Italy even issued a 50-year government bond with a yield to maturity of 2.2% p. a. in April 2021). They also point to the fact that ECB purchases should trigger excessive demand for certain securities on the secondary market, which would reduce their yield. At the same time, investors could restructure their portfolios towards other securities; this additional demand could then reduce returns on other markets as well. By employing these means, the ECB should be able to reduce yields on many securities markets and, in particular, at the long end of the yield curve.

Graph 3.5: Development of the Government Bond Yields

% p. a.
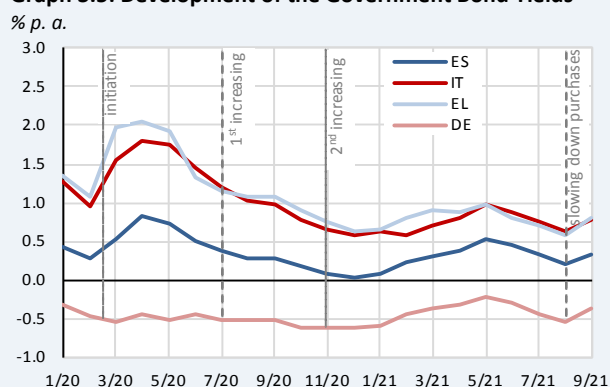
Source: ECB (2020a, 2020b, 2020c, 2021d). MF CR calculations.

Graph 3.6: Balance of Selected EU Countries
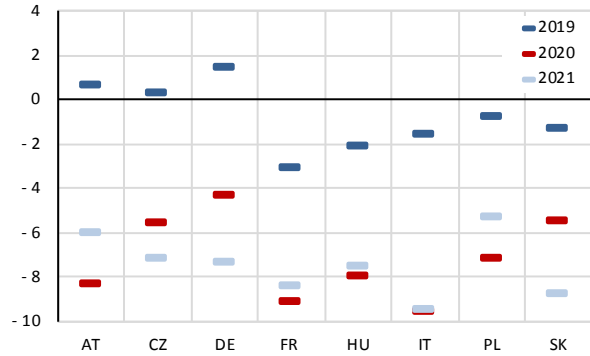
% of GDP

Source: Eurostat (2021b). CR data: CZSO (2021a, 2021b) and MF CR.

Graph 3.7: Structural Balance of Selected EU Countries

% of GDP
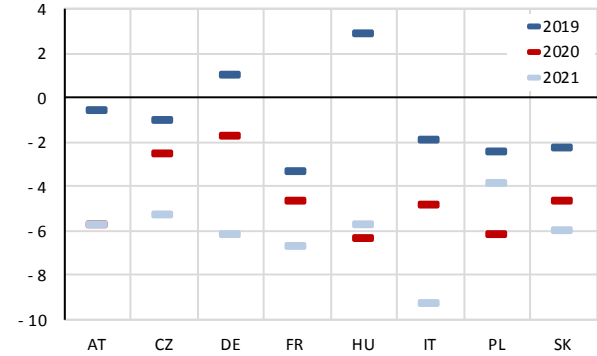
Source: EC (2021d). CR data: CZSO (2021a, 2021b) and MF CR.

Graph 3.8: Change in Revenue in 2019–2020

in percentage points
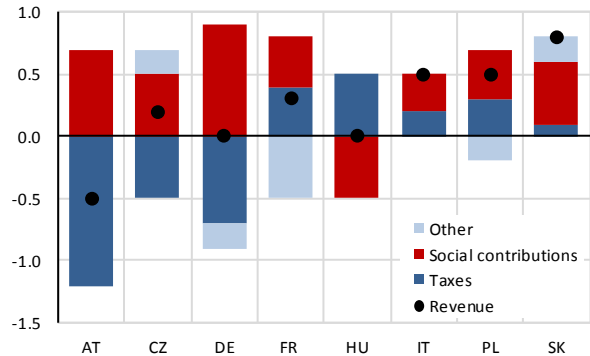
Source: Eurostat (2021ba). CR data: CZSO (2021a, 2021b).

Graph 3.9: Change in Expenditure in 2019–2020

in percentage points
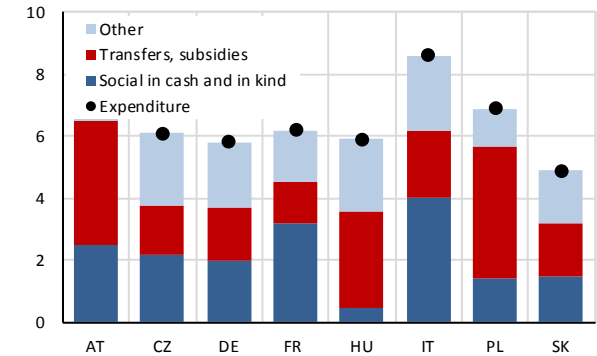
Source: Eurostat (2021ba). CR data: CZSO (2021a, 2021b).

Graph 3.10: Debt of Selected EU Countries

% of GDP
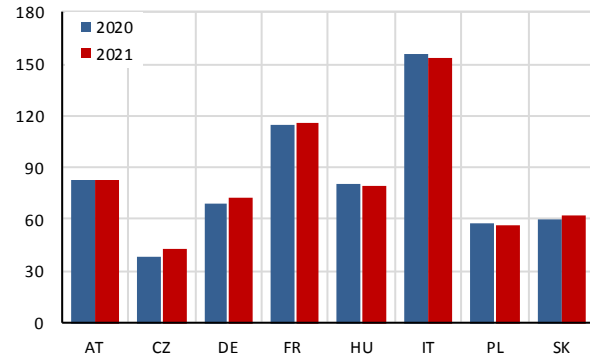
Source: Eurostat (2021b). CR data: CZSO (2021a, 2021b). and MF CR.

Graph 3.11: Change in Debt-to GDP ratio in 2020–2021

in percentage points
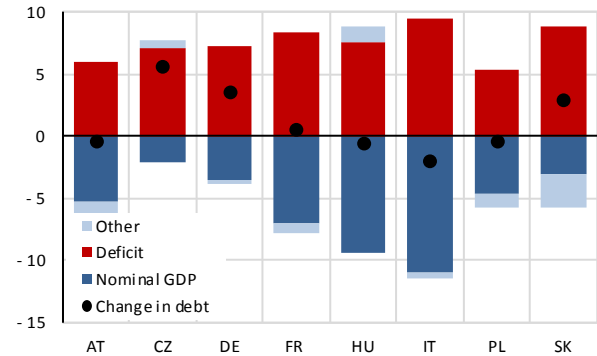
Source: Eurostat (2021b). CR data: CZSO (2021a, 2021b). and MF CR.

Graph 3.12: Bond Yields in the CR and EU Countries

% p. a., government bond yields for convergence purposes
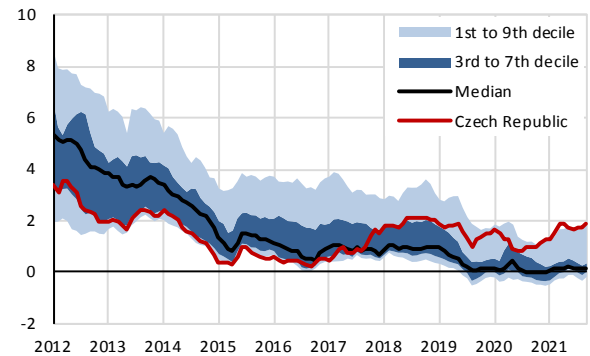
Source: ECB (2021a).

Graph 3.13: Measures Taken in Response to COVID-19

% of GDP
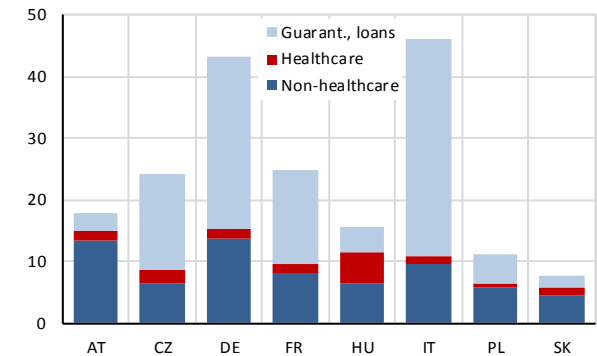
Source: IMF (2021), MF CR.

4 Long-term Sustainability of Pension System

Long-term sustainability is among constantly discussed issues in the framework of Czech public finances. Although the process of population ageing is already present, the greatest risk pose projected demographic developments that are likely to occur in the next few decades and will significantly increase the ratio of people of retirement age to working-age population. This will intensify the pressure on social spending and the need to reform social systems. In the past, numerous expert groups have been established in the Czech Republic and mandated with the reform of the pension system and/or the health sector, but so far no broad political consensus has been found for any comprehensive reform.

4.1 Development of Parametric Changes in the Pension System

Besides macroeconomic and demographic assumptions and projections (Table 4.2.1, upper part), long-term projections are also shaped by approved pension reform measures known at the time the exercise is being prepared.

One of the pension system parameters meriting particular attention is the **statutory retirement age**. Effective as of 1 January 2018 (Act No. 203/2017 Coll.), the latest change has left the retirement age rising only until it is unified at 65 in around 2030. The Ministry of Labour and Social Affairs is mandated by law to assess the retirement age at regular five-year intervals and, if necessary, propose adjustments to the retirement age so that insured persons spend, on average, a quarter of their lives in retirement. Changes to the retirement age should not apply to anyone over the age of 55 at the time of the review. The Ministry of Labour and Social Affairs drew up its initial assessment in the first half of 2019 (MLSA, 2019). Although it showed that the retirement age needed to be adjusted at least for those currently in their forties or younger, the government decided to keep the statutory retirement age at 65 for the time being.

The statutory retirement age also affects the conditions pertaining to permanent **widow and widower pensions**, as the age limit here is tied to old-age pensions. For **early retirement**, the threshold is gradually shifting from three to five years before the statutory retirement age.

This maximum period of five years may, at the cost of significant penalties, be used by those whose statutory retirement age is at least 65 years.

The **indexation of pensions** is determined by the sum of the rise in the consumer price index, or the pensioner cost-of-living index (whichever is higher), and one half of real wage growth. This rule has been applied since 1 January 2018, again as a result of the adoption of Act No. 203/2017 Coll. Indexation is carried out once a year as at 1 January, except where inflation has reached at least 5% since the end of the previous reference period. In addition, a change in pension indexation was approved so that, with effect from 2017, the government has again wielded a limited amount of discretion (Act No. 212/2016 Coll.). In this respect, if the increase in the average pension according to the standard indexation formula is less than 2.7%, the government is entitled issue a regulation for the indexation of pensions up to this value. Otherwise, the procedure followed is strictly in keeping with the statutory indexation formula. However, further adjustments have been made that extend beyond this framework: an additional CZK 1,000 for all pensioners over the age of 85 since 2019 (Act No. 191/2018 Coll.) and an ad hoc increase beyond the statutory indexation with a view to raising the average pension by CZK 900 in 2020 (Act No. 244/2019 Coll.) and by CZK 300 in 2022 (Act No. 323/2021 Coll.).

4.2 Projections of the Pension System

The latest Eurostat population projection (2019) projects a decline in the population of the CR by almost 4.5% in the long term. The dependency ratio, measured as the ratio of people over 65 to people of working age (15–64), is set to almost double to around 54% by 2070. Naturally, this can be attributed not only to a decline in the number of working-age individuals, but also to an increase in average life expectancy. The share of persons aged at least 85 in the number of persons aged 65 and over is expected to more than double at the projection horizon (Graph 4.2.1).

The trajectory of long-term pension projections is primarily determined by demographics and the

statutory retirement age. It follows that pension spending should grow at a slower pace relative to GDP by 2030. After 2030, the rise in the retirement age comes to a halt, and those born in the demographic bulge in the 1970s start retiring. This will quite dramatically increase expenditure to 11.9% of GDP just before 2060, followed by a decline to 10.9% of GDP at the end of the projection horizon in 2070 (Table 4.2.1, lower part). This decline in spending can be again attributed to demographic factors, with those born in the demographic trough in the 1990s and later retiring and replacing those born during a demographic bulge.

The balance is expected to be negative over the entire projection horizon. Initially, the deficit will increase as a result of the macroeconomic situation arising due to the pandemic crisis. By 2030, however, the deficit should have decreased to 0.3% of GDP for the same reason (i.e. the crisis will have subsided and the economic recovery will be in full swing). Further ahead, the balance will deteriorate and fall to −3.5% of GDP in around 2060. The deficit is expected to start declining in the final decade of the projection.

The EC projection (2021b) assumes constant **pension system revenues** in line with a constant share of the compensation of labour in GDP and a constant contribution rate. As the share of labour factor compensation is low in the CR compared to developed countries, we can expect comparatively higher wage bill growth on average in the future relative to nominal GDP growth. We assume that the share of the compensation of labour in GDP will reach Germany's current level by the end of the projection horizon (2070). Germany was chosen as an economy similarly structured and closest in terms of external trade. This would have a positive effect on the revenue side at the given rate of contributions, but at the same time relatively higher wages and salaries would increase future pension benefits. In this scenario, expenditure (Graph 4.2.3) would rise from a baseline level of 9.5% of GDP to 13.2% of GDP and peak in 2059 (see also Box 2 in MF CR, 2019, where the higher share of compensation of labour in developed countries was a significant factor explaining the lower pension expenditure to GDP ratio in the CR). However, the balance (Graph 4.2.4) would not differ substantially from the scenario in the EC (2021b). In a relatively short term, higher revenue would cushion the fall into a deficit, but, in the longer term, higher earnings would be reflected in higher pension expenditure. Deficits would thus start to deepen rather more.

Naturally, the **baseline scenario's assumptions** for such a long horizon are subject to considerable uncertainty. A change in the assumptions could be of quite significant importance to assessments of system sustainability. Investments that would increase the rate of total factor productivity by 0.2 pp would lead to a 0.3 pp reduction in the ratio of pension expenditure to GDP. A 0.2 pp decline in total factor productivity would negatively affect spending on a similar scale (Graph 4.2.2). The other alternative scenarios are almost symmetrically similar.

By contrast, a two-year increase in **life expectancy** would increase pension expenditure by 0.7 pp because of the longer average duration of an old-age pension (Graph 4.2.5).

A 20% lower **fertility rate** would burden the pension account with 1.5 pp of higher expenditure (Graph 4.2.6). However, it should be added that the fertility rate has increased substantially in recent years and is likely to fall rather than rise in the years ahead. At the same time, under the current way in which the pension system is configured, there will be a relative fall in expenditure over the horizon due to higher fertility rates, but the pressure on the pension system will be all the greater beyond its end point, i.e. after 2070.

The **retirement age** plays a significant role in the evolution of expenditure. If it were to continue to rise by a further two years above the current statutory age of 65 (at the same rate as the age for men is currently increasing), this would improve the system's balance by up to 0.6% of GDP (Graph 4.2.7) in the long term. Conversely, if further increases were to stop almost immediately and the retirement age was to be fixed at 63, the additional pressure on expenditure would deepen the system's deficit by up to 0.9% of GDP in 2070.

Finally, a scenario working with a third **higher migration** (Graph 4.2.8) would result in a more favourable share of working-age population in the long run, and relatively higher GDP would reduce the ratio of expenditure to GDP (and the balance) by 0.3 pp. However, here too there is the obvious factor that a higher number of working-age population would lead to a higher number of pensioners in the future, with correspondingly higher pressure on pension expenditure.

Table 4.2.1: Basic Demographic and Macroeconomic Assumptions and Pension Expenditure Projections

		2019	2020	2030	2040	2050	2060	2070
			Projection	*Projection*	*Projection*	*Projection*	*Projection*	*Projection*
Labour productivity growth	*per hour*	2.0	1.9	2.2	2.1	1.9	1.7	1.5
Real GDP growth	*%*	2.6	-6.2	1.9	1.3	1.3	1.7	1.5
Total participation rate (aged 20–64)	*%*	82.0	82.2	81.7	80.3	81.0	82.0	81.3
Unemployment rate (aged 20–64)	*%*	2.0	4.8	3.5	3.5	3.5	3.5	3.5
Population aged 65+	*% of total population*	19.8	20.1	22.1	25.0	28.3	29.6	27.9
Total pensions		**8.0**	**9.5**	**8.8**	**9.8**	**11.4**	**11.8**	**10.9**
Old-age pensions		6.7	7.9	7.4	8.5	10.1	10.4	9.5
Disability pensions		0.8	0.9	0.8	0.7	0.7	0.7	0.7
Survivors' pensions		0.5	0.6	0.6	0.6	0.6	0.7	0.7

Note: The values in the table correspond to the assumptions of the long-term projections at the time they were made in the first half of 2020. The sum of values for each type of pension expenditure is not necessarily equal to the total expenditure due to rounding.
Source: EC (2020), Eurostat (2019), MF CR calculations.

