REPUBLIC OF SLOVENIA
FISCAL COUNCIL

An ex post evaluation of forecasts of macroeconomic and fiscal aggregates in the reference period 2018 – 2021

August 2022

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Data available up to and including 12 August 2022 was used.

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EXECUTIVE SUMMARY

The present analysis of deviations in forecasts, which the Fiscal Council is required to prepare every two years in accordance with legislation, is truncated. The legislation adopted in 2020 determines that 2020 and 2021 are not to be taken into account in the analysis of forecast deviations, which limits the relevance of this *ex-post* evaluation of forecast deviations for the 2018-2021 period. Accordingly, merely for the sake of continuity, we have produced only a shorter evaluation with a limited set of variables. The short period that can be included in the analysis, unlike the previous analysis from 2020, is also the reason for not making proposals to the Institute of Macroeconomic Analysis and Development and the Ministry of Finance, which draw up macroeconomic and public finance forecasts, respectively. These legal provisions will also impair the next forecast deviation analysis for the period 2020-2023, which the Fiscal Council is required to produce in 2024.

Shocks affecting the deviation of actual outturns from previous forecasts are common and do not necessarily affect the bias of the forecast, which is one of the essential elements of forecast quality. Despite the possible exclusion of individual years marked by unexpected circumstances from subsequent analyses of forecast deviations, it is an undeniable fact that shocks can have important long-term public finance implications. As the effects of shocks can significantly limit the future room for manoeuvre of fiscal policy, the periods in which they occur must also be included in *ex-post* analyses of forecast deviations.

Our assessment is that in times of heightened uncertainty, it is even more necessary than in normal times to ensure transparency in policy planning and implementation. Otherwise, at a time of shocks, which are often cushioned by increased public spending, there may also be room for non-transparent and irrational or unjustified spending of public funds, which can lead to a deterioration in the long-term sustainability of public finances. It is the imposition of exceptional circumstances in 2020 and 2021 that, in the view of the Fiscal Council, was accompanied by less transparent and less credible fiscal planning in the part that does not cover the direct impact of measures to mitigate the effects of the epidemic.

1. Legislative basis

Paragraph six of Article 4 of the EU Council Directive (2011/85/EU)[1] on requirements for budgetary frameworks of the Member States determines that the macroeconomic and budgetary forecasts for fiscal planning should be subject to regular, unbiased and comprehensive evaluation based on objective criteria, including *ex post* evaluation. The result of that evaluation should be made public and taken into account appropriately in future macroeconomic and fiscal forecasts and, if the evaluation detects a significant bias affecting macroeconomic forecasts over a period of at least 4 consecutive years, the Member State concerned should take the necessary action and make it public.

The 2015 Fiscal Rule Act (hereinafter: the ZFisP), which in Article 7 lists the tasks of the Fiscal Council[2], has not yet foreseen drawing up ex-post evaluations of deviations from forecasts among these tasks. The provisions of Directive EU/2011/85 were partially transposed into Slovenian legislation in February 2018 with the Act Amending the Public Finance Act (hereinafter: the ZJF-H).[3] Paragraph one of Article 9g provides that every two years, the Fiscal Council is to carry out and make publicly available an analysis of the macroeconomic aggregates forecast for the past four years and present it in a report and, in the event of any identified discrepancies, communicate to the Government the relevant findings on the basis of which the Government should draw up corrective measures. Since the ZJF-H only required an evaluation of the deviations from the macroeconomic aggregates forecasts, it has not fully transposed the provisions of European Directive EU/2011/85 into Slovenian legislation. To this end, Article 37b of the Decree amending the Decree on development planning documents and procedures for the preparation of the central government budget[4], which was adopted in May 2018 (hereinafter: the Decree), stipulates that the Fiscal Council must also *ex post* evaluate the revenue and expenditure forecasts of the general government for the past four years.

Although the Fiscal Council is required by law to analyse forecast deviations every two years, Article 33 of the Act Providing Additional Liquidity to the Economy to Mitigate the Consequences of the COVID-19 Epidemic (hereinafter: the ZDLGPE)[5], adopted at the end of April 2020, determines that "...Notwithstanding paragraph one of Article 9g of the ZJF, the Fiscal Council shall not take into account macroeconomic aggregates and revenue and expenditure forecasts for 2020 and 2021 in its analysis". In the light of this provision, the present *ex post* analysis of forecast deviations referring to the 2018-2021 period is seriously impaired. The same applies to the analysis to be made in 2024, when the regulatory analysis period will cover the period 2020-2023. Due to the legal provisions on disregarding the 2020 and 2021 forecasts, the Fiscal Council's present analysis – unlike the 2020 analysis – does not offer any recommendations to the institutions that draw up the macroeconomic and fiscal forecasts, respectively.

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32011L0085&from=EN#d1e323-41-1.

[2] https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2015-01-2277?sop=2015-01-2277 (Only in Slovene).

[3] https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2018-01-0544?sop=2018-01-0544 (Only in Slovene).

[4] https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2018-01-1754?sop=2018-01-1754 (Only in Slovene).

[5] https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-0897?sop=2020-01-0897 (Only in Slovene).

