

Convergence Programme

of the Czech Republic

April 2022

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Contents

Introduction and Summary	1
1 Economic Policy Intentions and Objectives	3
1.1 Fiscal Policy	3
1.2 Monetary Policy	3
2 Macroeconomic Scenario	5
2.1 Global Economy and Technical Assumptions	5
2.2 Current Developments and a Medium-term Scenario	5
2.3 Foreign Relations and Sectoral Balances	8
3 General Government Sector Finances	12
3.1 Current Developments of the General Government Sector	12
3.2 General Government Outlook	16
3.3 Structural Balance and Fiscal Position	18
3.4 General Government Debt, Strategy and Stability of State Debt	18
4 Comparison with the Previous Convergence Programme, Risks of Forecast and Sensitivity Analysis	24
4.1 Comparison with the Scenario of the Previous Convergence Programme of the Czech Republic	24
4.2 Risks of Macroeconomic and Fiscal Forecast	25
4.3 Sensitivity Analysis	26
4.4 Forecasts Verification by the Committee on Budgetary Forecasts	28
5 Sustainability of Public Finance	30
5.1 Government Strategy and Implemented Reforms	30
5.2 Fiscal Impacts of Population Ageing	32
5.3 Sustainability Analysis	34
5.4 General Government Guarantees	34
6 Quality of Public Finance Revenue and Expenditure	39
6.1 Tax Policy Outlook	39
6.2 Rationalisation of General Government Expenditure	39
6.3 Composition of General Government Expenditure	42
7 Changes in the Institutional Framework of Fiscal Policy	44
7.1 Changes Related to Investment and the Capital Market	44
7.2 Increasing Efficiency and Transparency of Public Finances	46
7.3 Budgetary Policy	47
7.4 Institutional Changes in Public Finances	48
References	49
Annex: Convergence	58
Glossary of Terms	59

The Convergence Programme is submitted on the basis of Article 121 of the Treaty on the Functioning of the European Union and the current version of Council Regulation (EC) No. 1466/97 on the Strengthening of the Surveillance of Budgetary Positions and the Surveillance and Coordination of Economic Policies. As such, it has been drawn up in accordance with the rules in force in the Council's Economic and Financial Committee (EFC, 2017) and is consistent with the National Reform Programme of the Czech Republic (Government Office, 2022) and the National Recovery Plan of the Czech Republic (MIT, 2022).

List of Tables

Table 2.1: Economic Output	10
Table 2.2: Prices of Goods and Services	10
Table 2.3: Employment and Compensation of Employees	10
Table 2.4: Sectoral Balances	11
Table 2.5: Basic Macroeconomic Assumptions	11
Table 3.1: General Government Budgetary Prospects	21
Table 3.2: Amounts to Be Excluded from the Expenditure Benchmark	21
Table 3.3: A Structure of Approved Discretionary Measures in 2021–2025	22
Table 3.4: Revenue and Expenditure Forecast and Outlook in No-policy-change Scenario	22
Table 3.5: Cyclical Developments	22
Table 3.6: General Government Debt Developments	23
Table 3.7: The State Debt’s Refinancing, Interest and Foreign Currency Exposition.....	23
Table 4.1: Change in the Indicators of the Scenario	28
Table 4.2: Sensitivity Analysis	29
Table 5.1: Long-term Sustainability of Public Finances	37
Table 5.2: Sustainability Indicators S1 and S2	37
Table 5.3: Contingent Liabilities	38
Table 6.1: General Government Expenditure by Function	43

List of Graphs

Graph 1.1: General Government Balance.....	4
Graph 1.2: Fiscal Effort and Fiscal Impulse	4
Graph 1.3: Real Exchange Rate to the Euro Area	4
Graph 1.4: Consumer Prices	4
Graph 2.1: GDP Development	9
Graph 2.2: GDP, Productivity and Labour Intensity.....	9
Graph 2.3: Investment by Sector	9
Graph 2.4: Nominal Consumption of Households	9
Graph 2.5: Consumer Prices	9
Graph 2.6: Output Gap	9
Graph 2.7: Unemployment, Employment, Activity Rates.....	9
Graph 2.8: Changes in Participation Rate	9
Graph 3.1: Government Balance by Sub-sectors	20
Graph 3.2: One-off Measures	20
Graph 3.3: General Government Tax Revenue.....	20
Graph 3.4: General Government Expenditure.....	20
Graph 3.5: Liquid Financial Assets	20
Graph 3.6: Investment Co-financing from EU Funds	20
Graph 3.7: General Government Debt	20
Graph 3.8: Change in Debt-to-GDP Ratio	20
Graph 5.1: Health Insurance Companies’ Reserves.....	36
Graph 5.2: Czech Population in Different Projections	36
Graph 5.3: Old-age Dependency Ratio	36
Graph 5.4: Projection of Pension Account Balances.....	36
Graph 5.5: Health Care Scenarios	36
Graph 5.6: Long-term Care Scenarios.....	36

Graph 5.7: Expenditure Projections – Reference Cases	36
Graph 5.8: General Government Guarantees.....	36
Graph 6.1: Structure of General Government Expenditure, Divided by Function.....	42
Graph P.1: Relative Economic Level	58
Graph P.2: Comparative Price Level	58
Graph P.3: Real Labour Productivity.....	58
Graph P.4: Average Compensation of Employee.....	58

List of Abbreviations

CNB	Czech National Bank
COFOG	Classification of the Functions of Government
CP	Convergence Programme of the Czech Republic
CZK	Czech koruna currency code
CZSO	Czech Statistical Office
EC	European Commission
ESA 2010	European System of National and Regional Accounts from year 2010
EU	European Union containing 27 countries
EUR	euro currency code
GDP	gross domestic product
MF CR	Ministry of Finance of the Czech Republic
p. a.	<i>per annum</i>
p. m.	<i>pro memoria</i>
pp	percentage point
US	United States of America
USD	US Dollar currency code

Symbols Used in Tables

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

Cut-off Date for Data Sources

Macroeconomic data used pertain to the 31 March 2022 release and fiscal data and policies to the 7 April 2022 release. Notification of general government deficit and debt was specified and approved by Eurostat on 22 April 2022.

Note

In some cases, published aggregate data do not match the sums of individual items to the last decimal place due to rounding.

Introduction and Summary

Two years ago, the world went through a synchronised global recession, the deepest since the end of the Second World War. The gross domestic product of the countries of the European Union fell by 6.1%, while the Czech economy fell by 5.8%. The situation was complicated by the fact that the recession was caused by a viral pandemic. The contagion, measures aimed at limiting the spread of the epidemic and the disruption of supply and demand chains paralysed the activity of many sectors. Economic policies responded with massive fiscal and monetary stimuli. The uncertainties about the depth, duration and, above all, the combined aspects of the health and economic crisis in the context of a globalised world were unprecedented.

As the first wave of the pandemic receded and restrictions on social and economic activity eased, demand accelerated, but supply, still burdened in places by anti-epidemic measures, responded much more slowly. The consequences, in the form of delays or interruptions in the supply of intermediate and final products, continue to this day. Shortages of materials, equipment and labour continue to hamper production, compounded by rising prices for commodities and transport services. Substantial cost increases are particularly evident in energy prices, which dampen household and business spending.

The waning winter pandemic wave was replaced at the end of February 2022 by the biggest security and humanitarian crisis in Europe since the Second World War. The invasion of Ukraine by the Russian Federation has already forced over five million people, mostly women and children, to flee the country. Russian aggression and retaliatory measures by Western countries have led to further price shocks on world markets. The accumulation of these factors, together with the importance of both countries for world exports of materials, energy and food, poses a significant risk to economic growth and raises further challenges, again outside the framework of traditional economic policy.

In addition to these events, the Czech economy is exposed to structural problems, such as the ongoing process of population ageing, and global factors in the form of planetary climate change. The direction of the Czech Republic is also influenced by the priorities of the new political representation resulting from the elections to the Chamber of Deputies on 8 and 9 October 2021. The new government, consisting of two coalitions of five political entities, has revised the draft State Budget of the Czech Republic for 2022 and pushed for a deficit of almost 1.5% of GDP lower than the original proposal before the elections. In addition to savings in operating expenditure, salaries and some transfers, the budget already responds to some of the extraordinary price effects, for example by additional indexation of pensions and social benefits. However, further adjustments during the year cannot be ruled out due to factors related to the war in Ukraine and the rise in energy prices.

Macroeconomic developments are burdened by a number of uncertainties. The impact of geopolitical events on the Czech economy can be difficult to quantify reliably during the ongoing conflict. Whether it is of unknown duration, humanitarian or economic impact, what is certain is that the conflict in Ukraine has escalated imbalances in supply and demand chains, the manifestation of which is rising prices. The Russian invasion has further deepened and widened the problems associated with inflation.

The labour market in the Czech Republic is tense again. While there was a rise in the unemployment rate during the 2020 and 2021 epidemics, the highest rate over the whole period was only slightly above 3%. It was thus much lower than would be consistent with the cyclical position of the economy. Support measures during the

epidemic have played a significant role in keeping unemployment low. Despite the persistence of a negative output gap, wages and salaries grew by over 6% last year, and similar pace is expected in 2022 and 2023.

Public finances have fallen into substantial deficits as a result of the impact of the epidemic and the measures taken to slow it down, offset the economic downturn and stimulate the economy. The general government sector ended with a deficit of 5.8% of GDP in 2020 and 5.9% of GDP in 2021. Nevertheless, the outcome was better than expected. The resilience of the Czech economy, the effectiveness of various economic policy measures and the associated renewed tax revenues and social contributions were the main reasons for the more favourable execution of public budgets. Debt at the end of 2021 reached 41.9% of GDP.

This year, the consolidation of public finances, which is also defined by the fiscal rule in the Fiscal Responsibility Rules Act, started. For 2022, we estimate a decline in the general government deficit to 4.5% of GDP, which, after taking into account the cyclical position of the economy and one-off or other temporary measures, represents a year-on-year improvement of almost one percentage point.

Without significantly dampening economic growth, the government aims to take a more ambitious approach to reducing public deficits than the limits set by law. EU funding, whether from the ending 2014–2020 financial perspective, the new financial perspective or the Next Generation European Union instrument, should also help to strengthen the dynamics of the Czech economy. However, the current war conflict brings with it changes in priorities and economic policy settings, the financial aspect of which will be reflected in the structure of the

economy. Taking into account the current legal provisions in force, we expect public finances to be back in compliance with the Stability and Growth Pact criterion for the general government deficit in 2024.

The Convergence Programme of the Czech Republic was presented and discussed in the relevant committees of the Parliament of the Czech Republic in April 2022. The document was approved by the Government of the Czech Republic on 11 May 2022.

1 Economic Policy Intentions and Objectives

The global pandemic has brought a number of new challenges to economic policy. Massive support for the economy and the health care sector led to a higher rate of public borrowing, compounded by the direct effects of the recession. Fiscal expansion in the European Union countries has been enabled by the application of the general escape clause from the rules of the Stability and Growth Pact for the period 2020–2022. However, the Russian aggression in Ukraine poses new risks and pressures on public finances, both direct and indirect consequences of economic developments.

The epidemic and the measures aimed at slowing it down resulted in a significant disruption of supplier-customer relations, reinforced by the rapid global recovery. This in itself dampens the growth momentum of economies and increases inflation. In addition to these effects, there is also a strong increase in energy prices, which is continuing as a result of the current geopolitical situation. Since June last year, the Czech National Bank has gradually increased its key interest rate to 5.0% in order to weaken domestic demand pressures, anchor inflation expectations close to the target and ensure a return of inflation to 2%. Moreover, it intervened on the foreign exchange market in March to strengthen the Czech koruna.

1.1 Fiscal Policy

Public budgets continued to be affected in 2021 by the course of the epidemic crisis and the measures taken to contain it. However, the scope of the measures was significantly reduced in terms of the number and amount of public resources allocated. Last year, the state budget was amended with a final planned deficit of CZK 500 billion, which was intended to cover both the additional costs of the epidemic and the support measures. The state budget in the cash methodology ended with a deficit of CZK 419.7 billion in 2021, with better-than-expected developments in revenues.

In October 2021, the Czech Republic held elections to the Chamber of Deputies. Their date followed shortly after the deadline set by the Budgetary Rules Act for the submission of the draft state budget. The outgoing government had proposed a state budget deficit of CZK 376.6 billion, which corresponded to the maximum allowable expenditure limits set by Act No. 23/2017 Coll., on Fiscal Responsibility Rules, as amended. Immediately after the elections, the winning coalition declared its intention to revise the budget to put more emphasis on savings on the expenditure side. A new draft state budget with a deficit of CZK 280 billion was then approved by the government on 9 February 2022 (Government Resolution No. 80/2022) and by the Chamber of Deputies on 10 March 2022. The Act No. 57/2022 Coll. came into effect on 19 March 2022, ending the provisional budget regime the same day.

Macroeconomic developments and the resulting government revenues have improved the overall and structural

1.2 Monetary Policy

Since 1998, the CNB's monetary policy has been conducted in an inflation targeting regime. Since 1 January 2010, the inflation target has been defined as year-on-year consumer price index growth of 2% with a tolerance band of ± 1 pp. The CNB defines the inflation target as a medium-term target and therefore tolerates certain temporary deviations of actual inflation rate from the inflation target

balance in 2022, while the more favourable tax forecast has also improved the performance of subsequent years (see Chapter 3). Although the budgetary frameworks are derived with a minimum fiscal effort of 0.5 pp, the estimated lower structural deficits increase the fiscal cushion to deal with adverse shocks such as the current crisis in Ukraine and energy prices, although some of the expenditure is likely to be one-off in nature.

The structural balance in 2021, as estimated in August 2021, was the starting point for the consolidation of public finances. The expenditure framework for 2022, derived in accordance with the Fiscal Responsibility Rules Act, is based on a structural deficit 0.5 pp lower. Indeed, after 2021, the structural balance from which the framework is derived should be improved by at least 0.5 pp each year. At the same time, the consolidation trajectory mandated by law does not exclude the possibility of a higher intensity of consolidation, especially if the economic and political situation allows it. The current fiscal policy stance already envisages stronger consolidation in 2022, with the estimated structural deficit at the end of the CP horizon of 2.7% of GDP significantly lower than the maximum required by the law for 2025 of 4.1% of GDP.

The consolidation setting thus takes into account both stabilisation and sustainability of public finances. Reducing public deficits will support efforts to gradually stabilise the debt-to-GDP ratio and reverse its trend towards a more responsible fiscal policy.

(e.g. as a result of adjustments to indirect taxes). Monetary policy does not normally respond to the primary effects of those deviations, instead concentrating solely on the secondary effects.

Consumer price growth is accelerating significantly from mid-2021 onwards, not only due to global cost factors (problems in supply chains, energy and other commodity

prices), amplified by the war in Ukraine, but also due to domestic demand pressures. In response to these developments, the CNB began to raise the two-week repo rate sharply, increasing it from 0.25% to 5.00% in seven steps. The tightening of monetary policy should ensure a return of inflation to the 2% target in the medium term.

The koruna's exchange rate against the euro appreciated by 3.1% year-on-year to CZK 25.65/EUR on average for the whole of 2021. Thanks to a sharp rise in domestic interest rates, the koruna initially strengthened to CZK 24.4/EUR in Q1 2022, but weakened sharply to CZK 26/EUR after the start of the Russian invasion of Ukraine. Thanks to the calming of the situation on the financial markets, the exchange rate then approached CZK 24.4/EUR again. With some stabilisation of the financial markets, the exchange rate should return to a gradual appreciation trend trajectory. However, this should be hampered by the development of the interest rate differential, which should not widen further from Q2 2022, and the temporarily suspended real convergence of the Czech economy towards the euro area.

The joint document of the MF CR and the CNB (2020) "Assessment of the fulfilment of the Maastricht convergence criteria and the degree of economic alignment of the Czech Republic with the euro area", approved by the Czech Government in December 2020 (Government Resolution No. 1283/2020), recommended not setting a target

date for euro area entry for the time being. In addition, in terms of the Maastricht convergence criteria, the Czech Republic met only the interest rate criterion in 2020.

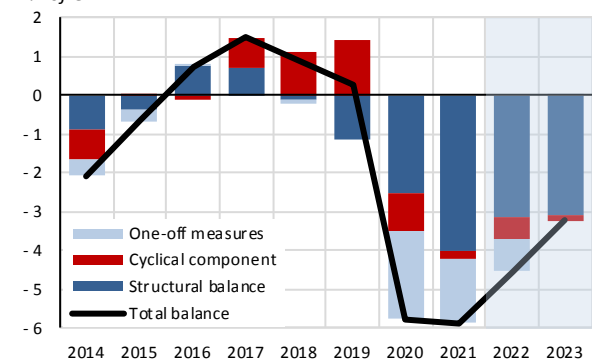
According to the document, the Czech Republic's actual substantive readiness to adopt the euro had improved, but weaknesses still remained. The structure of the Czech economy still differs significantly from the euro area and the process of real convergence, in particular price and wage levels, has not been completed. Given the ageing of the population, the problem of the long-term sustainability of public finances, whose stabilising effect should partly compensate for the loss of autonomous monetary policy after euro adoption, has not been resolved.

On the other hand, the high degree of openness of the Czech economy and its high degree of trade and ownership interdependence with the euro area have long argued in favour of adopting the euro. The relatively stable exchange rate of the koruna against the euro, even during the 2020 recession, the renewed alignment of the Czech and euro area financial markets and the resilient banking sector in the Czech Republic were also viewed favourably.

In view of these facts, the Czech Government has not yet set a target date for joining the euro area and has agreed with the recommendation not to seek entry into the European Exchange Rate Mechanism II for the time being. An updated document and recommendation will be submitted to the government by the end of 2022.

Graph 1.1: General Government Balance

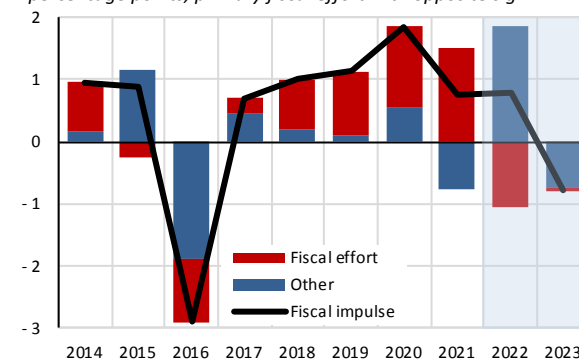
in % of GDP



Source: CZSO (2022a, 2022b). MF CR forecast and calculations.

Graph 1.2: Fiscal Effort and Fiscal Impulse

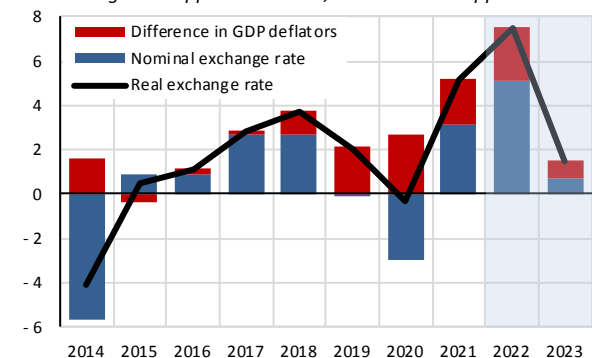
In percentage points, primary fiscal effort with opposite sign



Source: CZSO (2022a, 2022b). MF CR forecast and calculations.

Graph 1.3: Real Exchange Rate to the Euro Area

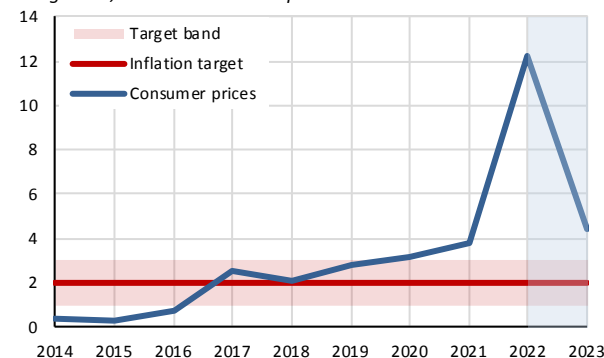
real exchange rate appreciation in %, contributions in pp



Source: CNB (2022a), CZSO (2022a), Eurostat (2022). MF CR forecast.

Graph 1.4: Consumer Prices

change in %, national consumer price index



Source: CNB (2022b), CZSO (2022a). MF CR forecast and calculations.

2 Macroeconomic Scenario

Russia's military aggression against Ukraine has completely changed the picture of the world in 2022 and revised growth prospects. The most serious consequence of the war is, of course, the loss of human life and the humanitarian crisis, but the economic consequences are also not insignificant. Although Russia and Ukraine contribute only around 2% of global GDP, they play a significant role as suppliers of many raw materials. The Russian invasion has thus had an impact on commodity markets in terms of price rises and increased volatility. The war has also underlined the importance of energy security and reducing dependence on Russia for key energy imports. As a consequence of the war in Ukraine, lower economic growth, exacerbating problems in supply chains and intensifying already high inflationary pressures can be expected at least in the short term.

2.1 Global Economy and Technical Assumptions

The first half of last year saw a gradual relaxation of anti-epidemic restrictions in a number of countries and a related economic recovery. However, the lingering negative effects of the pandemic continued to hamper global economic growth. Nevertheless, 2021 was characterised by strong economic growth in all major economies, with growth rates of 5.7% in the United States, 7.4% in the United Kingdom and 8.5% in China, for example.

EU gross domestic product increased by 5.3% last year. All demand components contributed positively to growth. Household consumption, which benefited from the easing of anti-epidemic measures and the slowly improving labour market, and gross capital formation contributed significantly. In the second half of the year, however, some European economies were noticeably affected by problems in supply chains and shortages of production components. Economic growth was also dampened by accelerating inflation and a recurrent deterioration in the epidemic situation towards the end of the year.

A slowdown in global economic growth can be expected in 2022, mainly due to uncertain pandemic developments and the impact of the ongoing war in Ukraine, which are intensifying the problems in supply chains and already strong inflationary pressures. We expect that EU economic growth could reach 2.5% this year and 3.1% in the next. The rate of growth should gradually slow in the following years.

In 2021, the average price of a barrel of Brent crude oil was USD 71, higher by almost 70% compared to 2020. While the Organization of Petroleum Exporting Countries and other associated countries have gradually increased production, demand for oil has outstripped supply due to the global economic recovery. Then, in Q1 2022, the price of Brent oil rose further sharply in the wake of the war in Ukraine. The forecast oil price reflects the downward sloping futures curve. In 2022, a barrel of Brent crude oil should trade on average at USD 105 (the EC expects virtually the same value according to the Spring Forecast (EC, 2022a) assumptions), while in the following years the price should gradually decline to less than USD 79 in 2025.

Based on recent developments in the USD/EUR exchange rate, we have chosen a technical stability assumption of USD/EUR 1.10 starting in Q2 2022. Compared to the EC's assumption, the euro should thus be weaker against the US dollar.

The koruna appreciated against the euro by 3.1% year-on-year to CZK 25.65/EUR on average for the whole of 2021. This year, we expect the exchange rate to appreciate by 5.1% to CZK 24.4/EUR. In the following period, the koruna's appreciation should be rather negligible.

In view of expected inflation and the expected monetary policy settings of the CNB and the European Central Bank, we expect long-term interest rates to rise to 3.9% on average in 2022. Long-term interest rates could gradually decline in the following period.

2.2 Current Developments and a Medium-term Scenario

2.2.1 Economic Growth and the Demand Side

All components of domestic demand, most notably the change in inventories and household consumption, contributed positively to the 3.3% increase in real GDP in 2021. In contrast, the balance of foreign trade in goods slowed down the growth of the economy strongly. On the export side, problems in global supply chains had a negative impact, while imports were strongly supported by strong inventory accumulation.

The outcome of 2022 will be fundamentally affected by Russian aggression and a change in the setting of international trade relations. With general uncertainty, we are working with a scenario that the main negative impacts will be concentrated in Q2. The full-year growth rate of the Czech economy should slow to 1.2%, driven by government and private sector investment and consumption. However, household consumption will be dampened by a sharp increase in the cost of living, especially energy prices, and tighter monetary policy. The

external trade balance should hardly affect growth dynamics.

Economic growth could exceed 3% in the next two years, before slowing to 2.5% in 2025. This should correspond to an expected increase in potential output.

Households' final consumption expenditure was expected to be negatively affected this year by a decline in real disposable income and tighter monetary policy. The increase in the cost of living will fall mainly on low-income households, while the effect of the rising price level on middle- and especially high-income households could be dampened by drawing on savings accumulated during the epidemic. However, the savings rate will still remain above the long-term average. The decline in labour taxation since the beginning of the year should have a positive impact on the full-year dynamics, as should the growth profile of consumption in 2021 (if household consumption were to stagnate at the level of Q4 2021 throughout this year, it would still increase by 2.3% for the whole of 2022). In view of mentioned strongly negative factors, real household consumption should grow by only 0.5% this year. In 2023, household consumption should be supported by a continued decline in the savings rate, a renewed increase in real disposable income and expenditure of refugees from Ukraine. Consumption could thus increase by 4.5%.

We expect real government consumption to grow by 1.0% in 2022. The rate of employment is expected to be weaker overall than in 2021; however, there will be pressure to increase staff capacity, especially in education, due to the migration wave from Ukraine. Purchasing and spending in the health care sector should weaken as the epidemic fades, but this will be offset by humanitarian needs. We forecast the same dynamics as in 2022 for 2023, when government consumption should be boosted by spending on purchases of goods and services, supported by current subsidies from EU funds as the end of the 2014–2020 financial perspective approaches.