Graph 4.2.1: Dependency Ratio and 85+/65+ Ratio
in %

Population 65+/15–64
Population 85+/65+
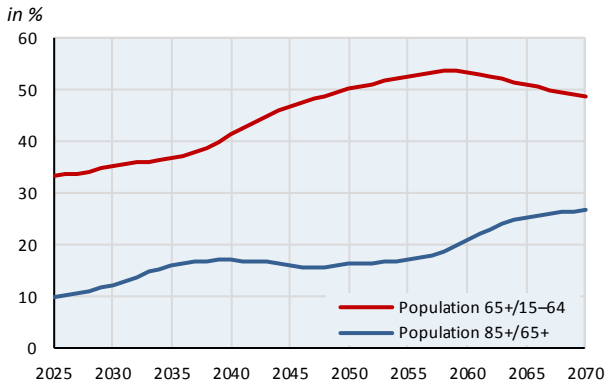
Source: Eurostat (2019). MF CR adjustment.

Graph 4.2.2: Alternative Productivity Scenarios
% of GDP

Lower productivity
Baseline
Higher productivity
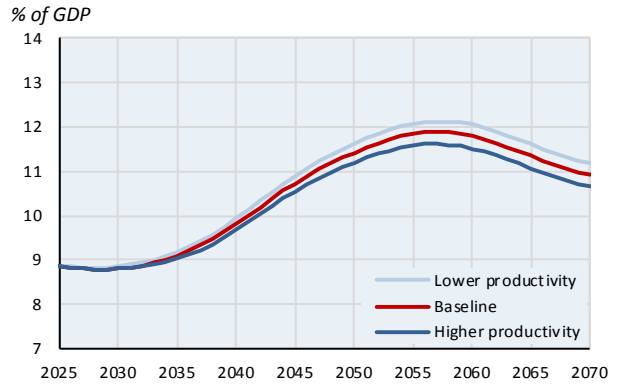
Source: MF CR calculations.

Graph 4.2.3: Alternative Wage Convergence Scenario
% of GDP

Convergence
Baseline
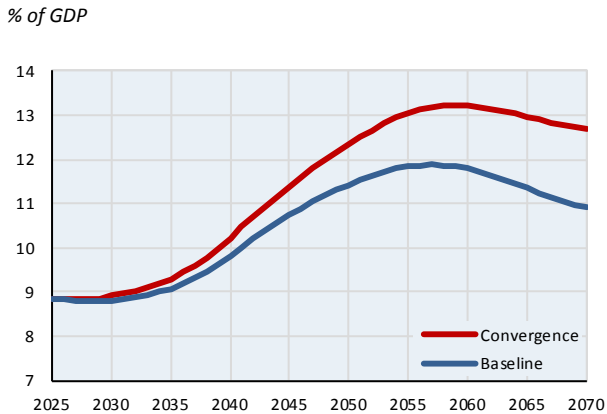
Source: MF CR calculations.

Graph 4.2.4: Alternative Wage Convergence Scenario – Balance
% of GDP

Convergence
Baseline
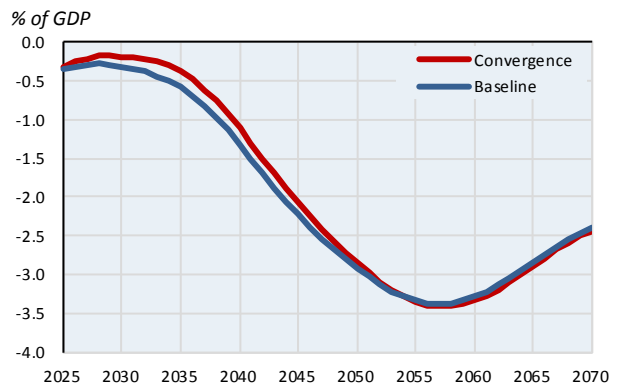
Source: MF CR calculations.

Graph 4.2.5: Alternative Life Expectancy Scenarios
% of GDP

Higher life expectancy
Baseline
Lower life expectancy
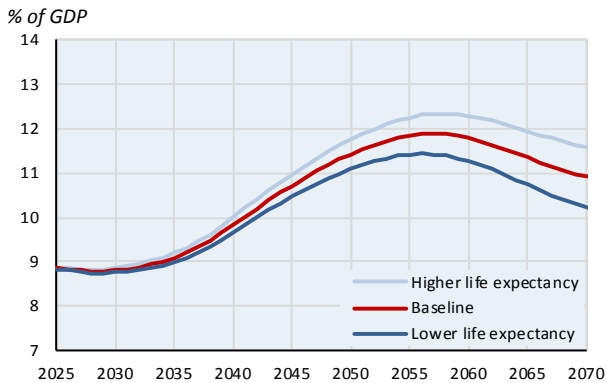
Source: MF CR calculations.

Graph 4.2.6: Alternative Fertility Rates Scenarios
% of GDP

Lower fertility
Baseline
Higher fertility
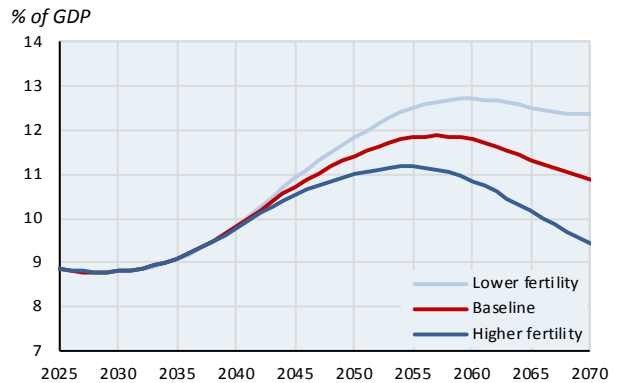
Source: MF CR calculations.

Graph 4.2.7: Alternative Retirement Age Scenarios
% of GDP

Stagnation at 63 years
Baseline
Growth of age to 67 years
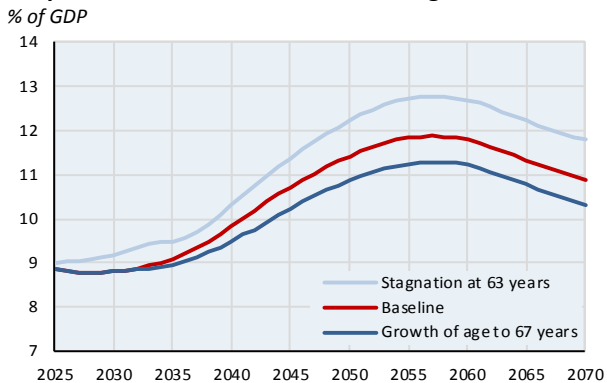
Source: MF CR calculations.

Graph 4.2.8: Alternative Migration Scenarios
% of GDP

Lower migration (by 33%)
Baseline
Higher migration (by 33%)
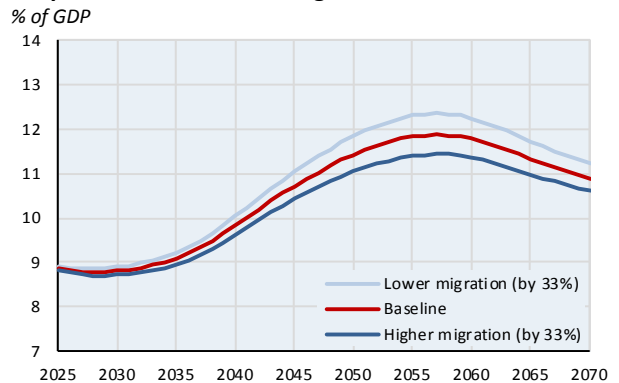
Source: MF CR calculations.

4.3 Borderline Parametric Adjustments

On 1 December 2020, the Organisation for Economic Co-operation and Development officially presented its **Review of the Pension System of the Czech Republic** (OECD, 2020), in which it presented several measures to increase the financial stability of the system in the long run. One of the main recommendations was to link the retirement age to life expectancy; other. alternatives included the adjustment of pension indexation to inflation and higher contributions to a funded pillar. These conclusions broadly replicate the three possible ways of addressing long-term financial imbalances.

However, the review does not offer a clear answer as to whether such adjustments to the system would be enough. We therefore devise three **borderline scenarios of the parametric adjustments** that would be needed to (approximately) balance the pension system cumulatively by 2070, under the provision of using only one of the approaches mentioned above in each case. Naturally, the condition of a cumulative balance is quite strong here and the scenarios draw on very simplistic assumptions.

In fact, in 2070 the balance need not be completely cumulatively zero. Demographic trends indicate some easing of pressures after 2060, which means that the balance could be cumulatively evened out later under less extreme parameters. Nor is it actually necessary to have strictly zero balance, because part of the pension expenditure could be financed from other sources. However, the horizon is determined by demographic and, in particular, macroeconomic assumptions. In this respect, a zero value for the cumulative balance is a clear criterion implying the strict sustainability of the system.

The scenarios do not take into account any change in the behaviour of the population in response to the altered parameters, e.g. decisions to work longer in response to lower indexation or, conversely, to retire early on a greater scale than at present if the retirement age were higher. Nor do they consider the negative effects that higher taxes, lower replacement rates, etc., would have on economic growth. Accordingly, the scenarios should be viewed as an indication rather than a recommendation.

For the **retirement age increase scenario**, there was an assumption that the current settings up to 2030 would remain in place and the ages for men and women would be harmonised. Thereafter, the retirement age increases by 0.5 years each calendar year. This implies a retirement age of 70 years for both sexes in 2040, the same level as Denmark has already set for this horizon. The rate at which the retirement age increases in this scenario is naturally higher than in Denmark, where the retirement age for 2030 is already 68, as opposed to 65 in the CR. To roughly even out the cumulative balance of the pension system (Graph 4.3.1), the retirement age would have to rise at this rate to 76, with people retiring at this age for the first time in 2051.

For the **scenario of a modified indexation** of pension benefits, we draw on a new adjustment starting in 2025. This is a scenario incorporating a sustainability factor at the replacement rate, similar to the one in Spain, for example. In order to reach a cumulative zero balance by 2070, under such conditions it would be necessary to carry out indexation at just a third of the inflation increase. This scenario (Graph 4.3.3) would significantly reduce the benefit ratio (i.e. the ratio of the average pension to the average wage) by more than 20%. For the sake of comparison, again, the replacement rate in Spain falls by 30% between 2020 and 2070.

Finally, the last parameter is an **increase in pension system revenues**, via either an increase in social security contributions or an adjustment to other taxes and the transfer of these resources to the pension system (Graph 4.3.4). Again, we assume a reference year of 2025, i.e. higher revenues would be collected from that year onwards and would remain constant relative to GDP. All things being equal, there would have to be a jump in pension system revenues by 2% of GDP, corresponding to an increase in the contribution rate from the current 28% to 34.6%.

The final variable for these scenarios is time. All the alternatives are based on the fact that there is a certain timing for the changes in the parameters. Needless to say, the later they start to change, the more vigorous they will have to be. If further increases in retirement age were introduced later, say from 2035 onwards, it would be necessary to raise the age to 78 years to even out the cumulative balance (Graph 4.3.2). The consequences of putting off a solution are similar for all the scenarios under consideration.

Graph 4.3.1: Balance at Higher Retirement Age from 2030
% of GDP
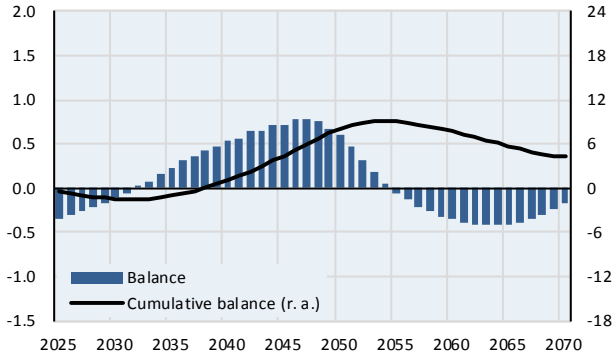
Source: MF CR calculations.

Graph 4.3.2: Balance at Higher Retirement Age from 2035
% of GDP
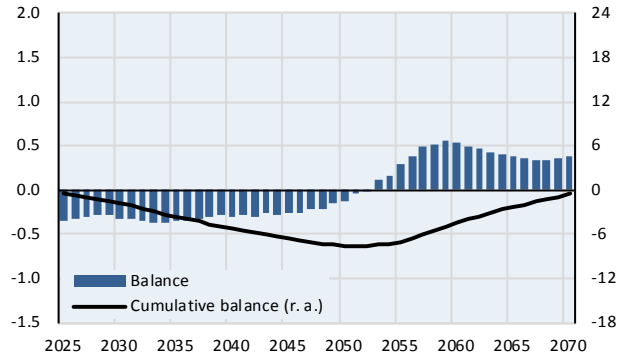
Source: MF CR calculations.

Graph 4.3.3: Balance at one Third of Inflation Indexation
% of GDP
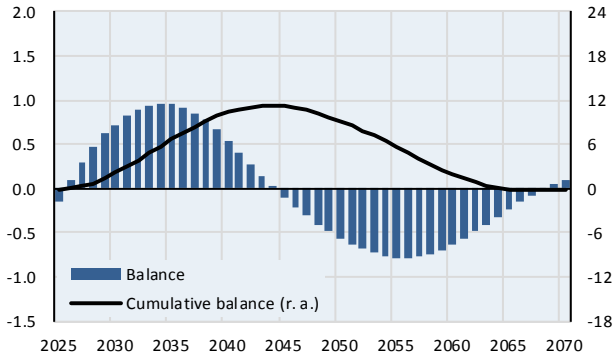
Source: MF CR calculations.

Graph 4.3.4: Balance at Premium/Tax Rates Increase
% of GDP
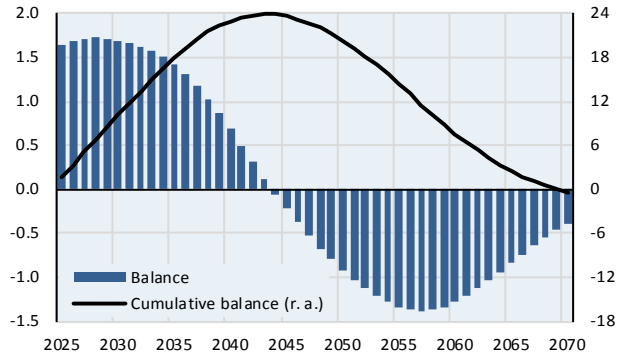
Source: MF CR calculations.

5 EU Funds and their Impact in the Czech Republic

European funds have been an important determinant of the Czech Republic's economic development for the second decade by now. They have played an important role not only in the past, but also have the potential to accelerate and consolidate the recovery from the crisis caused by the epidemic of a new type of coronavirus. The new multiannual European financial framework has been accompanied by the adoption of the "Next Generation European Union" instrument. Together, the two form the largest stimulus funded by a common budget in the history of the EU. The Czech Republic is entitled to around EUR 30 billion. In addition, funds can be used from instruments to support the transition to a low-carbon economy, in particular the Modernisation Fund.

The chapter focuses only on the financial issues, the scope of the resources, the level of allocation and the success of the use of the funds, which are crucial in terms of the impact on the Czech national economy. The primary focus is on cohesion policy (European regional policy), which aims to invest in increasing competitiveness and employment at regional level and raising living standards. The Common Agricultural Policy and EU programmes and common priorities are mentioned only marginally. These are large areas that would deserve their own chapters, and for the Czech Republic they account for less than a third of all revenue received from the EU budget to date.

The Czech Republic joined the EU on 1 May 2004. Although it signed its application to join the EU on 17 January 1996, accession negotiations began much earlier, de facto immediately after the Velvet Revolution. The whole process was concluded, as for the other nine candidate countries, at the European Council meeting in Copenhagen on 12–13 December 2002. Already during the pre-accession phase, the countries were able to benefit from several forms of financial assistance aimed at implementing the necessary administrative, structural and economic policy reforms. In addition, these programmes, namely Phare, ISPA and SAPARD, prepared the candidate countries for far larger funds after accession.

The financial relationship between the CR and the EU budget is indicated by the **net position**. This is the "balance of payments" to the EU budget and of funds received for agriculture, structural actions (including the Cohesion Fund), EU programmes (Community priorities) and pre-accession instruments.