2. Starting points for the *ex post* evaluation of forecast deviations

The emergency legislation adopted at the time of the epidemic limits the relevance of *ex-post* analysis of deviations in macroeconomic and fiscal forecasts. The ZDLGPE provides that the analysis of deviations should not cover 2020 and 2021. Strict adherence to this provision means that the present analysis would only cover the 2018 and 2019 forecasts, the deviations of which were already evaluated by the Fiscal Council in its previous evaluation covering the 2016-2019 period.[6] In this case, the differences in conclusions with respect to the previous analysis could only result from a revision of the 2018 and 2019 outturns compared to the known outturn data at the time of the previous evaluation of forecast deviations. It should be noted that the legislation already in force before the adoption of the above-mentioned provision of the ZDLGPE on the omission of the years 2020 and 2021 provides that the Fiscal Council should only take into account the previous four years in the *ex post* analysis of the forecast deviations, which is less appropriate from a technical and statistical point of view. This is because a four-year period is too short for an adequately statistically robust evaluation of possible systematic deviations in the forecasts, which could indicate a bias in the forecasts. This is also the view of institutions in other countries, which therefore draw up *ex-post* evaluations over a longer period.[7] Similarly, the Fiscal Council's preliminary analysis included a longer time period (2005-2019) in addition to the statutory analysis for the previous four years (2016-2019).

Shocks affecting the deviation of actual outturns from previous forecasts are common and do not necessarily affect the bias of the forecast.[8] Deviations of forecasts from outturns are an unavoidable part of any forecast, so it is reasonable to compare the official macroeconomic and fiscal forecasts not only with the outturn but also with forecasts of other institutions. The same approach was used in the previous analysis, and a similar approach is also used by other institutions that produce evaluations of forecast deviations.[9] The explanatory memorandum in the draft ZDLGPE did not explicitly state the reason why the Fiscal Council should not take into account 2020 and 2021 in its ex-post forecast analyses. We estimate that this decision was driven by the expected one-sided contribution of the epidemic towards the significant deviation of the outturn from the previous forecasts, and thus towards the potential bias of the forecast deviations or towards the potential increased volatility of the forecast deviation indicators. In fact, in its preliminary analysis of forecast deviations made in 2020, the Fiscal Council took the view that the review of forecast deviations would be conducted for the spring and autumn forecasts for the current and next year. A significant shock such as the outbreak of the epidemic expectedly had a significant impact in terms of the deviation of actual outturns from forecasts, especially those made in the year preceding the epidemic, due to the significantly changed macroeconomic situation and the extensive measures taken to mitigate the effects of the epidemic. Unexpected shocks have become more frequent and significant in recent years[10], and the resulting forecast deviation is not necessarily indicative of the forecast biases that such analyses are primarily intended to identify. At the same time, when comparing forecasts with outturns, various indicators are

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[6] Fiscal Council (2020b).

[7] For example, see Box 2.1 in Fiscal Council (2020b).

[8] The bias of forecast errors indicates whether forecasts are systematically under-forecast or over-forecast during the observed period (see e.g. Chapter 2.2.1 in Fiscal Council (2020b), which presents standard indicators for forecast deviations analysis).

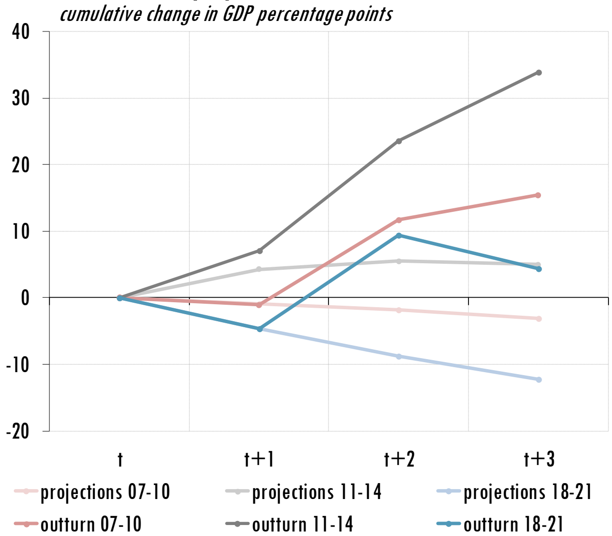
[9] For example, see Box 2.1 in Fiscal Council (2020b).

[10] See e.g. Weidmann (2022).

used which, to a certain extent and especially when analysed over a longer period of time, at least to some extent relativise the more significant deviations.

Despite the possible omission of individual years marked by unexpected shocks from *ex post* analyses of forecast deviations, it is an undeniable fact that shocks can have significant long-term fiscal implications. In the last fifteen years, we have experienced three unexpected large shocks with significant fiscal implications. These were the global economic and financial crisis, the domestic banking crisis and the outbreak of an epidemic. In all three cases, the government debt-to-GDP ratio in the year after the shock was much higher than forecast before the shock and compared to the actual level in the year before the shock. In the case of the epidemic outbreak, the exceedance of the pre-shock level is indeed the smallest among the three crisis periods. In fact, the gross debt-to-GDP ratio was less than 5% of GDP above its previous level last year (the year after the shock started), about 15% of GDP above it during the financial crisis, and more than 30% of GDP above it during the bank recovery.