Gross fixed capital formation is expected to continue its gradual recovery in 2022, driven by economic growth abroad, the lagged impact of easy monetary conditions and investment activity of the general government sector supported by the implementation of projects co-financed by EU funds. However, private investment will be weighed down by problems in supply chains and a substantial increase in uncertainty related to the possible escalation of the war in Ukraine and the extension of economic sanctions against the Russian Federation. The projected easing of these problems and the acceleration of growth in foreign economies could contribute to a significant increase in private investment dynamics in 2023, despite the restrictive monetary policy. Overall investment activity will also be supported by military equipment purchases and the use of expiring EU funds from the previous financial perspective. Gross fixed

capital formation could increase by 2.2% in 2022 and is forecasted to grow by 5.9% in 2023.

In 2022, we expect companies to accumulate a similar volume of inventories as in the previous year, both for prudential reasons and due to interruptions in the supply of certain components. In future years, the change in inventories could then contribute slightly negatively to GDP growth.

We expect exports of goods and services to grow by 1.5% this year and then speed up to 4.2% in 2023. Export growth in 2022 will reflect a recovery in export markets and consumption by immigrants from Ukraine¹, while export per capita will substantially dampen it due to supply disruptions. The forecasted acceleration in exports next year reflects continued economic recovery in major trading partner countries and fading supply-side frictions. The momentum in exports and import-intensive investment demand is then reflected in the pace of imports of goods and services, which could rise by 1.3% in 2022. The acceleration to 4.0% in 2023 will be driven by higher rates of gross capital formation, exports and household consumption.

2.2.2 Potential Output and Business Cycle

Potential output growth stagnated at 1.0% in 2021, lagging well behind the average rate in the years before the pandemic. The most important factor was the increase in aggregate factor productivity (contributing 1.1 pp), while the capital stock added 0.5 pp to potential growth. Due to the labour market developments, the increase in participation rate had a positive effect. However, the ageing of the population, accompanied by a decline in the working-age population, took 0.3 pp off potential growth, while the lower number of hours usually worked reduced its dynamics by 0.5 pp.

Potential output growth should accelerate significantly this year and could be around 2.5% in the coming years. This is the long run average. The increase in the working-age population as a result of the immigration wave should boost potential growth, but the coronavirus epidemic and the associated restrictive measures will continue to have a negative impact in the medium term.

In 2020, the economy fell into a deeply negative output gap as a result of the epidemic, and since then gross value added has remained below its potential level. The expected economic recovery could bring the output gap to a close by the end of next year. On average, the output gap could be -1.8% for 2022, and close to zero around the horizon of the outlook.

¹ Refugees from Ukraine will initially be classified as non-residents, so their expenditures will be included in the expenditure method of GDP estimate not in household consumption but in exports of goods and services. For more details, see Box 1 in the April Macroeconomic Forecast (MF CR, 2022a).

2.2.3 Prices

The inflation rate, as measured by the harmonised index of consumer prices, had been above 2% throughout 2021, but had accelerated markedly in the second half of the year and had reached 5.4% in December. It averaged 3.3% for the year as a whole. The acceleration in inflation was mainly driven by supply-side frictions and a significant rise in the price of oil and other commodities on world markets.

Year-on-year inflation is expected to peak above 12% in the first half of 2022, boosted by growth in administered prices. Among these, the most significant will be increases in electricity and gas prices. There will also be a further increase in excise duties on tobacco products, but the impact on inflation should be very small. The contribution of administrative measures to the average inflation rate is likely to exceed 3 pp in 2022 and could be 1.1 pp in 2023.

Year-on-year inflation should remain in double digits for the rest of this year. Supply side frictions and rising oil and other commodity prices, factors amplified by the war in Ukraine, should continue to have an inflationary effect. Unit labour costs should also increase. Conversely, the appreciation of the Czech koruna against the euro should be anti-inflationary. This year, growth in the harmonised index of consumer prices should reach 11.3%. In 2023, monetary policy tightening should have a more pronounced effect and complications on the supply side of the economy should subside. Inflation should thus slow sharply to 4.2%.

The GDP deflator could increase by around 7% in 2022, driven mainly by the household consumption deflator, but should be slightly held back by exchange rates. In 2023, the growth rate of the GDP deflator could slow down to 4%, mainly due to a slowdown in the growth of the household consumption deflator.

2.2.4 Labour Market and Wages

Government support programmes have significantly dampened the impact of the recession on the labour market. Although the unemployment rate rose slightly to 2.8% on average in 2021, it gradually declined during the year thanks to economic growth. After a brief pause, the labour market is again showing the imbalances that characterised it before the epidemic outbreak. Staff shortages, increases in minimum and guaranteed wages and extraordinary bonuses paid in connection with the epidemic led to a 6.7% increase of compensation for employees. The increase in both labour income (partly due to lower effective taxation) and social benefits was positively reflected in the dynamics of household disposable income. The extraordinary savings generated

during the epidemic could be used by households, at least in part, to finance deferred consumption or to reduce the impact of higher consumer prices.

We assume that due to the war in Ukraine, the positive migration balance will be 325,000 persons higher this year than in the medium variant of the CZSO demographic projection, i.e. it will reach 351,000 persons. In terms of the age structure, 55% of refugees from Ukraine are expected to be of working age (of which about 80% will be women), 42% will be children and young people up to 19 years of age and the remaining 3% will be seniors. While some refugees may return to Ukraine in the coming years, at the same time increased immigration from Ukraine can be expected.

The arrival of workers from Ukraine, accompanied by strong demand for labour, is expected to translate into year-on-year employment growth of 2.1% and 1.3% respectively this year and next. Given demographic developments and the pronounced shortage of workers in many sectors, the scope for further employment growth (apart from new foreign workers) is virtually exhausted. Employment is therefore expected to increase just marginally in the coming years. Thanks to the above factors, the unemployment rate should fall to 2.5% this year. It could rise slightly to 2.6% in 2023 due to the lagged effects of low economic growth and then decrease further to 2.3% at the end of the CP horizon.

Labour supply in the coming years should be stimulated by the continued increase in the statutory retirement age and, in 2022–2023, by demographic aspects in the form of a growing share of age groups with a naturally high economic activity rate. However, a decline in the participation of pre-retirement age individuals, who could retire early at a higher rate, could have the opposite effect. The participation rate of 20–64 year olds could be close to 81.4% over the entire CP horizon.

The dynamics of compensation of employees was boosted by the extraordinary bonuses related to the epidemic in the previous two years. This year, earnings in non-market sectors are expected to grow only marginally, due to the unchanged level of pay scales for a substantial part of employees and the payment of bonuses last year, which increased the comparative base. Wage and salary growth should thus be driven by developments in market sectors, where the significant shortage of workers, combined with falling unemployment and a 6.6% increase in the minimum and guaranteed wage, should accelerate earnings growth. Compensation of employees could thus increase by 4.7% this year and grow at a rate of around 6% next year. The dynamics in subsequent years could reach rates around 4%.

2.3 Foreign Relations and Sectoral Balances

In 2013–2019, the Czech economy mostly achieved slight surpluses on net lending/borrowing vis-à-vis non-residents (ESA 2010 methodology). In 2020, the positive balance increased significantly to 3.7% of GDP, however, a deficit of 0.6% of GDP was reported for 2021.

The main reason for this change was a sharp reduction in the goods and services surplus from 6.8% of GDP in 2020 to 3.0% of GDP in 2021, driven by a year-on-year deterioration in the balance of the machinery and transport equipment group, which accounts for more than half of total goods exports. The evolution of this commodity class was mainly affected by supply chain disruptions and forced production shutdowns in industry. The deterioration in the balance also reflects strong imports of intermediate consumption goods, possibly related to stock accumulation triggered by concerns about possible future supply shortages and further input price increases. The services balance was almost unchanged year-on-year in relative terms.

A further negative impulse has been in the long-standing deficit balance of primary income, which is mainly influenced by distributed income from foreign-controlled companies. The primary income deficit widened to 3.9%

of GDP last year from 3.2% of GDP in 2020, due to higher dividend payments abroad by non-financial corporations and an increase in reinvested earnings.

The balance of current transactions with non-residents (corresponding to the current account of the balance of payments) thus recorded a deficit of 2.0% of GDP, compared to a surplus of 2.5% of GDP in 2020.

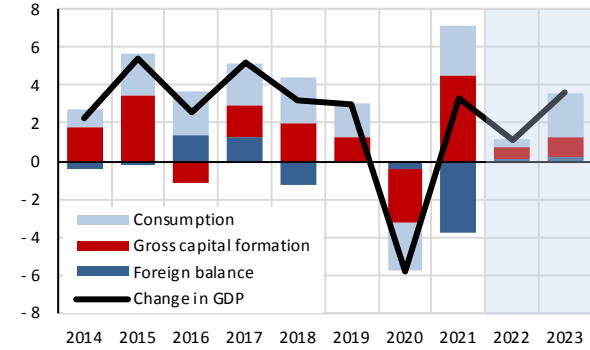
The surplus on the capital transfers balance increases slightly to 1.2% of GDP in 2021, mainly due to capital subsidies from the EU budget.

In the CP scenario, we assume that the current account deficit with non-residents will widen to 3.3% of GDP this year due to persistent negative factors, especially in the balance of goods. In the following years, the present disruption in production and supply chains should subside. The balance of current transactions with non-residents should thus gradually return to surplus, as should net lending/borrowing.

In terms of sectoral balances, the private sector balance should show significant surpluses under the projected trajectory of the general government sector.

Graph 2.1: GDP Development

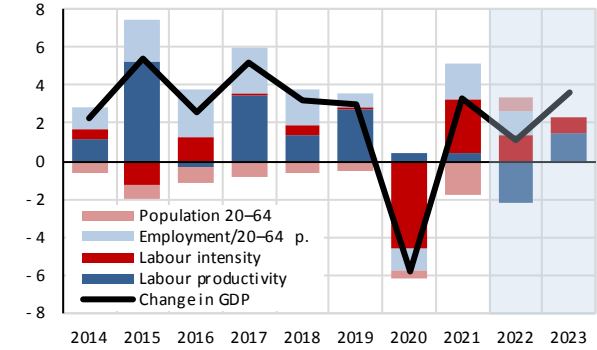
change in %, contributions in percentage points



Source: CZSO (2022a), MF CR (2022a). MF CR calculations and forecast.

Graph 2.2: GDP, Productivity and Labour Intensity

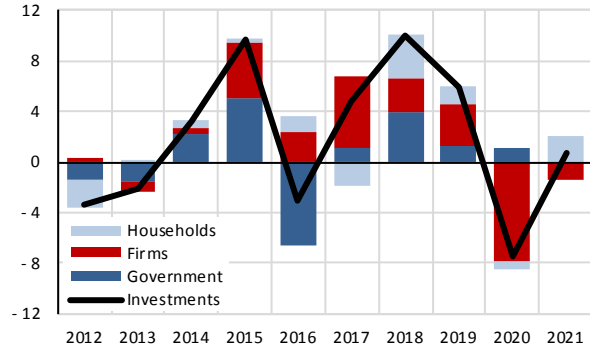
change in %, contributions in percentage points



Source: CZSO (2022a), MF CR (2022a). MF CR calculations and forecast.

Graph 2.3: Investment by Sector

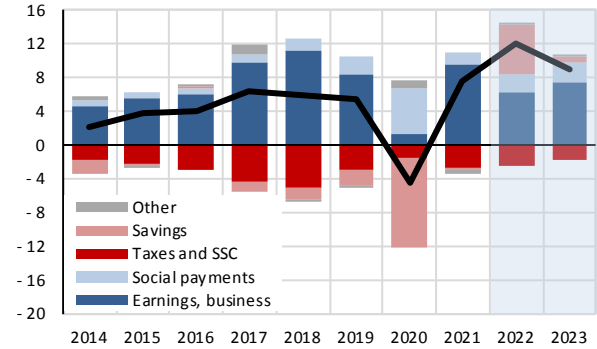
change of real gross fixed capital formation in %, contributions in pp



Source: CZSO (2022a), MF CR (2022a). MF CR calculations.

Graph 2.4: Nominal Consumption of Households

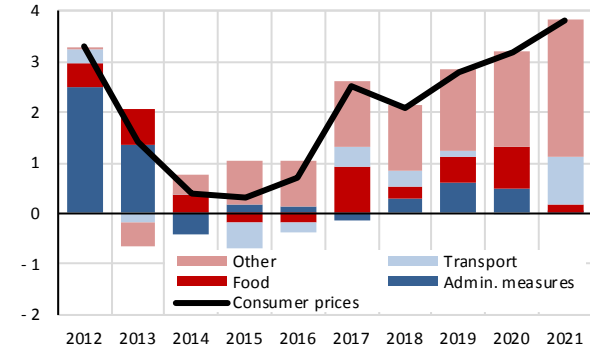
national concept, change in %, contributions in pp



Source: CZSO (2022a), MF CR (2022a). MF CR calculations and forecast.

Graph 2.5: Consumer Prices

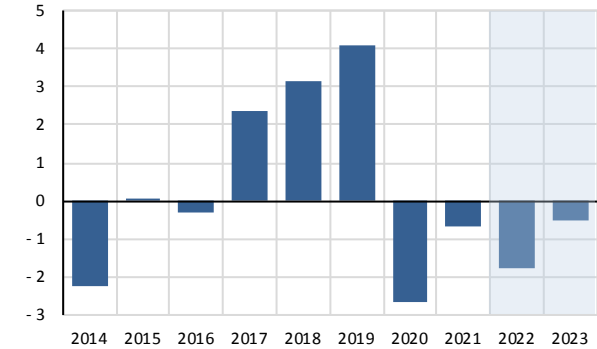
national concept, y-o-y change in %, contributions in percentage points



Source: CZSO (2022a). MF CR calculations.

Graph 2.6: Output Gap

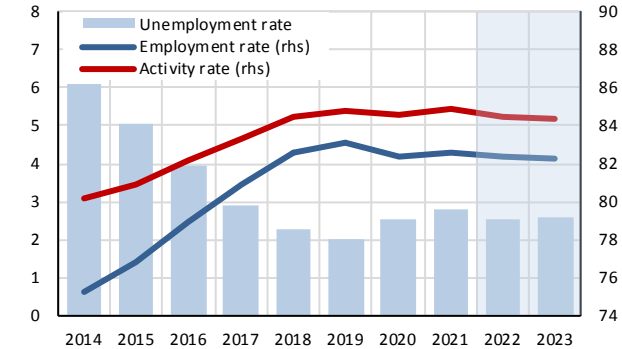
in % of potential product



Source: MF CR (2022a).

Graph 2.7: Unemployment, Employment, Activity Rates

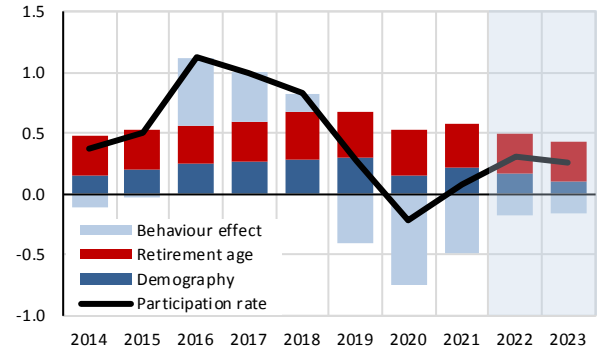
in %



Source: CZSO (2022c). MF CR calculations and forecast.

Graph 2.8: Changes in Participation Rate

change and contributions in percentage points



Source: CZSO (2022c), Eurostat (2022). MF CR calculations and forecast.

Table 2.1: Economic Output*levels in CZK billions, change in %, contributions in percentage points*

	ESA Code	2021 <i>Level</i>	2021	2022	2023	2024	2025
			<i>Rate of change</i>				
Real GDP	B1*g	5 885	3.3	1.2	3.6	3.2	2.4
Nominal GDP	B1*g	6 121	7.5	8.1	7.8	5.8	4.7
Components of real GDP							
Private consumption expenditure	P.3	2 712	4.4	0.5	4.5	4.0	3.5
Government consumption expenditure	P.3	1 268	3.0	1.0	1.0	1.1	1.6
Gross fixed capital formation	P.51g	1 500	0.6	2.2	5.9	0.1	0.2
Changes in inventories and net acquis. of valuables (% of GDP)	P.52+P.53	230	4.4	4.3	3.8	3.4	2.9
Exports of goods and services	P.6	4 250	5.1	1.5	4.2	3.7	2.5
Imports of goods and services	P.7	4 075	11.5	1.3	4.0	1.9	1.4
Contributions to real GDP growth							
Final domestic demand		-	2.8	1.0	3.9	2.2	2.0
Changes in inventories and net acquis. of valuables	P.52+P.53	-	4.3	0.0	-0.4	-0.3	-0.4
External balance of goods and services	B.11	-	-3.8	0.1	0.2	1.3	0.9

Note: Real levels are in 2020 prices. Changes in inventories and net acquisition of valuables on the sixth row express change in inventories as a per cent of GDP in current prices. The contribution of the change in inventories and net acquisition of valuables is calculated from real values.

Source: CZSO (2022a), MF CR (2022). MF CR calculations and forecast.

Table 2.2: Prices of Goods and Services*indices 2015=100, rate of change in %*

	2021 <i>Level</i>	2021	2022	2023	2024	2025
		<i>Rate of change</i>				
GDP deflator	118.6	4.0	6.9	4.1	2.5	2.2
Private consumption deflator	114.7	3.1	11.5	4.2	2.0	2.0
Harmonised index of consumer prices	115.1	3.3	11.3	4.2	2.0	2.0
Public consumption deflator	126.9	3.6	3.4	3.0	1.9	1.8
Investment deflator	115.0	3.9	7.0	4.2	2.7	2.2
Export price deflator (goods and services)	103.5	4.5	5.9	3.2	1.8	0.9
Import price deflator (goods and services)	101.1	4.4	7.9	3.1	1.3	0.6

Source: CZSO (2022a), Eurostat (2022). MF CR calculations and forecast.

Table 2.3: Employment and Compensation of Employees*price levels in current prices, rate of change in %*

	ESA Code	2021 <i>Level</i>	2021	2022	2023	2024	2025
			<i>Rate of change</i>				
Employment (thous. of persons)		5 345	0.1	2.1	1.3	0.2	0.1
Employment (mil. hours worked)		9 358	2.8	3.4	2.4	0.2	0.1
Unemployment rate (%)		2.8	2.8	2.5	2.6	2.4	2.3
Labour productivity (thous. CZK/person)		1 101	3.2	-0.9	2.3	3.0	2.3
Labour productivity (CZK/hours)		629	0.6	-2.2	1.1	3.0	2.3
Compensation of employees (bn. CZK)	D.1	2 797	6.7	4.7	6.2	3.9	4.0
Compensation per employee (thous. CZK/person)		602	5.6	2.0	4.0	3.8	3.9

Note: Employment and compensation of employees are based on domestic concept of national accounts. Unemployment rate is based on the Labour Force Survey methodology. Labour productivity is calculated as GDP in 2020 prices per employed person or hour worked.

Source: CZSO (2022a, 2022c). MF CR calculations and forecast.

Table 2.4: Sectoral Balances*in % of GDP*

	ESA Code	2021	2022	2023	2024	2025
Net lending/borrowing vis-à-vis the rest of the world	B.9	-0.6	-1.6	-1.0	0.4	1.0
Balance of goods and services		3.0	1.8	2.0	3.5	4.4
Balance of primary incomes and transfers		-5.0	-5.1	-4.9	-4.8	-4.9
Capital account		1.2	1.5	1.7	1.5	1.3
Net lending/borrowing of the private sector	B.9	5.3	3.0	2.2	3.3	3.7
Net lending/borrowing of general government	B.9	-5.9	-4.5	-3.2	-2.9	-2.7
Statistical discrepancy		0.0	0.0	0.0	0.0	0.0

*Note: National Accounts Methodology.**Source: CZSO (2022a). MF CR calculations and forecast.***Table 2.5: Basic Macroeconomic Assumptions***interest rates and change in %*

		2021	2022	2023	2024	2025
Short-term interest rate (CZ) (annual average)	% p.a.	1.1	5.3	4.9	3.3	2.6
Long-term interest rate (CZ) (annual average)	% p.a.	1.9	3.9	3.6	2.9	2.7
Nominal effective exchange rate	2015=100	110.5	115.1	115.8	116.3	116.8
Exchange rate CZK/EUR (annual average)	CZK/EUR	25.6	24.4	24.2	24.1	24.0
World excluding EU, GDP growth	change in %	5.7	4.2	3.8	3.3	3.0
EU GDP growth	change in %	5.3	2.5	3.1	2.8	1.7
Growth of relevant foreign markets	change in %	10.0	2.9	3.8	2.8	2.3
World import volumes, excluding EU	change in %	9.3	5.5	4.6	3.6	2.9
Oil prices (Brent)	USD/barel	70.8	104.8	91.3	83.5	78.8

Source: CNB (2022a), EIA (2022), Eurostat (2022a). MF CR calculations and forecast.

3 General Government Sector Finances

In 2021, the public finances of the Czech Republic ran a deficit of 5.9% of GDP. The state budget deficit, which contributed decisively to the fiscal stimulus of the economy, was cushioned by a positive balance of local governments. 2022 is the first year with a restrictive fiscal policy after the epidemic crisis. Although the expenditure ceilings of the state budget and state funds envisaged a consolidation of 0.5 percentage points, the current forecast for 2022 estimates a fiscal effort of almost double.

The prediction is burdened with relatively high risks (see Chapter 4.2). The receding uncertainty associated with the epidemic is being replaced by a rapid increase in uncertainties arising from the current geopolitical situation. The volatility of the external and internal economic environment, the sanctions imposed on the Russian Federation and its retaliatory measures are also having an impact on the Czech economy, including energy prices. Beyond this, public finances have to deal with the migration wave and humanitarian and military aid to Ukraine.

3.1 Current Developments of the General Government Sector

3.1.1 Outcome in 2021

According to CZSO data (2022e), the **general government sector** ended with a deficit of 5.9% of GDP in 2021 and was still affected by the ongoing coronavirus epidemic, its economic consequences and measures implemented in the public health care sector or expansionary fiscal policy. Although last year's deficit is mainly attributable to the state budget, even the increased transfers from the state budget to health insurance companies in the form of higher payment for the state insured did not compensate for the high health expenditure and the balance of social security funds also ended in a slight deficit. On the other hand, local governments again posted a surplus, supported by the adjustment of the tax assignment. In terms of the structural balance, expansionary fiscal policy led to a deficit of 4.0% of GDP, as a number of measures were of a one-off or temporary nature and the decline in revenue was to some extent cyclical.

Total **revenue** grew by 4.8%, but the even 2.7 pp higher nominal GDP growth caused a 1.0 pp decrease in relative terms to 40.5% of GDP. The growth rate was dampened by a 1.4% decline in tax revenue as a result of the "2021 tax package" (Act No. 609/2020 Coll.). In this context, the tax quota was also reduced by 1.1 pp to 34.9% of GDP.

Revenues from income taxes showed a 14.0% year-on-year decline, caused by a 25.2% drop in **personal income tax** revenue, due to a reduction in the effective tax rate with an impact of CZK 99 billion on public finances (Act No. 609/2020 Coll.). The same law extended tax support for employee meals and also increased the limit for the deduction of gifts to 30% of the tax base, for a total of CZK 0.3 billion, with an additional negative impact. From 1 January 2021, a flat-rate income tax regime for sole traders with income up to CZK 1 million also came into force, having the impact of CZK 0.5 billion per year (Act No. 540/2020 Coll.). The increase in the amounts of the tax credit for children (except for the discount for the first child) already for 2021 and the

abolition of the ceiling for the tax bonus required CZK 3.2 billion (Act No. 285/2021 Coll.).

The **corporate income tax** revenue grew by 3.9% and was negatively affected by several measures of the "2021 tax package", namely the "meal voucher lump sum" or the increase of the limit for claiming the deduction of gifts to 30% of the tax base with an aggregate impact of CZK 0.4 billion. The continuation of extraordinary depreciation of assets reduced tax revenue by a further CZK 5.9 billion. Conversely, the negative impact of the increase in the entry price threshold for depreciation of tangible assets decreased by CZK 0.8 billion year-on-year.

The development of **social security contributions** was primarily determined by the 6.6% growth of wage bill in the economy and one-off measures to mitigate the socio-economic impact of the anti-epidemic restrictions in 2020 (forgiveness of minimum advances to the self-employed, the Antivirus programme – Mode C). The increase in the payment for the state insured contributed an additional CZK 29.1 billion to the public health insurance system (Act No. 231/2020 Coll.). The extraordinary allowance for employees in ordered quarantine of up to CZK 370 per day reduced cash receipts by 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 regime and the extension of tax support for employee meals were almost offset. All these factors together accounted for the 11.4% growth in social security contributions.

Value-added tax revenue grew by 9.7%. The autonomous development was corrected by a number of discretionary measures with negative effects. The temporary waiver of the tax on electricity and gas supplies in November and December 2021 in connection with the increase in energy prices on the market resulted in a shortfall of CZK 5.4 billion (Government Resolution No. 907/2021). The reclassification of selected goods and services to the second reduced tax rate in the first half of 2020 (Act No. 256/2019 Coll.) resulted in

a CZK 1.4 billion reduction in revenue last year. As a result of the reduction in the rate for accommodation services and cultural and sporting events from 1 July 2020 (Act No. 299/2020 Coll.), tax revenue fell by CZK 1 billion year-on-year. Finally, the waiver of tax on diagnostic medical devices for testing of COVID-19 and on vaccines against this disease (Government Resolution No. 1326/2020), together with the temporary waiver of tax on face masks (Government Resolutions Nos. 99/2021, 272, 504, 755 and 908) reduced revenue by a total of CZK 2.3 billion.