In addition, in the first years after EU accession, the CR received compensations to prevent it from being a net payer. This would have meant that joining the EU would have worsened the CR's budgetary situation. The first part was cash-flow compensation to help the new Member States with the increased financial requirements resulting from EU membership. All new Member States received this compensation, but it was paid only in 2004. The next part was the budgetary compensation, which aimed to maintain the principle of an undiminished net financial position compared to 2003. This kind of compensation was only available to countries whose net position would be worse than in 2003 even after the cash-flow compensation was taken into account. The benchmark for the 2003 pre-accession aid allocation was set at EUR 170 million (Witzová, 2004). This applied only to the CR and Cyprus. Other parts were additional compensations resulting from the pre-accession negotiations, including transfers of part of the Structural Funds commitment to the budgetary compensations for the CR and Poland. After Poland, the CR received the second highest compensation of all new Member States.

Member States' contributions are part of the revenue of the EU budget, a source derived from gross national income and value added tax. From 1 January 2021, another own resource was introduced for the 2021–2027 budget (see below) – a contribution based on the amount of waste from non-recycled plastic packaging. A resource based on the Emissions Trading Scheme (EU ETS, already proposed in May 2018 but not agreed by Member States), a digital levy and a border carbon offsetting mechanism are also being considered. Other own resources could then be proposed to the EC in June 2024, e.g. a financial transaction tax (again, not agreed by Member States in the past) or adjustments in corporate taxation. Apart from levies, customs duties and other sources (carry-overs of surpluses from previous years, fines, etc.) constitute revenue for the EU budget.

Graph 5.1: Structure of CR's Revenue from the EU Budget
EUR bn.

Legend: Compensations, Pre-entry programmes, EU programmes, Agriculture, Structural actions, Total revenue from EU
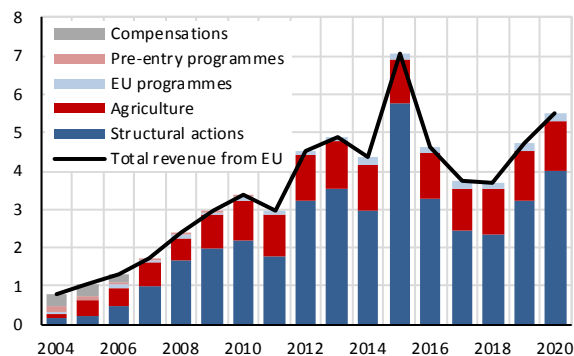
Source: MF CR.

Graph 5.2: Net Position of the CR
EUR bn.

Legend: Net position, Revenue from EU, Payments to EU
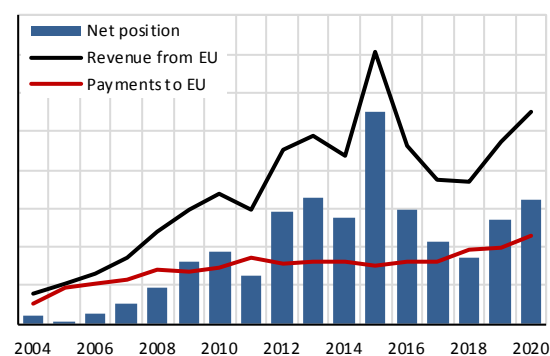
Source: MF CR.

5.1 Pre-entry Programmes

The **Phare** programme (Poland and Hungary Aid for Restructuring of the Economy) was governed by European Community Council Regulation 3906/89. Although originally intended to assist the reforms underway in Poland and Hungary, it was extended to other Central and Eastern European countries a year later by European Council Regulation 2698/90. The ISPA and SAPARD programmes were established in the late 1990s by Council Regulations 1267/1999 and 1268/1999. In addition to these pre-accession programmes, so-called Community priorities programmes were already available, but were not allocated to individual countries.

The Phare programme was designed to help meet the conditions set for EU accession. It was the main instrument for financing integration and cross-border cooperation between regions back then neighbouring the EU Member States, and also focused on projects in the fields of environment, transport, infrastructure development, telecommunications and nuclear safety. Funds from this programme were disbursed until almost the end of 2006. Over EUR 1 billion was allocated to the CR, of which EUR 514 million in total between 1998 and 2003.

The **ISPA** (Instrument for Structural Policies for Pre-Accession) programme was aimed at supporting investment projects in the field of environmental infrastructure and trans-European transport networks. The aim was to help candidate countries in the pre-accession period to meet EU environmental standards (water quality, air quality, waste management) and to build the quality transport infrastructure (reconstruction and construction of transport networks) needed for economic development. Individual projects were limited to a minimum financial requirement of EUR 10 million. The approved EU budget for ISPA was EUR 1.04 billion per year (in 1999 prices) for all ten candidate countries for the period 2000–2006. The exact amount of assistance was not specified for each country, only a range. For the CR, the range was between 5.5% and

8% of the annual allocation. The programme was used from 2000 onwards, and after EU accession the projects paid from it were transferred to the Cohesion Fund. Projects were financed by the EU at a maximum of 75%, except for technical assistance and exceptional situations (floods in 2002) where support could be higher. After preparation and approval, individual projects were committed by contracts (financing memoranda). These determined the maximum eligible costs and the share of co-financing from the EU. The CR was thus allocated with a total of around EUR 0.5 billion from the ISPA programme (see Table Table 5.10.2 for details).

The Special Accession Programme for Agriculture and Rural Development (**SAPARD**) provided investment in agriculture and rural development. Its aim was to focus candidate countries on Common Agricultural Policy and rural development priorities and to teach them how to use EU financial procedures and control mechanisms.

The European Union made EUR 520 million per year available for SAPARD from the European Agricultural Guidance and Guarantee Fund for all ten candidate countries. The programme could be committed between 2000 and 2006, but no later than the date of the country's accession to the EU. The programme started in the CR in April 2002 and contracting ended on 31 December 2003. Between 2000 and 2003, EUR 92.8 million was allocated to the CR. The reimbursement of SAPARD projects was closed on 30 November 2005, when the entire allocation from 2000 to 2003 was exhausted (SAIF, 2009).

Support under SAPARD was focused on three priority areas: increasing the competitiveness of agriculture, sustainable development of rural areas and technical assistance. The predominant co-financing rate was 75%, except for part of the second priority area (rate of 60% in 2003 to 2006) and flood damage financing (rate of 80%).

For Phare, the CR used 90% of the funds (Table 5.10.1), for SAPARD it used the whole allocation even in advance

and according to the SAIF (2004) the best of all candidate countries. For ISPA, the assessment is more complicated because the assistance continued after the accession from the Cohesion Fund, and the allocation was not fixed but varied within a range. The SAO (2008) reports the latest stand-alone utilisation rate for the ISPA programme as at 31 December 2007 at 78%. The EPRC (2012) indicative evaluation of the Cohesion Fund including ISPA shows that the CR utilised 89.2% of the funds, which was also the highest of all countries.

As already mentioned for ISPA and SAPARD, the CR was also able to use EU funds in the context of the massive floods in 2002. However, resources were also transferred from other programmes (including Phare) and funds, in particular from the Solidarity Fund. Total EU assistance in relation to these floods amounted to EUR 182.5 million (see Table 5.1.1).

Table 5.1.1: Sources of Aid after the 2002 Floods
EUR mil.

		NP Phare 2001	NP Phare 2002	ISPA	Solidarity Fund	SAPARD	Recovery 2002	Total
Aid from the EU	*EUR mil.*	10.5	1.0	30.0	129.0	7.2	4.8	**182.5**

Source: MMR (2004).

5.2   Programming Period 2004–2006

With the accession to the EU, the possibility of using the European Structural Funds from the ongoing **financial perspective 2000–2006** has opened up. The total allocation for all EU countries of EUR 286 billion was divided between the Structural Funds (EUR 218 billion), the Cohesion Fund (EUR 21 billion), pre-accession aid (EUR 7 billion) and assistance to new member states (EUR 40 billion), see Bollen (1999). The 2000–2006 programming period focused on three objectives:

− Support for the development of lagging regions (regions with a GDP per capita below 75% of the EU average),

− support for areas facing restructuring (intended for areas not meeting the condition of a GDP below 75% of the EU average),

− employment and education policy.

The Czech Republic received an allocation of EUR 2.6 billion for the period (see Table 5.2.1). The set objectives were pursued during the 2004–2006 shortened period through four sectoral operational programmes, one regional programme – the Joint Regional Operational Programme and the Community Initiatives Interreg III, Equal, Leader+ and Urban (the latter two were not reported separately for the CR).

Financial resources for these operational programmes and initiatives came from four funds. The European Regional Development Fund was the largest in volume and was used to finance investment projects. The European Social Fund was intended for economic and social cohesion, in particular labour market and social programmes. The Financial Instrument for Fisheries Guidance was launched in 1994 to support the EU fisheries sector. It was replaced by the European Fisheries Fund in 2007. The European Agricultural Guidance and Guarantee Fund was intended to support and modernise agriculture, rural development and in the field of guarantees in agricultural exports; since

2007 it has been replaced by the European Agricultural Fund for Rural Development. Table 5.2.2 shows the percentages of each fund for the operational programmes.

The Cohesion Fund is an important part of cohesion policy, financing major investment projects in transport and the environment. EU Member States whose gross national income per capita is below 90% of the EU average are eligible. After 1 May 2004, these were Greece, Portugal, Spain, Cyprus, the CR, Estonia, Hungary, Lithuania, Latvia, Malta, Poland, Slovakia and Slovenia. In 2004–2006, the Cohesion Fund had a total of EUR 15.9 billion (2004 prices). More than half (EUR 8.49 billion) was reserved for the new Member States. The CR received an allocation of EUR 945.3 million. In addition, funds were transferred from the pre-accession instrument ISPA (see section 5.1).

The allocation for the period 2004–2006 for structural actions (excluding the Cohesion Fund) was EUR 1 692.6 million, increased during the programming period for the Interreg Initiative by less than EUR 8 million (difference from the figures shown in Table 5.2.1). After the inclusion of part of the ISPA pre-accession instrument in the Cohesion Fund, its total allocation was EUR 1 230.5 million.

The actual use of the funds in the 2004–2006 perspective was subject to the "n+2 rule", which defines that a commitment that starts in year "n" must be implemented in the following two years at the latest, including controls, approval of the final report and sending of materials to the EC. Due to the financial and economic crisis, the deadline for the use of Structural Funds was extended from 31 December 2008 to 30 June 2009. The n+2 rule did not apply to Cohesion Fund projects, which had to be completed by 31 December 2010 at the latest (Staroňová, 2007). For 6 Cohesion Fund projects, the deadline for permitted

implementation was also postponed by one year (SAO, 2011).

The Czech Republic used almost the full amount of the allocated funds (Table 5.2.3). When the programmes were closed and the last payment requests were sent, the utilisation rate was 99.54% (MF CR, 2010). After taking into account irregularities and unapproved expenditure, as well as the amount of EUR 2.2 million still under negotiation, the final figure was at least 98%. For some programmes the take-up was relatively slow. Davies and Gross (2006) report that at the end of 2006 the CR was the second worst in the EU for absorption of Structural Funds, behind Cyprus. The uptake of EU funds accelerated substantially after 2006. The rate and speed of uptake of funds is fundamentally influenced by the sufficiency of projects in the pipeline (Table 5.2.4). Overall, the number of applications submitted in programmes outside the Cohesion Fund was roughly twice as high as the number received, with the largest overhang of applications in the Human Resources Development Operational Programme and the smallest in Agriculture.

For the sake of completeness, the national funds that were complemented by European funds should also be taken into account. In the first financial perspective, the rate of national funding was a maximum of 25% for Objective 1 and Community Initiatives (but realistically higher for agriculture, for example), and 50% for Objectives 2 and 3. The total share of national resources then reached 28% (MMR, 2010). For the Cohesion Fund, the threshold for the national share of financial resources was set at a minimum of 15%, but it was common for national involvement to reach 40 to 50%. The Cohesion Fund then changed in 2006, and in the next financial perspective 2007–2013 the conditions moved closer to the Structural Funds.

In addition to the Structural Funds and the Cohesion Fund, the CR also benefited from the Transition Facility. The Transition Facility built on the Phare programme, with funds going to finance and banking, nuclear safety, civil society development, social affairs, justice, home affairs, internal market, health, agriculture, environment and transport. It was possible to use EUR 28.1 million of the total allocation of EUR 36.06 million (i.e. 78%).

Table 5.2.1: Allocation for the Czech Republic in the Programming Period 2004–2006
EUR mil.

	2004	2005	2006	2004–06
Cohesion Fund	**316.9**	**266.1**	**362.3**	**945.3**
Structural funds	**381.5**	**528.9**	**674.0**	**1 584.4**
Objective 1 (13 regions)	339.0	485.5	629.8	1 454.3
Objective 2 (Prague)	23.3	23.8	24.2	71.3
Objective 3 (Prague)	19.2	19.6	20.0	58.8
Community Initiatives	**28.6**	**32.1**	**40.1**	**100.8**
Interreg	21.0	21.4	26.3	68.7
Equal	7.6	10.7	13.8	32.1
Structural operations total	**727.0**	**827.1**	**1 076.3**	**2 630.5**

Source: MMR (2021a).

Table 5.2.2: Linking Operational Programmes to the European Structural Funds
% of total allocation

	ERDF	ESF	EAGGF	FIFG	All funds
OP Industry and Enterprise (MIT)	17.9				17.9
OP Infrastructure (MoE)	16.9				16.9
OP Human Resources Development (MoLSA)		21.9	0.0		21.9
OP Rural Development and Multifunctional Agriculture (MoA)			11.5	0.5	12.0
Joint Regional Operational Programme (MMR)	28.0	3.3			31.2
All Operational programmes	**62.9**	**25.2**	**11.5**	**0.5**	**100.0**

Note: ERDF is the European Regional Development Fund, ESF is the European Social Fund, FIFG is the Financial Instrument for Fisheries Guidance, EAGGF is the European Agricultural Guidance and Guarantee Fund. MIT is the Ministry of Industry and Trade, MoE is the Ministry of Environment, MoLSA is the Ministry of Labour and Social Affairs, MoA is the Ministry of Agriculture and MMR is the Ministry for Regional Development. Totals do not add up exactly due to rounding.
Source: MMR (2021a).

Table 5.2.3: Development of the Use of Funds from the 2004–2006 Perspective
% of allocation

	2006	2007	2008	2009	2010	2012	30.9.2021
Joint Regional Operational Programme (MMR)	24.8	71.5	86.8	101.0	99.7	99.5	99.6
OP Industry and Enterprise (MIT)	0.2	45.9	72.2	99.3	99.3	96.2	98.3
OP Human Resources Development (MoLSA)	0.1	41.4	64.3	104.3	100.0	100.0	100.0
OP Infrastructure (MoE)	0.4	70.1	80.9	80.9	100.0	98.6	99.8
OP Rural Development and Multifunctional Agriculture (MoA)	0.3	66.4	84.4	98.1	97.4	97.3	97.4
Single Programming Document for Prague Objective 2	19.1	54.5	75.7	100.6	100.0	96.1	100.0
Single Programming Document for Prague Objective 3		50.2	77.5	100.5	100.0	100.0	100.0
Interreg Initiative	22.0	73.5	99.7	109.4	100.0	100.0	100.0
Equal Initiative		48.2	82.0	102.5	100.0	100.0	100.0
Cohesion Fund	0.0	36.9	62.3	76.8	86.3	94.4	96.1

Note: The decrease between 2009 and 2010 for some programmes is due to the 10% flexibility, i.e. the transfer of part of the funds between the ESF and the European Regional Development Fund. MIT is the Ministry of Industry and Trade, MoE is the Ministry of Environment, MoLSA is the Ministry of Labour and Social Affairs, MoA is the Ministry of Agriculture and MMR is the Ministry for Regional Development. Totals do not add up exactly due to rounding.The decrease between 2010 and 2012 is due to corrections, refunds after the end of the perspective. The figures for the Prague and Initiative programmes were merged into one overall figure in 2006.
Source: Year 2006: Staroňová (2007), other years: SAO, MF CR.

Table 5.2.4: Acceptance Rate of Applications in Individual Operational Programmes
number of applications and projects, acceptance rate in %

	Applications submitted	Projects implemented	%
OP Industry and Enterprise (MIT)	5 220	2 810	53.8
OP Human Resources Development (MoLSA)	7 500	2 630	35.1
OP Infrastructure (MoE)	930	400	43.0
OP Rural Development and Multifunctional Agriculture (MoA)	4 980	3 600	72.3
Joint Regional Operational Programme (MMR)	5 660	2 780	49.1
Single Programming Document for Prague Objective 2	410	290	70.7
Single Programming Document for Prague Objective 3	1 790	780	43.6
Total	26 490	13 290	50.2

Source: MMR (2021a). MF CR calculations.