Figure 2.1: Gross general government debt - projections and outturn



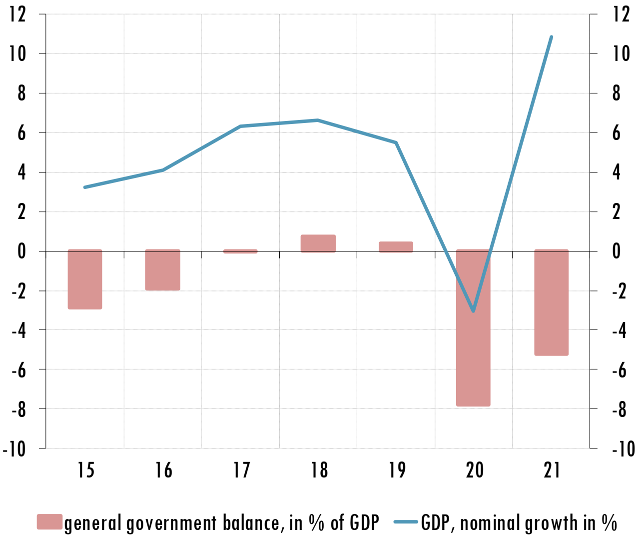
Source: Ministry of Finance, SORS, FC calcualtions.

As the effects of shocks can significantly limit the future room for manoeuvre of fiscal policy, the periods in which significant shocks occur must also be included in *ex-post* analyses of forecast deviations. In times of heightened uncertainty characteristic of crisis-ridden periods, the lack of transparency in planning can increase. This increases the risk of bias in the forecasting process. We therefore consider it necessary to include such periods in *ex post* evaluations of forecast deviations, rather than omit them. In addition, the direct fiscal effects of crises must be transparently recorded and reported. This is also provided for in Article 33 of the ZDLGPE, which determines, inter alia, that the resources for financing measures taken to mitigate the effects of the epidemic should be disclosed in a specific programme of the state budget. Thus, the direct fiscal effects of the epidemic can be adequately separated from the rest of the trends both in the fiscal projections and in the outturns published by the Statistical Office of the Republic of Slovenia. This has also been the practice of the Fiscal Council since the beginning of the epidemic, when *ex-ante* evaluations of budget documents consistently separated projections with and without the direct fiscal impact of measures to limit the impact of the epidemic.

3. Macroeconomic and fiscal trends in the 2018-2021 period

The 2018-2021 period was crucially marked by the outbreak of the epidemic in 2020, followed by a rapid recovery in economic activity, while the fiscal situation did not improve to the same extent. In 2018 and 2019, economic growth continued to be relatively strong and broad-based, allowing the general government balance to reach a nominal surplus despite expansionary fiscal policy, and the gross debt-to-GDP ratio to fall to its lowest level since the banking system recovery in 2013. The outbreak of the epidemic in 2020 resulted in a significant drop in economic activity and a deterioration of the fiscal situation. This deterioration was more pronounced than during the financial crisis more than a decade ago, in particular due to the large-scale measures taken to mitigate the effects of the epidemic, while the drop in economic activity was similar. A rapid economic recovery followed in 2021, when GDP already visibly exceeded the pre-crisis level of 2019 on the annual average. The general government deficit decreased, but remained relatively high, mainly due to further large-scale COVID measures. The gross debt-to-GDP ratio also decreased, but was still less than 5% of GDP above its end-2019 level.

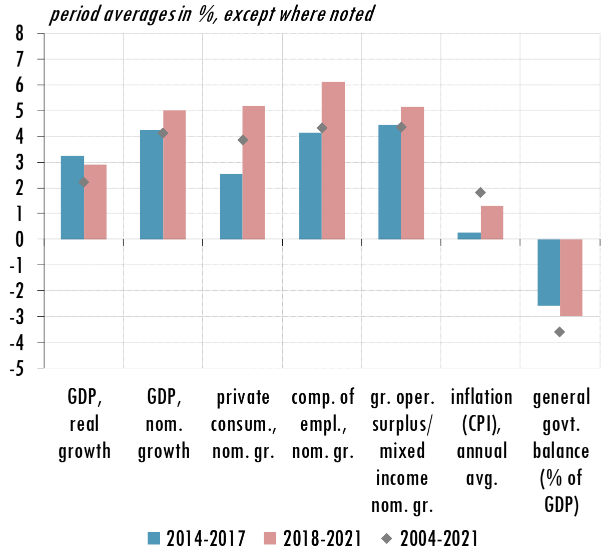
Figure 3.1: Nominal GDP growth and general government balance



Source: SORS, FC calculations.

Figure 3.2: Important macroeconomic and fiscal aggregates in various periods

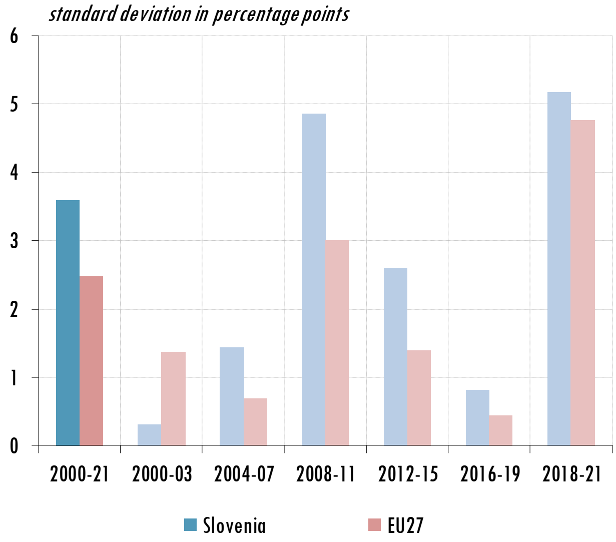
period averages in %, except where noted



Sources: SORS, Eurostat, FC calculations.