Excluding renewable energy subsidies, **excise** revenue grew by 2.6%. In particular, the changes to the rates on tobacco products (Act No. 609/2020 Coll.) had a positive effect, with an impact of CZK 5.2 billion, while, on the contrary, revenue was reduced by restrictions on cross-border purchases due to the spread of the epidemic. Mineral oil excise revenue was dampened by a reduction in the tax rate on diesel by CZK 1 per litre, totalling CZK 5.6 billion (Act No. 609/2020 Coll.). In the case of other taxes on production and imports, the introduction of the register of excluded persons led to a CZK 1.5 billion reduction in gambling tax revenue (Act No. 186/2016 Coll.).

Property income, whose growth was driven by dividend income (mainly from CEZ energy company), showed a 12.7% increase.

General government expenditure grew by 5.3%, but, as with total revenue, high nominal GDP growth caused it to fall in relative terms by 1.0 pp to 46.4% of GDP. The expenditure side was still marked by anti-epidemic measures and programmes to mitigate their economic and social impact.

Final consumption expenditure maintained its strong momentum at 5.7%, with contributions from social transfers in kind, compensation of employees and intermediate consumption. On the other hand, its growth was corrected by higher output. Compensation of employees increased by 6.5% and, in addition to the increase in the salaries of education, health care and social services workers, it reflected extraordinary bonuses of health care, social services and armed forces personnel.

The 11.0% growth rate of **social transfers in kind** continued the strong momentum of the previous two years, as they were still burdened by the epidemic situation and the vaccination of the population. Their volume was also boosted by extraordinary bonuses of health care workers in private institutions paid by health insurance companies amounting to CZK 8.5 billion. In addition, the prevention funds of health insurance companies covered the contribution to self-testing of employees and self-employed persons, with an impact of CZK 1.9 billion (Government Resolutions Nos. 191, 242, 293, 313, Act No. 161/2021 Coll.). The COVID-Spa programme

disbursed CZK 0.3 billion to support spa tourism (Government Resolutions Nos. 703/2020 and 48/2021).

The 2.3% increase in **intermediate consumption** was partly driven by purchases of COVID-19 vaccines and tests. In addition to higher real consumption, the higher inflation rate, driven by energy prices at the end of the year, was also reflected.

The 4.7% increase in **cash social benefits** mainly reflected the statutory indexation of pension insurance benefits and an increase in transfers to public health insurance system. With effect from 1 January 2021, Government Regulation No. 381/2020 Coll. increased the average old-age pension by CZK 839. The payment for the state insured was increased by CZK 29.1 billion year-on-year. CZK 4.7 billion was paid out as a result of the introduction and subsequent modification of the amount of the epidemic-related care allowance (temporarily wider range of claimants, length of support period and the amount of the allowance itself), as well as its extension to a wider range of children (Acts No. 438/2020 Coll., No. 173/2021 Coll. and No. 520/2021 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 changes to the payment of parental allowance (Act No. 285/2021 Coll.), required an estimated CZK 2.7 billion.

In the context of the general government sector's performance in 2020 and 2021 and interest rate developments, **interest expenditure** grew by 3.1% and even fell to 0.7% of GDP in relative terms.

Fixed capital investment grew at a rate of 3.1% and while central government increased investment by 7.2%, local government investment fell by 1.7%. In terms of their financing (especially in the transport sector), the Recovery and Resilience Facility was already engaged.

Support programmes in the context of the COVID-19 epidemic were the reason for the double-digit increase in **subsidies** (15.1%). These were mainly compensations for businesses in the form of the COVID 2021 (Government Resolutions Nos. 277, 437 and 530) and COVID – Uncovered Costs (Government Resolutions Nos. 278, 437, 531, 756 and 834) programmes with a total impact of CZK 15.5 billion. Among the previously approved programmes, the main ones were Antivirus (CZK 22.9 billion), COVID-Accommodation II (CZK 3.0 billion) and COVID-Rent (CZK 4.8 billion). The amount of CZK 1.6 billion was earmarked for sport, CZK 2.0 billion for culture and CZK 1.0 billion for tourism. The Covid – Gastro – Closed Establishments programme paid out CZK 3.2 billion (Government Resolution No. 10/2021). Under the Agri-covid Food Programme, an amount of CZK 0.7 billion was disbursed (Government Resolutions Nos. 1052 and 1138/2020, 100 and 506/2021). Support of CZK 0.3 billion was paid to bus transport entrepreneurs (Government Resolution No. 1035/2020).

Other forms of aid such as the compensatory bonus with an impact of CZK 18.3 billion (Act No. 461/2020 Coll., as amended, Act No. 95/2021 Coll. and No. 519/2021 Coll.) or the institute of tax loss carryback in the total amount of CZK 2.1 billion (Act No. 299/2020 Coll.) were classified as **capital transfers**, which, however, decreased by 22.3% due to the high comparative base of 2020.

3.1.2 Outcome in 2022

In 2022, the balance is expected to improve by 1.3 pp year-on-year to -4.5% of GDP. In structural terms, this represents a fiscal effort of 0.9 pp. The estimate of the result reflects the waning COVID-2019 epidemic, presumed economic and financial impacts of the Russian aggression towards Ukraine and the related humanitarian crisis as well as aid to households and businesses affected by the massive growth of prices. The main burden should be borne by the state budget, which is budgeted with a deficit of CZK 280 billion. Local governments are likely to achieve a surplus again, while the social security funds are forecast to end up with a slight deficit.

Total general government revenue is expected to grow by 7.9% and remain almost unchanged in relative terms at 40.4% of GDP. Tax revenue, including social security contributions, is expected to grow by 5.6%. The tax quota is expected to fall by 0.8 pp to 34.1% of GDP.

The **personal income tax** revenue should remain essentially at the level of last year, as the estimated 6% growth in the volume of wages and salaries in the economy is counteracted by a further increase in the basic taxpayer credit by CZK 3,000, with an impact of CZK 12.3 billion (Act No. 609/2020 Coll.). The negative impact of the tax exemption on income from government bonds (Act No. 609/2020 Coll.), together with the additional impact of the flat-rate income tax regime for sole traders with incomes of up to CZK 1 million (Act No. 540/2020 Coll.) is expected to total CZK 0.2 billion. The temporary increase in the limit for the application of the deduction for gifts to 30% of the tax base (Act No. 609/2020 Coll.) was extended also to 2022, while at the same time the range of recipients and the purpose for the provision of gratuitous benefits in connection with assistance to Ukraine and its population was expanded (Chamber of Deputies Print No. 173).

The dynamics of **social security contributions** should slow down to 4.4% year-on-year, which is mainly due to the decision to keep the amount of the payment for the state insured at the level of 2021. Although it increased by CZK 200 per person per month as of 1 January 2022 (Government Regulation No. 253/2021 Coll.), it will be reduced again by CZK 400 as of 1 July 2022 so that the average for the whole year reaches last year's level (Chamber of Deputies Print No. 166). In addition, the estimate of the amount of the state's payment to the public health insurance system includes CZK 3.9 billion for state-insured Ukrainian refugees. The rate of growth of contributions is also influenced by the extraordinary

bonuses paid to health care, social services and armed forces workers last year. The cessation of payment of the extraordinary allowance for persons in quarantine will increase this year's cash receipts by CZK 0.9 billion (Act No. 121/2021 Coll., as amended by Act No. 182/2021 Coll.; Act No. 518/2021 Coll.).

The dynamics of **corporate income tax** should be dampened by the end of effect of the change in the method of creation and tax deductibility of technical reserves of insurance companies with an impact of CZK 5.3 billion (Act No. 364/2019 Coll.), the tax exemption of yields from government bonds in the amount of CZK 1.5 billion (Act No. 609/2020 Coll.) or the additional effect of the introduction of a "meal voucher lump sum" with an amount of CZK 1.5 billion (Act No. 609/2020 Coll.). Similarly to the personal income tax, the limit for claiming the deduction for donations was extended and the range of beneficiaries and purposes (for supporting Ukraine) was expanded, with an impact of CZK 0.3 billion (Chamber of Deputies Print No. 173). The opposite effect has the termination of accelerated depreciation of assets from 2020 and 2021, as well as the unwinding of the negative impact of the increase in the entry price threshold for depreciation of tangible assets in the total estimated amount of CZK 5.5 billion (Act No. 609/2020 Coll.). Overall, revenue from this tax is expected to grow by 9.0%.

Value-added tax will be affected by rising nominal household consumption. The negative effect of previously approved discretionary measures, such as the reclassification of selected services to the second reduced tax rate in the first half of 2020 (Act No. 256/2019 Coll.) or the reduction of the rate for accommodation, sports and cultural events, ski lifts and other selected services from July 2020 (Act No. 299/2020 Coll.), is estimated at CZK 2.8 billion in total. On the other hand, the waiver of the tax on electricity and gas supplies at the end of 2021 increases the revenue this year by CZK 5.4 billion (Government Resolution No. 907/2021). The termination of the VAT waiver on the purchase of face masks or the year-on-year lower impact of the tax waiver on the purchase of vaccines and tests should bring in CZK 1.6 billion. In total, VAT should increase by 12.2%.

For **excise duties** excluding renewable energy subsidies, we estimate the revenue to increase by 4.2%. The main factors include the continuing economic recovery, and, among discretionary measures, an increase in the tax rates on tobacco products of CZK 2.5 billion (Act No. 609/2020 Coll.) and the introduction or increase in the rates of the levy on solar electricity for equipment put into operation in 2009 and 2010, respectively, with an estimated impact of CZK 3.0 billion (Act No. 382/2021 Coll.). In contrast, the momentum is dampened by the reduction in excise duties on petrol and diesel for the period from June to September, with a calculated impact of CZK 4.2 billion (Chamber of Deputies Print No. 205). In the case of other taxes on produc-

tion and imports, the introduction and later extension of the register of excluded persons will lead to a reduction in gambling tax revenue by CZK 1.3 billion (Act No. 186/2016 Coll.). In response to the jump in fuel prices, the road tax on cars and vans up to 12 tonnes will also be abolished and the rates for trucks over 12 tonnes will be reduced, with an estimated revenue shortfall of CZK 4.2 billion (Chamber of Deputies Print No. 204).

We expect a significant acceleration on the revenue side for both **current** and **capital transfers**. The forecast reflects the ramp-up of EU-funded projects both from the expiring 2014–2020 financial perspective and new titles under the EU Next Generation instrument. We estimate an overall increase in transfers of almost 65%.

General government expenditure is expected to grow by 4.8% year-on-year, but to fall to 45.0% of GDP as a share of GDP.

Growth in government **final consumption expenditure** should slow to 4.4% year-on-year. Social transfers in kind and compensation of employees in the general government sector should show a lower pace, mainly due to the assumption of a gradual return to normal conditions in the health care system and the increased base last year due to extraordinary bonuses. In contrast, intermediate consumption should accelerate significantly.

Compensation of employees is expected to increase only slightly (0.5%) due to salary increases only for selected groups of public sector workers. The salary scales of doctors and non-medical health care workers in pay scale 8 to 15 were increased by 6%, whilst the salaries of non-medical health care workers in pay scale 2 to 7 and social services workers by CZK 700. The tariffs of soldiers and security forces personnel were also increased by the same fixed amount. Teachers in the regional education system have had their salary tariffs increased by 2%, but at the same time we are considering higher compensation in the education system for new or increased working hours, as well as employment agreements for employees involved in the education of Ukrainian children. In contrast, the year-on-year momentum is dampened by last year's bonuses paid in connection with the epidemic. Other salaries, including those of constitutional officials, remained frozen.

The 2.1% growth of **social transfers in kind** reflects expenditure on health and social services, which are also used by Ukrainian refugees. In addition, it reflects the extension of the range of persons who can apply for the housing allowance, as well as an increase in the amount of the allowance itself due to the sharp rise in energy prices, which will require around CZK 3 billion (Act No. 17/2022 Coll.). This estimate has subsequently been further increased in view of the stronger increase in energy prices and the higher number of eligible households. On the other hand, a saving of CZK 1.8 billion is expected to result from the reduction of the discount on bus and train fares for pupils, students up to 26 years of

age and seniors over 65 years of age from 75% to 50% (Government Resolution No. 62/2022), but the assumption of a higher rate of disbursement compared to the previous two years leads to a similar expected total amount paid from the state budget as in 2021.

The estimate of year-on-year growth in **intermediate consumption** (11.7%) takes into account exceptionally high inflation as well as the impact of projects co-financed from EU funds. The volume of purchases of goods and services will also reflect the impact of the migration wave from Ukraine, specifically in the form of accommodation for Ukrainian refugees using accommodation capacities owned by state and local government bodies, provision of food and other material assistance.

In the area of **cash social benefits**, we are counting primarily on the growth of pension insurance benefits, which this year are determined both by the indexation from January increased by CZK 300 above the legal limit (Act No. 323/2021 Coll.), where this additional increase alone represents CZK 10.6 billion, and by the expected extraordinary indexation of the average pension by CZK 1,017 from June due to the high inflation rate with an impact of approximately CZK 20 billion (Government Regulation No. 35/2022 Coll. and No. 36/2022 Coll.). Additional expenditures will also be required by changes to some benefits supporting families with children, such as an increase in child allowances and an adjustment in the payment of parental allowance (Act No. 285/2021 Coll.) or an extension of the length of the paternal post-natal care support period to two weeks (Act No. 330/2021 Coll.), with an overall impact of CZK 3.3 billion. The impact of the increase in the care allowance for persons in degrees 3 and 4 of dependence is calculated at CZK 3.4 billion (Act No. 328/2021 Coll.). A further increase of CZK 1.9 billion in expenditure on social benefits is related to the extraordinary increase of the living and subsistence minima by 10% from April 2022 (Government Regulation No. 75/2022 Coll.). By contrast, the end of the payment of the crisis allowance should mean year-on-year savings of CZK 4.2 billion. The humanitarian benefit of CZK 5,000 paid to persons who left Ukraine because of the war conflict, with the possibility of repeated payments for further 5 months, will represent an estimated expenditure of CZK 7.7 billion (Act No. 66/2022 Coll.). At the same time, the forecast assumes that these persons will be entitled to standard benefits from the social system (e.g. child benefit, child-birth allowance, subsistence allowance, emergency immediate assistance), as well as unemployment benefit. The state payment to the public health insurance system for Ukrainian refugees will amount to an estimated CZK 3.9 billion. As a result of economic developments and the discretionary measures mentioned above, cash social benefits are expected to increase by 7.0%.

We expect a 10.0% increase in **fixed asset investment** expenditure. Investment should be significantly supported by EU budget funds, either due to the impending

end of the possibility of drawdown from 2014–2020 programming period or the involvement of new funds from the EU Next Generation instrument, which should account for more than 31% of total investment.

The phasing out of anti-crisis measures and related support programmes should lead to a 21.3% year-on-year decline in **subsidies**. New calls under the COVID – Uncovered Costs and COVID 2022 – Sectoral Support programmes have been prepared for tourism entrepreneurs and organisers of sports, cultural, conference, trade fair and other events affected by the government’s anti-epidemic measures in November and December 2021, and COVID BUS for tour operators (Government Resolution No. 96/2022). For stallholders, the COVID Christmas Markets programme (Government Resolution No. 95/2022) has been designated. The estimated allocation of all these programmes is CZK 4.6 billion. Of the previously approved programmes, the forecast also foresees an amount of CZK 0.7 billion paid under the

Antivirus programme. The provision of accommodation for Ukrainian refugees in private accommodation facilities paid for by the regional governments with a state contribution of CZK 250 per person per night will require an estimated expenditure of CZK 3.2 billion (Government Resolution No. 207/2022).

Under **current transfers** with a growth rate of 2.6%, a contribution for solidary households for accommodation of refugees is calculated at CZK 3,000 per person per month (however, a maximum of CZK 12,000 per household) for a total estimated amount of CZK 1.2 billion (Government Resolution No. 226/2022). The termination of the payment of the compensation bonus should be outweighed by the payment of compensation of deposits to former clients of Sberbank CZ from the Financial Market Guarantee System in the amount of CZK 26.0 billion, which should lead to a further year-on-year growth of **capital transfers** by 37.2%.

3.2 General Government Outlook

The Fiscal Responsibility Rules Act sets a minimum **consolidation trajectory** for public finances. For 2022 and beyond, the level of the expenditure ceilings of the state budget and state funds is set to improve the structural balance by 0.5 pp compared to the 2021 baseline of –6.1% of GDP. The primary means of slower debt growth was the approval of a state budget with a deficit about CZK 100 billion lower than the previous government’s intention. This leaves a substantial margin over the maximum statutory expenditure framework. For the outlook years, further discretionary measures will be needed to accelerate consolidation. However, their specific form is yet to be determined, ideally after the current uncertainties will have been mitigated.

For **local governments**, we foresee continued surpluses. We expect prudent management of local budgets and rather gradual growth in current expenditure and investment going forward. This should be phased according to the economic recovery. However, the second factor is the shift of a number of capital projects from the present to the outlook years, which, although tendered, are likely to have to be retendered due to extreme increases in input prices. The estimate of the performance of the **social security funds** is particularly dependent on the predicted wage bill growth in the economy, which is a major determinant of future revenues. Given its dynamics (see Section 2.2.4) and the assumption of moderate expenditure growth, we expect the health insurance companies to run a slight surplus. The non-state budget and state funds components of the central government as a whole are expected to run small surpluses on average.

3.2.1 Revenue Outlook

General government revenue is expected to grow by 3.6% on average over the outlook years. However, we expect a higher rate of tax revenue, including social security contributions, averaging almost 5%.

In the case of **personal income tax**, discretionary measures have an absolutely negligible impact over the 2023–2025 horizon. Growth will be supported by the end of the allowed deductions of gratuitous transactions from the tax base in connection with support for Ukraine, with an impact of CZK 0.3 billion (Chamber of Deputies Print No. 173). Thus, revenue is mainly determined by wage bill growth, implying a rate of over 6% in 2023 and around 4% in the outlook years.

Social security contributions should also be almost exclusively determined by the evolution of wages and salaries in the economy. In 2023, the dynamics will be hampered by the additional effect of the change in the rules on the taxation of low-emission vehicles for employees, with an impact of around CZK 0.3 billion. However, the expiry of the emergency quarantine allowance will have almost equal reverse effect. In the accrual methodology, the aggregate also includes payments from the state budget for so-called state insured persons to the public health insurance system. Although we do not foresee any increase in the assessment base in the outlook horizon, we take into account gradual changes in the number of state insured persons, including the impact of the migration crisis from Ukraine. Contributions should thus grow by around 4% on average, with the lower dynamics compared to the personal income tax primarily due to the evolution of payments for state insured persons.

For **corporate income tax**, the dynamics in 2023 will be affected by the end of the allowed deductions of gratuitous transactions from the tax base in connection with the support to Ukraine with an impact of CZK 0.6 billion. The extraordinary regime of depreciation of tangible assets, estimated to almost CZK 6 billion in 2023 (Act No. 609/2020 Coll.), is also expected to have a positive impact on revenue. On the other hand, the exemption from taxation of government bond yields provided by the same law will have a negative impact of around CZK 2 billion per year. Combined with the growth in gross operating surpluses averaging over 7%, the tax revenue grows also at 7.5%.

Excise duties (excluding the impact of payments for renewable energy sources) are expected to grow by 2% on average. In 2023, their dynamics will be supported by increases in excise duties on tobacco products (CZK 2.5 billion) and growth in mineral oil excise duty revenues, which should return to their normal level after a temporary reduction of CZK 1.5 per litre of diesel and petrol for four months in 2022, with an impact of CZK 4.2 billion (see Section 3.1). Excise revenue then remains broadly constant in subsequent years.

Value-added tax revenue depends primarily on developments in nominal household consumption, part of the government consumption and government investment. The average growth in tax revenue of 5.9% is slightly below the growth rate of the macroeconomic base. A positive impact (CZK 0.7 billion) on the dynamics of the tax revenue will be caused by the end of the tax waiver for the purchase of vaccines and tests at the end of 2022. The end of the tax refund claiming regime for Czech Television and Czech Radio to the same extent as it applies to commercial stations (Act No. 80/2019 Coll.) in the amount of CZK 0.4 billion will positively affect the tax revenue at the end of the outlook horizon.

In the case of **other taxes on production and imports**, we expect a further reduction in gambling tax revenue due to the introduction of the excluded persons register.

For other revenue, we are working with an average decline of 12% driven by the evolution of payments from the EU budget for current and capital projects co-financed by the EU. After strong years in 2022 and 2023, flows are expected to weaken significantly, especially once a larger part of the allocations for post-epidemic recovery programmes are used. In addition, the ramp-up of the new financial perspective 2021–2027 is again expected to be rather gradual, reaching its usual levels at the earliest in 2025. Therefore, we expect **transfers** to grow by almost 10% initially in 2023, while declining by around 20% per year in the outlook years.

3.2.2 Expected Expenditure Developments

We forecast average growth of 2.3% in **total** general government **expenditure** over the outlook years. The dynamics in 2023 is affected by the end of one-off and

other temporary operations adopted during the epidemic and effective in 2022, as well as measures related to the Russian aggression, the war in Ukraine and the migration wave.

Cash social benefits are expected to grow by 4.1% on average. The rate is primarily determined by the development of pension benefits, which we assume to be at the level of the statutory indexation formula according to the predicted inflation rate and real wage growth, including this year's extraordinary indexation of the earnings-related component. However, the high inflation rate is still pushing up the cost to the public finances significantly. In addition, in 2023, we are counting on a pension bonus for children raised with an impact of almost CZK 19 billion (Act No. 323/2021 Coll.) and a standby child support for a child who is not properly paid by the obligor, amounting to an additional CZK 0.7 billion (Act No. 588/2020 Coll.). On the other hand, the dynamics should be limited by the end of the impact of emergency measures, be it the humanitarian benefit for refugees from Ukraine (Act No. 66/2022 Coll.) or the crisis care allowance (Act No. 520/2021 Coll.).

Nominal general government consumption is projected to grow by between 3% and 4% in all years. **Compensation of employees** should be driven by salary increases in education in line with average wage developments and, to a lesser extent, in health care. Given consolidation, we expect only modest growth for the rest of general government employees. For **social transfers in kind**, we expect health care payments to rise in line with developments in system revenues. For **intermediate consumption**, we forecast higher dynamics in 2023 due to still relatively stronger inflation and the end of the 2014–2020 financial perspective and the roll-out of the Recovery and Resilience Facility. Thereafter, it could grow around 3% in the outlook years, implying moderate real growth. Again, this should reflect deferred spending on infrastructure and property repairs, particularly at the local level, which are currently not being undertaken due to supply-side constraints and sharp cost increases.

Regarding **investment**, we expect a surge in funding from the Recovery and Resilience Facility, the Just Transition Fund and the REACT-EU programme in 2023, followed by a gradual decline. For programmes co-financed by the European Structural and Investment Funds, we foresee an acceleration in 2023 and a return to the usual level at the end of the outlook, linked to the approaching end of the 2014–2020 financial perspective and the subsequent start of the 2021–2027 programming period. We also foresee an increase in national investments in the context of the current geopolitical situation and an acceleration in the purchase of military equipment over the entire outlook horizon.

Subsidies are expected to fall due to the end of support programmes introduced during the epidemic and partly

due to the migration wave (see Section 3.1). However, the area of production subsidies is one of the areas where the government has declared its efforts to find savings. After a 9% decline in 2023 due to the end of a number of one-off measures (schemes to help selected sectors during the epidemic, the Antivirus programme or refugee accommodation allowances), we expect only a very modest increase of around 1%.

Similarly, we expect a significant drop to pre-crisis levels in 2023 in **capital transfers**, where temporary anti-crisis

measures such as the compensation bonus, as well as donations of military equipment to Ukraine or compensation payments to Sberbank CZ clients in the amount of CZK 26 billion should not have an effect.

In line with assumptions about interest rate developments, the volume of debt refinanced and the level of cash balances, we estimate that **interest expenditure** will grow by 15.5% on average. In relative terms, interest expenditure is projected to increase up to 1.2% of GDP over the entire outlook horizon (see Section 3.4).

3.3 Structural Balance and Fiscal Position

We estimate the general government balance in **2021**, net of business cycle effects and one-off or other temporary operations, at -4.0% of GDP. The cyclical component is likely to have improved to -0.2% of GDP.

One-off and other temporary operations amounted to -1.7% of GDP in 2021. On the revenue side, there was a waiver of the value-added tax on electricity and gas for November and December amounting to CZK -5.4 billion and adjustments to depreciation of assets with an impact of CZK -6.4 billion. Expenditure measures were in most cases a continued response to the impact of the COVID-19 pandemic. The most significant expenditure measures were the compensation bonus (capital transfer) for the self-employed, small limited liability companies and persons working under labour agreement amounting to CZK 18.2 billion and employment support programmes amounting to CZK 22.9 billion. Other expenditure measures were the purchase of protective equipment and medical supplies, the extension and adjustment of the parameters of sick leave, the release of funds to tenants, programmes to support accommodation, hospitality or sports operators; and in the same year the newly established COVID 2021 and COVID – Uncovered Costs programmes totalling 15.5 billion.

The negative **fiscal effort** in 2021 was primarily due to a reduction in personal income tax revenue as a result of tax changes, while on the expenditure side, increases in compensation of employees and investment continued.

We expect the **structural balance to improve** to -3.1% of GDP in **2022** as a result of fiscal consolidation. In the context of the projected slowdown in real GDP growth, we expect the negative cyclical component to deepen to -0.6% of GDP.

In terms of **one-off operations**, measures responding to COVID-19 or compensating for economic losses have been scaled back this year, and we expect their total amount to be CZK 9.0 billion. Revenues are affected by a reduction in excise duties on petrol and diesel with an impact of CZK -4.2 billion. A significant and difficult-to-quantify risk is the consequences of the crisis in Ukraine, including sanctions against Russia and Belarus, where we currently classify as a one-off expense the payment of compensation to Sberbank CZ clients from the Financial Market Guarantee System in the estimated amount of CZK 26 billion and the introduction of a humanitarian benefit for refugees with an impact of CZK 7.7 billion.

We expect a positive fiscal effort in 2022 due to expenditure growth restraint and revenue acceleration, including EU funds.