5.3 Programming Period 2007–2013

The **2007–2013 programming period** brought several changes to the structure of European regional policy. Some financial instruments were merged or replaced and regional policy objectives were realigned. Strictly defined structural actions were reduced to 3 funds (European Regional Development Fund, European Social Fund and Cohesion Fund). Agriculture and fisheries were financed by funds which, although not structural, performed similar functions. The European Agricultural Fund for Rural Development financed projects aimed at increasing the competitiveness of agriculture, food and forestry. The European Fisheries Fund aimed at the sustainable development of fisheries and aquaculture. Overall, therefore, the number of funds or instruments fulfilling the role of funds remained similar.

However, there has been more clarity in the definition of regional policy objectives and the Structural Funds have financed projects under 3 objectives (see Table 5.10.5):
− the Convergence objective aimed at regions with GDP per capita below 75% of the EU average and

raising their economic level (applicable to the whole of the CR except Prague),
− the Regional competitiveness and employment objective focusing on the more developed regions with GDP per capita above 75% of the EU average and strengthening their competitiveness through innovation, improving the environment and strengthening employment (applicable in the CR only to Prague),
− European Territorial Cooperation objective, strengthening cross-border, interregional and transnational cooperation, including exchange of experience, support for research, etc. (all regions of the CR).

The emphasis on reducing regional disparities in economic level and development was also reflected in the distribution of funds throughout the budget. The Convergence objective had the largest allocation (81.5%), followed by the Regional competitiveness and employment objective (16%) and the European territorial cooperation objective (2.5%).

The CR received an allocation of EUR 26.692 billion, which was slightly increased to EUR 26.759 billion between 2007 and 2013 by several adjustments. A total of 26 operational programmes were established under the 3 objectives, of which 8 thematic, 7 regional, 2 for Prague and 9 cross-border. However, only 1 of the cross-border ones was managed by the Czech side. Table 5.10.6 shows a list of the operational programmes including the coordinators.

The thematic operational programmes had an (initial) financial allocation of EUR 21.30 billion and the regional programmes EUR 4.66 billion. The operational programmes for Prague (EUR 0.34 billion) and cross-border (EUR 0.39 billion) were smaller in volume. The aforementioned small increase in allocations between 2007 and 2013 then slightly adjusted these allocations, with the thematic operational programmes, regional and Prague as a whole being increased by about EUR 0.2 billion.

Table 5.3.1 shows the allocations for each thematic, regional and Prague operational programme, including the funds that finance each programme. A total of EUR 26.3 billion (EUR 26.5 billion after adjustment) was allocated under the Convergence and Competitiveness objectives, of which about 14% was financed by the European Social Fund and the rest by the primary investment funds (European Regional Development Fund and Cohesion Fund). For the sake of completeness, the allocation under the Rural Development Operational Programme was EUR 2.82 billion (EUR 2.86 billion after adjustments), while EUR 27.11 million was allocated to the Fisheries Operational Programme.

The CR used 96.3% of the allocation (96.6% after including the agricultural operational program-mes), but the implementation of the funds was considerably problematic. In particular, due to a significant acceleration at the end of the perspective, the final percentage of utilisation of the allocation was 0.1 percentage points higher than the EU average (SAO, 2017).

The use of funds was governed by the "n+3 rule" for allocations for 2007 to 2010, while the "n+2 rule" applied for allocations for 2011 to 2013. This resulted in 2013 being the cut-off date for both 2010 and 2011 allocations. Thus, this rule was not met for the first time in 2013 and the CR lost about EUR 0.4 billion and another EUR 0.3 billion in 2014 (see Table 5.10.7). Table 5.3.2 shows the progression of spending in individual years for thematic, regional and Prague operational programmes.

Several factors influenced the success of the drawdown. Corrections were imposed on some operational programmes during the period, totalling EUR 726.3 million, of which the highest correction was in the Transport operational programme (EUR 355.4 million). However, these corrections did not reduce the total amount of the allocation as ineligible expenditure was replaced by other eligible expenditure. Another factor was the slow progress of project preparation and administration, which led to a loss of funds in 2013 and 2014, and then at the end of the perspective of EUR 1 billion (see Table 5.10.7). The utilisation rate (in CZK) was also affected by the foreign exchange intervention regime, whereby the CNB depreciated the exchange rate of the CZK against the euro, which resulted in, among other things, an increase in the allocation in national currency. In general, it can be seen that the higher rate of utilization of funds was in investment operational programmes, relatively the least successful were the programmes managed by the Ministry of Education, Youth and Sports (if we do not count the operational programme of technical assistance), which account for almost half of the unused funds for the CR.

Again, for completeness, it should be added that the co-financing rate of EU funds in the 2007–2013 programming period was a maximum of 85%, i.e. national funds accounted for at least another 15% of the (utilized) allocation.

Table 5.3.1: Allocation of the Programming Period 2007–2013 to Thematic, Regional and Prague Operational Programmes
EUR mil.

	Fund	Original allocation	Adjusted allocation	Difference
Transport	ERDF, CF	5 774	5 821	47
Environment	ERDF, CF	4 918	4 918	0
Entreprise and Innovation	ERDF	3 041	3 121	79
Research and Development for Innovations	ERDF	2 071	2 071	0
Integrated OP	ERDF	1 582	1 619	37
Technical Assistance	ERDF	248	176	-72
Employment and Human Resources	ESF	1 837	1 901	64
Education for Competitiveness	ESF	1 829	1 772	-57
Thematic total		**21 300**	**21 399**	**98**
Northwest	ERDF	746	763	17
Moravia-Silesia	ERDF	716	751	35
Southeast	ERDF	704	720	16
Northeast	ERDF	656	671	15
Central Moravia	ERDF	657	672	15
Southwest	ERDF	620	634	14
Central Bohemia	ERDF	559	572	13
Regional total		**4 659**	**4 783**	**124**
Prague Competitiveness	ERDF	235	243	8
Prague Adaptability	ESF	108	115	6
Total Prague		**343**	**358**	**15**
Total		**26 303**	**26 540**	**237**

Note: ERDF is the European Regional Development Fund, ESF is the European Social Fund, CF is the Cohesion Fund. The difference between the amount of EUR 26.759 billion and the amount in the table is the allocation for the CR–Poland cross-border programme.
Source: MMR (2021a), SAO (2017).

Table 5.3.2: Progress in Implementation of Individual Operational Programmes in the Programming Period 2007–2013
% of allocation

	2008	2009	2010	2011	2012	2013	2014	2015	30.9.2021
OP Transport	0.0	5.9	16.7	16.4	29.8	52.7	58.5	67.0	100.0
OP Environment	0.4	1.6	7.4	7.3	25.0	42.4	73.1	84.1	94.4
OP Entreprise and Innovation	0.0	5.3	9.7	19.7	32.1	35.5	77.2	86.2	100.0
OP Research and Development for Innovations	0.0	0.0	0.1	2.2	10.4	33.4	60.8	78.0	85.0
OP Education for Competitiveness	0.0	0.0	1.6	7.9	22.6	46.0	73.7	85.1	90.1
OP Employment and Human Resources	0.0	0.1	10.4	22.4	35.8	52.3	73.2	84.8	99.8
Integrated OP	0.0	0.3	5.6	15.4	25.3	46.0	65.7	71.8	97.2
OP Technical Assistance	0.0	0.9	6.8	15.8	29.8	45.3	76.1	73.7	64.1
ROP Northwest	0.0	1.6	15.5	24.4	24.4	54.8	65.6	76.7	87.7
ROP Moravia-Silesia	1.2	3.8	17.3	29.5	41.9	58.0	74.2	86.4	100.0
ROP Southeast	0.0	3.3	33.8	50.2	58.5	56.8	77.4	86.2	100.0
ROP Central Moravia	0.0	6.4	32.6	43.9	52.9	58.6	78.2	86.2	100.0
ROP Northeast	0.7	3.6	30.9	47.6	47.1	67.1	76.6	86.2	100.0
ROP Southwest	1.1	3.4	3.6	31.7	44.6	58.1	74.4	86.2	99.1
ROP Central Bohemia	0.0	4.2	13.3	32.7	32.3	61.9	76.6	86.2	100.0
OP Prague Competitiveness	0.0	7.4	14.4	14.9	32.9	55.1	77.3	85.2	100.0
OP Prague Adaptability	0.0	0.1	13.0	30.4	45.8	54.0	72.6	80.3	88.7

Source: MMR (2021a) – Monthly monitoring reports (December 2008–2013), Disbursement summary (December 2014–2015), MF CR.

5.4 Programming Period 2014–2020

The preparation of this programming period started already in the middle of the 2007–2013 period and the negotiations themselves started in June 2011. However, the basic strategic document, the Partnership Agreement, was not approved by the EC until 26 August 2014. The implementation of the programmes thus started late, one of the main reasons being the rejection of the Multiannual Financial Framework approved by the European Council by the European Parliament. Thus, the actual use of funds from the 2014–2020 perspective did not actually start until 2016.

The new financial perspective has again brought several changes and simplifications. The number of objectives has been reduced to 2: Investment for growth and jobs and European territorial cooperation. Furthermore, the division of European regions into 3 categories according to economic performance has been applied since this perspective. Finally, the funds relating to agriculture (European Agricultural Fund for Rural Development) and fisheries (European Maritime and Fisheries Fund) have returned to the Structural Funds, now called the European Structural and Investment Funds. In addition, in the area of transport, part of the funds for CR (EUR 1.1 billion) have been transferred from the Cohesion Fund to the Connecting Europe Facility and in the area of employment to the Youth Employment Initiative.

The CR has significantly reduced the number of operational programmes (Table 5.10.8). Cross-border programmes have remained, while the number has increased for interregional and transnational cooperation. For Prague, there was a reduction to one operational programme, as well as for programmes under the responsibility of the Ministry of Education, Youth and Sports. Finally, regional programmes have been incorporated into one (see Table 5.10.9 for an overview).

The "n+3 rule" for the use of funds from operational programmes was applied for the whole period, therefore funds can be drawn until the end of 2023. The EU co-financing rate was set as follows (MF CR, 2014):
- 85% for the Cohesion Fund,
- 85% for less developed regions (GDP per capita below 85% of the EU average),
- 50% for more developed regions,
- 85% for European Territorial Cooperation programmes.

In addition, the maximum European contribution for the Rural Development Programme is 85% of eligible public expenditure in less developed regions (in the CR, projects from the European Agricultural Fund for Rural Development are only supported in this type of region), and for the Fisheries Operational Programme financed by the European Maritime and Fisheries Fund, the

maximum co-financing rate is 75% of eligible public expenditure.

The CR received almost EUR 3 billion less under the 2014–2020 financial perspective than in the previous one. This is due to the higher maturity of the Czech regions relative to the EU average. The allocation in the first Partnership Agreement was EUR 23.845 billion. Subsequently, several adjustments were made, resulting in a slight increase in the allocation to EUR 23.865 billion, while the allocations were continuously changed between operational programmes. In terms of the share of each Fund in commitments, the European Social Fund (including the Youth Employment Initiative) accounts for less than 15%, the Agriculture and Fisheries Funds together for 10% and the Primary Investment Funds for the remaining 75%. In addition, the European Territorial Cooperation contributes an allocation of EUR 340 million. The total allocation is therefore EUR 24.21 billion.

The allocation was further increased at the end of 2020, with increases in the Integrated Regional Operational Programme and the Rural Development Programme allocations. The Integrated Regional Operational Programme has been increased in the context of the allocation of the new REACT-EU Investment Facility, which supports the EU in recovering from the COVID-19 crisis and preparing for a green, digital and resilient recovery. The allocation has so far been increased by EUR 834.78 million for 2021, the total amount will depend on the actual economic impact of the epidemic (estimated at EUR 1.04 billion).

Table 5.4.1 shows the progress of disbursements to date. The total allocation corresponds to EUR 25.35 billion (i.e. including REACT-EU). Due to delays in the preparation of the legislative framework for the post-2020 Common Agricultural Policy, additional support to Member States for 2021 and 2022 was approved in December 2020, specifically for the CR by EUR 762.21 million for the Rural Development Programme, but these funds fall within the allocation of the 2021–2027 financial framework.

At the same time, the CR is successfully complying with the "n+3 rule". Initially, in all EU countries, 6% of the allocation was bound as a reserve to be dissolved once the performance conditions were met. The CR managed to comply with these and therefore reaches the full allocation. According to the MMR (2021b), at the end of Q2/2021 the conditions of the "n+3 rule" were met for all operational programmes. So far, the CR has always managed to comply with the rule at the end of each year and has not lost any funds.

Moreover, the use of funds is improving over time. A comparison of the first quarters of each year shows that in 2018 (effectively the first relevant year for the

assessment of the "n+3 rule") only the operational programmes Employment, Transport, Technical Assistance and Rural Development complied with the rule. One year later, the CR–Poland cross-border programme joined them. However, in the first quarter of 2020 (as well as 2021) all programmes already complied with the rule, except Prague – growth pole, Entrepreneurship, Innovation and Competitiveness, Fisheries.

Table 5.4.1: Evolution of Payment Requests sent to the European Commission
% of total allocation

Operational Programme	2016	2017	2018	2019	2020	30.9.2021
Rural development programme	17.0	28.9	43.8	62.0	76.0	90.4
OP Prague Growth Pole	0.0	1.8	17.4	29.1	41.8	75.4
OP Technical Assistance	5.1	18.2	32.5	47.8	63.0	74.6
OP Employment	6.7	17.4	32.9	48.4	52.1	69.1
OP Research, Development and Education	0.2	4.3	19.7	35.7	51.6	65.8
OP Environment	0.1	8.0	23.2	36.8	51.3	65.7
OP Transport	1.0	17.4	27.9	39.9	53.7	65.0
Integrated Regional Operational Programme	0.0	2.2	16.5	32.2	46.6	59.1
OP Enterprise for Innovation and Competitiveness	0.1	6.6	18.5	31.9	48.7	55.4
OP Fisheries	0.0	5.9	20.2	33.3	43.1	49.0

Note: The Rural Development Programme is recalculated to the original allocation. The Integrated Regional Operational Programme is recalculated for the past to the current allocation.
Source: MMR (2021a). MF CR calculations.

5.5 Programming Period 2021–2027

The preparation of the new financial framework for 2021–2027 was significantly affected by the epidemic situation. The preparation of the legislative framework was even more delayed than in the case of the 2014–2020 programming period, which started with a two-year delay (only the cross-border programme CR–Bavaria had an allocation for 2014, while the other operational programmes were delayed in their approval, and the first commitments for them were made only in 2015). However, the shape of the new programming period is already known: the European Council reached a consensus in July 2020, the European Parliament in December 2020 (Čekal, 2021).

The Financial Perspective has to be considered comprehensively with the newly approved Next generation EU instrument (see section 5.6). In general terms, the funds are divided into 7 headings (Single Market, Innovation and Digitalisation; Cohesion, Resilience and Values; Natural Resources and Environment; Migration and Border Protection; Security and Defence; Neighbourhood and the World; European Public Administration). The Next Generation EU has strengthened the first 3 headings, wherby 96% directed to the Cohesion, Resilience and Values heading.

The 2021–2027 budget includes a flexible reserve to be used in case of sudden shocks such as natural disasters or states of emergency etc. The amount earmarked for this purpose is EUR 21 billion (2018 prices), of which EUR 5 billion is assigned as compensation for the countries and sectors most affected by the UK's departure from the EU (EC, 2021a).

As mentioned in the previous section, since the 2014–2020 perspective, the EU regions have been divided into 3 parts according to their level of development, and for the period 2021–2027 the boundaries between transition and more developed regions have been adjusted from 90% to 100%:
− less developed with GDP per capita below 75% of the EU average,
− transition with GDP per capita between 75 and 100% of the EU average,
− more developed with GDP per capita above 100% of the EU average.

No region of the CR was classified as transition in the 2014–2020 period. Due to economic growth, this category is already relevant for the new Financial Perspective, namely the South-West, South-East and Central Bohemia regions. The share of co-financing then varies according to the region to which the EU funds are directed:
− less developed regions – maximum 85%,
− transition regions no more than 70%,
− more developed regions no more than 40%.

It is clear from the above that the demands on national resources will increase with the start of the new programming period. Under the so-called matching principle, the beneficiary of EU subsidies from all regions will share equally, while the difference in co-financing will be compensated by the state budget (Čekal, 2021).

