

**The Office  
of the Czech  
Fiscal Council**

# **Fiscal Costs of the COVID-19 Pandemic in the Czech Republic**

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Information Study

Macroeconomic and Fiscal Analyses Section

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## Introduction

The spread of the SARS-CoV-2 virus causing the disease called COVID-19 entails economic consequences for the economy of the Czech Republic that have been made worse by government measures designed to counter the spread of the virus.<sup>1</sup> The expected economic collapse of the Czech economy is historically unprecedented and exceeds the impacts of the global financial crisis of 2009 and the European debt crisis of 2013.<sup>2</sup> The complications for the Czech Republic's very open economy are a combination of internal shock, related to closure of some premises and halting of production, and external shock, related to interference with global supplier-customer chains and a massive fall in foreign demand. There are also threats in the form of a collapse on the labour market, an escalation of financial imbalances, an increase in the number of bankruptcies of non-financial companies, and defaults on loans by companies and households. In response to these threats, the government adopted a number of measures that were inspired by similar measures abroad.<sup>3</sup>

The purpose of this study is to quantify the impact of the fall in economic activity and the adoption of economic measures on public budget deficits. It is appropriate to mention that the initial situation of the Czech economy is, in comparison with other countries affected by the pandemic, relatively good, for example, with regard to the relatively low initial public sector indebtedness, the very low level of unemployment, or the limited indebtedness of the private sector.

Economic collapses influence the management of public budgets usually through two channels. The first is a fall in tax and insurance income, which occurs as a consequence of a reduction in economic activity. The second is stimulus measures adopted by the government that can be focused on both the income (tax reduction) and expenditure side of public budgets (new spending programmes). In the first case, it occurs automatically without active interference by the government; in the second case, it is mostly necessary to take ad hoc measures at the government level.

In the first part of the study, we will attempt to quantify the impacts of the fall in economic activity on tax revenues. The second part will contain a summary of the fiscally most important discretionary measures by the government. In the third part, we will make use of the conclusions of the first two chapters, to simulate the structural deficit and public sector indebtedness.

## 1 1 Impact of Fall in Economic Activity on Tax Revenues

In the Czech Republic's system of public budgets, all fiscally important taxes and both types of statutory insurance (social and health) are sensitive to economic fluctuations. The degree of sensitivity, however, varies; the most sensitive are income taxes, whereas statutory insurance and excise duties are among the less sensitive. In order to quantify the influences of various levels of the economic fall in 2020 on tax and insurance income, the procedures specified in the Methodology for Deriving Expenditure Frameworks for the State Budget and State Funds<sup>4</sup> were used, as they enable an estimate of the size of tax revenues, if the economy were at the level of potential product.

The expected slump in individual tax and insurance revenues, compared to the expectations on which the originally approved budget for 2020 was based, is therefore dependent on the difference between the production

<sup>1</sup> In the Czech Republic the first case of infection with the SARS-CoV-2 virus was announced on 1 March 2020. All teaching at primary and secondary schools, as well as universities was suspended on 11 March, the government strengthened the preventative measures against the spread of the infection on 14 March, by closing all shops, with the exception of those selling food, hygiene, cleaning, pharmaceutical and other necessary products, and prohibited presence in catering service premises. At the time the study was drafted, these measures were being tightened. See Resolution of the Government of the Czech Republic No. 211 dated 14 March 2020 et seq.

<sup>2</sup> According to a macroeconomic prediction of the Ministry of Finance of the Czech Republic of April 2020, GDP at constant prices should fall by 5.6% (<https://www.mfcr.cz/cs/verejny-sektor/makroekonomika/makroekonomicka-predikce/2020/makroekonomicka-predikce-duben-2020-38089>).