With the recovery in economic growth expected to lead to a gradual reduction in the negative cyclical component, we expect a continuation of more restrictive fiscal policy in **2023–2025**. The **structural balance should gradually improve** to -2.7% of GDP. The positive fiscal effort will be supported mainly by expenditure, which should grow substantially less compared to 2020 and 2021. We expect one-off operations to be negligible in the outlook years.

The view on fiscal effort and the structural balance in 2023–2025 is complemented by the **expenditure rule of the Stability and Growth Pact**, according to which growth in adjusted real expenditure should be in line with average potential output growth (2.2% for the Czech Republic). The Czech Republic should comply with this rule over the entire projection horizon in line with the trajectory of improvement of the structural balance.

3.4 General Government Debt, Strategy and Stability of State Debt

General government debt reached 41.9% of GDP at the end of 2021. The 4.2 pp year-on-year increase in debt is due to the increase in state budget debt from 36.0% to 40.4% of GDP, which financed, inter alia, compensation to households and businesses, including other fiscal policy stimuli.

Between 2014 and 2019, there was a steady decline in the relative debt. The reduction in the debt-to-GDP ratio by a total of 14.4 pp to 30.1% of GDP in 2019 was almost identical to the entire increase after the Great Recession in 2009. Public finance of the Czech Republic thus qualified between four least indebted in the EU. The sharp

deterioration in the state budget in 2020 and 2021 led to an increase in general government debt of almost 12 pp. Nevertheless, the Czech Republic still meets the Stability and Growth Pact criterion on the level of debt (60% of GDP) and the debt quota level set by the Act on Fiscal Responsibility Rules (55% of GDP net of the cash reserve for financing the state debt).

The expected management of general government sector reflects the assumption of a continued economic recovery and a decline in government deficits. We predict the debt ratio to continue to rise over the outlook horizon, as the absolute size of government deficits still remain relatively significant. We forecast government debt to reach 42.7% of GDP in 2022 and 43.4% of GDP at the end of 2023. In 2025, government debt is expected to reach 45.4% of GDP and peak near that level.

In terms of contributions to the change in debt, the dominant factor is the primary balance. In relative terms, interest is expected to rise from 0.7% of GDP last year to 1.2% of GDP at the end of the CP horizon, although the forecast assumes a gradual decline in government bond yields. The long-term interest rate for convergence purposes is expected to decrease by around 0.3 pp to 2.7% p.a. in 2025 from the current 3% p.a. (or the forecast of 3.9% p.a. for the full year 2022).

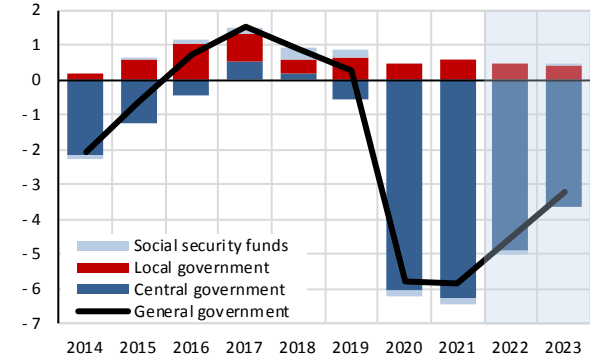
In 2020, the level of debt is also negatively affected by a decline in GDP at current prices, which has previously only happened in 2009 in the entire available series. From 2021 onwards, economic growth has again started to put the brakes on the increase in the debt quota, and this should be the case over the entire CP horizon.

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

Central government accounts for the largest share of general government debt (Table 3.6). Their debt reached almost CZK 2,661 billion in 2021, accounting for about 97% of total (unconsolidated) general government debt. Local government debt accounts for the remaining 3%. It reached CZK 87 billion in 2021, is estimated to decrease slightly to CZK 86.8 billion this year, and then essentially stagnate at CZK 86 billion due to the projected surplus. Social security funds have a negligible long-term debt ratio. In the case of health insurance companies, we see basically only a slight deficit in 2021, covered by balances from previous years, and for later years we estimate generally surplus balances.

Graph 3.1: Government Balance by Sub-sectors

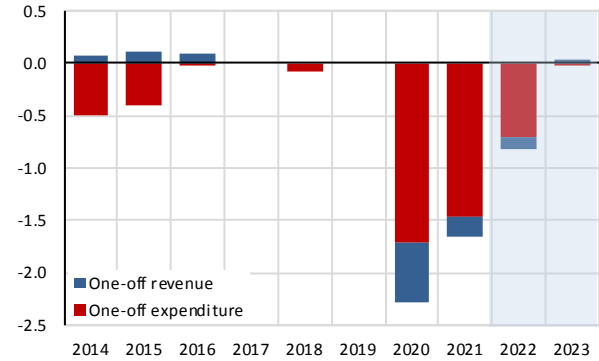
in % of GDP



Source: CZSO (2022b). MF CR calculations and forecast.

Graph 3.2: One-off Measures

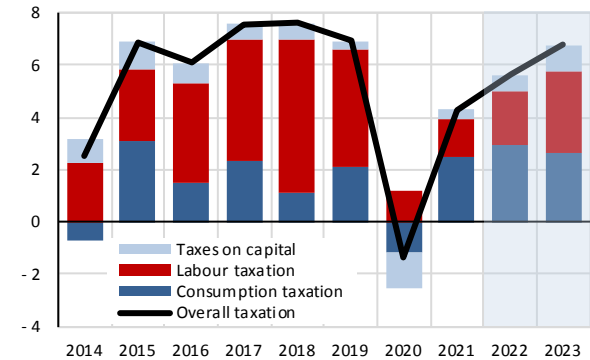
in % of GDP



Source: CZSO (2022a), MF CR (2022a). MF CR calculations.

Graph 3.3: General Government Tax Revenue

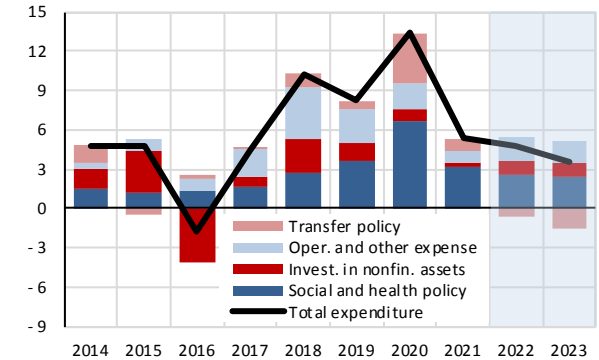
change in %, contributions in percentage points



Source: CZSO (2022a, 2022b). MF CR calculations and forecast.

Graph 3.4: General Government Expenditure

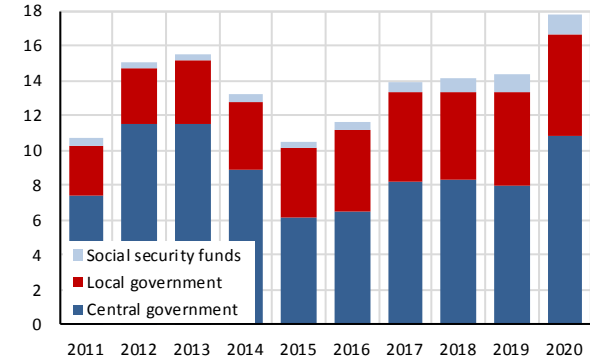
change in %, contributions in percentage points



Source: CZSO (2022a, 2022b). MF CR calculations and forecast.

Graph 3.5: Liquid Financial Assets

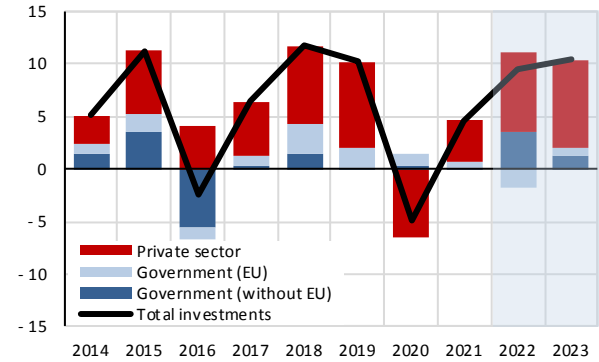
in % of GDP, non-consolidated values



Source: CZSO (2022a, 2022b). MF CR calculations.

Graph 3.6: Investment Co-financing from EU Funds

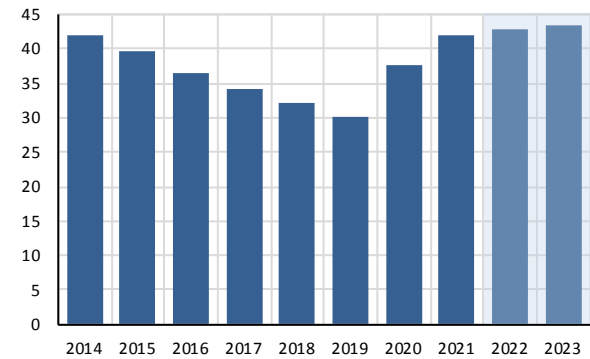
nominal gross fixed capital formation change in %, contributions in pp



Source: CZSO (2022a), MF CR (2022a). MF CR calculations and forecast.

Graph 3.7: General Government Debt

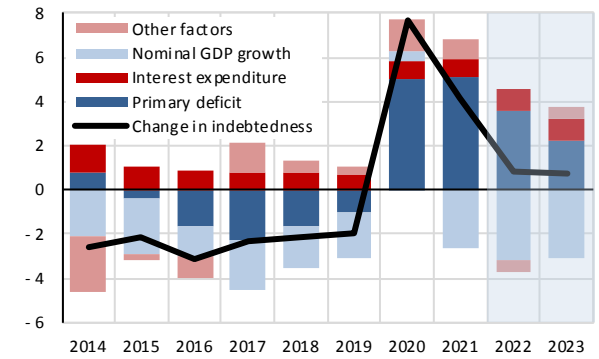
in % of GDP



Source: CZSO (2022a, 2022b). MF CR calculations and forecast.

Graph 3.8: Change in Debt-to-GDP Ratio

in percentage points



Source: CZSO (2022a, 2022b). MF CR calculations and forecast.

Table 3.1: General Government Budgetary Prospects

level in CZK billion, others in % of GDP

	ESA Code	2021 Level	2021	2022	2023	2024	2025
			In % of GDP				
Net lending (+)/borrowing (-) (B.9) by sub-sectors							
General government	S.13	-359	-5.9	-4.5	-3.2	-2.9	-2.7
Central government	S.1311	-385	-6.3	-4.9	-3.7	-3.3	-3.1
Local government	S.1313	35	0.6	0.5	0.4	0.3	0.3
Social security funds	S.1314	-9	-0.1	-0.1	0.1	0.1	0.1
General government (S.13)							
Total revenue	TR	2480	40.5	40.4	40.0	38.5	37.6
Total expenditure	TE	2839	46.4	45.0	43.2	41.4	40.3
Net lending (+)/borrowing (-)	B.9	-359	-5.9	-4.5	-3.2	-2.9	-2.7
Interest expenditure	D.41	45	0.7	0.9	1.0	1.1	1.2
Primary balance		-314	-5.1	-3.6	-2.3	-1.8	-1.5
One-off and other temporary measures		-101	-1.7	-0.8	0.0	0.0	0.0
Components of revenues							
Total taxes		1121	18.3	18.1	18.1	18.0	17.7
Taxes on production and imports	D.2	703	11.5	11.5	11.5	11.4	11.2
Current taxes on income, wealth etc.	D.5	417	6.8	6.6	6.6	6.6	6.5
Capital taxes	D.91	0	0.0	0.0	0.0	0.0	0.0
Social security contributions	D.61	1013	16.6	16.0	15.6	15.2	15.0
Property income	D.4	38	0.6	0.6	0.5	0.5	0.5
Other		307	5.0	5.8	5.7	4.8	4.3
Total revenue	TR	2480	40.5	40.4	40.0	38.5	37.6
p. m.: Tax burden		2134	34.9	34.1	33.7	33.2	32.8
Components of expenditures							
Compensation of employees + Intermediate consumption	D.1+P.2	1030	16.8	16.3	15.7	15.2	15.0
Compensation of employees	D.1	676	11.0	10.3	9.8	9.6	9.5
Intermediate consumption	P.2	354	5.8	6.0	5.8	5.7	5.6
Social payments		1087	17.8	17.4	17.1	16.7	16.3
<i>of which: Unemployment benefits</i> ¹⁾		18	0.3	0.2	0.2	0.2	0.2
Social transfers in kind supplied via market producers	D.632	227	3.7	3.5	3.3	3.2	3.1
Social transfers other than in kind	D.62	859	14.0	13.9	13.8	13.5	13.1
Interest expenditure	D.41	45	0.7	0.9	1.0	1.1	1.2
Subsidies	D.3	199	3.3	2.4	2.0	1.9	1.8
Gross fixed capital formation	P.51g	285	4.7	4.7	4.9	4.0	3.6
Capital transfers	D.9	52	0.9	1.1	0.5	0.5	0.5
Other		141	2.3	2.2	2.1	2.0	2.0
Total expenditures	TE	2839	46.4	45.0	43.2	41.4	40.3
p. m.: Government consumption (nominal)	P.3	1313	21.5	20.7	20.0	19.5	19.2

1) Includes cash benefits (D.621 and D.624) and transfers in kind (D.631) related to unemployment benefits.

Source: CZSO (2022b). MF CR calculations and forecast.

Table 3.2: Amounts to Be Excluded from the Expenditure Benchmark

level in CZK billion, others in % of GDP

	2021 Level	2021	2022	2023	2024	2025
		In % of GDP				
Expenditure on EU programmes fully matched by EU funds revenue	67	1.1	2.1	2.1	1.4	1.0
Non-investment expenditure	17	0.3	0.6	0.5	0.3	0.3
Investment expenditure	50	0.8	1.5	1.6	1.1	0.7
Cyclical unemployment benefit expenditure	-19	-0.3	0.0	0.0	0.0	0.0
Effect of discretionary revenue measures (year-on-year changes)	-81	-1.3	-0.2	0.2	0.0	0.0
Revenue increases mandated by law	-	-	-	-	-	-

Note: Revenue increases mandated by law can be defined as revenue increases that occur automatically to offset corresponding increases in specified expenditures (such as an automatic increase of social security contributions in reaction to a surge in social security expenditure).

Source: MF CR.

Table 3.3: A Structure of Approved Discretionary Measures in 2021–2025

year-on-year discretionary change, in CZK billion

	2021	2022	2023	2024	2025
Revenue Discretionary Measures	-80.6	-15.2	11.4	-2.1	-1.6
Taxation on labour	-65.2	-12.1	0.1	-0.1	-0.1
Taxation on capital	-5.4	-7.3	4.2	-1.9	-1.8
Taxation on consumption	-12.0	4.2	7.1	-0.1	0.3
Other revenue measures	2.0	-	-	-	-
Expenditure Discretionary Measures	8.8	32.2	38.4	-0.3	-0.6
Cash social benefits	19.7	-22.8	-11.1	-0.5	-0.6
Compensation of employees	-9.9	9.4	2.1	-	-
Health care	4.9	13.7	-	-	-
Subsidies	-12.2	50.0	8.5	0.0	-
Capital transfers	7.4	-9.8	30.2	-	-
Other expenditure measures	-1.0	-8.4	8.7	0.1	-
Total	-71.8	16.9	49.8	-2.5	-2.2
<i>% of GDP</i>	-1.2	0.3	0.7	-0.0	-0.0

Source: MF CR calculations and forecast.

Table 3.4: Revenue and Expenditure Forecast and Outlook in No-policy-change Scenario

in % of GDP

	2021	2021	2022	2023	2024	2025
	<i>Level</i>	<i>In % of GDP</i>				
Total revenue at unchanged policies	2480	40.5	40.4	40.0	38.5	37.6
Total expenditure at unchanged policies	2839	46.4	45.0	43.2	41.4	40.3

Note: Forecast and outlook of the no-policy-change scenario are equal to the baseline scenario of the CP.

Source: MF CR calculations and forecast.

Table 3.5: Cyclical Developments

change in %, output gap in % of potential product, contributions in percentage points, other in % of GDP

	ESA Code	2021	2022	2023	2024	2025
Real GDP growth (%)		3.3	1.2	3.6	3.2	2.4
Net lending of general government	B.9	-5.9	-4.5	-3.2	-2.9	-2.7
Interest expenditure	D.41	0.7	0.9	1.0	1.1	1.2
One-off and other temporary measures		-1.7	-0.8	0.0	0.0	0.0
on the revenue side		-0.2	-0.1	0.0	0.0	0.0
on the expenditure side		1.5	0.7	0.0	0.0	0.0
Potential GDP growth (%)		1.0	2.2	2.5	2.6	2.5
contribution of labour		-0.6	0.3	0.1	0.0	0.0
contribution of capital		0.5	0.6	0.7	0.8	0.6
total factor productivity		1.1	1.4	1.7	1.8	1.9
Output gap		-0.7	-1.8	-0.5	-0.1	-0.1
Cyclical budgetary component		-0.2	-0.6	-0.2	0.0	0.0
Cyclically-adjusted balance		-5.6	-3.9	-3.0	-2.9	-2.7
Cyclically-adjusted primary balance		-4.9	-3.0	-2.1	-1.8	-1.5
Structural balance		-4.0	-3.1	-3.1	-2.9	-2.7

Source: CZSO (2022b). MF CR calculations and forecast.

Table 3.6: General Government Debt Developments*in % of GDP, average maturity in years, contributions in % of debt*

	ESA Code	2021	2022	2023	2024	2025
General government gross debt		41.9	42.7	43.4	44.4	45.4
Central government		43.5	44.2	45.1	46.3	47.5
Local government		1.4	1.3	1.2	1.1	1.1
Social security funds		0.0	0.0	0.0	0.0	0.0
Change in gross debt ratio		4.2	0.8	0.7	0.9	1.1
Contributions to changes in gross debt						
Primary balance		-5.1	-3.6	-2.3	-1.8	-1.5
Interest expenditure	D.41	-0.7	-0.9	-1.0	-1.1	-1.2
Stock-flow adjustment		0.9	-0.6	0.6	0.4	0.4
Difference between cash and accruals		-1.3	0.4	0.4	0.3	0.2
Net accumulation of financial assets		2.4	1.1	0.5	0.6	0.6
Privatisation proceeds		0.0	0.0	0.0	0.0	0.0
Valuation effects and other		-0.1	0.0	0.0	0.0	0.0
p. m.: Implicit interest rate on debt		-2.0	-2.2	-2.2	-2.5	-2.7
Debt according to Act No. 23/2017 Coll., art. 13 ¹⁾		41.9	42.7	43.4	44.4	45.4
Liquid financial assets ²⁾		19.4	19.1	18.2	17.9	17.7
Net financial debt ³⁾		22.5	23.6	25.2	26.5	27.8

1) Difference between gross debt and liquid financial assets (monetary gold, Special Drawing Rights, currency and deposits, market value of securities other than shares, shares and other equity quoted in stock exchange) according to Act No. 218/2000 Coll.

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

3) Net financial debt is the difference between gross debt and liquid financial assets.

Source: CZSO (2022b). Calculations and forecast of MF CR.

Table 3.7: The State Debt's Refinancing, Interest and Foreign Currency Exposition*in % of debt, average maturity in years, data in the national methodology*

		2021	2022	2023	2024	2025
Refinancing						
Average maturity	years	6.4	6.4	6.5	6.5	6.5
Debt due within 1 year	% of debt	10.8	9.6	7.9	9.5	9.2
Debt amortization (existing bonds) since the end of the previous year	% of GDP	3.1	3.3	2.9	2.5	3.3
State Debt's Interest						
Debt with interest fixation within 1 year	% of debt	22.9	20.2	17.3	19.2	19.2
Fixed interest long-term debt due within 1 year	% of debt	8.7	4.4	4.3	7.8	7.3
Variable interest long-term debt	% of debt	12.4	14.1	11.4	9.8	10.4
Monetary instruments	% of debt	2.0	1.8	1.7	1.5	1.4
Effect of derivative operations	% of debt	-0.2	-0.2	0.0	0.0	0.0
Foreign Currency Exposition						
Foreign-currency exposition of the state debt ¹⁾	% of debt	7.0	6.2	5.6	5.2	4.8
EUR exposition	% of debt	6.3	5.6	5.1	4.6	4.3

1) State debt denominated in foreign currencies adjusted for collateral and assets.

Source: MF CR.

4 Comparison with the Previous Convergence Programme, Risks of Forecast and Sensitivity Analysis

The comparison of this year's and last year's Convergence Programme focuses on the evaluation of the forecast for 2021 and the change in the forecast for 2022. For the following years, only a few new measures are known that were not foreseen in the 2021 Convergence Programme, such as the pension bonus for a raised child, extraordinary indexation due to inflation, higher social benefits due to higher energy prices, and others. The differences between the forecasts and the reality in 2021 and 2022 are of course also reflected in the medium-term outlook.

Sensitivity analyses of the macroeconomic and fiscal forecasts, including their outlook, are carried out on the basis of changes in the underlying assumptions. The first scenario considers lower economic growth in the EU and its impact on the highly open Czech economy. The next scenario assesses the sensitivity to a possible sudden increase in interest rates, while the last one responds to uncertainty about future oil and energy prices, or an external price shock, respectively.

4.1 Comparison with the Scenario of the Previous Convergence Programme of the Czech Republic

4.1.1 Macroeconomic Scenario

The 2021 and 2022 CP scenarios differ significantly in several respects. The macroeconomic scenario of last year's CP was based on the assumption of a relaxation of the anti-epidemic restrictions at the end of Q2 2021, which eventually occurred earlier. Despite a renewed deterioration of the epidemic situation in the autumn of 2021, restrictions were much more relaxed than during previous waves due to the vaccination of a significant part of the population.

The 2021 CP scenario further assumed that the negative impact of the pandemic on global supply chains would be rather short-term. However, problems persist and have been exacerbated this year by the war in Ukraine. It has also contributed to further increases in commodity prices (Section 2.1), which, together with energy prices, are a significant inflationary factor. The expected price trajectory (Section 2.2.3) thus differs substantially from the scenario of the previous CP.

While the economy was able to adapt to the recurring waves of the epidemic, last year's CP could not have anticipated Russia's aggression against Ukraine. The differences between the scenarios thus lie not only in the expected GDP dynamics, but also in the evolution of the individual components of use (Section 2.2.1). These reflect, in particular, longer-lasting and deeper problems in global supply chains and significantly faster consumer price increases, factors that have been noticeably reinforced by the war in Ukraine.

Labour market developments were more favourable in 2021 compared to the previous CP scenario (Section 2.2.4) and should remain so in 2022. However, despite stronger growth in average nominal wages, average real wages should show a deeper decline due to higher inflation.

4.1.2 Fiscal Scenario

The more pronounced differences in real growth components and nominal variables mainly affected the rev-

enue side of public budgets. Last year's CP envisaged essentially stagnant tax revenues, including social security contributions, for 2021. These eventually grew by more than 4% (Section 3.1.1). Personal income tax and social security contributions performed better, reflecting stronger growth in wages and salaries. Corporate income tax reflected the higher resilience of the Czech economy and lower corporate losses already in 2020, which subsequently reduced the dynamics in 2021, although the revenue was noticeably higher in terms of the level. Value-added tax was supported by higher real household consumption and inflation. Of the non-tax revenues, property and sales revenues in particular ended up higher.

Even expenditure in 2021 actually had a better-than-expected impact on the balance. The 2021 CP projected expenditure growth of 7.5%, while the actual figure was 5.3% (Section 3.1.1). General government consumption grew more than 1 pp more slowly, with higher growth in compensation of employees (mainly due to epidemic-related compensation of workers in health care, social services and the armed forces) and lower growth in intermediate consumption counteracting each other. Primarily, central government continued to increase investment, but total public investment grew by around 10 pp less than forecast in the previous CP. Cash social benefits reflected relatively lower growth in pension benefits, debt service expenditure also grew less. Subsidies and capital transfers reflected additional measures related to the epidemic and the differences between the forecast and the actual in these items were largely mutually compensated.

For 2022, the actual CP forecasts lower real economic growth than the previous CP. By contrast, nominal GDP, including its most tax-generating components, will grow much faster (Section 2.2.1). On the revenue side, tax revenue and social security contributions were last year forecast to grow by 3.1%, while the 2022 CP works with almost double growth rate (Section 3.1.2). Thus, taking

into account the significantly higher base in 2021 compared to last year's CP update, revenues in 2022 should be almost CZK 200 billion higher. For expenditure, growth in the 2021 CP was slightly negative for 2022, while we expect growth of less than 5% this year (Section 3.1.2). Government consumption expenditure is higher due to stronger price level growth, the difference being corrected by lower, finally approved growth in

4.2 Risks of Macroeconomic and Fiscal Forecast

The macroeconomic forecast is weighed down by a number of **risks** which, taken together, we consider to be **significantly skewed to the downside**.

The main risk is the further development of the **war in Ukraine**. The overall impact cannot be quantified precisely, but it is clear that, at least in the short term, the war will reduce economic growth, exacerbate **problems in supply chains** and intensify inflationary pressures. While most EU countries do not have strong trade links (either direct or indirect) with Russia or Ukraine, Russia and Ukraine are globally important exporters of some commodities such as wheat, oil, natural gas, nickel, iron ore, palladium and noble gases. In particular for some minerals, EU countries are critically dependent on imports from Russia and Ukraine. A shortfall in the supply of these commodities, accompanied by a rise in their prices, would significantly exacerbate the above-mentioned negative economic effects.

In the forecast, we work with the assumption that the war in Ukraine will end this year. However, disruptions in supply chains should persist in 2023, but their intensity should gradually decrease. As a result, upward pressure on price levels should diminish. Nevertheless, even then, there could be a risk that **inflation expectations** will be anchored well above the CNB's 2% target in the short term, which would require tighter monetary policy settings.