The thematic objectives of the 2014–2020 financial perspective have already shown an emphasis on climate

change, low-carbon economy, digitalisation or social inclusion (MMR, 2017). These thematic objectives now appear directly in the priorities of the entire financial cycle:

− Smarter Europe (innovation, digitisation, support to SMEs),
− Greener, carbon-free Europe (climate change, energy savings, renewable energy),
− More connected Europe (strategic transport network, mobility),
− More social Europe (education and skills development, social inclusion, equal access to healthcare),
− Europe closer to citizens (sustainable urban development, local development strategies).

The CR will pursue these objectives through 9 thematic operational programmes. Outside of these, there will be a Rural Development Programme, which (again) does not fall under structural actions. In addition, cross-border, interregional and transnational programmes will be implemented. Of the cross-border ones, as in the previous two perspectives, only the Czech–Polish programme will be administered by the Czech side, namely the Ministry for Regional Development.

The allocation of funds is EUR 21.1 billion for the thematic operational programmes. The breakdown for the thematic operational programmes is presented in Table 5.10.10. In addition to these funds, there is an allocation of EUR 2.1 billion for the Rural Development Programme (including an increase of EUR 0.762 billion for 2021 and 2022, see previous chapter), EUR 1.4 billion in the national envelope under the Connecting Europe Facility (MT, 2020) and EUR 0.3 billion for the Interreg programme.

Funding for the programmes will be through EU funds (effectively identical to the European Structural and Investment Funds, see previous section), except for the Just Transition Operational Programme, which will be funded by the newly created Just Transition Fund. This was created in 2020 as the first pillar of the Just Transition mechanism. The other pillars are the directly targeted part of the InvestEU financial instrument and a lending scheme managed by the European Investment Bank. The Fund, with a total allocation of EUR 1.6 billion, will support the economic diversification and transition of the most affected regions, especially coal regions, and mitigate the socio-economic impacts of their transition (coal mining decline, economic transformation, etc.). The programme covers 3 regions in the CR: Moravian-Silesian (46.1% of the allocation), Ústí nad Labem (38.6%) and Karlovy Vary (15.3%).

5.6 Next Generation EU

During the negotiations on the Multiannual Financial Framework, a global epidemic crisis erupted in spring 2020 due to the spread of a new type of coronavirus. On 27 May 2020, the EC presented a proposal to set up a temporary instrument to help with the recovery of economies by encouraging public and private investment. The European Council reached political agreement at its extraordinary meeting on 21 July 2020, and the European Council and the European Parliament also reached agreement by the end of 2020. The completion of the whole process thus took place virtually in parallel with the adoption of the budget for the 2021–2027 financial framework.

The overall package has an amount of EUR 806.9 billion, of which EUR 723.8 billion is allocated to the **Recovery and Resilience Facility**. This amount is further divided into grants of EUR 338 billion (reinforcing existing programmes) and soft loans to Member States totalling EUR 385.8 billion (EC, 2021a). The instrument also specifies that at least 37% of the allocated funds must go to climate change investments and reforms and 20% to digital transformation. Meeting these targets through specific projects in each Member State includes a roadmap for recovery and resilience.

The remaining 10% of the funding (EUR 83.1 billion) of the EU's Next Generation instrument will strengthen cohesion policy through REACT-EU (EUR 50.6 billion), the Just Transition Fund (EUR 10.9 billion), Rural Development (EUR 8.1 billion), InvestEU (EUR 6.1 billion), Horizon Europe (EUR 5.4 billion) and RescEU (EUR 2 billion). InvestEU is designed to support investment in sustainable infrastructure, digitalisation, SMEs and to contribute to social investment and skills. Horizon Europe (successor to Horizon 2020) is the largest of the Community priorities programmes (see section 5.8), focusing on supporting science and innovation. RescEU strengthens mechanisms in the civil protection of EU citizens in the aftermath of disasters that a country is unable to deal with on its own, given the scale of the events.

The Next Generation EU instrument will be backed by borrowing by the EC (on behalf of the EU) on the financial markets. The EU uses its high credit rating to secure the most favourable terms, which it then mediates to Member States. The repayment of these loans will take place between 2028 and 2058. Additional own resources are being considered for loan repayments (see section on net position).

The CR has an allocation of EUR 7.1 billion under the Recovery and Resilience Facility, which is around 2% of the total allocation. This amount is indicative and will be recalculated in June 2022 on the basis of actual macroeconomic data on economic developments in Member States in 2020 and 2021. In addition, the CR

has an allocation of around EUR 1.04 billion from REACT-EU to reinforce other funds and programmes, in particular for health care and the integrated rescue system (MMR, 2021c), EUR 0.186 billion for Rural Development and EUR 0.923 billion for the Just Transition Fund (see section 5.5).

The **National Recovery Plan of the Czech Republic** (MIT, 2021) was approved by the Council in September 2021. It contains reforms and investments totalling CZK 191 billion, of which CZK 179 billion will be financed from the Recovery and Resilience Facility, the rest should be co-financed from national resources. The plan is divided into 6 thematic areas (pillars), which are linked to the pillars defined in the document Theses of the Economic Strategy of the CR 2020–2030:

- Digital Transformation,
- Physical Infrastructure and Green Transition,
- Education and Labour Market,
- Institutions and regulation and support for entrepreneurship,
- Research, Development and Innovation,
- Population health and resilience.

Each pillar then consists of components (from 2 for Health and Resilience to 9 for Physical Infrastructure and Green Transition).

Infrastructure and Green Transition receives the largest amount of funding. Specifically, the amount is 85.2 billion CZK, which represents 44.7% of the total volume of the National Recovery Plan. The share of funding from the Recovery and Resilience Facility is 98.1%. The second most important pillar in terms of volume is Education and Labour Market with an allocation of CZK 41 billion, 99% of which is covered by EU resources. Digital Transformation (CZK 27.9 billion) and Health and Resilience (CZK 12.4 billion) should then be fully covered by EU funds. The pillars Institutions and Regulation and Support for Entrepreneurship (EUR 10.9 billion) and Research, Development and Innovation (EUR 13.2 billion) are then covered by the Recovery and Resilience Facility at 60% and 62% respectively.

In terms of the climate change and digitalisation targets, the National Recovery Plan meets the first target at 39.4% (i.e. 2.4 pps above the threshold and equivalent to CZK 75 billion) and the second target at 21.1% (1.1 pps above the minimum and equivalent to CZK 40.3 billion). The Green Agenda is mainly driven by the Physical Infrastructure and Green Transition pillar with a share of 88%. In contrast, the Digital Transformation pillar accounts for 69% of the digital target, with the second significant contribution coming from the Education and Labour Market pillar (23%).

Graph 5.6.1: Composition of the Allocation from the Recovery and Resilience Facility

as % of gross national income in 2019
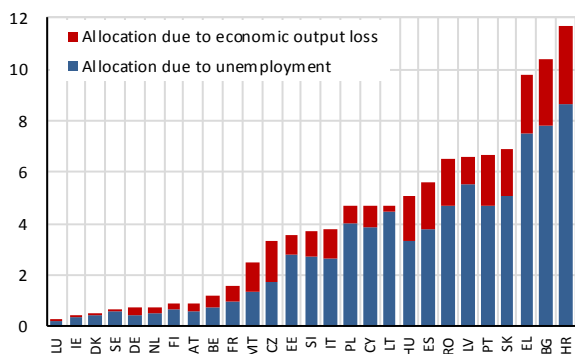
Source: Eurostat (2021a); Regulation (EU) 2021/241. MF CR calculations.

Graph 5.6.2: Allocation from the Recovery and Resilience Facility

vertical axis: grant component as % of 2019 gross national income
horizontal axis: gross national income per capita in purchasing power parity as % of EU average
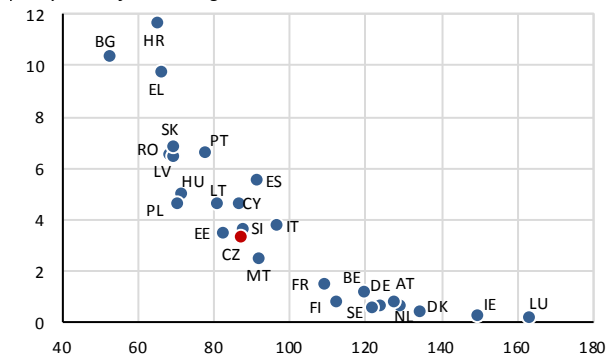
Source: Darvas et al. (2021). MF CR adjustment.

5.7 Emission Allowance Funds

In order to boost investment in the energy sector, the EC created two funds, one entirely new (the Modernisation Fund) and one transformed from previous programmes (the Innovation Fund).

The **Modernisation Fund** was created by Directive 2018/410 of the European Parliament and of the Council amending Directive 2003/87 with a view to enhancing cost-effective ways of reducing emissions and investing in low-carbon technologies and Decision (EU)

2015/1814. The Fund is intended for Bulgaria, the CR, Croatia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia. It focuses on:

- Renewable energy production and use,
- energy efficiency,
- energy storage and distribution.

Although the Fund is the primary responsibility of each country, the EC and the European Investment Bank are

also involved in the project selection process. Other EU countries also participate through the Investment Committee. The Investment Committee consists of representatives of the participating countries, three representatives of non-member countries, the EC and the European Investment Bank. The projects to be financed by the Fund will be divided into priority (i.e. in the areas of interest mentioned above) and non-priority (SEF, 2021). The actual ranking will be done by the European Investment Bank. A priority project can then be financed up to 100%, a non-priority project up to 70%.

The Directive also sets out the size of the Modernisation Fund and the initial distribution among the Member States. The default allocation to the fund is 2% of all European emission allowances from the cap set for the period 2021–2030. This equates to 13.78 billion emission allowances over the whole period, of which 2% is 0.276 billion. This quantity is then distributed among countries on the basis of Annex IIa of the Directive. The share for the CR has been set at 15.59% (see Table 5.7.1).

However, countries can increase the quantity of emission allowances from their own allocation to be auctioned. Specifically, solidarity allowances and derogation allowances, whereby some or all of these sources are allowed to be redirected.

Solidarity allowances amount to 10% of the total number of allowances to be auctioned (the remaining 90% is then divided among countries according to the energy intensity of their economies). 57% of the allowances should continue to be set aside for auctioning, with the remainder distributed free of charge to the relevant sectors. Within these allowances, the default part of the Modernisation Fund, the 3% reserve of allowances for free distribution and the 75 million allowances earmarked for the Innovation Fund should be deducted. This leaves a total of about 51.5% of all allowances to be distributed in the auctions. Solidarity allowances are thus redistributed from more developed to less developed countries to accelerate modernisation.

Within the allowances allocated for auctioning, the less efficient countries can then distribute a portion free of charge to facilitate investments to increase the efficiency of the energy sector (derogation allowances). This is a maximum of 40% of "their" allowances, but

they can also include some solidarity allowances for this purpose and increase the share of derogation allowances up to 60%.

Countries participating in the Modernization Fund's resources had until 30 September 2019 to comment on whether they will exercise the options to transfer solidarity allowances between derogation, derogation alone, or to transfer to the Modernization Fund (CEEP, 2019). No country will use the transfer of solidarity allowances to derogation, and four countries will use derogation allowances (Bulgaria, Croatia, Hungary and Romania). Five countries chose to transfer solidarity allowances to the Modernisation Fund (the CR, Lithuania and Romania in full, Slovakia 75% and Croatia 50%), while only the CR (50%) chose to transfer derogation allowances to the Modernisation Fund.

Table 5.7.1 then shows the amount of emission allowances for each country. For the CR, the allocation was more than four times higher than the default allocation. The specific amount of funds will then depend on the prices of emission allowances on the market.

In the case of the CR, Hungary and Poland, the EC has already decided to allocate funds to priority projects, which were approved by the European Investment Bank on 7 June 2021. For the CR, this includes EUR 202 million for photovoltaic power plants.

In addition to the Modernisation Fund, the **Innovation Fund** has been set up with a total of 450 million emission allowances. Most of this allocation (325 million) comes from freely distributed allowances, part from auctioning allowances (75 million) and the rest is a transfer from the previous phase (50 million). The Innovation Fund aims to support large innovative projects based on low-carbon technologies and practices in energy-intensive industries, renewable energy, energy storage, carbon capture and storage or industrial carbon capture and use.

Unlike the Modernisation Fund, although open to all EU countries, the co-financing rate is a maximum of 60% in the implementation phase and 40% in the preparation phase. For these reasons, it is expected that there will be significantly less interest from countries participating in the Modernisation Fund. Moreover, in terms of the allocation, the resources of the Modernisation Fund for the CR alone amount to almost 50% of the EU-wide allocation of the Innovation Fund.

Table 5.7.1: Allocation of Emission Allowances in the Modernisation Fund

%, EUR mil.

	Share according to Annex IIb (%)	Allowances acc. to Article 10(1)	Transfers acc. to Article 10(2)(b)	Transfers acc. to Article 10c	Aggregate transfers	Allowances and transfers
Bulgaria	5.84	16.1	0.0	0.0	0.0	16.1
Croatia	3.14	8.7	0.0	6.0	6.0	14.6
Czech Republic	15.59	43.0	38.7	111.5	150.2	193.2
Estonia	2.78	7.7	0.0	0.0	0.0	7.7
Hungary	7.12	19.6	0.0	0.0	0.0	19.6
Latvia	1.44	4.0	0.0	0.0	0.0	4.0
Lithuania	2.57	7.1	0.0	8.7	8.7	15.8
Poland	43.41	119.6	0.0	0.0	0.0	119.6
Romania	11.98	33.0	81.7	86.1	167.7	200.8
Slovakia	6.13	16.9	1.8	33.2	35.0	51.9
Total	**100.00**	**275.6**	**122.2**	**245.4**	**367.6**	**643.2**

Source: EC (2021c).

5.8 Overlap of Structural Actions with Other Financial Instruments

The previous sections focused on the Structural and Cohesion Funds. In addition, attention was also paid to the Common Agricultural Policy and the Common Fisheries Policy, specifically the operational programmes relating to agriculture and fisheries. The **Common Agricultural Policy** and the **Common Fisheries Policy** are among the oldest common EU policies defined in Articles 38–44 of the Treaty on the Functioning of the EU and subsequently in the relevant acts of secondary EU law and other sources. However, these are quite specific policies that go beyond the focus of this chapter. In terms of its scope, the Common Agricultural Policy represents a significant part of the EU budget, approximately one third. It distributes around EUR 60 billion annually, with direct payments and market operations accounting for around three quarters and rural development for a quarter (EP, 2021).

Community priorities programmes are managed directly by the EC and (mostly) do not have a specific allocation for individual Member States. An exception is the Connecting Europe Facility, which has a part of its funding allocated in so-called national envelopes. These are part of the multiannual financial frameworks (financial perspectives); some have been added under the Next Generation EU instrument (see section 5.6). Table 5.8.1 shows the areas funded under the Community priorities programmes.

The share of Community priorities programmes in the European budget is gradually increasing. In the 2014–2020 financial perspective, they accounted for 22% in total, while their weight increases to around one third in the upcoming perspective (Graph 5.8.1). The most significant in terms of volume in the financial perspective just ending is the **Horizon 2020** programme with an allocation of EUR 77 billion, followed by the **Connecting Europe Facility** with an allocation of EUR 30.4 billion, **Erasmus+** with EUR 14.7 billion and, above EUR 1 billion there are **LIFE** (EUR 3.4 billion), **COSME** (EUR 2.3 billion) and **Creative Europe** (EUR 1.4 billion) programmes.

As can be seen from the net position at the beginning of the chapter, the importance of the Community priorities programmes in the CR is not high, namely 3.4% of the total revenue from EU budget for the period 2004–2020. Taking into account the weight of the Czech economy in relation to other countries, the use of Community priorities programmes is above average in the areas of education (Erasmus programme), culture (Creative Europe) or energy (CEF-Energy), and to some extent in the areas of business and justice and home affairs (EC, 2019).

Factors behind the lower popularity include more difficult conditions for obtaining support (direct competition with the whole EU) and on average lower co-financing rates. However, with the progressively higher economic development of the regions of the CR, and thus lower allocations from structural funds, the importance of Community priorities programmes in the CR should increase.

Graph 5.8.1: Funding in the 2021–2027 Perspective
EUR bn.