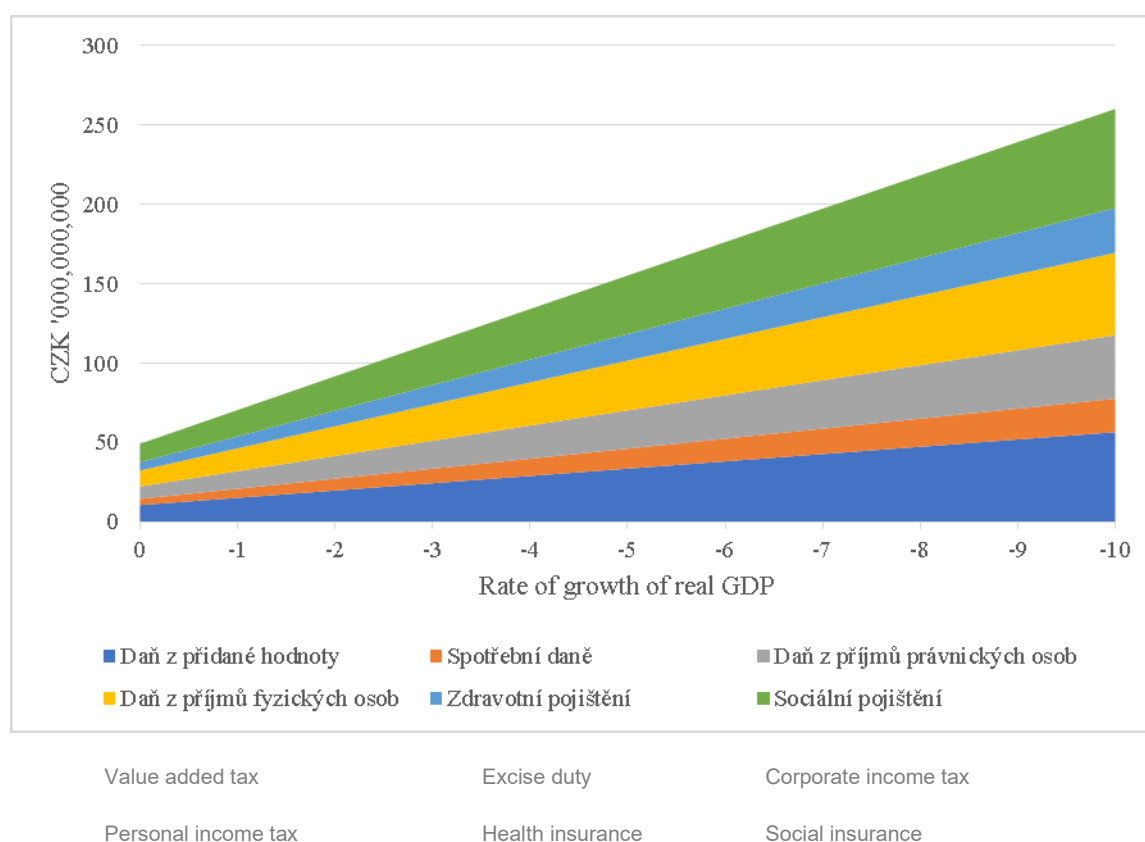
<sup>3</sup> For a summary of selected measures in other countries, see a study by the Office of the Czech Fiscal Council, Morda, P., Šíma, O. (2020): Economic Impacts and Possible Economic and Political Solutions to the Covid-19 Pandemic.

<sup>4</sup> <https://www.mfcr.cz/cs/legislativa/metodiky/2018/metodika-odvozeni-vydajovych-ramcu-statn-31536>

gap that the economy would have reported with the originally expected growth in real GDP of 2.2% and the production gap with the currently expected 5.6% fall. Another parameter that influences the extent of the shortfall in public revenues is the aforementioned sensitivity of individual taxes and insurance premiums to the production gap.

The following graph depicts the relationship between various scenarios for the rate of GDP growth in 2020 and the reduction in the individual tax and insurance revenues compared to the expected tax income in August 2019. The shortfall in tax revenues is around CZK 21 bn for each percentage point by which the tempo of growth in the economy falls.<sup>5</sup> In the event that the level of activity in the economy falls in 2020 in accordance with the Ministry of Finance's prediction by 5.6%, the shortfall would be approximately CZK 165 bn.