We further assume that likely future waves of **COVID-19** epidemic can be managed without the need to adopt macroeconomically significant anti-epidemic restrictions. However, the emergence and spread of new coronavirus mutations against which available vaccines or experienced disease would provide little protection still pose a substantial risk.

The available data clearly show that the imbalances that characterised the **labour market** before the outbreak of the epidemic are reappearing after a short pause. Staff shortages are evident in almost all sectors of the economy and represent a significant barrier to output growth, particularly in the construction sector. Taking into account the high demand for labour by companies and the nature of most vacancies (jobs with low qualification requirements), we assume that refugees from Ukraine will not have any significant problems finding employment in the Czech labour market. This should

also be helped by legislative changes reducing administrative barriers to the employment of foreigners. As a result, the mismatch between demand and supply on the labour market could be eased and upward pressure on wages could be weakened.

In the medium and long term, in view of demographic developments, it will be crucial to increase **labour productivity**, e.g. by investing in automation, robotics and digital technologies. Given the high involvement of Czech firms in global supply chains, a strong impetus for productivity growth would also be their shift to higher value-added positions (either towards the initial R&D phase or towards the sales phase of the final product).

The deep fall in real GDP in 2020 was largely determined by the decline in household consumption. The unprecedented increase in the savings rate led to a strong accumulation of financial assets, mainly in the form of currency and deposits. At the same time, households could use these funds, at least in part, to **reduce the impact** of high consumer price inflation on real disposable income.

Although the downturn in economic activity and the associated deterioration in the financial situation of some households and firms has not led to a significant increase in the share of non-performing loans, the rise in interest rates could cause some households whose mortgage loan fixation period is coming to an end to run into repayment problems. **Overvaluation of residential property prices** remains a risk.

Given the importance of the **automotive industry** for the Czech economy, the strong pro-cyclicality of this sector, its export orientation and dependence on supply chains is a risk. The last factor poses a significant problem for the automotive industry also in the context of the Russian invasion of Ukraine. The risks are also exacerbated by the structural changes taking place in the automotive industry due to the gradual tightening of emission standards and the transition to electromobility. This will require huge investments in the development of technology, machinery and equipment or infrastructure. An impact on employment or supplier-customer relations can also be expected.

The fiscal forecast then assumes these macroeconomic risks, both through the effects on the revenue side and

in the case of some expenditure items. On the revenue side, the realisation of most macroeconomic risks would be reflected in a reduction in government revenue. The opposite would be the effect of higher inflation and the involvement of migrants in the labour market for the longer period of time that the war in Ukraine could last.

A prolonged conflict in Ukraine, coupled with further significant immigration, would also place a greater burden on the social and public health care systems or the regional education system. In the case of social benefits, this would primarily concern **material need and state social support benefits**. This is due both to the structure of the refugee population (women with children) and to the expected labour market participation of migrants in relatively lower-paid occupations.

More systemic change would have to take place in **education and health care**. Although there were vacancies in many educational institutions and higher demand was at least partially satisfied, in some areas of healthcare (paediatricians, dentists) the situation was already tense before the migration wave (OECD, 2018; MH, 2019).

4.3 Sensitivity Analysis

The **sensitivity analysis** is calculated using a dynamic stochastic general equilibrium model developed by the MF CR. The first scenario considers the **impact on the highly open Czech economy** dependent on the external environment through lower economic growth in the European Union. The other scenario assesses a **sudden increase in interest rates** above the level of gradual increase considered in the baseline scenario. The last scenario responds to **uncertainty about energy prices** and analyses the situation of a longer-term persistence of higher consumer inflation.

The alternative scenarios are derived from the baseline scenario described in Chapters 2 and 3. The first two scenarios consider the materialisation of a negative shock in the first half of 2023, while the third scenario assumes that high energy prices persist in the second half of 2022. However, this is always only an illustration of the impact of the shock on the macroeconomic environment and public finances, where the shock has been arbitrarily defined.

The sensitivity analysis is primarily used to assess the impact on the general government balance and debt. Different developments in tax-generating macroeconomic aggregates would lead to different revenues for virtually all main tax and insurance items. On the expenditure side, different developments in prices and the labour market would be reflected in different levels of cash social benefits or, in the case of a purely state budget, in different payments for the state-insured persons.

The need to address **housing** for a longer period of time would require the concept of additional accommodation capacities (i.e. higher investments) or, for example, in the form of longer-term allowances for families accommodating migrants in their households.

Higher inflation would lead to the need for higher **indexation of pensions** and probably also some other **benefits**. An increase in the consumer price index in the first half of 2022 compared to the baseline scenario would trigger a second extraordinary indexation no later than November this year and a corresponding increase in pension expenditure. At the same time, it would further increase the pressure on the payment of cash and in-kind **social benefits for households at risk of poverty**.

The overall impact of the materialisation of these risks on public finances is thus negative. Without corresponding austerity measures or changes on revenue side, the deterioration in the balance, including an even stronger increase in **debt servicing**, would occur.

4.3.1 Lower GDP Growth in the EU in 2023

Economic developments in EU trading partners are important for the economic growth of the small open economy of the Czech Republic. This scenario assumes **slower GDP growth in the EU for 2023 by 2.5 pp**, which corresponds to the standard deviation over the period 2002–2021.

A reduction in foreign demand for domestic products would be reflected in the first phase by a decline in net exports. However, the subsequent pressure on currency depreciation would dampen the negative effects on net exports through more expensive imports. A weaker foreign trade result would slow down real GDP growth in the Czech Republic in 2023 by 0.6 pp compared to the baseline scenario. Lower growth in corporate profits due to weaker exports would see investment growth decelerate by 0.1 pp. The lower output of firms would also have a negative impact on labour demand and, subsequently, lead to 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 0.1 pp.

Weaker economic performance has an impact on tax revenues and social security contributions on the revenue side, while on the expenditure side it leads to higher spending on unemployment benefits. In addition, at the level of the state budget, there would be an increase in claims for payment for state-insured persons. Thus, the debt burden at the end of 2023 would be 0.2 pp higher compared to the baseline scenario and the gap would widen only slightly further by the end of the CP horizon.

4.3.2 Rise in the National Interest Rate

In this scenario, the dynamic model simulates an additional **tightening of monetary policy in 2023 by 1.1 pp**. This value is consistent with the standard deviation of developments in the short-term interest rate in the period from 2002 to 2021.

A more restrictive monetary policy would have a negative effect on economic development. Pressure on the appreciation of the Czech koruna would lead to more expensive exports, while imported goods would become relatively cheaper. A slight slowdown in exports by 0.2 pp would put downward pressure on imports, given the high import intensity of exports. Lower income and a decline in corporate profits would have a similar effect. The result would be a slight reduction in import growth compared to the CP macroeconomic scenario.

Lower household incomes due to slower wage growth would pose another negative influence on consumption. Moreover, a higher interest rate would motivate households to save and thus postpone consumption to the future. As a result, restrictive monetary policy would lead to a 0.1 pp slowdown in household consumption growth.

Firms' profitability would decrease as a result of the decline in foreign and domestic demand. Firms would react to the fall in profits and the rise in the cost of borrowing by reducing investment growth by 0.1 pp. Furthermore, a slowdown in aggregate demand would lead to only a very small increase in the unemployment rate compared to the baseline scenario by a maximum of 0.2 pp and to lower wage growth of roughly the same extent.

Given the negative impact of the higher interest rate on investment, consumption and exports, the resulting impact on GDP growth would also be negative, to the extent of 0.2 pp. Slowdown in economic growth would lead to disinflationary pressures of 0.1 pp.

Lower nominal household consumption and wage bill would lead to lower dynamics of the main revenue items. On the expenditure side, on the other hand, a lower inflation rate would be beneficial, especially for some cash social benefits and general government consumption. At the level of the state budget, we estimate the impact in the order of sub-billions of korunas, including the impact of a slight increase in payments for state-insured persons. However, the level of indebtedness would gradually increase by 0.5 pp, mainly due to relatively lower nominal GDP growth.

4.3.3 Higher Growth in Energy Prices

The subject of the last sensitivity analysis scenario is the **persistence of high energy prices in the second half of this year** in the context of possible negative developments in energy prices on world markets. In particular, in view of the geopolitical developments related to the war conflict in Ukraine, energy prices may increase even

more dramatically than in the baseline macroeconomic scenario. The latter assumes a year-on-year increase in oil, natural gas and electricity prices of around 50% this year. In this scenario, we illustrate the possible macroeconomic impact of an **additional 30 pp increase in energy prices** from the third quarter of this year. Overall, this would increase energy prices by 80% year-on-year in 2022. We estimate that the impact on the main macroeconomic variables would be most pronounced this year and next, and would be rather negligible in 2024.

Higher energy prices on world markets would result in higher import prices and a deterioration in the terms of trade. This would lead to a further increase in firms' costs, which would be reflected in higher output prices and a slowdown in the investment growth. Households would also be adversely affected by the price increases, which would further increase the cost of living. In response, real household consumption would shrink by 0.8% instead of growing by 0.5%.

The impact of higher energy prices on household consumption should be cushioned by high demand for labour. The unemployment rate could thus be only 0.1 pp higher in 2023 compared to the baseline scenario.

Higher prices and also lower output would have an impact on exports, whose growth would slow down the most this year compared to the baseline scenario, by 1.2 pp. Similarly, due to a slowdown in export activity, a decline in household consumption and weaker investment dynamics, the growth rate of imports would slow by 0.9 pp.

An increase in energy prices would have a significant impact on the consumer price index, both directly through import prices and with regard to the pass-through of higher costs to firms' output. We estimate that the inflation rate would be 1.5 pp higher this year due to an additional 30 pp increase in energy prices.

The impact on the general government balance and debt would not be dramatic in 2022, but would be fully reflected in the following year. Slightly higher wage bill would have a positive impact on personal income tax and social security contributions. Higher nominal consumption would lead to an increase in value added tax receipts. On the expenditure side, however, there would be an increase in the cost of purchases of goods and services under general government consumption and investment, and an increase in cash social benefits. In addition to higher spending on unemployment benefits, spending on cash social benefits, including pension benefits, would increase in line with higher inflation. The overall impact on the balance would be 0.3 pp. The level of general government debt would be unchanged in 2022 relative to the baseline scenario due to the compensating effect of the denominator. In subsequent years, mainly due to higher deficits, debt would increase by around 0.6 pp to a total level of 46% of GDP in 2025.

4.4 Forecasts Verification by the Committee on Budgetary Forecasts

In accordance with Act No. 23/2017 Coll., on 14 April 2022, the macroeconomic scenario and the general government revenue forecast were assessed by the Committee on Budgetary Forecasts in terms of probabil-

ity of their materialisation. The Committee assessed the macroeconomic and revenue forecasts as realistic (CBF, 2022a, 2022b).

Table 4.1: Change in the Indicators of the Scenario

		April 2021 CP				April 2022 CP			
		2021	2022	2023	2024	2021	2022	2023	2024
External Assumptions									
GDP in EU	<i>change in %</i>	3.6	3.7	1.8	1.6	5.3	2.5	3.1	2.8
Prices of oil (Brent)	<i>USD/barrel</i>	63.8	59.9	57.4	56.0	70.8	104.8	91.3	83.5
Exchange rate USD/EUR	<i>USD/EUR</i>	1.21	1.21	1.21	1.21	1.18	1.11	1.10	1.10
Exchange rate CZK/EUR	<i>CZK/EUR</i>	25.9	25.5	25.1	24.7	25.6	24.4	24.2	24.1
Real Values									
GDP	<i>change in %</i>	3.1	3.7	1.9	2.1	3.3	1.2	3.6	3.2
Households consumption	<i>change in %</i>	0.1	5.7	1.8	2.2	4.4	0.5	4.5	4.0
Government consumption	<i>change in %</i>	3.4	0.9	1.1	1.5	3.0	1.0	1.0	1.1
Gross fixed capital formation	<i>change in %</i>	3.8	4.5	4.6	1.2	0.6	2.2	5.9	0.1
Contribution of final domestic demand	<i>p.p.</i>	1.8	3.9	2.3	1.7	2.8	1.0	3.9	2.2
Contribution of foreign trade	<i>p.p.</i>	0.4	-0.2	-0.3	0.4	-3.8	0.1	0.2	1.3
Output gap	<i>%</i>	-1.4	0.4	0.5	0.3	-0.7	-1.8	-0.5	-0.1
Others									
Nominal GDP	<i>CZK bn.</i>	5932	6257	6506	6769	6121	6618	7135	7550
Harmonised index of consumer prices	<i>change in %</i>	2.4	2.3	2.1	1.9	3.3	11.3	4.2	2.0
Employment	<i>change in %</i>	-1.1	0.1	0.3	0.1	0.1	2.1	1.3	0.2
Unemployment rate	<i>%</i>	3.6	3.7	3.5	3.5	2.8	2.5	2.6	2.4
Wages and salaries	<i>change in %</i>	0.7	2.3	2.9	3.1	6.6	6.0	6.2	3.9
General Government									
Revenue	<i>% of GDP</i>	39.8	39.8	39.7	38.4	40.5	40.4	40.0	38.5
Value-added tax	<i>change in %</i>	3.8	7.2	3.7	2.5	9.7	12.2	8.8	4.4
Excise taxes	<i>change in %</i>	12.6	1.2	3.6	0.0	2.6	4.2	5.2	0.2
Personal income tax	<i>change in %</i>	-33.4	-4.8	2.2	2.3	-25.2	-0.2	6.2	4.2
Corporate income tax	<i>change in %</i>	6.0	13.7	8.8	3.7	3.9	9.0	10.8	7.0
Social security contributions	<i>change in %</i>	5.9	1.6	2.4	2.7	11.4	4.4	5.3	3.2
Expenditure	<i>% of GDP</i>	48.6	45.7	45.1	43.7	46.4	45.0	43.2	41.4
Compensation of employees	<i>change in %</i>	5.1	2.5	1.5	2.0	6.7	0.5	3.2	3.0
Intermediate consumption	<i>change in %</i>	8.4	0.3	2.6	2.6	2.3	11.7	5.0	3.0
Social transfers in kind	<i>change in %</i>	11.0	-0.5	2.5	2.5	11.0	2.1	2.2	2.3
Social benefits other than in kind	<i>change in %</i>	6.1	2.7	2.2	2.2	4.7	7.0	7.0	3.4
Gross fixed capital formation	<i>change in %</i>	13.5	9.8	7.1	-9.9	3.1	10.0	10.4	-13.3
General government balance	<i>% of GDP</i>	-8.8	-5.9	-5.4	-5.2	-5.9	-4.5	-3.2	-2.9
General government debt	<i>% of GDP</i>	44.8	48.2	51.5	54.6	41.9	42.7	43.4	44.4

Source: CNB (2022a), CZSO (2022a), EIA (2022), Eurostat (2022), MF CR (2021a).

Table 4.2: Sensitivity Analysis

		2022	2023	2024	2025
Baseline Scenario					
Gross domestic product	<i>Y-o-Y in %</i>	1.2	3.6	3.2	2.4
Private consumption	<i>Y-o-Y in %</i>	0.5	4.5	4.0	3.5
Gross fixed capital formation	<i>Y-o-Y in %</i>	2.2	5.9	0.1	0.2
Exports of goods and services	<i>Y-o-Y in %</i>	1.5	4.2	3.7	2.5
Imports of goods and services	<i>Y-o-Y in %</i>	1.3	4.0	1.9	1.4
Harmonised index of consumer prices	<i>Y-o-Y in %</i>	11.3	4.2	2.0	2.0
Unemployment rate	<i>in %</i>	2.5	2.6	2.4	2.3
General government balance	<i>% of GDP</i>	-4.5	-3.2	-2.9	-2.7
Gross government debt	<i>% of GDP</i>	42.7	43.4	44.4	45.4
Alternative Scenario I - Lower GDP Growth in EU in 2023					
Gross domestic product	<i>Y-o-Y in %</i>	1.2	3.0	3.1	2.4
Private consumption	<i>Y-o-Y in %</i>	0.5	4.4	3.9	3.4
Gross fixed capital formation	<i>Y-o-Y in %</i>	2.2	5.8	0.0	0.2
Exports of goods and services	<i>Y-o-Y in %</i>	1.5	2.0	3.2	2.5
Imports of goods and services	<i>Y-o-Y in %</i>	1.3	2.8	1.4	1.3
Harmonised index of consumer prices	<i>Y-o-Y in %</i>	11.3	4.1	1.9	1.9
Unemployment rate	<i>in %</i>	2.5	2.8	3.2	2.3
General government balance	<i>% of GDP</i>	-4.5	-3.3	-3.1	-2.7
Gross government debt	<i>% of GDP</i>	42.7	43.6	44.6	45.7
Alternative Scenario II - Higher Interest Rates					
Gross domestic product	<i>Y-o-Y in %</i>	1.2	3.4	3.1	2.4
Private consumption	<i>Y-o-Y in %</i>	0.5	4.4	3.8	3.3
Gross fixed capital formation	<i>Y-o-Y in %</i>	2.2	5.8	-0.1	0.1
Exports of goods and services	<i>Y-o-Y in %</i>	1.5	4.0	3.5	2.4
Imports of goods and services	<i>Y-o-Y in %</i>	1.3	3.9	1.7	1.3
Harmonised index of consumer prices	<i>Y-o-Y in %</i>	11.3	4.1	1.9	1.9
Unemployment rate	<i>in %</i>	2.5	2.5	3.2	2.3
General government balance	<i>% of GDP</i>	-4.5	-3.4	-3.2	-2.7
Gross government debt	<i>% of GDP</i>	42.7	43.6	44.8	45.9
Alternative Scenario III - Higher Energy Price Growth					
Gross domestic product	<i>Y-o-Y in %</i>	0.3	2.8	3.2	2.4
Private consumption	<i>Y-o-Y in %</i>	-0.8	3.6	4.0	3.5
Gross fixed capital formation	<i>Y-o-Y in %</i>	1.9	5.0	0.0	0.2
Exports of goods and services	<i>Y-o-Y in %</i>	0.5	3.0	3.5	2.5
Imports of goods and services	<i>Y-o-Y in %</i>	0.4	2.9	1.8	1.4
Harmonised index of consumer prices	<i>Y-o-Y in %</i>	12.8	4.8	2.0	2.0
Unemployment rate	<i>in %</i>	-0.8	2.5	3.0	2.3
General government balance	<i>% of GDP</i>	-4.7	-3.5	-3.1	-2.7
Gross government debt	<i>% of GDP</i>	43.0	44.0	45.0	46.0

Note: Different values in the text and in the table are caused by the rounding of values to one decimal place.

Source: CZSO (2022a), EIA (2022), Eurostat (2022), MF CR calculations and forecast.

5 Sustainability of Public Finance

Long-term sustainability is one of the consistently discussed issues of Czech public finances. The biggest risk is the expected demographic development, which is likely to increase significantly the ratio of people of retirement age to the working-age population over the next few decades. However, the ageing of the population is not a matter of the distant future, but is already evident today. This is putting pressure on public finances and thus creating a need to reform social systems. The Policy Statement of the Government explicitly mentions the end of 2023 as the deadline for presenting a comprehensive pension reform. However, the phenomenon of population ageing affects not only old-age pensions but also other parts of public finances such as health, long-term care and education.

5.1 Government Strategy and Implemented Reforms

5.1.1 Current State of the Public Pension System

The pay-as-you-go pension system, regulated by Act No.155/1995 Coll., has undergone many changes since its entry into force, mainly concerning the retirement age, the calculation of pensions and the method or amount of indexation. The pension calculation system is based on the insured individual's previous earnings, adjusted through reduction thresholds. The amount of income relevant for the calculation of pensions is included in full up to 44% of the average wage and only 26% above that level up to 400% of the average wage. Earnings above 400% of the average wage do not affect the assessment base for the calculation of pensions, which is fully in line with the social insurance contribution cap of the same level.

The latest adjustment of the pension system in terms of the **retirement age** applies with effect from 1 January 2018 (Act No. 203/2017 Coll.). The retirement age for both men and women will be increased until it is unified at 65 after 2030. The Ministry of Labour and Social Affairs is also required by law to submit a report on the pension system to the government at five-year intervals (the first report was considered by the last government in September 2019). The aim of the reports is to assess the current retirement age and, if necessary, propose adjustments to the retirement age so that insured persons can spend on average a quarter of their lives in retirement. In addition, the changes to the retirement age setting do not affect people who will be over 55 at the time of the revision. However, the revision mechanism does not oblige the Government, but only recommends to submit (if relevant) the change in the retirement age to Czech Parliament for approval. The Government has taken advantage of this rule by deciding to leave the retirement age setting as it is for the time being. The statutory retirement age also affects the conditions pertaining permanent widow's and widower's pensions, where the age limit is linked to old-age pensions. For early retirement pensions, the threshold is gradually shifting from three to five years before the statutory retirement age. This maximum period of five years can be used, at the cost of significant penalties, by persons whose statutory retirement age limit is at least 65 years.

With effect from 1 January 2023, there are two changes to the amount of pensions and the retirement age under Act No.323/2021 Coll. Firstly, for each child, an amount of CZK 500 will be added to the pension and will be further indexed according to the rules in force. The second change is that early retirement pension will not be reduced for workers of the Integrated Rescue System if the insured has worked in the system for at least 20 years.

Early retirement entails several penalty rates that progressively reduce the resulting benefit throughout the period over which the pension is paid out. Up to 360 days before the statutory retirement age is reached, a reduction of 0.9% applies to the basis of calculation; for the period from 361 to 720 days before reaching the retirement age, the reduction is 1.2%; finally, for periods exceeding 720 days (up to the limit permitted by law), the reduction is 1.5%. The variable amount of the old-age pension is then reduced by these amounts for every 90 days inclusive.

In addition, there is a system of **pre-retirement scheme** that allows participants in supplementary pension savings (Pillar III) to draw their funds without penalty up to 5 years before reaching the statutory retirement age. However, a condition for pre-retirement is the amount of accumulated funds in the private Pillar III, which should ensure a monthly pension of at least 30% of the average wage. The old-age pension is not reduced for the period over which the pre-retirement pension is taken. At the end of 2021, only 4 307 persons with an average benefit of CZK 12 665 had taken advantage of the pre-retirement scheme. The number of people receiving a pre-retirement pension thus fell for the first time year-on-year, by almost 700 people.

As for **disability pensions**, there are three groups in the Czech Republic, classified according to the degree of disability. A disability pension can be awarded to someone whose work capacity has decreased by at least 35% due to long-term adverse health conditions. . The first degree of disability applies to a decrease in working capacity of 35% to 49%, the second degree of 50% to 69% and the third degree of 70% and above.

The **indexation** of pensions paid from the pay-as-you-go system is determined by the sum of the growth of the consumer price index or the pensioners' cost-of-living index (whichever is higher) and one half of the real wage growth. The indexation is carried out once a year on 1 January, except where inflation has reached at least 5% since the end of the previous reference period. On the other hand, in the case of periods of low inflation and/or low real wage growth, there is the possibility for the government to adjust the amount of the indexation. If the increase in the average pension according to the standard indexation formula does not reach 2.7%, the Government is entitled to index pensions up to that level by regulation of the government. In other cases, the statutory indexation formula is strictly followed, which does not, of course, exclude the possibility of a different indexation by means of a special law. In addition, for persons over particular age, there is an increase in the earnings-related part of pension benefit by a stated amount (CZK 1,000 per month for persons over 85 years and another CZK 1,000 for persons over 100 years).

The current government's plans for pension reform are in many respects based on the results and recommendations of the Commission for Fair Pensions. The pension system should consist of a solidarity-based part, earnings-related part and voluntary component. The government has also declared, among other things, a reduction in the compulsory insurance period, an increase in widow/widower pensions or an earlier retirement age for arduous professions.

5.1.2 Development in the Healthcare System

Health insurance companies' balances in bank accounts averaged at 0.3% of GDP between 2012 and 2015. From 2016 onwards, this ratio has gradually increased to 1.1% of GDP in 2020. The level of health insurance balances in 2020 was affected by the fact that the increased expenditure in the inpatient care due to the epidemic was reflected in the billing from health care providers in 2021. This is also shown in the 0.3 pp year-on-year increase in liabilities of health insurance companies to health care providers in 2020 to 1% of GDP. Consequently, this led to a decrease in the health insurance companies' balances to CZK 51.8 billion in 2021 (i.e. 0.8% of GDP). Based on health insurance plans and the medium-term outlook for health insurance companies, their balances should decrease relative to GDP in subsequent years.

If so, the development of the performance of the public health insurance system that it will be necessary to set lower dynamics of expenditure in the medium and especially in the long term, as well as to increase the efficiency of health care expenditure. Measures will also have to be implemented to address the available revenue of the public health insurance system, including the struc-

ture of health care financing resources. This is primarily due to the ageing population, in addition to the expected increase in the number of people with civilisation-related diseases.

To **enhance efficiency** in spending in the health care system, the government plans to introduce systematic cost-benefit assessments of new technologies and issue the clinical practice guidelines. A separate **Health Research Agency** panel is then expected to be established this year to implement clinically recommended practices. Their recommendations will also be reflected by the **Department of Health's Instrumentation Panel**. The implementation of the long-term **DRG Restart** project, scheduled for completion in 2023, is also progressing, with the aim of creating a long-term sustainable data, information and staffing base to optimise the reimbursement system for the acute inpatient care. Changing the reimbursement method should achieve greater efficiency in the financing of this segment of care, as the system will reflect the real cost of procedures.

The increasing **digitalisation of healthcare** is also a major contributor to increased spending efficiency. With gradual effect from 1 January 2022, the Act on Electronic Healthcare (Act No. 325/2021 Coll.) will create a system based on three core health registers between 2022 and 2026: health care providers, health care workers and patients. These will be linked into a single non-public entity that can be used only by a legally defined circle of authorised persons, to a defined extent and for a defined purpose. This should ensure accurate, real-time data on health care providers, health care workers and patients. The aim of the progressive computerisation of health care is to make the provision of health care, their reimbursement and control in the provision of health care more efficient.