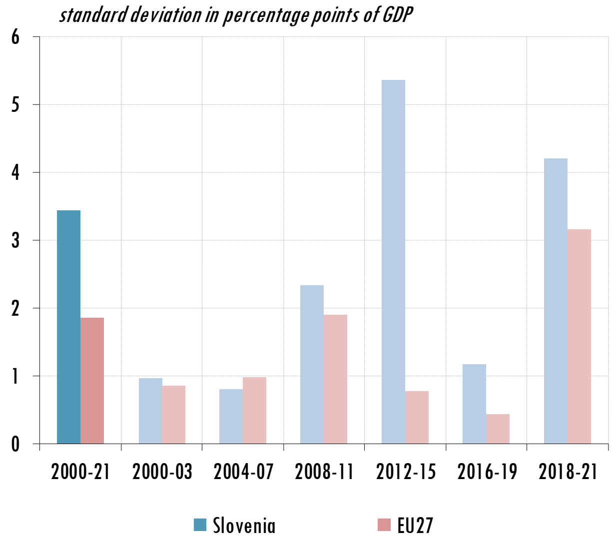
The unexpected and significant shock in the form of an epidemic also resulted in highly volatile trends in key macroeconomic and fiscal indicators. Although this is expected, real GDP trends have been the most volatile on average over the last four-year period, while the sharp fiscal consolidation and the banking system recovery led to even more volatile trends in the general government balance over the 2012-2015 period. The 2018-2021 average trends for both variables were also more volatile than the EU average, which is not surprising given that fluctuations tend to be higher in small and open economies. On average across the EU, the epidemic has caused higher fluctuations in real GDP and the general government balance than in any four-year period since 2000.

Figure 3.3: Real GDP growth



Source: Eurostat, FC calculations.

Figure 3.4: General government balance

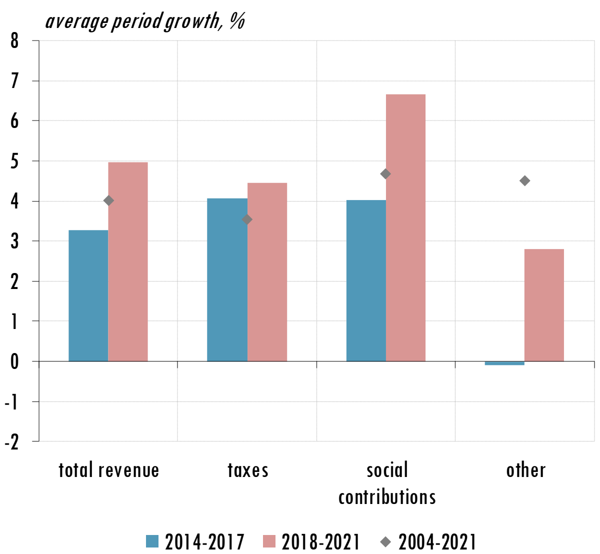


Source: Eurostat, FC calculations.

Despite the crisis in 2020, most of the key macroeconomic indicators were more favourable in the average of the period 2018-2021 than in the average of the previous four years and also than the long-term average. Average real GDP growth over the last four years (2.9%) was only slightly lower than in the previous four-year period and well above the long-term average. Key macroeconomic bases underlying the projections of government revenue[11] were more favourable on average over the 2018-2021 period than over the previous four years and over the longer period since 2004.

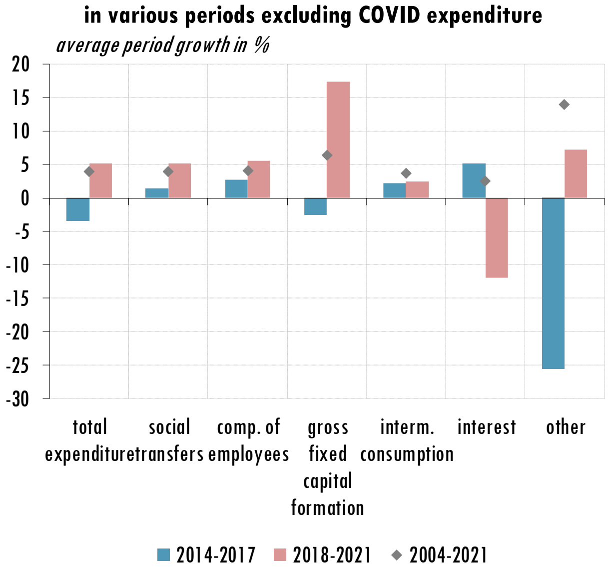
In conjunction with the generally favourable macroeconomic situation, cyclical and total general government revenue growth was higher on average over the 2018-2021 period than in the previous four-year period. Average growth of general government revenue stood at 5.0%, which is about a half more than the average for the 2014-2017 period. Both average growth in tax revenue

Figure 3.5: General government revenue in various periods



Source: SORS, FC calculations.

Figure 3.6: General government expenditure in various periods excluding COVID expenditure



Source: SORS, FC calculations.