- Structural actions, including the Fair Transformation Fund
- Common Agricultural Policy
- Other programmes and funds

368.9 | 381 | 378.5
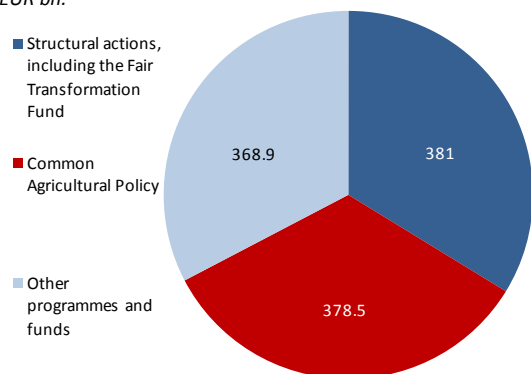
Source: EC (2021a).

Graph 5.8.2: Other Programmes and Funds by Objective
EUR bn.

- Single market, innovation and digitalisation
- Cohesion, resilience and values
- Natural resources and environment
- Neighbourhood and the world
- Other objectives

105 | 136.5 | 31 | 5.4 | 91.1
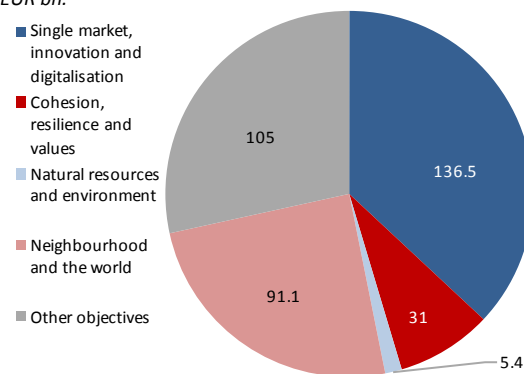
Source: EC (2021a).

Table 5.8.1: Main Areas Financed by Directly Managed EU Funds (2014–2020)

Areas	Programmes
Research, development and innovation	Horizon 2020
Education	Erasmus+
Internal market	Connecting Europe Facility (CEF), FISCALIS 2020, CUSTOMS 2020
Environment	LIFE
Entrepreneurship	COSME
Culture	Creative Europe
Justice and Home Affairs	Rights and Citizenship, Justice, Europe for Citizens, HERCULE III, PERICLES 2020
Social policy	Employment and Social Innovation (EaSI)
Health	Health for Growth

Source: Euroskop (2021).

5.9 Macroeconomic Importance of EU Funds in the Czech Republic

The previous sections have chronologically dealt with European funds in general, in terms of their objectives, thematic areas, but above all in terms of the volume of allocation and the success of its utilization. However, it is the timing of the spending that is crucial in assessing the macroeconomic impact, not the timing of the ex post reimbursement from the EU budget itself. In other words, the previous sections related more to the net position, while this one reflects the capture in the national accounts.

For the analysis, we used national accounts data (quarterly revenue items current international cooperation paid by European institutions and investment grants from other sectors) for flows to the general government sector and financial statements of the state budget, state funds and local government budgets for transfers outside the general government sector. However, the data are only available from 2007 onwards, so before 2007, the national accounts for the general government sector (annual revenue items current international cooperation paid by the European institutions and investment grants from other sectors) and the net position data on compensation were used, keeping the weighting between sectors of the national economy and the quarterly breakdown identical to 2007 (the year when the 2004–2006 perspective was still

being implemented). The comparison of the total funds used and the aggregate of the revenues from the net position produces a difference of less than 20 billion CZK, which can be explained by the phase of the 2014–2020 financial perspective. The values in 2021–2024 correspond to the current forecast of the MF CR with the quarterly distribution of the average for 2018–2020. The impact of the funds thus conceived captures all flows, i.e. not only structural actions but also funds going to agriculture or Community priorities programmes.

The analysis was carried out using the QUEST macroeconomic model developed by the EC to quantify the potential macroeconomic impacts of economic policies (Ratto *et al.*, 2008; Varga J., in't Veld, J., 2009). The model used is based on New Keynesian economics complemented by microeconomic aspects. As a macroeconomic dynamic general equilibrium model, it consists of several interacting blocks that aim to approximate the behaviour of economic agents, i.e. households, firms, foreign agents, monetary and fiscal authorities.

For the purpose of assessing the overall impact of the funds spent, we draw on the volume of outlays under the operational programmes in the previous sections of Chapter 5 and the National Recovery Plan. The time

profile of expenses implementation between 2004 and 2024 entering the analyses is illustrated in Graph 5.9.1.

We estimate that, due to the impact of the EU funds used in the period since the CR's accession to the EU, by 2024 cumulatively about 45% of the real GDP in 2020 will be generated. However, it is necessary to mention that a large part of the expenditure – whether in infrastructure or especially in the areas of human resources, research and development – will only become visible in the longer term. For this reason, the effects of the 2021–2027 programming period and the National Recovery Plan in particular will, for the most part, only be felt beyond the horizon of the current outlook. Contributions to GDP reflect not only the volume of funds spent, but also their multiplier effects and impacts on the potential growth of the Czech economy. The additional percentage increase in the volume of GDP in individual years is shown in Graph 5.9.2 up to 2030, which demonstrates the positive economic impact beyond the horizon of the

investments. We estimate that by 2030 the cumulative volume (2004–2030) of additional output could rise to 74% of real GDP in 2020.

The cumulative GDP "multiplier" (Graph 5.9.4) compares the additional GDP created relative to the resources spent, i.e. how many additional CZK in GDP are cumulatively gained per 1 CZK spent. The calculations suggest that, in aggregate, the unit threshold will be crossed in 2025. In general, expenditure on education, retraining and skills upgrading has the strongest cumulative effect, although its effect will only be felt over a longer period of time given the time required to acquire a particular qualification, but in the long run, increased labour productivity contributes significantly to GDP growth. Similarly, investment in research and development is also a major contributor. On the other hand, the positive effects of investments in infrastructure or new technologies, which have the fastest return on investment, are relatively faster.

Graph 5.9.1: Time Distribution of the EU Expenditures
CZK bn.
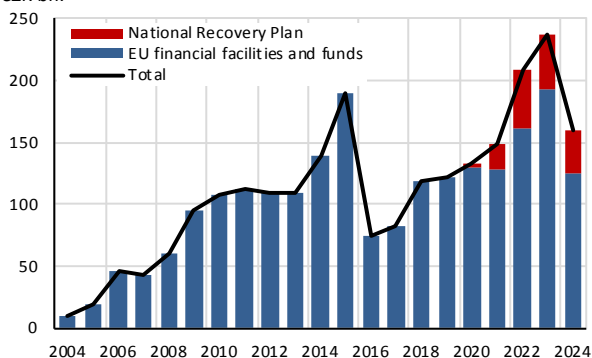
Source: MF CR calculations.

Graph 5.9.2: Additional Real GDP Created
% of GDP in each year
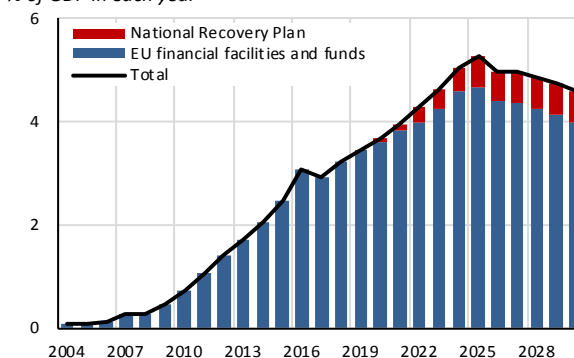
Source: MF CR calculations.

Graph 5.9.3: Additional Labour Demand Created
% of employment in each year
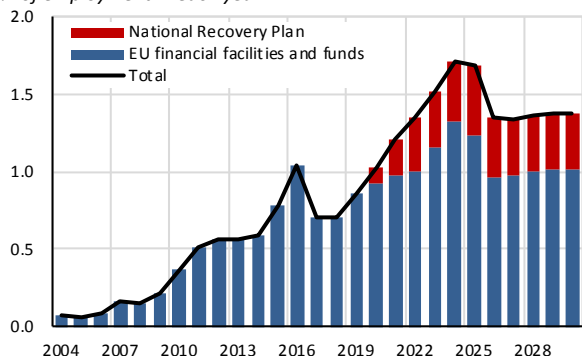
Source: MF CR calculations.

Graph 5.9.4: Cumulative GDP "Multiplier"
additional GDP per crown of invested funds, in CZK
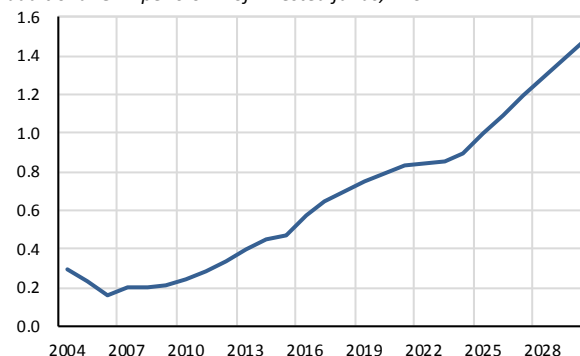
Source: MF CR calculations.

5.10 Annex of Tables

Table 5.10.1: Allocation and Use of the Phare Programme 1998–2003

EUR mil., % of allocation

		National programmes	Cross-border cooperation	Other	Total
Allocation	EUR mil.	342.8	130.9	40.3	**514.0**
Use	EUR mil.	302.3	123.2	36.8	**462.3**
	%	88.2	94.1	91.4	**89.9**

Source: MF CR.

Table 5.10.2: ISPA Funds Contracted

EUR mil.

	Support (contracts)			Support (ex-post)		
	Cost	Share	%	Cost	Share	%
Infrastructure						
R48, Bypass Bělotín	28.5	17.1	60	28.5	17.1	60
Modernisation of the line Ústí nad Orlicí - Česká Třebová	28.6	14.3	50	25.7	12.9	50
R48, Frýdek-Místek - Dobrá	34.0	20.4	60	34.0	20.4	60
Modernisation of the line Záboří - Přelouč	61.8	30.9	50	55.6	27.8	50
D8, Prague - Ústí nad Labem, section Trmice - Czech/German border	123.6	61.8	50	104.0	52.0	50
R48, Dobrá - Tošanovice	33.0	19.8	60	33.0	19.8	60
Optimisation of the line Zábřeh na Moravě - Krasíkov	121.3	72.8	60	121.3	72.8	60
ETC pilot project Poříčany - Kolín	9.8	7.4	75	9.8	7.4	75
Total transport		**244.4**			**230.1**	
Environment	0.0	0.0	0	0.0	0.0	0
Extension of the sewerage system of the city of Ostrava	24.8	16.6	67	24.5	16.4	67
Sewerage network of the city of Brno	28.3	17.8	63	28.3	17.8	63
Monitoring and assessment of the hydrosphere according to EC directives	16.9	12.6	75	16.9	12.6	75
Completion of drink. water supply, sewerage and waste treatment. water treatment and wastewater treatment in the Podkrušnohoří region	19.8	12.9	65	19.8	12.9	65
Reconstruct. of the wastew. treatm. plant and sewerage system of the city of Jihlava	14.8	9.6	65	14.2	9.2	65
Extension of the sewerage system of the city of Olomouc	14.5	10.1	70	14.5	10.1	70
Water protection in the Dyje river basin	49.1	33.4	68	43.7	29.7	68
Wastewater management and drinking water supply in the Jeseník region	15.2	9.1	60	15.2	9.1	60
Clean river Bečva	46.2	32.4	70	38.3	26.8	70
Ensuring EU standards in the water supply system of South Bohemia	7.0	4.5	65	5.2	3.6	70
Reconstruction of the sewerage system in Žďár nad Sázavou	8.0	5.6	70	7.8	5.5	70
Flood relief 2002	35.3	30.0	85	35.3	30.0	85
Waste management Brno	69.6	47.3	68	69.6	47.3	68
Reconstruction of the sewerage system in Znojmo	23.2	16.3	70	23.2	16.3	70
Total environment		**258.4**			**247.6**	
Technical assistance	0.0	0.0	0	0.0	0.0	0
Technical assistance for the preparation of transport projects	0.8	0.6	75	0.6	0.6	100
Technical assistance for the preparation of projects in the environmental sector	0.4	0.3	75	0.4	0.3	75
Support to the Ministry of Transport in the management and implementation of ISPA	0.2	0.2	100	0.2	0.2	100
Assessment of the capacity of the National Fund and ISPA implementing agencies to implement projects under the Extended Decentralisation System (EDIS)	0.8	0.8	100	0.8	0.8	100
Technical support for the preparation and management of Cohesion Fund projects	2.3	1.7	75	2.3	1.7	75
Total technical assistance	**0.0**	**3.6**	**0.0**	**0.0**	**3.6**	**0.0**
Total ISPA		**506.4**			**481.2**	

Note: The table summarizes the contracted amounts contained in the financing memoranda and, for comparison, the amounts from Staroňová (2007), which we refer to as "ex-post". With the exception of one project with a changed co-financing rate, the amounts differ for several projects in both the total eligible costs and the co-financing ratio. The "ex-post" amounts can be seen as a refinement according to actual developments. The "Flood Aid 2002" covered both environment and transport. In the field of road transport 11 projects were implemented, in the field of railways 10 projects and in the field of environment 13 projects.
Source: EC (2003), Staroňová (2007).

Table 5.10.3: SAPARD Allocation

EUR thous.

	2000	2001	2002	2003	2000–2003
Priority I - Increasing the competitiveness of agriculture					
1.1. - Investment in agricultural assets	4 267	4 665	4 841	4 534	**18 307**
1.2 - Improving the processing and marketing of agricultural and fishery products	4 092	4 142	4 602	5 327	**18 163**
1.3 - Improving structures for quality control, food quality and consumer protection	1 801	2 470	2 048	0	**6 320**
1.4 - Land reclamation and land improvement	5 183	4 317	3 761	2 329	**15 589**
Priority II - Sustainable development of rural areas					
2.1a - Renovation and development of villages	3 248	3 322	2 941	6 238	**15 748**
2.1b - Development of rural infrastructure	1 762	1 794	1 612	2 525	**7 693**
2.2 - Development and diversification of economic activities providing a variety of activities and alternative sources of income	2 088	2 136	2 941	2 796	**9 960**
2.3 - Agricultural production methods designed to protect the environment and preserve the landscape	0	0	264	0	**264**
Priority III - Technical assistance					
3.1 - Improving vocational training	0	0	320	151	**471**
3.2 - Technical assistance	0	52	196	24	**272**
Total for measures	**22 441**	**22 897**	**23 527**	**23 924**	**92 788**

Source: SAIF (2009).

Table 5.10.4: Operational Programmes 2004–2006

EUR mil.

Operational programme	Objective	Managing Authority	Allocation
Joint Regional	Complementary to the sectoral operational programmes and the Cohesion Fund, extending their impact to the local level.	MMR	454.3
Infrastructure	Modernisation and development of transport infrastructure of national importance and reduction of the negative effects of transport on the environment; protection of the environment and its components (water, air and climate, waste management), protection of nature and landscape and removal of old burdens.	MoE	246.4
Rural development and multifunctional agriculture	Development of rural parts of regions, adaptation of Czech agriculture to the European model, development of multifunctional agriculture, improvement of the multifunctional role of forests and development of water management.	MoA	173.9
Human Resources Development	Promoting high employment based on a skilled and flexible workforce, including the integration of groups at risk of social exclusion, equal opportunities for men and women, the development of lifelong learning and the adaptability of employees and employers to changes in economic and technological conditions.	MoLSA	318.9
Industry and entrepreneurship	Development of the business environment, entrepreneurship in industry and industrial services, increasing the competitiveness of Czech industrial production, research and development in industry and the development and improvement of the efficiency of the energy sector.	MIT	260.8

Note: MIT is the Ministry of Industry and Trade, MoE is the Ministry of Environment, MoLSA is the Ministry of Labour and Social Affairs, MoA is the Ministry of Agriculture and MMR is the Ministry for Regional Development.
Source: MMR (2021a).

Table 5.10.5: Changes in the Structure of Objectives and Financial Instruments between the 2000–2006 and 2007–2013 Perspectives

2000–2006		2007–2013	
Target	**Financial instrument**	**Target**	**Financial instrument**
Cohesion	Cohesion Fund	Convergence	Cohesion Fund
Supporting the development of lagging regions	ERDF		ERDF
	ESF		ESF
	EAGGF - Indicative Section		
	FIFG		
Support for areas with restructuring	ERDF	Regional competitiveness and employment	ERDF
	ESF		ESF
Employment and education	ESF		
INTERREG	ERDF	European territorial cooperation	ERDF
URBAN	ERDF		
EQUAL	ESF		
LEADER+	EAGGF - Indicative Section		
Rural development and restructuring of fisheries outside Objective 1	EAGGF - Guarantee Section	Rural development and fisheries are no longer part of Cohesion Policy, but are included under the Common Agricultural Policy.	
	FIFG		
9 objectives and initiatives	**6 financial instruments**	**3 objectives and initiatives**	**3 financial instruments**

Source: MMR (2008).