No systemic changes have been made to the **health care financing resources** in recent years, only ad hoc adjustments in the context of the COVID-19 epidemic. In this context, the assessment base for payments for the state-insured persons was also increased to CZK 14,570 in 2021, effective January 2022 (Government Regulation No. 253/2021 Coll.). In conjunction with the draft state budget for 2022, it was approved (Chamber of Deputies Print No. 166), with effect from July this year, to reduce this assessment base again to the level at the end of 2020 (i.e. CZK 11,607), as the system still has significant buffers. No statutory mechanism has yet been adopted for the 2022 horizon, but the government plans to introduce automatic indexation of this payment from the state budget in the medium term. According to the Policy Statement of the Government, the government also intends to introduce the possibility of voluntary supplementary insurance, which would diversify the health care financing resources and reduce the high dependence of the public health insurance system on public budgets.

The health care system in the Czech Republic should develop in the coming years on the basis of the **Strategic Framework for the Development of Health Care in the Czech Republic until 2030** (“Health 2030”) (MH, 2019), which was approved by the Government in 2019 (Government Resolution No.817), while some priorities relating to, for example, the protection and promotion of public health were adjusted in view of the COVID-19 epidemic (Government Resolution No. 743/2020). The basis for the future development of the health care sector should be the fulfilment of three strategic objectives: protecting and improving the health of the population, optimising the health care system and promoting

science and research. These include seven specific areas such as reforming primary care, implementing integrated care models, digitising the health care system or optimising the reimbursement system. In 2021, the government then approved (Government Resolution No. 27) the implementation plans of the strategy, which describe the specific areas in detail and set out the timetable, budget, indicators to be monitored, etc. The gradual implementation of the specific objectives should lead to greater efficiency, cost-effectiveness and sustainability of the health care system in the context of demographic, economic and social developments.

5.2 Fiscal Impacts of Population Ageing

Estimates of the impact of ageing are based on long-term projections carried out in cooperation with the Ageing Working Group of the Council of the European Union’s Economic Policy Committee. The analyses are based on demographic assumptions and a methodologically consistent macroeconomic framework for EU countries, the UK and Norway (EC, 2020). The projections therefore do not reflect the current medium-term macroeconomic and fiscal outlook of the Czech Republic. The projections are made under the constant-policy assumptions. They are therefore indicative of a system that is legislatively anchored at the time of the projections, taking into account current practice where discretion is allowed in the legal framework. Long-term analyses are not intended to predict specific values, but to show trends and dynamics over the long term. The most recent update of the long-term projections took place in autumn 2020 in the context of the preparation of the 2021 Ageing Report and covers the period up to 2070.

Eurostat population projections (EC, 2020) are the basis for the current long-term projection results. For comparison, the previous Eurostat projection (EC, 2017) and the mid scenario of the Czech Statistical Office’s latest projection (CZSO, 2018) can be used. The latter was used to assess the relationship between the current retirement age and life expectancy. It was also the basis for the OECD (2020). The Czech Statistical Office updates its demographic projections once every five years, i.e. the next one will be published at the end of 2023.

A basic comparison of these demographic projections shows that a decrease in the Czech population can be expected in the long term. The most optimistic projection in this respect is the Czech Statistical Office’s, which is somewhat closer to Eurostat latest projection (see Graph 5.2). The difference between these two scenarios stems almost exclusively from the different assumptions on the evolution of the net migration. While the Czech Statistical Office assumes a constant net influx of 26,000 persons per year over time, Eurostat’s update expects a gradual decline from the current level of around 24,000 to around 8,000 persons per year.

However, the structure of the population is particularly important for projections of social and health system expenditure. The dependency ratio, measured as the ratio of the number of persons over 65 to the number of persons of working age (15–64), evolves very similarly across projections. It is expected to almost double by 2060, reaching around 55% (see Graph 5.3).

Of course, this is not only a consequence of the decline in the number of working age individuals, but also of the increase in average life expectancy. The share of people aged 85 and over in the number of people aged 65 and over is projected to more than double over the projection horizon. Only a temporary reduction in the dependency ratio is then expected in the later decades of the projections. The strong growth after 2035 and the peak in the period roughly between 2045 and 2060 is mainly due to the demographic bulge of those born in the 1970s. After 2060, their influence is expected to diminish, but in the following period the dependency ratio will be influenced by the ageing of the stronger population cohorts born currently.

The economic activity rates for age cohorts above 54 are projected to increase until 2030 as the statutory retirement age goes up. However, they remain more or less constant after 2030, reflecting the current institutional set-up of the pension system. Although the revision mechanism is part of the pension system, it does not impose an obligation on the government, but only a recommendation to submit a proposal for changes in the retirement age to the Czech Parliament for approval. For this reason, the European Commission rejected the application of the revision mechanism in the long-term projections. The projection therefore works with the retirement age as a fixed ceiling of 65 years from 2030 onwards.

The development of pension expenditure relative to GDP was relatively favourable in the pre-crisis period, mainly due to the macroeconomic environment. The initial value of expenditure in the previous projections was 9.0% of GDP in 2013, while pension expenditure

was 1.0 pp lower in 2019. In contrast, higher growth in wages and salaries, employment and participation rates led to dynamic growth on the revenue side of the system. This had a positive impact on its balance, which stood at 0.3% of GDP in 2019 (the initial year of the projections) (MF CR, 2021b). The epidemic and the measures taken on the revenue side then led to a deterioration of the system's balance to -0.7% of GDP in 2020 (MF CR, 2021c), however, the final balance ended around balanced in the last year. The expenditure side contributed more to the improvement in the balance.

However, the trend in pension expenditure projections is primarily determined by demographic trends and retirement age. However, the situation due to the sizeable economic downturn in 2020 also plays an important role in the medium term. These assumptions imply that pension expenditure as a share of GDP was projected to rise to 9.5% in 2020 (the actual figure was 0.4 pp lower) and then gradually fall below 9% until 2030. However, after 2030, the increase in the retirement age will stop and those born in the demographic bulge in the 1970s will start retiring. This will lead to a rather dramatic increase in expenditure up to 11.9% of GDP just before 2060, followed by a decline in expenditure to 10.9% of GDP at the end of the projection horizon in 2070 (Graph 5.4). The decline in the expenditure-to-GDP ratio is again driven by demographic factors. This is because individuals born in the demographic trough in the 1990s or later will retire and replace those born during the demographic bulge.

The projection assumes constant pension revenues relative to GDP over the entire horizon. This follows from the assumption that the volume of wage bill in the economy should evolve in line with labour productivity over the longer term. As a result, the share of labour production factor in GDP is kept fixed, on which a constant pension rate of 28% of gross wage or salary is applied. The scheme's revenues are thus at the 2019 initial year level of 8.5% of GDP over the entire horizon.

With revenue in relative terms kept constant, the resulting projection of the pension system balance follows the trajectory of pension expenditure (see Graph 5.4). We expect the balance to be relatively stable until 2030, while the balance deteriorates thereafter, bottoming out around 2060 at -3.2% of GDP. It will improve again in the last decade, reaching -2.5% of GDP in 2070. Compared to the European Commission projection (2021a), the long-term sustainability of the system has deteriorated. The causes of the deterioration in the pension system balance can broadly be divided into two groups: assumptions (e.g. different demographics) and changes in the pension system (e.g. different indexation formula and, in particular, the capping of the retirement age). Unlike in previous years, the deterioration in long-term

sustainability can be attributed exclusively to differences in assumptions. Changes in the system, such as higher-than-statutory indexation in previous years, affected the base projections and were subsequently carried forward through the indexation of higher initial expenditure.

In the area of health care and long-term care, the situation in terms of growth momentum of expenditure is similar to previous projections. In the baseline scenario, health care expenditure increases by less than one fifth (from a baseline of 5.6% of GDP in 2019 to 6.6% of GDP in 2070) and long-term care more than doubles (from 1.5% of GDP in 2019 to 3.2% of GDP in 2070).

In addition to the baseline projection scenario, a reference scenario was developed that differs from the pure demographic scenario in several respects. In the case of health care, it is a higher income elasticity, with demand for health care services initially growing one tenth faster than the standard of living measured as GDP per capita. Furthermore, in terms of increased life expectancy is assumed to be half of gain spent in good health (as opposed to all the increase spent in poor health in the baseline scenario). In addition, for long-term care, the baseline scenario includes an assumption of higher growth in compensation of employees for workers in social services in line with rise in labour productivity in the economy (instead of GDP per capita growth, which is lower).

Demographic effects increase health care expenditure by 1.2 pp, higher income elasticity by a further 0.3 pp, while the effect of good health in the additional life expectancy reduces the increase in expenditure in the reference scenario by 0.6 pp. In the case of long-term care, the impact of demographic trends is quantified at 1.4 pp and the higher compensation of employees an additional 0.3 pp. The effect of the good health in the additionally lived years in the projection outweighs the higher income elasticity.

Finally, the last major long-term expenditure item, education, is expected to grow from 3.4% of GDP in 2019 to 4.1% of GDP in 2070. This is essentially the same as in previous projections and the highest increase in the EU as a whole. The reason for the increase is the higher growth in compensation of employees in education relative to the projected economic growth.

The total increase in expenditure between 2019 and 2070 is more than 6 pp, as shown in Graph 5.7. The increase for health care, long-term care and education, taken together, is 3.3 pp. However, these are just the baseline scenarios. With health care and long-term care in particular, most alternative (sensitivity) scenarios show an increase that, for the most part, is higher. The only exception is scenarios including the impact of a healthier lifestyle.

5.3 Sustainability Analysis

The long-term projections are followed by a sustainability analysis that identifies the extent of potential fiscal consolidation to ensure the stability of public finances. So-called sustainability indicators are calculated to show how far-reaching measures would be needed to reduce the expenditure ratio or increase the revenue-to-GDP ratio accordingly.

The European Commission regularly publishes three sustainability indicators (European Commission, 2019). The **S1 indicator** generally expresses by what percentage of GDP the primary structural balance of the general government sector needs to be adjusted so that general government debt to be 60% of GDP at the end of a rolling 15-year horizon (currently 2036). This indicator for the Czech Republic currently stands at -0.9% of GDP (European Commission, 2021b). The negative value documents that the increase in age-related expenditure up to 2030 is more than “offset” by the still relatively low level of general government debt.

Indicator S2 measures the degree of fiscal effort required to achieve equality of discounted revenues and expenditures over an infinite horizon. According to the latest published calculations, it takes the value of 4.8% of GDP. The value of this indicator is mostly influenced by the cost of ageing, which amounts to 4.6% of GDP; the impact of the initial budgetary position is the remaining 0.2% of GDP.

S0 indicates possible fiscal or financial risks in the short term. It is thus different in nature from indicators S1 and S2, as S0 quantifies the degree of risk. For the Czech Republic, the current value of the S0 indicator is 0.37, which is in the low-risk band below the critical threshold of 0.46.

The Czech Republic is currently rated as a medium-risk country in terms of the long-term sustainability of public finances. In order to return to the low-risk zone, it is necessary to resolve future pressures on public finances due to demographic changes. This concerns all components of the long-term projections, i.e. pensions, health care and long-term care, as well as education.

5.4 General Government Guarantees

The issue of **guarantees** provided by the general government sector to other entities complements the view on the sustainability of public finances. Guarantees represent an increase in general government expenditure when the debtor is unable to repay the obligations for which the guarantee is provided. Before the outbreak of the epidemic, the volume of guarantees provided in the Czech Republic was quite negligible.

The majority share of general government guarantees (excluding COVID programmes) is accounted for by guarantees provided by local governments amounting to 0.1% of GDP. The most significant of which is guarantee for the Prague Transport Company for deferred payments for the purchase of trams in the amount of CZK 2.4 billion. Others guarantees are provided by local governments for loans related to housing needs (CZK 0.3 billion).

State guarantees have been steadily declining before 2020, mainly because the financing of infrastructure development has not been addressed through the guarantees provided since 2001. In 2016, the rights of the Czechoslovak Trade Bank to fulfil the guarantee in the case of the takeover of the Investment and Post Bank were terminated. Although only a fraction of the guarantee has been paid (CZK 6.1 billion out of a total value of CZK 160 billion), the final court case is still pending with a potential performance exceeding CZK 23 billion.

In 2018, a state guarantee was provided to secure the CNB's loan to the International Monetary Fund from its foreign reserve assets (Act No. 179/2018 Coll.) under

a new contract. The promised credit framework is up to EUR 1.5 billion, but the reported amount of the guarantee is dependent on the status of the credit drawn down. The guarantee provided has not been activated.

As part of the solution to the crisis caused by the pandemic, in March 2020 the Government approved the COVID II Guarantee Programme (Government Resolution No.260/2020) with indirect support for affected companies in the form of state guarantees with a guarantee capacity of CZK 20 billion. A volume of guarantees amounting to CZK 11.6 billion was provided under this guarantee programme. On 20 April 2020, the COVID Prague programme was announced as a complement to the COVID II programme under similar conditions. The guarantee provided under this programme amounted to CZK 1.3 billion. Both programmes were exhausted relatively quickly and ended already during 2020.

The adoption of Act No. 228/2020 Coll. created leeway for the implementation of the COVID III Guarantee Programme. The support was provided in the form of a guarantee by the then Czech-Moravian Guarantee and Development Bank (now the National Development Bank – see Chapter 7.1.1) to a cooperating bank for a portfolio of transactions of final beneficiaries. The programme guarantees 90% of the principal of a loan up to CZK 50 million for operating or investment financing of an enterprise with up to 250 employees, or 50% for an investment loan up to CZK 90 million. For businesses with 250 to 500 employees, it guarantees 80% of the amount of the operating or investment loan, up to a maximum of CZK 50 million, or 50% for an investment

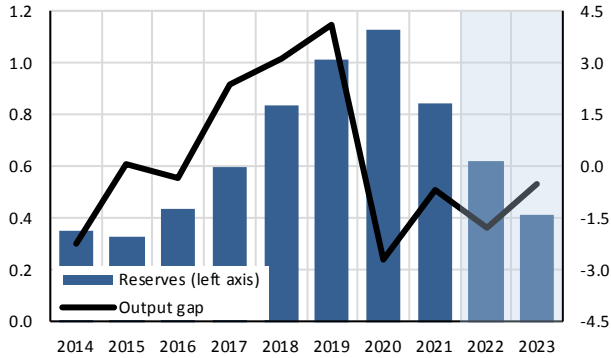
loan up to CZK 80 million. CZK. The maximum guarantee period is 3 years for operating loans and 6 years for investment loans. The provision of loans under this programme was terminated on 31 December 2021. As of the same date, over 7,500 guarantees for loans worth CZK 42.9 billion had been provided.

In addition to these programmes, the National Development Bank provides guarantees under the COVID Sport Guarantee (Government Resolution No. 46/2021) with a maximum guarantee period of 3 years (applications are accepted until 30 June 2023) and the COVID Travel Agency Guarantee for small and medium-sized travel agencies (Government Resolution No. 51/2021) with a guarantee period of 1.5 years (applications closed on 17 December 2021). It is followed by the Travel Agency Guarantee programme from January 2022 (Government Resolution No 982/2021). Guarantees should be provided under this scheme until 30 June 2022. A total of CZK 0.2 billion in guarantees have been issued under both schemes by the end of 2021.

Finally, Act No. 214/2020 Coll. enabled the Export Guarantee and Insurance Corporation to expand its portfolio of activities to include the provision of guarantees under the COVID Plus programme. The guarantees are intended for large enterprises with at least 250 employees and whose sales are from at least one-fifth connected with export. The amount of the loan ranges from CZK 5 million to CZK 2 billion. The maximum loan amount corresponds to 25% of the company's annual turnover. The amount of the guarantees is 90% of the principal amount of the loan, in the case of EGAP's internal rating of "B-" it is 80% (the rating scale used corresponds to S&P and Fitch ratings). The programme is not intended for companies that were experiencing existential problems before the emergency was declared. The guarantee is applied for via commercial banks and the maximum duration of the guarantee is 6 years. The volume of guarantees granted as of 31 January 2022 amounted to CZK 18.1 billion and was granted to 137 firms. The programme was terminated at the end of 2021.

Graph 5.1: Health Insurance Companies' Reserves

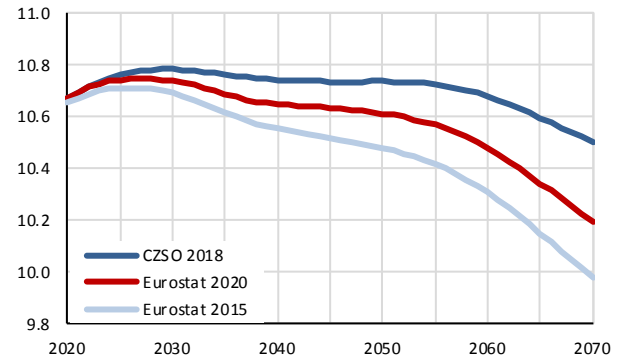
left axis: in % of GDP, right axis: in % of potential product



Note: "Reserves" on health insurance companies' accounts.
Source: Statements of Health insurance Companies, MF CR.

Graph 5.2: Czech Population in Different Projections

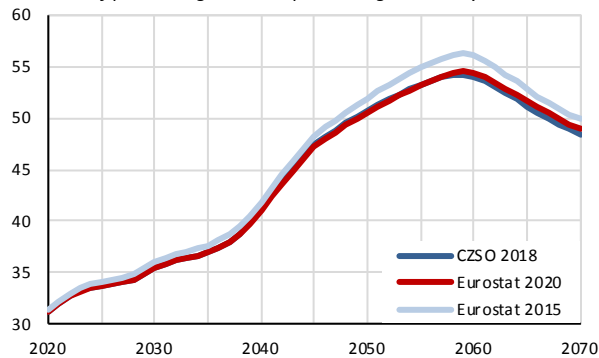
millions of persons



Source: EC (2017), CZSO (2018), Eurostat (2020).

Graph 5.3: Old-age Dependency Ratio

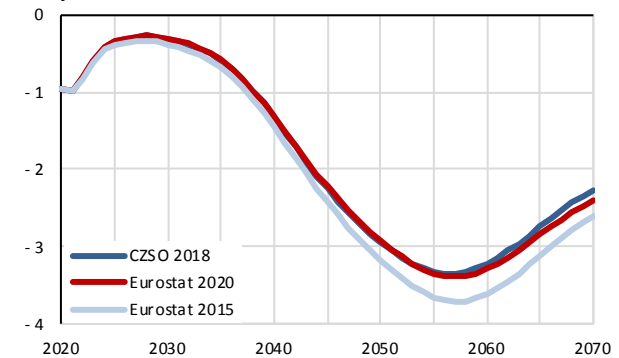
in %, ratio of persons aged 65+ to persons aged 15–64 years



Source: EC (2017), CZSO (2018), Eurostat (2020).

Graph 5.4: Projection of Pension Account Balances

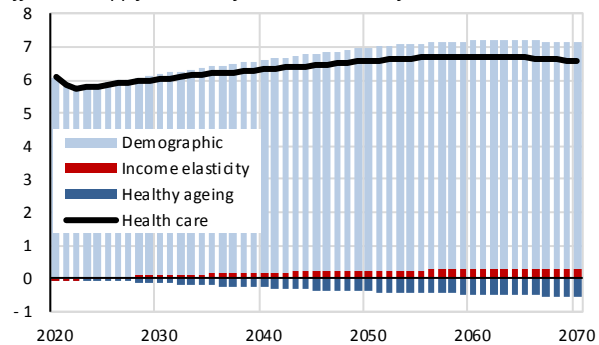
in % of GDP



Source: MF CR calculations and forecast

Graph 5.5: Health Care Scenarios

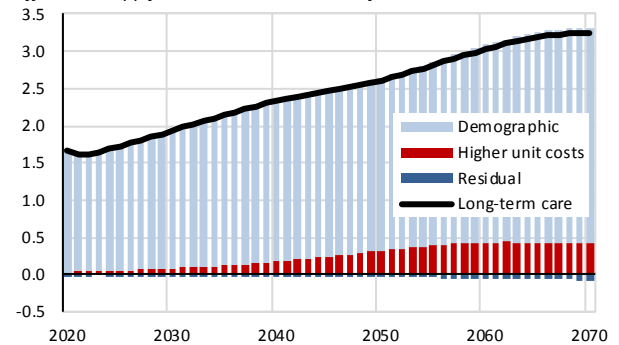
difference in pp from the reference case in % of GDP



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

Graph 5.6: Long-term Care Scenarios

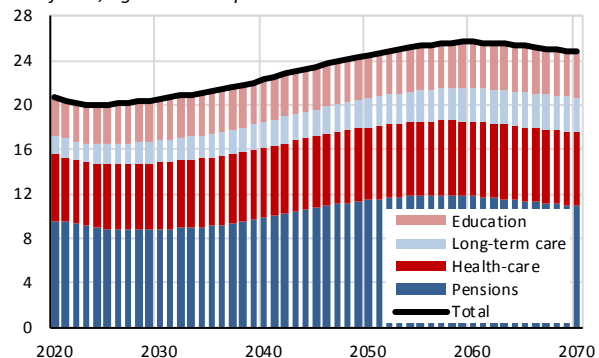
difference in pp from the base case in % of GDP



Note: Residual is difference of income elasticity and healthy aging impacts.
Source: EK (2021a). MF CR calculations.

Graph 5.7: Expenditure Projections – Reference Cases

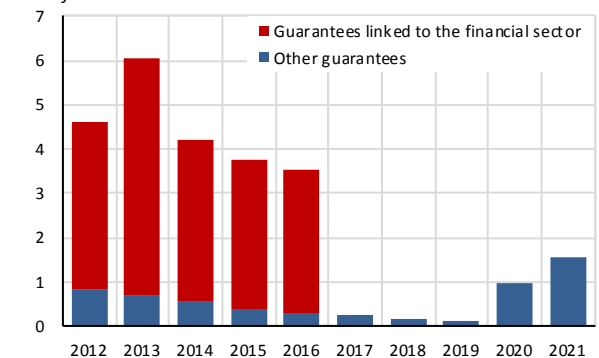
in % of GDP, age-related expenditure



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

Graph 5.8: General Government Guarantees

in % of GDP



Source: MF ČR.

Table 5.1: Long-term Sustainability of Public Finances

expenditure and revenue in % of GDP, change and rates in %

	2019	2020	2030	2040	2050	2060	2070
Total expenditure	41.1	47.3	43.0	45.4	48.9	51.8	52.5
<i>of which: Age-related expenditures</i>	18.5	20.6	20.6	22.3	24.5	25.7	24.7
Pension expenditure	8.0	9.4	8.8	9.8	11.4	11.8	10.9
Social security pensions	8.0	9.4	8.8	9.8	11.4	11.8	10.9
Old-age and early pensions	6.7	7.9	7.4	8.5	10.1	10.4	9.5
Other pensions	1.3	1.5	1.4	1.4	1.3	1.4	1.4
Occupational pensions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Health care	5.6	6.1	6.0	6.3	6.6	6.7	6.6
Long-term care	1.5	1.7	1.9	2.3	2.6	3.0	3.2
Education expenditure	3.4	3.4	3.8	3.8	3.9	4.2	4.1
Other age-related expenditures	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expenditure	0.7	0.8	1.8	2.4	3.8	5.5	7.0
Total revenue	41.4	41.6	39.2	39.2	39.2	39.2	39.2
<i>of which: Property income</i>	0.6	0.6	0.5	0.5	0.5	0.5	0.5
<i>of which: Pension contributions</i>	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Pension reserve fund assets	0.7	0.0	0.0	0.0	0.0	0.0	0.0
<i>of which: Consolidated public pension fund assets</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Assumptions							
Labour productivity growth	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)	89.3	89.4	87.8	86.4	87.3	88.0	87.4
Participation rate of males (aged 20–64)	74.5	74.6	75.3	73.7	74.3	75.6	74.9
Participation rate of females (aged 20–64)	82.0	82.2	81.7	80.3	81.0	82.0	81.3
Unemployment rate	2.1	5.0	3.7	3.7	3.7	3.7	3.7
Population aged 65+ over total population	19.8	20.1	22.1	25.0	28.3	29.6	27.9

Note: Macroeconomic assumptions are based on long-term projections of the EC and can differ from the medium-term macroeconomic scenario presented in Chapter 2. Total revenue and the age-unrelated expenditure in relative terms are kept constant to their 2024 level to mitigate distortion in impacts of ageing on public finance. On the other hand, total revenue and expenditure in the long run are thus distorted by the medium term budgetary position and the development after 2024, when the autonomous development of the projection is not corrected by the statutory trajectory of public finance consolidation and subsequent adherence to the medium-term budgetary objective.

Source: EC (2020). MF CR calculations.

Table 5.2: Sustainability Indicators S1 and S2

in % of GDP

	S1	S2
Cost of Ageing	1.1	4.6
Initial budgetary position	-0.8	0.2
Debt requirement	-1.2	-
Total	-0.9	4.8

Source: EC (2019), EC (2021b).