[11] Ministry of Finance (2019).

and average growth in social contributions were higher. Against the backdrop of a strong recovery, tax revenues in 2021 were 5.5% higher than in 2019, while social contribution revenues, which did not fall in 2020 either, were 13.1% higher. Other revenue growth, while lower than the long-term average, was still higher than in 2014-2017, when it declined mainly due to a significant drop in revenue from EU funds in 2016.

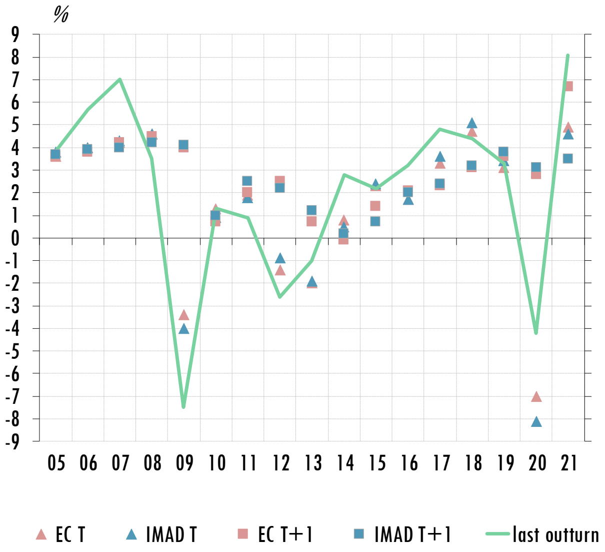
The growth in expenditure excluding expenditure on COVID measures exceeded the long-term average by 1.3 percentage points over the period 2018-2021. The growth had already picked up in 2017 and 2018, and after a temporary moderation in 2020, last year it reached its highest level since 2008.[12] On average over the last four years, investment spending growth has picked up the most. Growth in social transfer expenditure, which had slowed considerably during the period of intensified consolidation in the years following the banking system recovery, has also gradually picked up over the past four years. Growth in compensation for employees was also around twice as high as in the previous four-year period and higher than the long-term average. In particular 2019 stands out, as an agreement was reached with the trade unions on an across-the-board pay rise for civil servants. Among the major expenditure categories, growth in intermediate consumption expenditure lagged behind the long-term average over the period 2018-2021, with interest expenditure dropping by 12.0% on average per year while it increased by 2.5% per year on average over the entire period since 2004.

[12] Excluding 2013, when total expenditure growth was 22.8%, mainly due to the massive spending to recover the banking system.

4. Evaluation of macroeconomic and fiscal forecast deviations for the 2018-2021 and 2005-2021 periods[13]

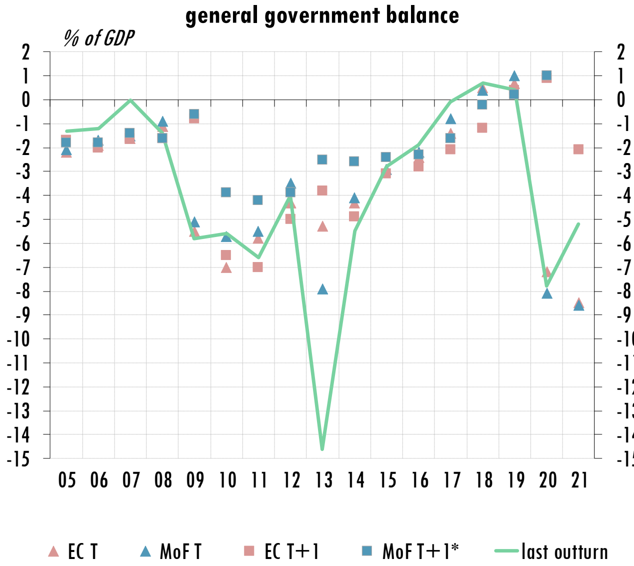
While the forecast deviations for 2018 and 2019 were not significantly different from the long-term averages, they were more significant for 2020 and 2021, as was expected. Macroeconomic forecasts, both domestic official forecasts by the Institute of Macroeconomic Analysis and Development and European Commission forecasts, overestimated the actual drop in economic growth in 2020 and underestimated the strength of the recovery in 2021. The pace of the recovery in 2021 was underestimated in the forecast for the next year as well as for the current year. This is a significant difference from the deviations during the economic and financial crisis over a decade ago, when even forecasts for the current year underestimated the actual decline in economic activity,[14] while the short-term recovery was then quite in line with expectations. The current forecasts of the general government balance by the Ministry of Finance and the Commission were quite in line with actual outturns in 2020, while they overestimated the deficit for 2021, which was probably partly due to an underestimation of the pace of the economic recovery. We estimate that the overestimation of the 2021 deficit also confirms the Fiscal Council's warnings[15] about the over-forecast of the level of expenditure for that year.

Figure 4.1: Forecasts and outturn of y-o-y real GDP growth



Sources: SORS, EC, IMAD, FC calculations.

Figure 4.2: Forecasts and outturn of general government balance



Sources: SORS, EC, MoF, FC calculations. Note: SP20 did not include forecast for 2021.*

The evaluation of the forecast deviations also over a longer period shows that the deviation increases for the different forecast horizons, with the exception of the current year forecast, while among the variables, the deviation in the general government revenue forecast in particular decreases compared to the previous analysis. For the sake of continuity in the forecast evaluations, we have also reviewed the underlying indicators of the scope of the deviations[16] over a longer period of time. The present review of the basic statistical indicators has extended the period covered in the previous analysis (2005-2019) by two years (2005-2021).[17] The evaluation shows that most

[13] In line with the impaired analysis, the analysis of deviations shows a narrower set of variables compared to the analysis in Fiscal Council (2020b). Among the macroeconomic aggregates, we thus consider only real GDP, while among the general government aggregates we consider the general government balance and debt, and, as auxiliary variables, general government revenues and expenditures.