Table 5.10.6: Operational Programmes 2007–2013

OP	Objective	Authority
Entrepreneurship and Innovation	Aimed at supporting industry and small and medium-sized enterprises to improve infrastructure, increase innovation, and intensify the introduction of new technologies, products and services. Helping SMEs to enter foreign markets and strengthening coop. between the industrial sector and R&D.	MIT
Transport	Improve transport accessibility. Necessary compliance with minimal environmental impacts. The rail and road network is being modernised in sections of the TEN-T (Trans-European Transport Network) and beyond, and great attention is being paid to lengthening and improving motorways. Support is also focused on the Prague metro or combined freight transport and inland waterway transport.	MT
Environment	Improving the environment in the Czech Republic: Supporting specific activities of environmental organisations and strengthening the awareness of the general public on environmental issues.	MoE
Human Resources and Employment	Promoting employment and employability of the population of the Czech Republic and the development of human resources through training and other forms of education. Improving the functioning and increasing the transparency of public administration and public services.	MoLSA
Education for Competitiveness	Improving the quality of education at all levels of the education system. Promoting more active scientific research.	MEYS
Research and Development	Strengthening competitiveness of the CR through better conditions for functioning of science centres, expanding capacity and creating new ones. Accelerating transfer of research results into practice.	MEYS
Integrated OP	Aimed at solving common regional problems in the field of infrastructure for public administration, public services and territorial development.	MMR
Tech. assistance	Promote unified approach at national level to ensure activities for effective management, control, monitoring and evaluation of the implementation of the National Strategic Reference Framework.	MMR
Northwest	Improving quality of the environ. and transforming the economic and social structures of region as a prereq. for increasing attractiveness of the region for investment, business and life of its inhabitants.	Regional Council of the relevant Cohesion Region
Moravia-Silesia	Focus on regional accessibility and transport infrastructure, public services, tourism, brownfields, urban and rural amenities.	
Southeast	Targeting investment projects in transport infrastructure, tourism and urban and rural development.	
Northeast	Focused on transport infrastructure, urban and rural development, tourism and business environment.	
Central Moravia	Aimed at the development of transport infrastructure, urban and rural areas, quality of life of the population and promotion of tourism .	
Southwest	Support in the areas of transport, education, health, social services and tourism.	
Central Bohemia	Creating conditions for dynamic growth of region's GDP and ensuring high quality of life for urban and rural residents by increasing region's attractiveness for housing, business, investment and tourism.	
Prague Competitiveness	Intended to support investment projects aimed primarily at supporting public transport and transport accessibility, promoting innovation, ICT, entrepreneurship and improving the environment in Prague.	Prague City Hall
Prague Adaptability	Intended to support non-investment projects focused on education, social integration, employment support and the development of human resources in research and development.	
CR - Bavaria		-
CR - Poland	Improvement of transport accessibility of the cross-border region, environmental protection, support for economic cooperation, support for the development of cross-border infrastructure and tourism services, support for education, cultural and social activities, cooperation between local governments and other entities on both sides of the border, social integration, technology transfer, etc.	MMR
CR - Austria		-
CR - Saxony		-
CR - Slovakia		-
International cooperation	Cooperation between public authorities and institutions to exchange and transfer experience in the areas of innovation and knowledge economy, environment and risk protection.	-
Transnational cooperation	Cooperation between public authorities and institutions to exchange/ transfer experience, in part. in the areas of innov., transport acces., environment and enhancin attractiveness of cities ad regions.	-
EPSON 2013	Research programme to support spatial planning and regional development.	-
INTERACT II	Strengthening effectiveness and improving quality of territorial cooperation activities in EU Members.	-

Note: MIT is the Ministry of Industry and Trade, MT is the Ministry of Transport, MoE is the Ministry of Environment, MoLSA is the Ministry of Labour and Social Affairs, MEYS is the Ministry for Education, Youth and Sports and MMR is the Ministry for Regional Development.
Source: MMR (2021a).

Table 5.10.7: Unused Funds from the 2007–2013 Programming Period Allocation

EUR mil., % of total allocation

	Allocation before 1st decommitment	1st decommitment (2013)	2nd decommitment (2014)	Underspending allocation (to 30.9.2021)	Total allocation loss EUR mil.	% of allocation
OP Environment	4 917.87	274.66			274.66	5.58
OP Employment and Human Resources	1 901.19	4.35			4.35	0.23
OP Research and Development for Innovations	2 070.68		242.53	67.55	310.08	14.97
Integrated OP	1 619.02	1.56	2.31	41.89	45.76	2.83
OP Education for Competitiveness	1 771.81	110.34		64.52	174.86	9.87
OP Technical Assistance	175.90	20.46	9.70	33.04	63.20	35.93
ROP Northwest	762.77		54.64	39.06	93.70	12.28
ROP Southwest	633.65			5.97	5.97	0.94
OP Prague Adaptability	114.80		0.28	12.72	13.00	11.32
INTERREG Czech Republic-Poland	219.46			8.42	8.42	3.84
OP Fisheries	27.11			2.89	2.89	10.67
Rural Development Programme	2 857.51			4.46	4.46	0.16
Other OP	12 571.96				0.00	0.00
Total	**29 643.72**	**411.37**	**309.44**	**280.52**	**1 001.35**	**3.38**

Source: Rural Development Programme according to SAO (2017), other MF CR.

Table 5.10.8: Comparison of Operational Programmes between the 2007–2013 and 2014–2020 Perspectives

2007–2013 Programmes	2014–2020 Programmes
ROP Southeast	
ROP Southwest	
ROP Moravia-Silesia	Integrated Regional Operational Programme
ROP Northeast	
ROP Central Bohemia	
ROP Central Moravia	
OP Transport	OP Transport
OP Enterprise for Innovation	OP Enterprise for Innovation and Competitiveness
OP Research and Development for Innovation	OP Research, Development and Education
OP Education for Competitiveness	
OP Environment	OP Environment
Rural Development Programme	Rural Development Programme
OP Human Resources and Employment	OP Employment
OP Technical Assistance	OP Technical Assistance
OP Prague Competitiveness	OP Prague Growth Pole
OP Prague Adaptability	
OP Fisheries	OP Fisheries
European Territorial Cooperation Programmes	European Territorial Cooperation Programmes

Source: MMR (2018).

Table 5.10.9: Thematic Operational Programmes 2014–2020

EUR bn.

Operational Programme	Objective	Authority	Allocation
Entrepreneurship, innovation and competitiveness	Aimed at achieving a competitive and sustainable economy based on knowledge and innovation.	MIT	4.1
Research, development and education	The key principle is the development of human resources for a knowledge-based economy and sustainable development in a socially cohesive society; improving the quality of research and the education system in the CR.	MEYS	2.8
Employment	The aim is to improve the human capital of the population and public administration in the CR, support equal opportunities for women and men, adaptability of employees and employers, further education, social inclusion.	MoLSA	2.1
Transport	Construction of transport infrastructure, building on the previous OP Transport.	MT	4.6
Environment	Main objective is to protect and ensure a quality environment for the life, to promote the efficient use of resources, to eliminate the negative impacts of human activity on the environment and to mitigate effects of climate change.	MoE	2.8
Integrated Regional	The priority is to enable balanced development of the territory, improve the quality of infrastructure, improve public services and public administration and ensure sustainable development in municipalities, towns and regions.	MMR	4.8
Prague - the growth pole of the CR	Creating a favourable business environment and promoting education and science in order to fulfil Prague's role as the main innovation centre of the country.	Prague City Hall	0.2
Technical assistance	A support programme aimed at setting the right environment for the implementation of the Partnership Agreement and thematic operational programmes.	MMR	0.2
Rural Development	Main objective is the restoration, preservation and improvement of agriculture-dependent ecosystems through, in particular, agri-environmental measures; investments for the competitiveness and innovation of agricultural enterprises; support for entry of young people into agriculture or landscape infrastructure.	MoA	2.3
Fisheries	The aim is to develop sustainable fish farming in the CR and to ensure a steady supply of freshwater fish throughout the year to the domestic market in the required range, including diversification of aquaculture.	MoA	0.03

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Source: MMR (2021a).

Table 5.10.10: Thematic Operational Programmes 2021–2027

EUR bn.

Operational Programme	Objective	Authority	Allocation
Transport	Efficient, accessible and environmentally friendly transport	MT	4.9
Integrated regional	Balanced development of territory, improving infrastructure, public services and administration and sustainable development in municip., cities and regions	MMR	4.8
Technologies and applications for competitiveness	Research, development and innovation, SMEs, energy-climate policy and the digitalisation of economy	MIT	3.1
Jan Amos Komenský	Promoting the quality and accessibility of education at all levels	MEYS	2.5
Employment+	Making public services more efficient, social inclusion, further vocational training, promotion of equal opportunities, etc.	MoLSA	1.5
Environment	Continuation of activities from the previous OP, more emphasis on adaptation to climate change, support for environmental education, prevention of other types of waste such as food waste, textiles or health care waste, etc.	MoE	2.4
Fisheries	Competitiveness, resilience and sustainability of the freshwater aquaculture	MoA	0.03
A just transformation	Ensuring sufficient jobs for workers leaving the coal industry, improving the environment, focusing on coal regions	MoE	1.6
Technical Assistance	Support programme aimed at setting the right environment for the implementation of the Partnership Agreement and thematic OPs	MMR	0.2

Note: MIT is the Ministry of Industry and Trade, MT is the Ministry of Transport, MoE is the Ministry of Environment, MoLSA is the Ministry of Labour and Social Affairs, MEYS is the Ministry for Education, Youth and Sports, MoA is the Ministry of Agriculture and MMR is the Ministry for Regional Development.

Source: MMR (2021a).

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A   Annex of Tables

The data on general government sector aggregates in ESA 2010 methodology are consolidated at the relevant levels.

Table A.1: General Government Revenue

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total revenue	*CZK bn*	**1 645**	**1 667**	**1 714**	**1 762**	**1 910**	**1 941**	**2 069**	**2 246**	**2 395**	**2 371**
	% growth	4.3	1.4	2.8	2.8	8.4	1.6	6.6	8.6	6.7	-1.0
Current taxes on inc., wealth, etc.	*CZK bn*	301	303	313	335	354	385	416	458	491	486
	% growth	4.7	0.9	3.3	7.1	5.6	8.8	8.0	10.1	7.0	-0.9
Social contributions [1]	*CZK bn*	593	600	607	629	663	703	760	834	895	909
	% growth	2.5	1.3	1.1	3.6	5.5	6.1	8.0	9.8	7.3	1.6
Taxes on production and imports [2]	*CZK bn*	481	502	521	513	562	587	626	647	688	651
	% growth	9.0	4.3	3.9	-1.6	9.5	4.4	6.7	3.4	6.3	-5.3
Capital taxes [3]	*CZK bn*	0	0	0	0	0	0	0	0	0	0
	% growth	0.9	0.9	-33.3	-93.5	10.0	54.5	70.6	-24.1	-45.5	191.7
Property income	*CZK bn*	35	35	38	37	37	37	31	35	32	37
	% growth	-6.9	0.8	6.9	-2.3	-0.4	0.8	-17.9	14.3	-7.5	14.6
Interest	*CZK bn*	10	10	10	8	7	6	5	8	12	10
	% growth	-12.7	6.8	-6.1	-13.4	-21.2	-7.8	-19.7	66.0	40.1	-17.0
Other property income	*CZK bn*	25	25	28	29	30	31	26	27	21	27
	% growth	-4.5	-1.5	12.3	1.6	5.8	2.8	-17.6	4.3	-22.2	32.2
Sales [4]	*CZK bn*	146	148	150	152	155	158	163	175	188	183
	% growth	5.7	1.1	1.1	1.8	2.0	1.7	3.4	7.0	7.3	-2.3
Other current transfers and subs.	*CZK bn*	35	39	44	42	49	40	40	51	53	52
	% growth	-0.7	10.5	13.5	-4.5	15.1	-18.5	1.5	26.0	5.1	-3.5
Investment grants	*CZK bn*	50	35	36	49	81	23	26	42	44	49
	% growth	-6.0	-29.0	1.5	36.3	66.6	-72.1	15.4	60.4	5.2	10.4
Other capital transfers	*CZK bn*	4	4	5	5	9	8	6	4	5	4
	% growth	-25.8	9.3	18.6	-10.6	92.3	-6.1	-21.3	-40.9	20.7	-18.8
	% of GDP										
Total revenue		**40.5**	**40.8**	**41.4**	**40.5**	**41.3**	**40.5**	**40.5**	**41.5**	**41.4**	**41.6**
Current taxes on income, wealth, etc.		7.4	7.4	7.6	7.7	7.7	8.0	8.1	8.5	8.5	8.5
Social contributions [1]		14.6	14.7	14.6	14.5	14.3	14.7	14.9	15.4	15.5	16.0
Taxes on production and imports [2]		11.8	12.3	12.6	11.8	12.1	12.2	12.3	12.0	11.9	11.4
Capital taxes [3]		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property income		0.9	0.9	0.9	0.9	0.8	0.8	0.6	0.6	0.6	0.7
Interest		0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2
Other property income		0.6	0.6	0.7	0.7	0.7	0.6	0.5	0.5	0.4	0.5
Sales [4]		3.6	3.6	3.6	3.5	3.4	3.3	3.2	3.2	3.2	3.2
Other current transfers and subsidies		0.9	1.0	1.1	1.0	1.1	0.8	0.8	0.9	0.9	0.9
Investment grants		1.2	0.9	0.9	1.1	1.8	0.5	0.5	0.8	0.8	0.9
Other capital transfers		0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1

[1] *Compulsory and voluntary payments of employers (on behalf of employees), employees, self-employed and self-payers to social security institutions and health insurance enterprises.*

[2] *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.).*

[3] *Irregular taxes to the government on the values of the property, assets or net worth owned by institutional.*

[4] *Consists of market output, output produced for own final use and payments for other non-market output.*

Source: CZSO (2021b).

Table A.2: General Government Tax Revenue and Social Contributions

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Taxes and social contributions	*CZK bn*	**1 374**	**1 405**	**1 441**	**1 477**	**1 579**	**1 675**	**1 802**	**1 940**	**2 074**	**2 047**
	% growth	5.2	2.3	2.5	2.5	6.9	6.1	7.6	7.6	6.9	-1.3
Current taxes on income, wealth, etc.	*CZK bn*	**301**	**303**	**313**	**335**	**354**	**385**	**416**	**458**	**491**	**486**
	% growth	4.7	0.9	3.3	7.1	5.6	8.8	8.0	10.1	7.0	-0.9
Individuals or households	*CZK bn*	161	165	170	181	187	207	229	261	287	299
	% growth	8.0	2.4	3.1	6.5	3.0	10.9	10.5	13.8	10.2	4.0
Corporations	*CZK bn*	129	127	133	144	157	167	176	187	192	177
	% growth	1.3	-1.2	4.0	8.5	8.8	6.8	5.2	6.3	2.9	-8.1
Levy on lottery revenue	*CZK bn*	-	-	-	-	-	-	-	-	-	-
	% growth	-	-	-	-	-	-	-	-	-	-
Other current taxes	*CZK bn*	10	10	10	10	11	11	12	11	11	11
	% growth	-1.6	1.8	-1.4	0.0	5.4	2.2	4.4	-5.8	-0.6	-0.8
Social security contributions	*CZK bn*	**593**	**600**	**607**	**629**	**663**	**703**	**760**	**834**	**895**	**909**
	% growth	2.5	1.3	1.1	3.6	5.5	6.1	8.0	9.8	7.3	1.6
Social insurance	*CZK bn*	368	371	372	385	406	431	470	516	555	543
	% growth	2.7	0.9	0.4	3.3	5.6	6.2	9.0	9.8	7.5	-2.2
Health insurance	*CZK bn*	218	222	227	237	249	264	281	308	329	354
	% growth	3	2	2	4	5	6	6	10	7	8
Payments for state-insured	*CZK bn*	53.0	52.9	53.7	59.9	60.9	62.3	65.3	68.4	71.9	97.3
	% growth	1.7	-0.2	1.5	11.5	1.8	2.1	4.8	4.8	5.1	35.4
Injury insurance	*CZK bn*	6	6	6	6	7	7	8	8	9	9
	% growth	3.2	1.9	0.2	0.9	4.0	5.5	6.7	9.7	7.2	1.4
Imputed social contributions	*CZK bn*	1	1	1	1	1	1	1	1	2	3
	% growth	31.8	-5.1	4.6	-21.5	40.1	-1.9	16.1	21.9	30.9	70.3
Taxes on production and imports	*CZK bn*	**481**	**502**	**521**	**513**	**562**	**587**	**626**	**647**	**688**	**651**
	% growth	9.0	4.3	3.9	-1.6	9.5	4.4	6.7	3.4	6.3	-5.3
Taxes on products [1]	*CZK bn*	457	479	501	489	538	562	601	619	650	611
	% growth	8.5	4.8	4.7	-2.3	10.0	4.4	6.9	3.1	4.9	-5.9
Value added tax	*CZK bn*	277	286	304	319	333	354	388	409	435	422
	% growth	5.0	3.5	6.2	5.2	4.3	6.2	9.5	5.4	6.6	-3.0
Excises	*CZK bn*	171	176	179	151	183	181	186	186	188	177
	% growth	15.4	2.9	1.6	-15.4	21.0	-0.8	2.3	0.0	1.3	-5.8
Other taxes on products [2]	*CZK bn*	10	17	19	19	22	27	28	25	26	12
	% growth	-1.3	75.9	10.5	0.0	17.5	20.4	3.9	-8.6	3.9	-55.9
Other taxes on production [3]	*CZK bn*	24	23	20	24	24	25	25	28	38	40
	% growth	20.1	-4.9	-13.1	18.4	-0.3	5.3	2.4	9.9	37.2	5.0
Capital taxes	*CZK bn*	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% growth	0.9	0.9	-33.3	-93.5	10.0	54.5	70.6	-24.1	-45.5	191.7

[1] Taxes that are payable per unit of good or service produced or transacted.
[2] 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.
[3] 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 (2021b).