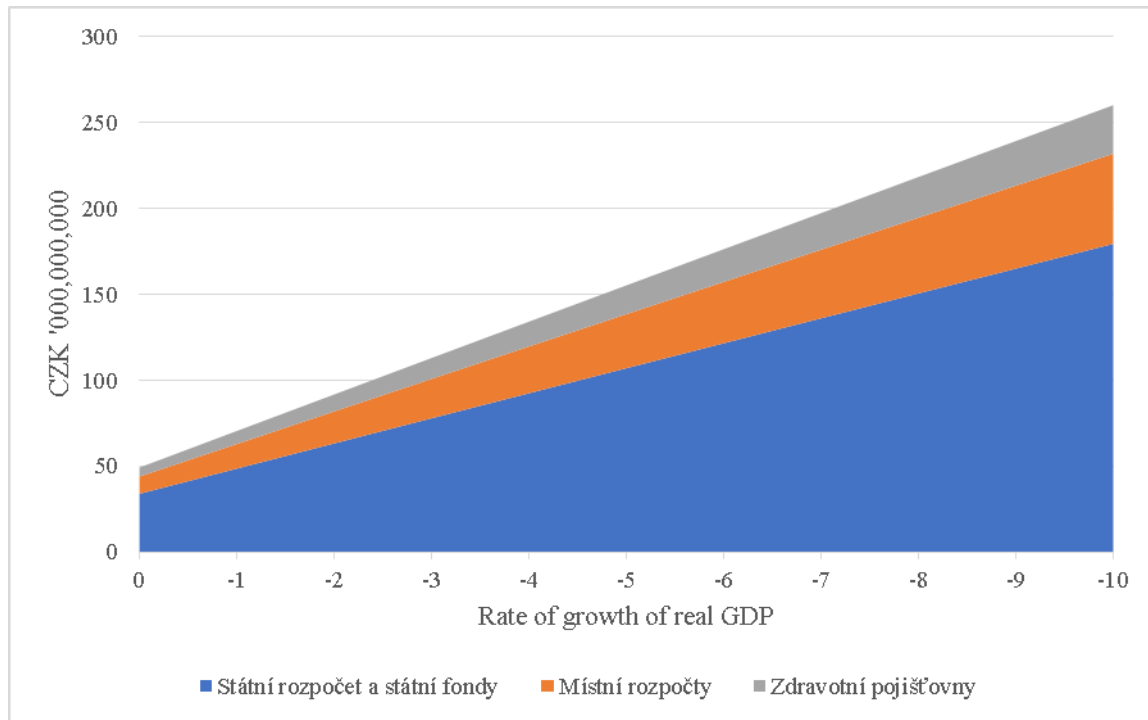
**Graph 1 Shortfalls in Income for Public Budgets by Type of Taxes, Given Various Rates of Decline in the Economy in 2020**



Source: Ministry of Finance of the Czech Republic, own calculations.

The following graph shows how falls in tax and insurance income are divided between the various elements of public budgets. It is clear that the main budget impacted will be the central government budget, as it is the recipient of the largest part of tax revenue, as well as insurance premiums for social security.

<sup>5</sup> Here it is necessary to state that, in particular in the case of falls by more than 5%, it is no longer possible to assume that the relationship will be linear, but it is better to assume a stronger fall in income when there is a decline in GDP.

**Graph 2 Shortfalls in Income for Public Budgets by Individual Subsector, Given Various Rates of Decline in the Economy in 2020**

Central government budget and central government funds

Local budgets

Health insurance companies

Source: Ministry of Finance of the Czech Republic, own calculations.