Table 5.3: Contingent Liabilities*in % of GDP*

Measures		Date of adoption	Maximum cont. liabilities % of GDP	Estimated take-up % of GDP
In response to COVID-19	"COVID II" Guarantee	2020	0.19	0.01
	"COVID Prague" Guarantee	2020	0.02	0.00
	"COVID III" Guarantee	2020	0.70	0.04
	"COVID Sport" Guarantee	2021	0.00	0.00
	"COVID Travel Agency" Guarantee	2021	0.00	0.00
	"COVID Plus" Guarantee	2020	0.30	0.01
	"National Guarantee" Programme	2020	0.14	0.01
	"Expansion - Guarantee" Programme	2020	0.14	0.01
Subtotal			1.49	0.07
Others	Guarantees provided by local governments			
	- for loans related to the housing needs	2014	0.04	-
	- for purchase of trams by Prague Transport Company	2012	0.00	-
	- other guarantees of the general government sector	2014	0.01	-
Subtotal			0.06	-
Total			1.55	0.07

*Note: Amount of guarantees is calculated to the end of 2021.**Source: MF CR.*

6 Quality of Public Finance Revenue and Expenditure

In the coming period, tax policy should aim at greater simplification of processes, a pro-client approach to tax subjects while not increasing the tax burden or reducing the bureaucratic burden in tax and fee administration. In addition, the government plans to identify and possibly abolish non-systematic tax exemptions, as well as to ensure better measures against transfer pricing abuse and illegal optimisation practices and tax evasion.

Despite the fact that the government's economic policy in the past two years has been devoted to a completely emergency situation forced by the global coronavirus pandemic, several measures have been taken to support the rationalisation of the expenditure side. This concerns in particular the area of public procurement and the adoption of legal norms to increase transparency. Continued digitisation of the state administration remains a priority.

6.1 Tax Policy Outlook

As of 1 January 2023, the **electronic registration of sales** is planned to be abolished (Government Resolution No. 163/2022), which has proven to be not very effective with the increasing volume of non-cash payments and excessively administratively burdensome in view of the additional revenues. Parametric adjustments will also be made to the **value added tax control statement**, which serves as a tool to detect tax evasion and fraud.

Also, in order to reduce the administrative burden on entrepreneurs, an increase in the **limit for compulsory registration for value added tax** to CZK 2 million is being prepared. At the same time, it is planned to extend the **flat-rate tax** also to income up to CZK 2 million and define the amount of the flat-rate tax and flat-rate social security contributions for incomes from CZK 1 million to CZK 2 million.

Furthermore, a new **Act on Accounting** is being prepared, reflecting the need to modernise accounting rules to meet current user requirements with an emphasis on financial reporting. It includes, for example, the extension of the use of international accounting standards for the preparation of financial statements, the introduction of the possibility to use a functional currency (euro, US dollar, British pound) for accounting and income taxes. This is further linked to changes in income taxes, such as the recodification of the tax treatment of assets (in particular changes in the depreciation of tax assets - reduction in the number of depreciation groups, switch to monthly depreciation), the introduction of the possibility to determine the tax base on the IFRS (International Financial

Reporting Standards) result, the introduction of the possibility to calculate income tax in a functional currency, the conceptual change in the valuation of assets, etc.

An amendment to the **Act on International Cooperation in Tax Administration** is currently under discussion, which mainly concerns the automatic exchange of information obtained from operators of shared economy platforms, other forms of international cooperation in tax administration, including tax audits carried out jointly by the authorities of EU Member States or Contracting States, and data protection and the remedy of data security breaches.

The European Commission has recently put forward several legislative proposals, both revisions of existing directives and entirely new proposals. In particular, these include a revision of Directive No. 2003/96 on the **taxation of energy products and electricity**, a revision of Directive No. 2011/64 on the **taxation of tobacco products**, a proposal for a Council Directive providing for global minimum (effective) **taxation of multinational companies in the EU**, a proposal for a Council Directive laying down **rules to prevent the abuse of shell entities** for tax purposes and an amendment to Directive No. 2011/16 on **administrative cooperation in the field of taxation**, which should relate to obtaining information from service providers related to cryptoassets. These proposals are highly complex and raise a number of issues that have yet to be resolved in the EU. The Czech Republic is ready to actively address these issues, including possibly during its Presidency.

6.2 Rationalisation of General Government Expenditure

6.2.1 Joint Procurement of the State

In the Czech Republic, state administration authorities purchase selected commodities and services through Joint procurement in accordance with Government Resolution No.487/2019. Joint procurement is carried out at three levels - departmental joint procurement, central state procurement and inter-departmental joint procurement. Its aim is to spend public funds economically and use administrative capacity efficiently. Joint

procurement is managed and coordinated by a supra-ministerial coordination group which is under the responsibility of the MF CR and the Ministry of the Interior. The group approves technical standards binding for all public procurement carried out by ministries and their subordinate organisations, regardless of who is the contracting authority. In 2019–2020, the total volume of the Joint procurement reached CZK 19.8 billion, of which CZK 19.3 billion were purchases made by ministries,

other organisational units of the state or state-funded allowance organisations, and only CZK 0.5 billion were purchases made by municipalities and regions. In terms of type of commodity, the largest share of the total value of purchases is accounted for by purchases of electricity and natural gas (46%), software products (16%) and passenger vehicles (14%). Despite the gradual increase in the volume of Joint procurement, it amounts to only about 5% of the total volume of public procurement in the Czech Republic, which is still below the recommendation (10%) of the EC (2021).

Information and communication technologies form a significant part of public administration purchasing. The Government is seeking to make these purchases as efficient as possible and has therefore made it a priority to create a single Digital Marketplace (eGov) where public authorities can request and purchase these commodity services to provide digital services to the state.

6.2.2 Public Procurement

Public Procurement

In 2020, Act No. 543/2020 Coll. was approved, which amended, among other things, Act No. 134/2016 Coll., on Public Procurement. On the basis of this law, as of 1 January 2021, the contracting authority is obliged to comply with the principle of “**socially responsible procurement, environmentally responsible procurement and innovation**” and to justify its actions when preparing the terms of reference or assessing eligibility and exceptionally low prices. This principle is then applied together with the original 3E principles and the principle of proportionality.

Public procurement is closely related to the adoption of two laws. The first is **Act No. 37/2021 Coll., on the Register of Beneficial Owners**, which transposes the requirements for the registration of beneficial owners according to European directives. The aim is to make the organisational and personnel structure of legal entities transparent by defining the beneficial owner according to two equivalent components - ultimate influence and ultimate income. The second, **Act No. 527/2020 Coll.**, also introduced, with effect from 1 June 2021, an obligation for the contracting authority to exclude a Czech legal entity for which it was not possible to identify the beneficial owner from the register of beneficial owners. The contracting authority may also terminate or withdraw from a public procurement contract if it discovers that false information has been provided about the supplier during the procurement procedure. In the context of the transposition of Directive (EU) 2019/1161 of the European Parliament and of the Council amending the Clean Vehicles Directive, the government this year approved (Government Resolution No. 101) a **draft bill** that aims at a **minimum share of green and zero-emission vehicles** in public procurement and in the acquisition of public passenger transport services.

As of 1 January 2022, in connection with the amendment of several directives of the European Parliament and the Council of the EU regarding financial limits for public procurement, the **limits for determining above-limit public procurement** for services, supplies and construction works are increased (Government Regulation No. 475/2021 Coll.). There is also an increase in the amount for the individual part of a public supply, service and construction works contract which does not have to be awarded using procedures corresponding to the total estimated value of the public procurement.

Information Technology Procurement

Since 2016, public administration projects related to information and communication technologies have been assessed by the **Department of the eGovernment Chief Architect** at the Ministry of the Interior before a public procurement is announced or signed (Government Resolution No. 889/2015). Thus, the project developer may not conclude the contract or complete the preparation of the public procurement documentation before receiving a positive statement from this department. As of February 2020, according to Government Resolution No. 86/2020, the information obligation applies to all expenditure related to digitisation or information and communication technologies, if the expenditure is intended for the acquisition or technical evaluation of a designated public administration information system, or if it is an expenditure with an estimated value exceeding CZK 6 million. The Department of the eGovernment Chief Architect thus has an overview of the individual systems which can then be interconnected and benefit from various synergies.

6.2.3 State Ownership Policy Strategy

As part of the management of state property, state fixed assets worth CZK 1.6 billion was sold or leased in 2021 through the Office for Government Representation in Property Affairs. Through the electronic auction system which has been in operation since 2018, cumulative revenues of CZK 1.7 billion were received. Also thanks to the State Asset Map project, the number of unrecorded properties registered to defunct and untraceable state entities continues to decrease. A Central Register of Administrative Buildings has been established to improve the cost-effectiveness of the use of public funds. The system covers all state-owned administrative buildings and is instrumental in optimising the occupancy of buildings into which state institutions are moved to save previously paid rent to non-public entities in a given location. In 2021, there were 50 transfers from private rentals to state buildings, realising savings in rent paid CZK 31.4 million. Since 2015, a total of 447 relocation plans have been implemented, saving more than CZK 205 million annually paid in rents.

In 2020, the Government approved (Government Resolution No. 115) the State Ownership Policy Strategy (MF CR, 2020), which is based on the Organisation for

Economic Co-operation and Development's Guidelines on Corporate Governance of State-Owned Enterprises (OECD, 2015). It defines the principles of the state's behaviour as an owner or co-owner of commercial companies or state-owned enterprises and ensures the transparent and effective exercise of ownership rights. According to the Strategy, the state should only own companies if they are strategically important for it to meet its economic policy objectives or if it needs them to ensure its effective functioning or to provide essential services to the public. All other companies with state ownership or state-owned enterprises should be subsequently privatised or liquidated. The strategic importance and necessity of existing state-owned enterprises and companies in which the state has a participating interest will then be continuously assessed, including their business strategies. Following the adoption of the Strategy, a Report on the Activities and Results of Strategic Companies with State Ownership, State-Owned Enterprises and National Enterprises for the previous year is submitted to the Government by the end of October each year. The 2020 Report (MF CR, 2021d) provides basic information (including the number of employees) and a set of financial indicators on a total of 36 entities in which the state currently exercises ownership and founder rights through seven ministries, namely the MF CR, the Ministry of the Interior, the Ministry of Industry and Trade, the Ministry of Transport, the Ministry of Defence, the Ministry of Agriculture and the Ministry of Regional Development. In terms of legal form, there are 16 joint stock companies, 19 state-owned enterprises and 1 state organisation.

6.2.4 Digitalisation of Public Administration Digital Czech Republic

The Digital Czech Republic programme represents the main strategy for coordinated and comprehensive digitisation of the Czech Republic after 2018. One of the pillars of this programme, the Information Concept of the Czech Republic (MI, 2020), focuses directly on digitisation in the area of public administration at the national level. It sets out the main objectives in the area of building public administration information systems and comprehensively covers the issue of building the eGovernment project in the Czech Republic. During the summer of 2021, the Ministry of the Interior submitted to the Government the Implementation Document of the Digital Czech Republic Programme for drawing funds from the Integrated Regional Operational Programme 2021–2027 (MI, 2021), which the Government approved by its Resolution No. 794 on 13 September 2021. The aim of the implementation document was to provide a summary of all planned measures of the Czech Republic in the field of eGovernment and cybersecurity, for which the Integrated Regional Operational Programme 2021–2027 funds could be used; and to effectively set up the process by which these measures are inserted into the document and, if necessary, updated. The implementa-

tion document ensures that only measures that are fully in line with the long-term strategic vision of eGovernment in the Czech Republic as defined by the Information Strategy of the Czech Republic are supported, thus contributing to the effective implementation of the Integrated Regional Operational Programme 2021–2027 funds in the area of eGovernment and cybersecurity. The measures contained in the implementation document have strategic support in three main objectives: user-friendly and efficient online services for citizens and companies; development of an environment supporting digital technologies in the field of eGovernment; efficient and centrally coordinated ICT public administration. The supported activities for the period 2021–2027 include: computerisation of selected public administration services; expansion of the interconnected data pool; integration of electronic public administration services and information on public administration into the gov.cz domain; measures leading to intensive use of existing secure electronic identification systems; publication of public administration data as open data; development of non-public network infrastructure of public administration and development of back-office services through the Central Service Point; creation of eGovernment cloud; cybersecurity; transactional portal solutions for municipalities and regions using guaranteed electronic identity; automation of digital data processing (robotization); centralization, standardization and sharing of electronic public administration services. Digitalisation is also one of the key priorities of the government, whether it is in the area of digital services to expand opportunities and simplify citizens' communication with authorities, transparency including open data, cybersecurity or connectivity and network development, which should lead to greater availability of information services including internet connectivity.

Digital Tools and Public Registers

In connection with the necessity to transpose Directive (EU) 2019/1151 of the European Parliament and of the Council of 20 June 2019 amending Directive (EU) 2017/1132, the Government approved in 2022 a draft bill (Chamber of Deputies Print No. 139), which changes the conditions for the application of digital instruments in commercial corporations and the functioning of public registers. The aim is to allow the fully electronic creation of capital companies (in particular Ltd.), using model articles of association, and to further strengthen the use of digital instruments throughout the life cycle of commercial corporations by allowing them to fully electronically enter data in the public register, deposit documents in the collection of deeds and establish branches in other Member States. The scope of publicly and free of charge accessible data on all capital companies registered in EU Member States on websites as well as the exchange of information between Member States' business registers will also be strengthened. The scope of voluntary entries in public registers (e.g. for branches of foreign foundations and foreign institutes) will also be modified.

6.3 Composition of General Government Expenditure

Between 2009 and 2017, with the exception of 2012, total general government expenditure as a share of GDP decreased by 0.7 pp per year on average. The reversal of the downward trend took place in 2018, from which expenditure has been increasing both in absolute terms and in relation to GDP. The relative level of total expenditure increased by 6.2 pp year-on-year in 2020. This increase was mainly driven by expenditure in the Health section (due to growth in social transfers in kind, compensation of employees or intermediate consumption, mainly in the Inpatient health care, Outpatient health care and Public health care services groups). The same contribution to expenditure growth was also made by the Social Protection section (mainly due to growth in cash social benefits in the Old Age group), followed by expenditure in the Economic Affairs section, which saw large increases in subsidies in the General Economic, Commercial and Labour Affairs group and in fixed capital formation in the Transport group. Conversely, there was a year-on-year decrease in expenditure in the Recreation, culture and religion section, which was due to a decrease in intermediate consumption in the Cultural services group.

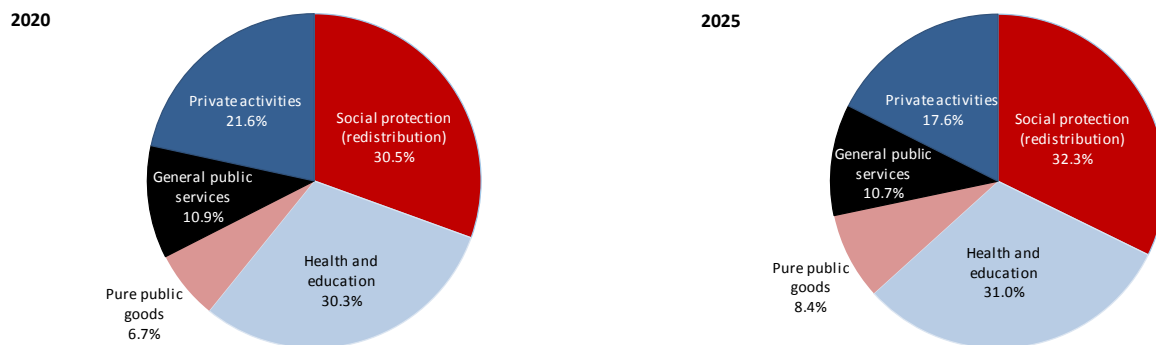
Following rapid increase in expenditure in 2020 and 2021 (primarily in Health, Social Protection and Economic Affairs sections), driven mainly by the government's

fiscal measures to support households and firms during the COVID-19 epidemic, we expect a downward trajectory in total expenditure relative to GDP in the following years. Compared to 2020, total general government expenditure as a share of GDP is expected to be 7 pp lower in 2025. Despite the rapid decrease of the total expenditure in relation to GDP, we estimate a significant increase in expenditure in the Defence section in accordance with the Policy Statement of the Government and the approved acceleration of modernisation projects and purchases of military equipment (Government Resolution No. 291/2022). On the other hand, we expect the largest decrease in expenditure between 2020 and 2025 in the Economic Affairs section due to the high comparative base in 2020 due to the subsidies paid to business entities as part of the compensation related to the COVID-19 epidemic.

Graph 6.1 and Table 6.1 show the composition of general government expenditure by function in 2020 and its projected composition in 2025. In 2025, we expect more than half of total general government expenditure will be spent on social security and health care for the population (i.e. 20.7% of GDP). At the end of the outlook horizon, we also expect total expenditure on pure public goods in the form of defence and public order and safety to amount to around 3.4% of GDP.

Graph 6.1: Structure of General Government Expenditure, Divided by Function

in % of total expenditure



Note: The category "Pure public goods" includes "Defence" and "Public Order and Safety". The category "Private activities" is a sum of "Economic Affairs", "Environmental Protection", "Housing and Community Amenities", and "Recreation, Culture and Religion". For details see ECB (2009). Source: CZSO (2022d). MF CR calculations and forecast.

Table 6.1: General Government Expenditure by Function*in % of GDP*

	Code	2020	2025
General public services	1	5.1	4.3
Defence	2	1.0	1.7
Public order and safety	3	2.1	1.7
Economic affairs	4	7.2	4.8
Environmental protection	5	0.9	0.7
Housing and community amenities	6	0.7	0.5
Health	7	9.3	7.7
Recreation, culture and religion	8	1.4	1.1
Education	9	5.1	4.8
Social protection	10	14.5	13.0
Total expenditure	TE	47.3	40.3

*Note: Year 2025 outlook.**Source: CZSO (2022d), MF CR (2022a). MF CR calculations and forecast.*

7 Changes in the Institutional Framework of Fiscal Policy

In recent years, despite the need to tackle the epidemic, there has been a strong emphasis on investment in digitalisation and environmental projects. In addition, these areas are being supported by the EU's Recovery and Resilience Facility and the involvement of the European Bank for Reconstruction and Development. In the area of transparency of public finances, there has been a shift in cooperation with the European Anti-Fraud Office or a change in the Act on Conflicts of Interest. In line with its Policy Statement of the Government, the government plans to adjust the setting of fiscal rules. They should be moved to the constitutional level and be complemented by a revenue rule.

7.1 Changes Related to Investment and the Capital Market

7.1.1 National Development Bank

In 2017, the Government approved the transformation of the Czech-Moravian Guarantee and Development Bank (Government Resolution No. 574) into the National Development Bank of the Czech Republic. The transformation was postponed by Government Resolution No. 741/2019 to 2020, with the final realization carried out in September 2021. The National Development Bank has three subsidiaries (1) National Development Investment Bank, whose objective is to promote public and private investment through equity and quasi-equity financial instruments based on the principle of return, with the relevant state administration entities as investors; (2) the National Development Fund, which, through sub-funds invested by private investors, provides the riskier layers of project financing, particularly in the infrastructure sector, finances part of the project costs and, due to the subordinated nature of its financial participation, allows it to reduce financial risks from the perspective of other lenders; (3) MUFIS, which supports the development of municipal financing, but it does not currently provide any new loans and its activities are focused only on the recovery of outstanding claims from two cooperating banks. The National Development Bank, through its subsidiaries, supports small and medium-sized enterprises through guarantees and soft loans, or is newly involved in large public investments in transport, environment, health, culture or education. For public investments, financing is channelled through the National Development Fund. It has already supported investments in the sports hall in Brno, has concluded a memorandum to finance the purchase of new cars for Czech Railways and is involved in a suitable financing model for the next stage of the D35 motorway construction.

7.1.2 Next Generation EU

In the context of the impact of the COVID-19 pandemic, at the end of May 2020, the European Commission presented a proposal for the current Regulation (EU) 2021/241 of the European Parliament and of the Council establishing a **Recovery and Resilience Facility**. It allocated funds to finance structural reforms and public investment. They are conditional on the so-called National Recovery and Resilience Plan being approved by the EU Council. The plan, in the form of a comprehensive package of investments and reforms, with a clearly

defined timetable and quantified costs, is intended to contribute to the digital transformation of the economy and to the achievement of the EU's climate goals, in addition to taking into account the country specific recommendations of the EU Council to the Member State during the 2019 and 2020 European Semesters on the National Reform Programme and the Convergence.

In addition to the Recovery and Resilience Facility, the EU Next Generation Instrument also includes REACT-EU and the Just Transition Fund. The **REACT-EU** instrument is intended to strengthen the capacity of Member States to respond immediately to the crisis related to the COVID-19 pandemic. The 2021 allocation for the Czech Republic was EUR 834.8 million, with advance payments made amounting to EUR 108.5 million. For 2022, the allocation is EUR 313.2 million. The funds from this instrument are used for the purchase of medical equipment, the integrated rescue system and homes for the elderly.

The objective of the **Just Transition Fund** is to mitigate the adverse impacts of the climate transition by supporting the most affected areas and affected workers. It will also support investments in the green energy transition, such as investments in energy efficiency. The Czech Republic will receive EUR 1.6 billion (approx. CZK 43 billion) from this fund, which is allocated between three eligible regions: the Karlovy Vary, Moravian-Silesian and Ústí nad Labem regions.

7.1.3 State Investment Support Fund

The **State Investment Support Fund** was created from the State Housing Development Fund under Act No. 113/2020 Coll. and provides loans and subsidies for housing, regeneration of public space and construction of rental housing. In order to promote greater accessibility of housing for households, the Government approved (Government Regulation No. 464/2021 Coll.), with effect from 1 January 2022, an increase in the limits for the use funds of State Investment Support Fund in the form of a loan granted for modernisation (maximum CZK 750,000) or acquisition of housing (maximum CZK 3.5 million in the case of a family house and CZK 3 million in the case of flat or a cooperative share in a housing association). At the same time, the loan repayment period for loans was extended to 30 years.

7.1.4 Investment Incentives

In 2021, the Government approved (Government Resolution No. 66) the **National Research and Innovation Strategy for Smart Specialisation of the Czech Republic 2021–2027** (MIT, 2021), which aims to ensure effective targeting of funds, especially from European, state and local government budgets, to support oriented and applied research and innovation. In connection with this strategy and the government's efforts to support higher value-added projects focused on research and development, an amendment to the implementing legal regulation to the Act on Investment Incentives was approved (Government Regulation No. 458/2021 Coll.) in the form of an increase in the minimum value of acquired tangible fixed assets (to CZK 2 million) and intangible assets (to CZK 1 million) and the minimum number of new jobs (to 500) for a strategic investment action. Newly, in the case of government approval of an investment incentive in a priority area of research and development, applicants could also receive an investment incentive in the form of a financial contribution (so-called material support for the acquisition of tangible and intangible fixed assets) of up to 20% of eligible costs if the investment is made in the Karlovy Vary, Moravian-Silesian or Ústí nad Labem regions. The financial contribution would be provided instead of an income tax abatement.

The **regional support map** was implemented into the system of investment incentives by Government Regulation No. 596/2006 Coll., establishing the maximum permissible level of public support in the cohesion regions of the Czech Republic. In connection with the European Commission decision (decision No. C(2021) 5519 final), the Government approved a new regional support map for the period 2022–2027 with effect from 1 January 2022 (Government Regulation No. 428/2021 Coll.). According to the map, the NUTS II regions Northeast, Central Moravia and Moravia-Silesia with a basic support rate at 30% and the NUTS II region Northwest with a basic support rate at 40% will fall within the assisted areas where GDP per capita is less than or equal to 75% of the EU average. For the NUTS II regions Central Bohemia, Southwest and Southeast, the basic support rate will now be reduced to between 15% and 25% and, in the case of large enterprises, investments in the expansion of existing activities will not be eligible for support, but only in new economic activities. In the NUTS II region of Prague, the support rate remains at 0%. In all regions, advantage benefit of 20 pp for small enterprises and 10 pp for medium-sized enterprises is to be added for investments with eligible costs of up to EUR 50 million.

7.1.5 Investments from the European Bank for Reconstruction and Development

The Czech Republic utilised funds from the **European Bank for Reconstruction and Development** in the period 1991–2007 in the total amount of EUR 1.1 billion; since 2007, the Czech Republic has had no longer access to financing for new projects. In response to the economic

downturn due to the COVID-19 epidemic, the Government approved (Government Resolution No. 223) in 2021 a request for the resumption of investments by the Bank, which was subsequently approved by the Board of Directors in March 2021. This is a temporary resumption of investments for a period of 3–5 years. The investments are expected to amount to around EUR 100–200 million per year and will be primarily made in the private sector. Investments are expected to be focused in the areas of green investments, renewables and infrastructure, digitalisation, information and communication technologies or within the financial sector. The main instruments will be loans, capital injections and assistance in the form of technical assistance. At present, first small projects have already been approved (renewable energy, support to small and medium-sized enterprises through alternative sources of finance) and discussions are underway with some Czech cities on the possibility of using the resources to modernise urban infrastructure (Green Cities project).

7.1.6 Pan-European Personal Pension Product

With effect from May 2022, the Act on the **Pan-European Personal Pension Product** (Act No. 91/2022 Coll.) is in force to ensure the adaptation of the legal system to the new Regulation (EU) 2019/1238 of the European Parliament and of the Council. It should lay the foundations for a safer, more cost-effective and transparent market for voluntary pension savings managed on a pan-European scale. It is also intended to help address the implications of demographic developments, complement existing pension products and promote the cost-effectiveness of personal pension products by providing appropriate options for long-term investment in private pensions. The pan-European Personal Pension Product is a complementary personal pension product based on voluntary offer and voluntary participation, i.e. without a link to the pay-as-you-go pension scheme (Pillar I). The product can be offered by e.g. insurance companies, banks or investment companies, and depending on the nature of the product (up to six investment options) and the contract with the participant, it could be paid as a lump sum, a gradual drawdown or an annuity. In terms of tax incentives, the pan-European personal pension product uses the existing tax incentive framework for supplementary private pension products. Therefore, the condition of a participation period of at least 5 years and withdrawal of funds at the age of 60 at the earliest will also have to be met.