Table A.3: General Government Expenditure

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total expenditure	*CZK bn*	**1 754**	**1 827**	**1 767**	**1 852**	**1 940**	**1 907**	**1 992**	**2 196**	**2 378**	**2 689**
	% growth	0.7	4.1	-3.3	4.8	4.7	-1.7	4.5	10.3	8.2	13.1
Compensation of employees	*CZK bn*	350	359	367	380	398	419	462	521	576	633
	% growth	-1.0	2.7	2.0	3.5	4.8	5.4	10.1	12.8	10.5	10.0
Intermediate consumption	*CZK bn*	281	259	270	274	284	291	296	326	339	346
	% growth	-3.0	-7.8	4.1	1.5	3.5	2.8	1.6	10.0	4.1	2.1
Social benefits other than in kind [1]	*CZK bn*	546	554	564	576	591	605	624	658	709	822
	% growth	1.9	1.6	1.8	2.0	2.6	2.5	3.1	5.5	7.7	15.9
Social transfers in kind	*CZK bn*	124	130	133	140	142	148	152	160	177	196
	% growth	2.6	4.7	2.6	4.8	1.4	4.3	3.1	4.7	10.9	10.6
Property income	*CZK bn*	53	59	55	57	49	44	38	40	41	44
	% growth	2.1	9.9	-5.8	2.6	-13.0	-10.6	-14.2	6.7	1.5	6.7
Interest	*CZK bn*	53	58	55	56	49	44	38	40	41	43
	% growth	1.9	9.1	-4.9	2.0	-12.7	-10.6	-13.6	5.8	1.3	7.1
Other property income	*CZK bn*	0	1	0	1	0	0	0	0	0	0
	% growth	40.6	117.2	-69.4	119.1	-44.4	-1.8	-91.2	1246.4	29.7	-24.9
Subsidies	*CZK bn*	91	91	96	99	105	108	110	119	128	173
	% growth	29.2	0.0	5.1	3.8	5.6	2.6	1.7	8.8	7.3	35.1
Gross fixed capital formation	*CZK bn*	181	169	152	178	236	155	171	224	253	276
	% growth	-10.5	-6.5	-10.0	16.8	32.8	-34.3	10.2	31.3	12.6	9.4
Capital transfers [2]	*CZK bn*	45	121	39	60	41	36	30	35	36	66
	% growth	-2.6	169.8	-67.5	53.4	-32.3	-12.8	-14.9	16.2	1.3	85.1
Investment grants [3]	*CZK bn*	32	31	21	18	15	13	15	23	18	22
	% growth	28.6	-1.8	-32.2	-14.5	-19.1	-12.8	14.4	57.6	-20.3	18.1
Other capital transfers	*CZK bn*	13	89	18	42	26	23	16	12	17	44
	% growth	-39.4	598.0	-79.8	133.5	-37.9	-12.8	-31.4	-22.6	42.4	156.8
Other expenditure	*CZK bn*	83	84	90	89	95	100	109	113	120	133
	% growth	17.3	0.7	7.3	-1.2	6.6	5.6	9.1	3.6	6.0	11.1
Final consumption expenditure	*CZK bn*	**804**	**795**	**817**	**840**	**875**	**910**	**959**	**1 049**	**1 133**	**1 232**
	% growth	-1.9	-1.1	2.7	2.8	4.1	4.0	5.4	9.4	8.1	8.7
Collective consumption [4]	*CZK bn*	377	365	378	384	405	423	442	483	510	537
	% growth	-5.7	-3.1	3.5	1.7	5.4	4.3	4.6	9.3	5.6	5.3
Individual consumption	*CZK bn*	428	430	439	456	470	487	517	566	623	694
	% growth	1.7	0.6	2.1	3.8	3.1	3.6	6.1	9.5	10.2	11.4

[1] *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.*
[2] *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.*
[3] *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.*
[4] *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 (2021b), MF CR.

Table A.4: General Government Net Lending/Borrowing by Subsectors

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
General government	*CZK bn*	**-110**	**-159**	**-53**	**-90**	**-30**	**34**	**77**	**49**	**18**	**-318**
Central government	*CZK bn*	-92	-150	-66	-95	-58	-20	27	9	-31	-343
Local governments	*CZK bn*	-11	-2	12	8	26	50	42	24	38	26
Social security funds	*CZK bn*	-6.9	-6.8	0.9	-2.7	1.9	4.9	8.2	16.6	11.4	-1.4

Source: CZSO (2021b).

Table A.5: General Government Debt by Instruments

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
General government debt	*CZK bn*	**1 614**	**1 805**	**1 840**	**1 819**	**1 836**	**1 755**	**1 750**	**1 735**	**1 740**	**2 149**
	% growth	9.0	11.9	1.9	-1.2	0.9	-4.4	-0.3	-0.9	0.3	23.5
Currency and deposits	*CZK bn*	14	9	9	14	7	9	6	9	5	11
	% growth	25.3	-36.1	-5.2	56.2	-48.8	31.1	-35.6	47.0	-40.8	112.6
Securities other than shares	*CZK bn*	1 408	1 603	1 639	1 623	1 648	1 593	1 602	1 554	1 596	2 012
	% growth	10.0	13.9	2.2	-1.0	1.6	-3.4	0.6	-3.0	2.7	26.1
Loans	*CZK bn*	191	193	192	182	181	153	141	172	139	127
	% growth	1.5	0.8	-0.1	-5.3	-0.9	-15.5	-7.4	21.8	-19.2	-8.9

Note: Government debt consists of following financial instruments: currency and deposits, securities issued other than shares excluding financial derivatives and loans. It is expressed in the nominal value, which is considered equivalent to the face value. It is consolidated, i.e. the debt in holding of other subjects of the government sector is omitted.
Source: CZSO (2021b).

Table A.6: General Government Balance and Debt of EU Countries

in % of GDP

	Balance					Debt				
	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
EU27	-0.8	-0.4	-0.5	-6.9	.	81.3	79.3	77.2	90.1	.
EA19 [1]	-0.9	-0.4	-0.6	-7.2	-7.6	87.5	85.5	83.6	97.3	.
Austria	-0.8	0.2	0.6	-8.3	-6.0	78.5	74.0	70.6	83.2	82.8
Belgium	-0.7	-0.8	-1.9	-9.1	-8.0	102.0	99.9	97.7	112.8	112.5
Bulgaria	1.6	1.7	2.1	-4.0	-5.7	25.1	22.1	20.0	24.7	26.7
Croatia	0.8	0.2	0.3	-7.4	-3.8	76.7	73.3	71.1	87.3	86.7
Cyprus	1.9	-3.5	1.3	-5.7	-4.9	92.9	98.3	91.1	115.3	104.2
Czech Republic [2]	1.5	0.9	0.3	-5.6	-7.2	34.2	32.1	30.0	37.7	43.3
Denmark	1.8	0.8	4.1	-0.2	-1.9	35.9	34.0	33.6	42.1	40.0
Estonia	-0.5	-0.6	0.1	-5.6	-3.3	9.1	8.2	8.6	19.0	17.7
Finland	-0.7	-0.9	-0.9	-5.5	-3.9	61.2	59.8	59.5	69.5	71.2
France	-3.0	-2.3	-3.1	-9.1	-8.4	98.1	97.8	97.5	115.0	115.6
Germany	1.3	1.9	1.5	-4.3	-7.3	64.7	61.3	58.9	68.7	72.3
Greece	0.6	0.9	1.1	-10.1	-9.6	179.5	186.4	180.7	206.3	197.9
Hungary	-2.5	-2.1	-2.1	-8.0	-7.5	72.1	69.1	65.5	80.1	79.5
Ireland	-0.3	0.1	0.5	-4.9	-3.1	67.8	63.1	57.2	58.4	55.6
Italy	-2.4	-2.2	-1.5	-9.6	-9.4	134.2	134.4	134.3	155.6	153.5
Latvia	-0.8	-0.8	-0.6	-4.5	-9.3	39.0	37.1	36.7	43.2	48.9
Lithuania	0.4	0.5	0.5	-7.2	-6.6	39.1	33.7	35.9	46.6	46.0
Luxembourg	1.4	3.0	2.3	-3.5	-0.6	21.8	20.8	22.3	24.8	25.8
Malta	3.2	1.9	0.5	-9.7	-11.1	47.7	43.6	40.7	53.5	61.3
Netherlands	1.3	1.4	1.7	-4.2	-6.0	56.9	52.4	48.5	54.3	57.8
Poland	-1.5	-0.2	-0.7	-7.1	-5.3	50.6	48.8	45.6	57.4	57.0
Portugal	-3.0	-0.3	0.1	-5.8	-4.5	126.1	121.5	116.6	135.2	128.0
Romania	-2.6	-2.9	-4.4	-9.4	-8.0	35.1	34.7	35.3	47.4	49.3
Slovakia	-1.0	-1.0	-1.3	-5.5	-8.8	51.6	49.6	48.1	59.7	62.7
Slovenia	-0.1	0.7	0.4	-7.7	-7.5	74.2	70.3	65.6	79.8	78.5
Spain	-3.0	-2.5	-2.9	-11.0	-8.4	98.6	97.5	95.5	120.0	118.4
Sweden	1.4	0.8	0.6	-2.8	-1.8	40.7	38.9	34.9	39.7	37.8

[1] *19 current member states – Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia, Spain.*

[2] *Data for 2021 are based on the current estimate of MF CR.*

Source: Eurostat (2021b).

Table A.7: Transactions of General Government of EU Countries in 2020
in % of GDP

	Revenue	Expenditure	Compen. of employees	Cash social benefits	Collective consumption	Individual consumption	Investments[1]	Interest expenditure
European Union	46.3	53.1	10.9	18.6	8.5	14.0	3.3	1.4
Euro Zone	46.6	53.8	10.7	19.3	8.5	14.1	3.0	1.5
Austria	48.7	57.1	11.4	20.4	7.7	13.5	3.3	1.3
Belgium	50.1	59.2	13.2	20.0	8.7	16.0	2.7	1.9
Bulgaria	37.8	41.8	10.8	12.0	9.7	9.8	3.8	0.5
Croatia	47.2	54.5	13.3	14.6	11.7	12.3	5.6	2.0
Cyprus	39.4	45.1	13.4	13.9	9.5	10.5	2.8	2.1
Czech Republic	41.6	47.2	11.1	14.4	9.4	12.2	4.9	0.8
Denmark	53.3	53.4	15.4	16.6	7.3	17.4	3.6	0.5
Estonia	40.3	45.9	12.0	14.1	9.2	12.1	5.8	0.0
Finland	51.9	57.3	12.9	19.7	8.3	16.1	4.9	0.7
France	52.6	61.6	13.2	22.6	8.7	16.4	3.7	1.3
Germany	46.5	50.8	8.4	17.7	8.4	14.0	2.6	0.6
Greece	49.7	59.8	13.5	20.8	12.2	10.6	3.1	3.0
Hungary	43.6	51.6	10.8	11.2	11.2	9.9	6.4	2.3
Ireland	22.4	27.4	6.6	8.3	4.2	8.6	2.4	1.0
Italy	47.5	57.1	10.5	24.1	8.7	12.2	2.6	3.5
Latvia	38.6	43.1	11.7	12.1	10.9	9.3	5.7	0.7
Lithuania	35.7	42.9	11.3	14.8	7.5	11.1	4.1	0.7
Luxembourg	43.6	47.2	10.8	17.3	7.1	11.4	4.8	0.2
Malta	36.2	45.9	12.1	9.2	7.8	13.2	4.5	1.3
Netherlands	43.9	48.0	8.8	11.1	8.5	17.5	3.6	0.7
Poland	41.5	48.7	11.0	16.8	8.7	10.5	4.5	1.3
Portugal	43.5	49.3	12.0	18.0	8.4	10.8	2.2	2.9
Romania	32.8	42.2	12.2	12.8	10.8	8.0	4.6	1.4
Slovakia	40.1	45.6	11.4	14.9	11.9	9.6	3.5	1.2
Slovenia	43.6	51.3	12.9	17.3	8.0	12.6	4.1	1.6
Spain	41.5	52.4	12.5	20.4	8.7	13.2	2.6	2.2
Sweden	49.7	52.5	13.0	12.9	7.4	19.3	5.1	0.3

[1] Gross fixed capital formation.

[2] 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 (2021a).

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.

Cash social benefits are social security benefits (e.g. pensions, social welfare benefits) paid out from the government to households.

Compensation of employees is composed of wages and salaries incl. accessories, i. e. contributions paid by employers (social security contributions or other contributions such as the Cultural and Social Needs Fund). This is a component of the final consumption of the general government.

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 healthcare 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.).

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 basis for calculation of the fiscal impulse is the YoY change in the cyclically-adjusted balance with the opposite sign, adjusted for: interest payments, income from EU Funds, financial mechanisms and contributions to the EU budget and certain one-off and temporary measures. See also MF CR (2015).

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, according to the Council Regulation (EC) No 479/2009 of 25 May 2009 on the application of the Protocol on the excessive deficit procedure annexed to the Treaty establishing the European Community, as amended. 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.

Intermediate Consumption is a component of the final consumption of the general government and contains the general government purchase of goods and services, which are consumed in the given time period.

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 −0.75% 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 transfers in kind reflect the value of goods and services provided particularly in the form of health and social care, education, housing. They are mostly in-kind benefits related to the health insurance (amounts for medical devices, medical or dental treatment, surgery, etc.), funded by health insurance companies to those, who provide these goods and services. They are a component of the final consumption of the general government.

Subsidies are current non-repayable payments made by the government sector or European Union institutions to resident producers.

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

General government **tax revenue** is divided into consumption, labour and capital taxation. Consumption taxation is mainly represented by value-added and excise taxes, as well as import duties, gambling taxes, certain other items of product taxes, pollution taxes and household licence payments. Labour taxation consists of personal income tax and social and health insurance contributions. Capital taxation includes, in addition to corporate income tax, taxes on financial transactions, certain items of taxes on production and current taxes on capital.

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	Topic
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
November 2019	Proposal for the New EU Fiscal Rule
January 2021	Measures to support the Economy in Response to the COVID-19 Pandemic
November 2021	EU Budget Funds and their Impact in the Czech Republic

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

Published	Box Topic
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 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
November 2018	Box 1: Changes in the Methodical Classification of Certain Revenue and Expenditure of General Government Sector Box2: National Methodology for the Classification of One-off and Other Temporary Measures
November 2019	Box 1: Healthy Ageing Box 2: Pension Expenditure in the CR and EU Member States Box 3: Excluding Specific Items from Expenditure Rules
January 2021	Box 1: Reaction of the Euro area Yield Curve of the Government Bonds on the ECB's measures Box 2 OECD Conclusions in the Review of the Pension System of the Czech Republic Box 3: Selected Studies to prevent the Spread of the Disease and mitigate the Economic Impact Box 4: Temporary Framework for State Aid Measures to support Economy Affected by COVID-19
November 2021	Box 1: Yield "Anomaly" on the Bond Market in EU Countries