## 2 Impact of One-off Government Measures to Support the Economy

In addition to the collapse in revenues for public budgets, their deficits will grow thanks to discretionary government measures on the income and expenditure side that are to support the domestic economy and prevent mass bankruptcies. The table below summarises the steps taken by the government of the Czech Republic that have a more fundamental impact on public budgets. The table states the impacts on the budget for 2020. It therefore does not include measures that may have a marked impact on the economy or economic-legal links between entities, but that do not have a direct impact on public budgets. Examples of unincluded measures are, for example, the regulation of relationships between tenants and landlords (forbidding the giving of notice for non-payment of rent), enabling a deferral of instalments on bank and non-bank loans, etc. In such cases, the government in effect shifts the costs related to the inability to pay from persons affected by the pandemic and regulations onto other entities.

We do not consider any government costs related to possible court disputes. We are also not considering any costs of compensating affected entities beyond the framework of official programmes that could result from court disputes concerning compensation for damage (lost profit, etc.). The table also does not include measures whose expected impact on the balance of public budgets in 2020 is less than CZK 3 bn. For this reason, we did not consider the costs related to various guarantees for loans, the provision of interest-free loans, or deferrals of tax payments.<sup>6</sup>

<sup>6</sup> For example, the COVID I and II programmes or an increase in the insurance capacity of Exportní garanční a pojišťovací společnosti, a.s. In the case of these types of measures, their costs are usually distributed throughout the existence of the loan or guarantee, where the impact in 2020 will evidently be relatively limited. The costs here are partially related to the costs of financing by the government, which can be determined by the yield on government bonds. The second type of costs are losses related to the non-repayment of the loans or the

The table includes additional costs directly related to the declaration of the state of emergency, such as purchases of medical products or increased costs of the childcare-salary-compensation benefit related to the closure of primary schools and kindergartens. The childcare benefit costs were, in contrast to the ordinary situation, also increased by additional government measures, when the period for which the childcare benefit can be collected was extended (from the original nine days to the entire duration of the period when schools are closed). In addition, it was expanded to the self-employed, who are ordinarily not entitled to it. When estimating the impact in the case of the costs of the childcare benefit, we based calculations on the number of children aged 3–13 and the average salary. We took an estimate of the costs of purchases of medical products from the Ministry of Finance of the Czech Republic.

Other types of spending measures that have an impact on the budget are programmes to support employment and direct compensation bonuses aimed primarily at the self-employed. Waiving minimum monthly social and health insurance payments for the self-employed have a similar impact. When quantifying their impacts, we based conclusions on cost calculations of the Ministry of Labour and Social Affairs and Ministry of Industry and Trade, with regard to the expected duration of the state of emergency. We did not consider the impacts of subsequent modifications to these programmes, such as cancelling the necessity of proving a fall in income by a self-employed person, which could increase the costs.

**Table 1 Discretionary Measures of the Government of the Czech Republic to Support the Economy (in CZK '000,000,000)**

Name of measure	Government Resolution No.	Date	Description	Costs
Purchases of medical products	206, 245, 296	Ongoing	Purchase of products and arranging transport	16.0
Costs of childcare benefit	311, 354	Ongoing	Childcare benefit for parents. Extended for the period of closure of schools and expanded to cover the self-employed	10.5
Targeted programme to support employment ("Anti-virus")	297	31 March	Coverage of employer's salary costs. 80% in the case of forced limitation on operations and quarantine, 60% in the event of related economic troubles	17.1
Act on Compensation Bonus ("Twenty-Five")	302	31 March	Compensation bonus of CZK 25,000 for entrepreneurs.	17.5
Waiver of monthly social and health insurance payments	272	23 March	Waiver of minimum monthly social and health insurance payments, for the self-employed.	15.0
<b>Total</b>				<b>76.1</b>

Source: Resolutions of the Government of the Czech Republic, Ministry of Finance of the Czech Republic, Ministry of Labour and Social Affairs of the Czech Republic, Ministry of Industry and Trade of the Czech Republic, Czech Statistical Office, Czech National Bank, own calculations.