[14] This difference is also to some extent attributable to the timing of the forecast and the onset of the shock.

[15] Fiscal Council (2020d, 2021c).

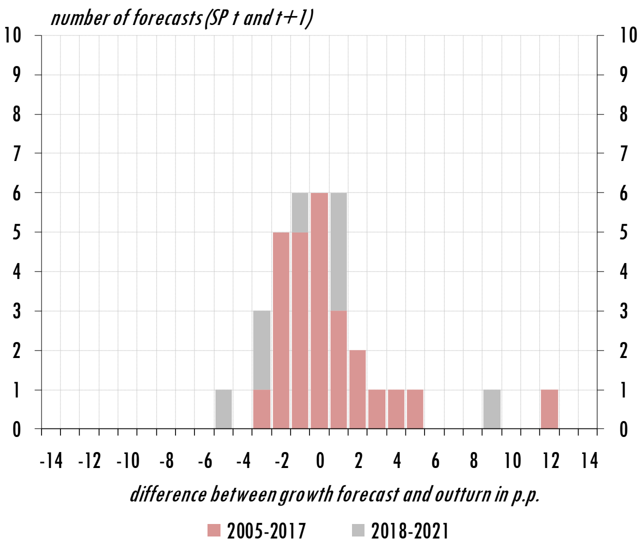
[16] For a description of the statistical indicators of forecast deviations, see Chapter 2 in Fiscal Council (2020b).

[17] See Annex 2, p. 19.

indicators deteriorate for all variables, with the exception of deviations in the general government revenue forecast. The latter deviations show the smallest changes, or rather largely indicate a forecast deviation reduction compared to the period analysed in the previous evaluation. While the deterioration in the GDP forecast is comparable or similar to that which would result from the use of simple forecasting methods, the forecast deviation is slightly larger for fiscal variables. This is also not the case for most of the indicators of deviations in general government revenue forecasts.

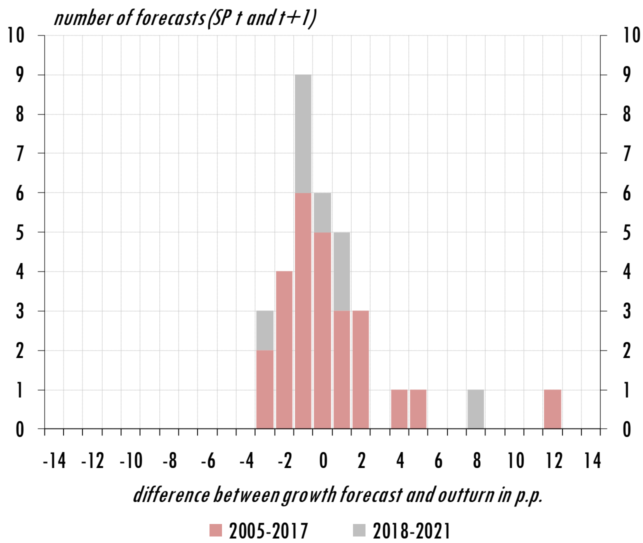
Our assessment is that in times of heightened uncertainty, it is even more necessary than in normal times to ensure transparency in policy planning and implementation. Unexpected shocks with particularly negative implications for the macroeconomic and fiscal situation have been quite common in recent years. The frequency and direction of such shocks can also be seen in Figures 4.3-4.6. Major deviations of outturns from forecasts in such cases are therefore not unusual and do not necessarily indicate bias in the forecasting process. Indeed not all information is available at the time

Figure 4.3: Real GDP (IMAD)



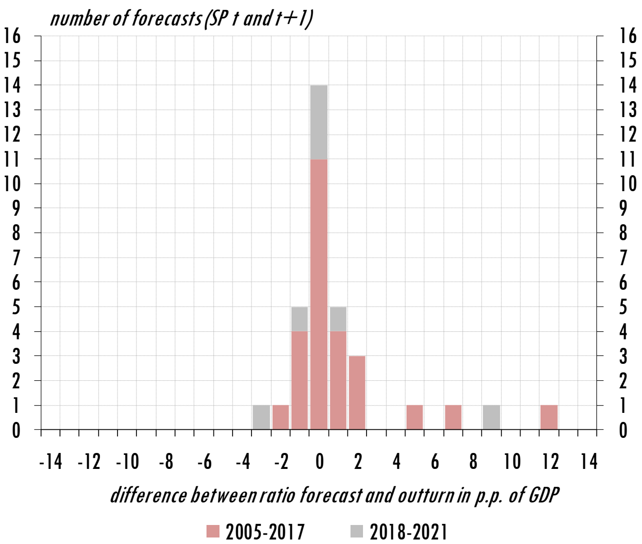
Sources: SORS, IMAD, FC calculations.