7.1.7 Changes in Financial Markets

In connection with the completion of the **Capital Markets Union**, which aims to integrate the capital markets of the EU Member States, it is necessary to implement several European regulations and directives into the Czech legal system. These relate to the issue of harmonization of the legal regulation of covered bonds, the establishment of legal regulation of transparency in the area of so-called sustainability financing or support of markets for the growth of small and medium-sized en-

terprises. Therefore, the Act No. 96/2022 Coll., amending certain acts in the financial market area, in particular in connection with the implementation of European Union regulations concerning the Capital Markets Union, has been approved, which both implements the relevant European legislation and also responds to some identified shortcomings of the Czech national regulation that do not result from EU directives. The draft bill modifies the requirements for the management and control system of securities dealers in order to better differentiate between the requirements of MiFID II (2014/65/EU) and the IFD (2019/2034), as the IFD requirements only apply to large or connected dealers. There will also be a redefinition of a credit institution which will no longer be the only one that accepts deposits or other repayable funds from the public and provides loans on its own account and is licensed to do so, but also an investment firm whose activity consists of carrying on trading on its

own account or underwriting financial instruments or placing financial instruments on a firm commitment basis, provided that it meets other predefined conditions.

7.1.8 Recovery and Resolution of the Financial Crisis

In 2021, an amendment to Act No. 374/2015 Coll., on Recovery and Resolution Procedures in the Financial Market, (Act No. 298/2021 Coll.), which transposes Directive (EU) 2019/879 of the European Parliament and of the Council into Czech law, entered into force. The essence of the amendment to the Act is to adapt the rule for determining the minimum capital requirement and eligible liabilities to the standards adopted at international level regarding the requirement for total loss-absorbing capacity. The adoption of the law will increase financial stability and reduce the likelihood and extent of the use of public funds in the event of a crisis.

7.2 Increasing Efficiency and Transparency of Public Finances

7.2.1 Open Public Administration Data

Open data of the public administration have been defined in the Czech law since 1 January 2017, when Act No. 298/2016 Coll., amending, among other things, Act No. 106/1999 Coll., on free access to information, as amended, came into force. In 2021, the Government approved Government Regulation No. 304/2021 Coll., which repealed Government Regulation No. 425/2016 Coll., as amended by Government Regulation No. 184/2018 Coll. specifying the list of information to be published as open data. The adopted amendment to this Act (Act No. 261/2021 Coll.), effective from 1 February 2022, introduces two changes in the area of open data. The first is the obligation to publish publicly available information held in the registers specified by law as open data. The second is the obligation for state authorities, regional authorities and authorities of municipalities with extended competence to publish metadata of information published in a manner allowing remote access on their official boards and metadata of these official boards as open data. According to the Policy Statement of the Government, it is planned to accelerate the process of introducing open data and to update open data in all public administration offices. Strategic and other materials commissioned or produced by the state and not subject to classification (national security and defence) will be made available to other public authorities and, to the widest possible extent, to the public.

Open data is published in the National Open Data Catalogue, which is managed by the Ministry of the Interior. Currently, 201 entities provide more than 146,000 datasets to the National Open Data Catalogue on a mandatory or voluntary basis.

In the area of public finance, open data is primarily published by the MF CR, where 709 datasets are currently

published (e.g. data from the Central Register of Subsidies, the Central Register of Administrative Buildings, etc.). First of all, the Monitor information portal, which provides data on budget and accounting information from all levels of state administration and local governments, including illustrative graphical outputs. Next is the CEDR III information system, which provides data on subsidies, repayable financial assistance and other similar transfers provided from the state budget, state funds, state financial assets and the National Fund (including European subsidies) and their beneficiaries. The DotInfo information system allows searching for providers of subsidies and repayable financial assistance from the state budget.

7.2.2 Cooperation with the European Anti-Fraud Office

On 17 January 2021, Regulation (EU, Euratom) 2020/2223 of the European Parliament and of the Council amending Regulation 883/2013 as regards cooperation with the European Public Prosecutor's Office and the effectiveness of investigations by the European Anti-Fraud Office entered into force. Thus, since the entry into force of the Regulation, the Czech Republic is obliged to provide the data referred to in Article 7(3a) to European Anti-Fraud Office upon its request. However, the Czech law currently does not confer the necessary competence and powers on any national administrative authority. Therefore, the draft bill on cooperation between the Czech Republic and the European Anti-Fraud Office designates the MF CR as the competent authority for ensuring cooperation, sets out its rights and obligations, describes in detail the method of obtaining records of transactions, establishes the obligation of confidentiality of all data as well as sanctions for its violation. The draft bill also regulates the processing of personal data and sets out sanctions for requested enti-

ties for failure to provide requested information. The draft bill is a full adaptation of the aforementioned Regulation. According to the original timetable of the legislative process, the process of adaptation of the Regulation was to be completed in July 2022, but the draft has not yet been discussed by the Government.

7.2.3 Conflict of Interest Act

Act No. 14/2017 Coll., which amended the **Act on Conflict of Interest** (Act No. 159/2006 Coll.), defined the circle of persons who are prevented from owning media, applying for public contracts, subsidies and investment incentives. Parts of this law were challenged before the Constitutional Court by a group of senators and the President of the Republic (Pl. ÚS 4/2017 and Pl. ÚS 38/2017), whereby the complaint of the President of the Republic was rejected; in the case of the senators' complaint, the court granted the motion to repeal §14b in relation to the scope of peering into the register of notifications, while at the same time the Constitutional Court criticised some provisions of the Conflict of Interest Act as unenforceable and ineffective.

On 19 January 2022, the Government issued a positive statement on the draft bill (Chamber of Deputies Print No. 110) by a group of coalition MPs, which responds to the Constitutional Court's criticism. The draft bill aims to streamline legislation and increase the enforceability of the law in the area of conflict of interest of public officials in relation to media ownership, participation in public procurement and investment incentives, and adds some other measures. The main changes include refining the definition of the scope of persons by changing the definition from "controlling person" to a broader definition of "beneficial owner", which better reflects the purpose of the law to ensure that a public official has no real influence on the functioning of the media in question. It also increases the enforceability of the legislation by addressing situations of practical circumvention of the law by transferring assets to trusts or to a spouse. The draft bill also narrows the scope of public

officials to include long term unelected municipal councillors and changes the process of consulting the Central Register of Notifications by introducing an explicit requirement for prior request to consult the register for all categories of public officials. In connection with this, it also regulates in more detail the rules for the identification of the applicant for consultation, taking into account the need to prevent unauthorised use of data obtained from public officials' notifications.

7.2.4 Public Spending Review

The desire to spend public expenditure as efficiently, economically and effectively as possible has led to the launch of a pilot project to **public spending review**. The project is being carried out in cooperation with the Organisation for Economic Co-operation and Development. In May 2021, the first phase was completed, focusing on best practices, including an inventory of barriers to more effective implementation of the spending review in the Czech Republic, followed by a technical note on the implementation process in January 2022.

The first area of the review was selected, on the basis of a negative proposition of the Supreme Audit Office (SAO, 2020), the issue of subsidies for the training of health care workers, which come under the responsibility of the Ministry of Health. This year, expenditure in the area of subsidies for postgraduate medical training is being analysed. The findings are intended to answer the degree of compliance with government policy objectives and the effectiveness and efficiency of the funds spent. The review is being carried out by a working group comprising three representatives from the MF CR and three representatives from the Ministry of Health. It is expected that the results of the analysis will lead to measures that will be taken into account in the state budget drafts for the coming years. The final report of the review is expected to be finalised in the second half of this year. The lessons learned from this pilot will then be used to expand to other expenditure items.

7.3 Budgetary Policy

7.3.1 Fiscal Framework

The budgetary process in the Czech Republic starts with the approval of expenditure ceilings for the state budget and state funds according to the fiscal rule based on the structural balance concept. During the epidemic, the fiscal framework was amended twice, with the second amendment (Act No 609/2020 Coll.) indirectly setting the initial value of the structural balance for further consolidation. The **consolidation** is to be at least half a percentage point per year and to end with the achievement of the medium-term budgetary objective. Faster consolidation than the minimum required by law is then intended to build up a buffer against further negative fiscal shocks in future years. The **medium-term budget-**

ary objective for the Czech Republic is -0.75% of GDP and remains at this level until at least 2025.

In its Policy Statement of the Government, the government announced several changes to the **fiscal framework**. It will seek to change the legislative force of the fiscal rules from an ordinary law to the originally intended constitutional law. The second intention is to strengthen the counter-cyclical setting of the fiscal rule, whereby higher expenditure is to be allowed if fiscal resources exist and the economic situation requires it. The third major change to the fiscal framework would be to add a revenue rule to the fiscal rules and to incorporate the cap on the Czech taxation rate in legislation. However, these measures do not yet have specific pa-

rameters and the government envisages their adoption to take effect from 1 January 2024.

7.3.2 Abolition of Regional Councils of Cohesion Regions

The Regional Councils of Cohesion Regions were established to implement support for regional development through the provision of subsidies from the European Regional Development Fund, particularly in the framework of the 2007–2013 programming period. In the 2014–2020 programming period, however, the provision of subsidies is carried out through other managing authorities and their activities are limited to monitoring, preparation of annual and final reports, financial control, etc. They were thus redundant public administration bodies. With the adoption of Act No 251/2021 Coll., these regional councils are abolished with effect from

1 January 2022 and their legal successor is the Czech Republic (Ministry for Regional Development). The role of the Ministry of Regional Development as the National Coordination Body for the use of EU funds in the areas of support for economic, social and territorial cohesion and fisheries policy, with the exception of the EU Common Agricultural Policy, and in the area of territorial cooperation is also specified. The Act also establishes the Council for EU Funds, which is an advisory body to the Government, in particular in the form of ensuring compliance of the implementation of programmes in the area of support with the Partnership Agreement and with the strategic documents of the Czech Republic and the EU, and cooperation in the allocation of funds among operational programmes and proposals for possible changes to the current allocation of funds.

7.4 Institutional Changes in Public Finances

7.4.1 Establishment of the Road and Motorway Directorate, State Enterprise

In the context of the Innovation Strategy of the Czech Republic 2019–2030 and the Transport Policy of the Czech Republic for the period 2014–2020 with a view to 2050, the Government approved in 2021 a draft bill (Government Resolution No. 716) establishing a new state organisation, the Road and Motorway Directorate, which was to be the legal successor of the state allowance organisation, the Road and Motorway Directorate of the Czech Republic. However, a draft bill amending Act No. 13/1997 Coll., on Road Traffic, as amended, is currently in the legislative process and proposes the transformation of the state allowance organisation Road and Motorway Directorate into a state enterprise, which should be completed by 1 January 2024. The new state enterprise will now provide professional activities and technical supervision mainly by its own employees without the need for external suppliers of these services. This should lead to significant cost savings and a reduction in the administrative burden in public procurement.

Together with the forthcoming amendment to Act No. 100/2000 Coll., on the State Fund for Transport Infrastructure, the financing of this entity should be partially changed. Three-year contracts will be concluded regularly between the Road and Motorway Directorate and the State Fund for Transport Infrastructure, the subject of which will be the financing or pre-financing of selected costs of the state enterprise. The funds will then be provided both on the basis of this concluded contract and according to a calculation for which new basic rules should be laid down. The aim of this change is to ensure greater stability in the financing of the new state-owned enterprise and to provide predictable resources to cover the costs of managing motorways and 1st class roads (including their inspection, maintenance and repair). The proposed change will preserve the instruments of public control over the use of funds, while the accounts of the new state-owned enterprise will be kept with the Czech National Bank as accounts subordinate to the State Treasury.

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Annex: Convergence

The economic level of the Czech Republic, expressed in terms of gross domestic product per capita in current purchasing power parity, in 2021 was 91% of the EU level and 77% of the German level. The Czech Republic's economic level converged rapidly towards the EU level in 2000–2008 due to strong economic growth, but then the convergence process stalled until 2013 due to recessions and only a moderate recovery. Subsequently, the economic level of the Czech Republic started to slowly converge towards the EU average again. In 2020, however, there was a synchronised downturn in economic activity in the EU and the convergence process stopped again (see Graph P.1). We do not expect it to resume in the forecast horizon, given the economic impact of the coronavirus epidemic and the relatively slower growth of the Czech economy. We expect the relative development indicator of the Czech Republic to stagnate around 90% of the EU level.

The comparative price level of the CR has shown an almost continuously increasing trend since 1995. In 2008, it reached 72% of the EU average, and thereafter, with the exception of 2009, remained close to this level. During 2013 and 2014, the comparative price level declined as a result of the CNB's monetary intervention consisting in the depreciation of the koruna against the euro, and in 2014 it

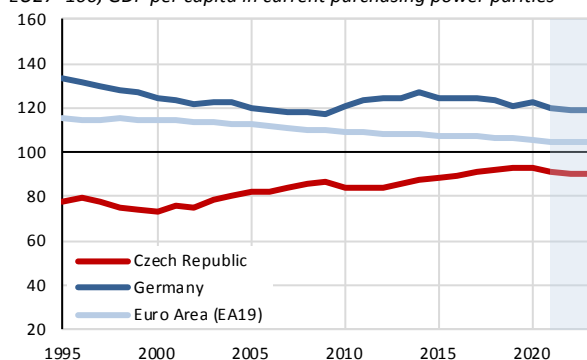
fell to the 2006 level. From 2015 onwards, the comparative price level, with the exception of a slight decline in 2020, gradually approached the EU level again (see Graph P.2). In the following years, we expect the comparative price level to rise more significantly, including due to the appreciation of the koruna, up to 86% of the EU level in 2023.

The relatively slower economic recovery and the larger increase in the number of hours worked in the CR compared with the EU will have a negative effect on real labour productivity per hour worked (see Graph P.3). However, the expected appreciation of the CZK/EUR exchange rate will have the opposite effect, more than compensating for the weaker economic development. Labour productivity in the Czech Republic could thus gradually increase to 59% of the EU level in 2022 and remain at this level in 2023.

After 2008, wage convergence temporarily stopped after a period of relative rise. Subsequently, the private sector wage averaged around 46% of the EU level. In 2017–19, this ratio started to increase again due to the economic upturn and increases in the minimum and guaranteed wages. In 2021, the average private sector wage in the Czech Republic increased to 57% of the EU average, while in purchasing power parity terms it was 75% of the EU average.

Graph P.1: Relative Economic Level

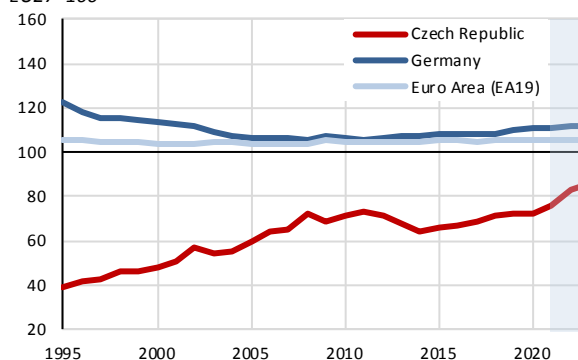
EU27=100, GDP per capita in current purchasing power parities



Source: CZSO (2022a), Eurostat (2022). MF CR calculations and forecast.

Graph P.2: Comparative Price Level

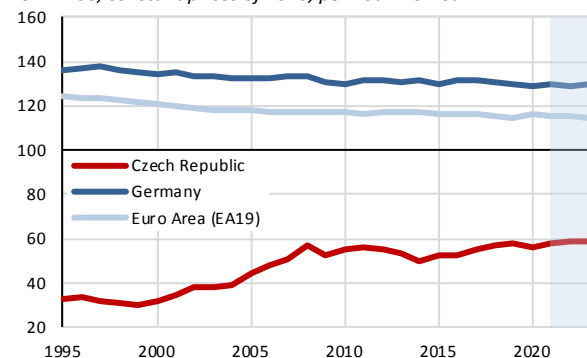
EU27=100



Source: CZSO (2022a), Eurostat (2022). MF CR calculations and forecast.

Graph P.3: Real Labour Productivity

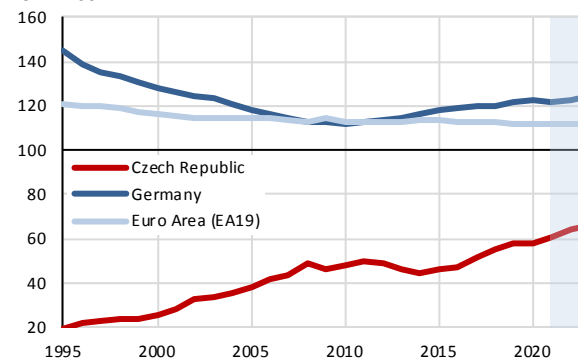
EU27=100, constant prices of 2010, per hour worked



Source: Eurostat (2022). MF CR and AMECO (2022) calculations and forecast.

Graph P.4: Average Compensation of Employee

EU27=100



Source: AMECO (2022), Eurostat (2022). MF CR calculations and forecast.

Glossary of Terms

Accrual methodology means that economic transactions are recorded at the time an economic value is created, transformed or cancelled or when receivables and liabilities increase or decrease, regardless of when the transaction will be paid (unlike the cash principle, which is the basis of, for example, the state budget).

Balance of payments captures economic transactions between residents and non-residents for a given territory in a certain period of time. The basic structure of the balance of payments is based on the methodology of the International Monetary Fund and includes the current, capital and financial accounts (including changes in foreign-exchange reserves).

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

Comparative price level is the ratio of the GDP at market exchange rate to the GDP in purchasing power parity.

Consumer price index is one of the indexes measuring the price level. It is constructed on the basis of regular monitoring of the prices of selected goods and services (so-called representatives) in the consumption basket of households. Each representative has a certain weight. The consumption basket is divided into 12 categories (e.g. food and non-alcoholic beverages; alcoholic beverages, tobacco; clothing and footwear; housing, water, electricity and fuel; etc.). **Harmonised index of consumer prices** is calculated in EU countries according to uniform and legally binding procedures, which (unlike national indexes) allows for comparability of this indicator among countries.

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

The **debt rule of the national fiscal framework** activates legally defined measures if the relative government debt ratio (minus the cash reserve of government debt financing) exceeds 55% of GDP. These measures set out the conditions for the preparation of budget drafts for individual segments of the general government sector (state budget, budgets of the state funds, health insurance plans of health insurance companies and budgets of local governments) and other public institutions limit new liabilities leading to an increase in the general government debt with a maturity of more than 1 year.

Dependency rate (demographic) is the ratio of the senior-age population (over 64 years old) to the working-age population – it thus does not reflect retirement age extending. **Dependency rate according to the applicable legislation** is the ratio of the retirement-age population according to the applicable legislation to the number of other inhabitants over 14 years of age. **Effective dependency rate** refers to the ratio of the number of old-age pensions paid to the number of employees.

Discretionary measures represent direct interventions of executive or legislative authorities in general government revenue and expenditure.

The **expenditure rule of the national fiscal framework** serves as the basis for the preparation of the draft of the state budget and the budgets of state funds. The rule derives the maximum amount of government sector expenditure from the structural part of the government sector revenue increased by 1% of GDP. This increase represents the established medium-term budgetary objective of the Czech Republic. The rule is supplemented by an automatic correction mechanism reflecting in retrospective the gap between the actual level of expenditure and the expenditure prescribed by the rule, and is accompanied by precisely defined escape clauses under Act No. 23/2017 Coll., on fiscal responsibility rules.

The **expenditure rule of the Stability and Growth Pact** limits the growth of adjusted real expenditure of general government sector adjusted by discretionary revenue measures (so-called adjusted expenditure), thus the given member state shall reach the medium-term budgetary objective and would follow it henceforward. The adjusted expenditure of countries which meet their medium-term budgetary objective shall grow at most by the average rate of growth of the potential output calculated in 10-year horizon containing 5 past years, the current year and 4 following years. The average rate of the potential output growth is updated annually, based on the Spring European Economic Forecast with the validity period for the following year. For countries which have not yet reached their medium-term budgetary objective, the highest acceptable rate of adjusted expenditure growth is lower than the average growth of the potential output. The difference between the two rates is referred to as the convergence margin, which reflects the fiscal effort required for the gradual achievement of the medium-term budgetary objective.

Fiscal impulse is used to assess the impact of government fiscal policy on economic growth. Unlike the primary fiscal effort, it does not include revenues from EU funds and expenditures to the EU budget, and on the contrary, it includes certain one-off operations (usually government measures with a direct fiscal impact).

Fiscal effort is a year-on-year change in the structural balance indicating expansive or restrictive fiscal policy in a given year.

Fiscal sustainability indicators, based on long-term projections, characterise the sustainability of public finances and the extent of the changes necessary to attain it. The EC uses three main indicators. **Indicator S0** consists of 28 macro-financial and fiscal indicators and indicates fiscal risks for the coming year. **Indicator S1** indicates by how many percent of GDP the primary structural balance must be improved in the medium term for next 5 years to make the general government sector debt reach 60% of GDP in 2030. **Indicator S2** enumerates by how many percent of GDP the primary structural balance must be permanently improved to make the general government debt remain stable in an infinite time horizon (i.e. the current value of future primary balances to be equal to the current general government debt).

The **general government sector** is defined by internationally harmonised rules of the EU. In the Czech Republic, it includes, in the ESA 2010 methodology, three main subsectors: central government, local government and social security funds.

Government Deficit and Debt Notification is the quantification of fiscal indicators submitted by each EU member state twice a year to the EC under Council Regulation (EC) No. 479/2009 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 the data for the past four years and MF CR prepares the prediction for the current year. The notification contains both a basic set of notification tables, including key indicators such as balance and debt, with an explanation of the transition from the balance in the national methodology to the accrual balance and contributions to the change in debt, as well as a number of supplementary questionnaires, such as the guarantee table.

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

Gross fixed capital formation represents the investment activities of units. Fixed capital is represented just by assets used in production for more than one year. It also includes for example military equipment, expenditure on research and development, etc.

Gross domestic product (GDP) is the monetary expression of the total value of goods and services newly created in a given period in a given territory. **Real GDP** is the gross domestic product, expressed in the prices of the reference year. This transformation enables, in analysing GDP (or other variables), to eliminate the impact of price changes over time and to focus only on the changes in physical volume. **Gross value added** represents the difference between the value of production and intermediate consumption (production consumed in the production of other goods or services).

Inflation is a sustained growth in the general price level, i.e., internal currency depreciation. The price level is measured using price indices, such as the consumer price index or the harmonised index of consumer prices. The most commonly mentioned **year-on-year inflation rate** is the relative change in the consumer price index compared to the same month of the previous year. The **average inflation rate** is the relative change in the average of the consumer price index in the last 12 months compared to the average of the consumer price index in the previous 12 months. Inflation rates are expressed as a percentage. By **administrative measures on consumer prices** are meant state measures that directly affect the price level. They include the effect of changes in indirect taxes (value-added tax, excise and energy taxes) and regulated prices (e.g. electricity, gas, heat, water and sewerage, public urban transport).

Long-term interest rates are measured on the basis of yields of long-term government bonds or comparable securities until maturity in percent per year. Bonds with residual maturity ranging from 8 to 12 years (the use of these limits is fully based on the conditions of the Czech government bond market, which were set based on the periodicity of Czech government bond issues) are classified as representative. From this set, a combination of bonds whose average residual maturity is closest to the 10-year limit is then generated.

Medium-Term Budgetary Objective is expressed in the structural balance of general government sector and should ensure the sustainability of public finance of the given country. It reflects both the growth potential of the country and its level of indebtedness. Compliance with the medium-term objectives should allow Member States to maintain sufficient reserves of -3% of the GDP against the reference value of the balance of general government sector during common cyclical fluctuations, to secure the progressive steps towards sustainability and ensure space for any necessary budgetary operations. The procedure for its calculation is determined by the Code of Conduct (EFC, 2017). For the Czech Republic it currently corresponds to the level of structural balance of -0.75% of GDP and is revised every three years.

One-off and other temporary measures are revenue or expenditure measures that only have a temporary impact on the general government balance and often stem from events outside the direct control of executive or legislative authorities (e.g. flood relief expenditure).

Output gap is the difference between real and potential output measured in percent of potential output. It serves to identify the position of the economy in the cycle.

Potential output is the level of economic output in the "full" utilisation of available resources. Full utilisation of resources is meant here rather as optimal and balanced, which does not lead to pressures such as changes in the inflation dynamics, etc.

Short-term interest rate is in the Czech Republic represented by PRIBOR 3M, as the reference value for the interest rate indicating the average rate, for which banks can borrow on the market for interbank deposits with a maturity of three months.

Using the **purchasing power parity** method, comparison of the economic performance of individual countries within the EU is carried out in Purchasing Power Standards, which is an artificial currency unit that expresses a quantity of goods that can be purchased on average for 1 euro in the EU after currency conversion for countries using a different currency unit than the euro.

Social benefits in cash are social benefits (e.g., pension insurance benefits, state social security benefits) paid to households from the general government sector.

Structural balance is the difference between cyclically adjusted balance, and one-off and temporary measures (for both components see above). **Primary structural balance** is further adjusted for interest payments.

Unemployment (Labour Force Sample Survey) corresponds to the number of persons who simultaneously met three conditions in the reference period (reference week): they were not employed, actively sought work and were ready to take up work within 14 days at the latest. **Unemployment rate** expresses the ratio of the number of the unemployed and the labour force. A person unemployed for more than 12 months is considered **long-term unemployed**.

overall policy framework and objectives, economic outlook, world economy, technical assumptions, cyclical developments and current prospect, medium-term scenario, sectoral balances, growth implications of major structural reforms, general government balance and debt, policy strategy, medium-term objectives, actual balances and updated budgetary plans for the current year, medium-term budgetary outlook, including description and quantification of fiscal strategy, structural balance, cyclical component of the deficit, one-off and temporary measures, fiscal stance, debt levels and developments, analysis of below-the-line operations and stock-flow adjustments, budgetary implications of major structural reforms, sensitivity analysis and comparison with previous update, alternative scenarios and risks, sensitivity of budgetary projections to different scenarios and assumptions, comparison with previous update, sustainability of public finances, policy strategy, long-term budgetary prospects, including the implications of ageing



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