We estimated the total costs of discretionary measures to be CZK 76 bn; however, this estimate is evidently lower than the final total costs will be. We did not consider programmes that have not yet been definitively approved and where, during the period in which the study was drafted, their more precise parameters were not known. An example of this is the planned "COVID plus" programme or other expected programmes to support larger companies and further expansion of programmes to help the self-employed. We also did not consider the impact of measures such as waivers of rent for commercial space, which could have non-negligible impacts, primarily in the case of municipalities. In addition, we tried not to consider measures related to a shortfall in income from the central government budget, which we modelled in part 1, in order to prevent double-counting of losses. Some of these shortfalls, however, could influence the central government budget beyond the scope of ordinary sensitivities of revenues to GDP. Examples are the probable deferral of an auction of mobile licences

realisation of guarantees. These costs could be approximated by the share of non-performing loans from the years when the impacts of the previous financial and debt crises climaxed. The total impacts of all such measures in 2020 could be approx. CZK 2 bn.

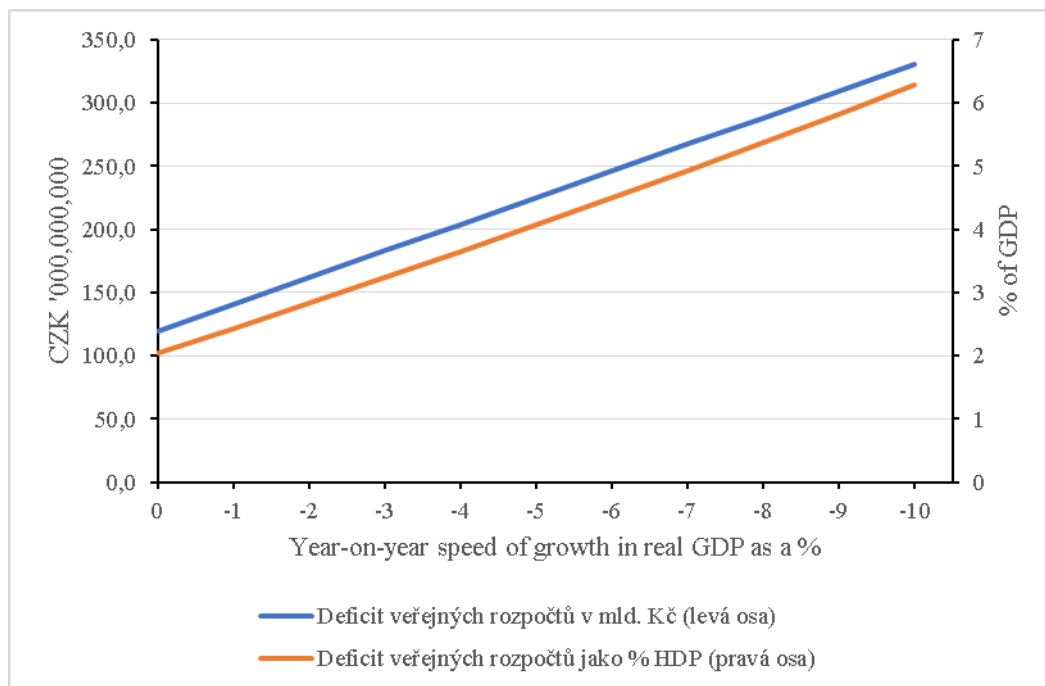
(impact of approx. CZK 8 bn), the influence of the non-introduction of the digital tax (influence of approx. CZK 2 bn) or a lower increase or fall in income from toll systems (the budget originally assumed an increase in revenues by CZK 2.8 bn, in connection with an expansion of the system to class one roads; revenues from the system will, however, more probably fall). The fall in the government's non-tax revenues could be similar. This primarily concerns dividend income from government-owned companies (the forestry company Lesy ČR and Prague Airport). It is possible to expect falls in such income in the billions of koruna, but it is not clear whether it will be necessary to spend money in saving some companies that are not owned by the government. In a similar manner, there could be falls in municipal income from fees linked to tourism or fees in parking zones.

### 3 Simulation of Public Budget Deficits and Public Debt

In this chapter, we make use of the results of simulations of revenues and estimates of the impacts of the one-off expenditure measures described above for the projection of the deficit and indebtedness of the public sector. The projection of public budget deficits is performed as a sensitivity scenario for various levels of economic decline, where the probability of various falls in the economy is not differentiated. Current predictions of the Ministry of Finance of the Czech Republic assume a 5.6% economic decline in 2020.