Figure 4.4: Real GDP (EC)



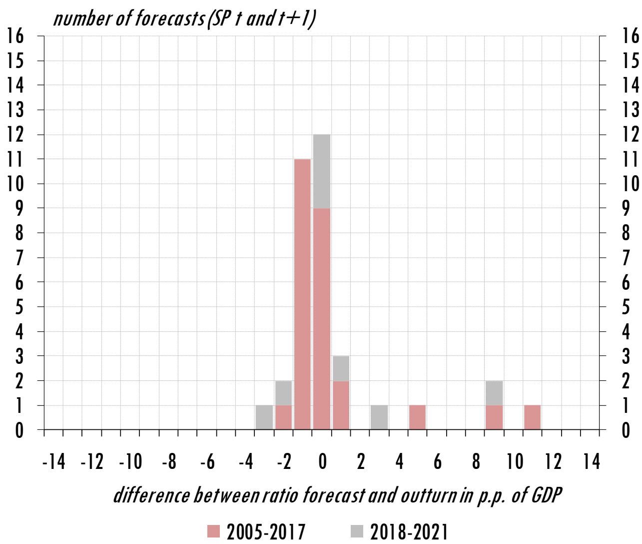
Sources: SORS, EC, FC calculations.

Figure 4.5: General government balance (MoF)



Sources: SORS, MoF, FC calculations.

Figure 4.6: General government balance (EC)



Sources: SORS, EC, FC calculations.

of the forecast to anticipate more significant shocks. Consequently, this is not a reasonable basis for deciding to omit individual years from the subsequent forecast quality analysis. Otherwise, at a time of shocks, which are often cushioned by increased public spending, there may also be room for non-transparent and irrational or unjustified spending of public funds, which can lead to a deterioration in the long-term sustainability of public finances.

It is the imposition of exceptional circumstances in 2020 and 2021 that was accompanied by less transparent and less credible fiscal planning in the part that does not cover the direct impact of measures to mitigate the effects of the epidemic. The Fiscal Council took the view that the epidemic is an extraordinary event that enables a resort to exceptional circumstances and therefore temporary derogation from achieving mid-term fiscal sustainability according to Article 12 of the Fiscal Rule Act.[18] Given the lack of clarity in domestic and European legislation on the conduct of fiscal policy in such a situation, it has become widely believed that fiscal rules are not valid at this time. This understanding has recently been challenged by the European Fiscal Board (EFB).[19] The wide discretion in the conduct of fiscal policy made possible by the prevailing interpretation of the legal provisions in cases of exceptional events by economic policy makers has led to rather loose fiscal planning. The Fiscal Council warned both in autumn 2020[20] and autumn 2021[21] that the projections of general government aggregates in the proposed budget documents were not sufficiently credible. In both cases, the projections for the coming year were based on an overestimation of actual public spending outturn for the current year, which did not include the direct impact of measures to mitigate the effects of the epidemic. As a result, projections of expenditure levels for the coming year were set too high and, once the actual lower outturn for the current year was known, showed much higher growth rates than at the time the budget documents were drawn up. This opened up the potential space for public spending to be higher than justified, taking into account the measures in force at the time the budget documents were adopted. Filling this space with discretionary measures also poses a risk to the medium-term sustainability of public finances. This has been realised to some extent, as the Fiscal Council has pointed out in its evaluations of the budget documents.[22]

[18] Fiscal Council (2020a, 2020c, 2021a, 2021b).

[19] EFB (2022).

[20] Fiscal Council (2020d).

[21] Fiscal Council (2021c).

[22] Fiscal Council (2020d, 2021c).

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Annex 1: An overview of IMAD/MoF forecasts 2017-2021

	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
GDP, real growth in %												
2017	3.6	4.4									*5.0*	*4.8*
2018	3.2	3.9	5.1	4.4							*4.5*	*4.4*
2019			3.8	3.7	3.4	2.8					*2.4*	*3.3*
2020					3.1	3.0	-8.1	-6.7			*-5.5*	*-4.2*
2021							3.5	5.1	4.6	6.1	*8.1*	*8.1*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
GDP, nominal level												
2017	41,626	42,761									*43,278*	*43,011*
2018	43,675	45,265	46,588	45,742							*45,948*	*45,864*
2019			49,611	48,529	48,797	48,242					*48,007*	*48,397*
2020					51,578	50,910	45,586	45,769			*46,297*	*46,918*
2021							47,843	48,818	48,453	50,364	*52,020*	*52,020*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
Private consumption, nominal level												
2017	21,664	22,647									*22,844*	*22,598*
2018	22,569	23,614	24,081	23,466							*23,360*	*23,870*
2019			25,326	24,653	24,550	25,279					*24,823*	*25,350*
2020					25,678	26,575	24,252	23,251			*22,778*	*23,562*
2021							24,735	24,751	23,839	25,232	*27,303*	*27,303*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
Government consumption, nominal level												
2017	7,857	7,881									*7,908*	*7,937*
2018	8,146	8,214	8,298	8,234							*8,189*	*8,381*
2019			8,758	8,687	8,711	8,925					*8,846*	*8,881*
2020					9,233	9,418	9,619	9,566			*9,445*	*9,645*
2021							9,760	9,764	9,642	10,325	*10,500*	*10,500*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
Compensation of employees, nominal level												
2017	21,004	21,200									*21,112*	*21,246*
2018	22,088	22,426	22,729	22,875							*22,803*	*22,819*
2019			24,253	24,426	24,513	24,601					*24,504*	*24,583*
2020					26,164	26,272	24,169	24,808			*24,858*	*25,221*
2021							24,353	25,445	25,793	26,608	*26,912*	*26,912*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
Inflation, annual average in %												
2017	1.8	1.5									*1.4*	*1.4*
2018	1.6	1.6	1.5	1.8							*1.7*	*1.7*
2019			1.9	2.1	1.6	1.8					*1.6*	*1.6*
2020					1.9	2.0	0.7	0.3			*-0.1*	*-0.1*
2021							2.7	1.6	0.8	1.4	*1.9*	*1.9*