Graph No. 3 shows the relationship between various levels of the economy and the public sector deficit for government institutions. If the prediction of the Ministry of Finance of the Czech Republic comes to pass (i.e., a 5.6% fall), then the deficit of the whole sector will be around CZK 240 bn, which represents 4.3% of GDP. In terms of the distribution, most of the deficit would be accounted for by the central government budget (around CZK 230 bn). If the IMF's scenario comes to pass,<sup>7</sup> with its expectation of a fall in the economy by 6.5%, then the deficit would deepen to CZK 260 bn, which corresponds to 4.8% of GDP.

Graph 2 Public Budget Deficits in Relation to Decline in Economy



Public budget deficit in CZK '000,000,000 (left axis)

Public budget deficit as a % of GDP (right axis)

Source: Ministry of Finance of the Czech Republic, own calculations.

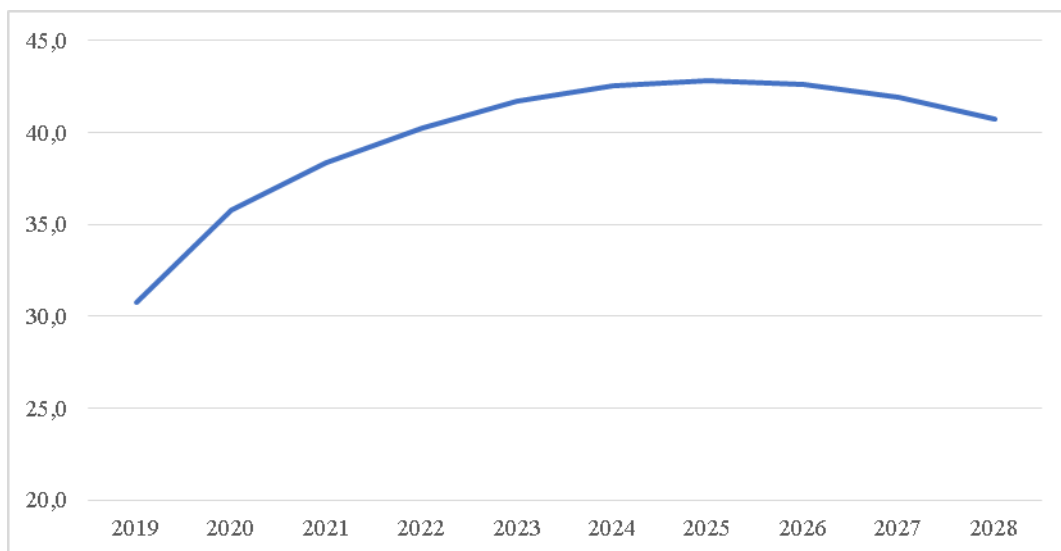
<sup>7</sup> <https://www.ceskenoviny.cz/zpravy/odhad-mmf-poklesu-hdp-cr-o-6-5-pct-je-optimisticky-tvrdi-analytici/1879345>



The government of the Czech Republic expects that there will be a marked deficit in the government institutions sector also in 2020, and therefore came up with a proposal for changes to the national fiscal rules. The amendment to Act No. 23/2017 Coll., on the budgetary responsibility rules, assumes that the structural deficit in 2021 could reach a value of 4% of GDP and in the next six years there should be a tightening of this limit by 0.5% of GDP annually. This change, with which the Czech Fiscal Council does not agree<sup>8</sup>, could have very serious consequences for trends in the public institution sector debt. Compared to the original version of Act No. 23/2017 Coll., which assumed structural deficits of up to 1% of GDP, an increase in the limit value of the structural deficit proposed in the amendment would create room in 2021–2027 for approx. CZK 650 bn. of additional spending (or a reduction in tax income). In comparison with the stricter rules for the structural deficit on the part of the European Commission<sup>9</sup>, such room in 2021–2027 would be CZK 845 bn.

The following graph shows a simulation of trends up to 2028, assuming the adoption of the aforementioned amendment and full use of the newly defined limits for structural deficits. The rates of GDP growth until 2023 are taken from the Macroeconomic Prediction of the Ministry of Finance of the Czech Republic; for the following years we assume 2% growth in real and potential GDP, a rate of inflation of 2%, and an effective revenue rate on the public debt at a level of 2.7%. The simulation shows that debt expressed as a % of GDP will rise from a level of 30.8% of GDP in 2019 to 43% of GDP in 2026. These values are close to the debt values described in the stress scenarios for public finances. See Box 1 of Report on Long-term Sustainability of Public Finances 2019, Czech Fiscal Council (2019). In the following years, compliance with the aforementioned conditions could lead to a slight reduction in the share of public institution debt in GDP.

**Graph 3 Debt in the Public Institution Sector as a % of GDP (Projection 2019-2028)**



Source: Ministry of Finance of the Czech Republic, own calculations.

## Conclusion

This study attempted, at least in general, to quantify the impacts of the current COVID-19 epidemic on Czech public finances. There are often many uncertainties related to such estimates.

In our quantification, we calculated the fall in the collection of tax and statutory insurance premiums, depending on the degree of economic decline during the crisis. The shortfall in tax revenues is around CZK 21 bn for each percentage point by which the speed of growth in the economy falls. In the event of an economic decline in 2020 by 5.6%, in accordance with the prediction of the Ministry of Finance of the Czech Republic, then the shortfall in revenues in this calendar year would be approximately CZK 165 bn.

<sup>8</sup> See Statement of the Czech Fiscal Council on Draft Government Amendment to Act No. 23/2017 Coll., on Budgetary Responsibility Rules <https://unrr.cz/vlada-kvuli-dopadum-pandemie-koronaviru-navrhla-zmenu-zakona-o-pravidlech-rozpoctove-odpovednosti-nrr-povazuje-upravu-za-nadbytecnou/>

<sup>9</sup> The MTO limit, which is currently set at -0.75% of GDP and where a tightening to -0.5% of GDP can be expected from 2022.

In the study, we also tried to calculate the impacts of the discretionary government measures on the expenditure side that are to support the domestic economy. In this case, there would probably be a higher fall in GDP and lower spending would be compensated by a more marked fall in budgetary income. We estimated the total costs of discretionary measures to be at least CZK 76 bn, where some of the expenditures not considered by us, or rather some unrealised one-off revenues, could lead to higher increases in the deficit, totalling billions of koruna.

Based on the calculation of the fall in income from taxes and insurance premiums and the increase in expenses related to discretionary government measures, we then estimated the deficit in the financial management of the government institutions sector, again for various levels of decline in the economy. If the predictions of the Ministry of Finance of the Czech Republic come to pass, then the deficit will be around CZK 240 bn in 2020, which represents 4.3% of GDP. In terms of the distribution, the majority of the deficit would be accounted for by the central government budget (around CZK 230 bn).

In connection with the amendment to Act No. 23/2017 Coll., on budgetary responsibility rules, and in connection with the expected increase in the structural deficit in 2021–2028, we projected the impact of this change on debt trends in the public institutions sector. The simulation shows that, if the newly defined limits of the structural deficits are exhausted, the debt expressed as a % of GDP would rise from the level of 30.8% of GDP in 2019 to almost 43% of GDP in 2026. The limit of 40% of GDP would, however, be broken in 2022 and the level of debt would remain over this limit until 2028.

Compared to the original version of Act No. 23/2017 Coll., which assumed structural deficits of up to 1% of GDP, an increase in the limit value of the structural deficit proposed in the amendment would create, in 2021–2027, room for approx. CZK 650 bn of additional spending (or a reduction in tax income). In comparison with the stricter rules for the structural deficit on the part of the European Commission, such room in 2021–2027 such would be CZK 845 bn.