	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
Employment, growth in %												
2017	2.2	2.7									*2.8*	*2.9*
2018	1.5	1.7	2.4	2.8							*3.0*	*3.2*
2019			1.5	1.5	2.0	2.5					*2.4*	*2.5*
2020					1.0	1.4	-1.9	-1.5			*-1.0*	*-0.6*
2021							0.5	0.3	0.8	0.8	*1.4*	*1.4*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
Gross wages per employee, nominal growth in %												
2017	3.3	2.7									*2.7*	*2.7*
2018	3.3	3.6	4.0	3.5							*3.4*	*3.4*
2019			4.5	4.9	5.0	4.6					*4.3*	*4.3*
2020					5.5	5.1	0.6	3.7			*5.8*	*5.8*
2021							0.2	0.9	0.4	5.8	*6.1*	*6.1*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
Wages and salaries, nominal level												
2017	17,976	18,191									*18,120*	*18,270*
2018	18,904	19,242	19,478	19,608							*19,543*	*19,609*
2019			20,785	20,939	21,002	21,141					*21,034*	*21,131*
2020					22,411	22,571	20,746	21,269			*21,348*	*21,656*
2021							20,904	21,842	22,151	22,847	*23,149*	*23,149*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
Gross operating surplus/mixed income, nominal level												
2017	15,020	15,972									*16,543*	*16,154*
2018	15,846	17,122	18,070	16,984							*17,224*	*17,167*
2019			19,417	18,017	18,166	17,512					*17,390*	*17,743*
2020					19,004	18,356	...	16,623			*17,565*	*17,828*
2021							...	17,572	17,680	18,831	*19,701*	*19,701*

	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
General government balance, in % of GDP												
2017	-0.9	-0.8									*0.0*	*-0.1*
2018	-0.2	0.4	0.4	0.8							*0.7*	*0.7*
2019			0.2	0.6	0.9	0.8					*0.5*	*0.4*
2020					1.0	0.9	-8.1	-8.6			*-8.4*	*-7.8*
2021							...	-6.6	-8.6	-7.5	*-5.2*	*-5.2*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
General government revenue, in % of GDP												
2017	43.5	43.2									*43.1*	*44.0*
2018	43.7	43.0	42.3	43.4							*43.1*	*44.2*
2019			41.7	43.0	43.2	44.5					*44.2*	*43.8*
2020					42.6	43.9	43.7	45.2			*43.6*	*43.5*
2021							...	44.4	43.5	43.7	*43.9*	*43.9*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*prva realizacija*	*zadnja realizacija*
General government expenditure, in % of GDP												
2017	44.4	43.9									*43.1*	*44.1*
2018	43.9	42.6	41.9	42.6							*42.4*	*43.5*
2019			41.5	42.5	42.2	43.7					*43.7*	*43.3*
2020					41.6	43.0	51.8	53.9			*52.0*	*51.3*
2021							...	51.0	52.2	51.2	*49.1*	*49.1*
	SF17	AF17	SF18	AF18	SF19	AF19	SF20	AF20	SF21	AF21	*first outturn*	*last outturn*
General government gross debt, in % of GDP												
2017	77.0	75.2									*73.6*	*74.2*
2018	74.3	71.7	69.3	70.3							*70.1*	*70.3*
2019			65.2	66.0	65.4	66.3					*66.1*	*65.6*
2020					61.3	62.1	82.4	82.4			*80.8*	*79.8*
2021							...	80.9	80.4	78.5	*74.7*	*74.7*

Source: IMAD, MoF, SORS, FC calculations.

Annex 2: Statistical forecast measures - first outturn 2005-2021

		ME			MAE			RMSE		
		t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
GDP, real growth in %	IMAD	-0.31	0.86	1.15	1.47	2.91	3.18	1.79	4.18	4.45
	EC	-0.26	0.99		1.38	2.66		1.75	3.97	
	naïve forecast	0.26	0.72	0.86	3.29	3.65	4.07	5.00	4.94	5.08
	based on average	1.42	1.59	1.86	3.03	3.27	3.45	4.41	4.59	4.76
GDP, nominal growth in %	IMAD	-0.22	1.08	1.69	1.74	3.69	4.07	2.33	5.01	5.26
	EC	-0.08	1.45		1.57	3.22		2.05	4.69	
	naïve forecast	0.52	1.21	1.29	3.95	4.38	4.64	5.97	5.62	5.81
	based on average	4.95	5.18	5.59	5.56	5.77	6.15	6.99	7.32	7.77
general government balance, % of GDP	MoF	0.19	1.73	2.40	1.01	2.44	2.99	1.93	4.19	4.48
	EC	0.13	1.03		1.28	2.28		2.53	3.85	
	naïve forecast	0.34	0.72	0.63	3.09	3.70	4.34	4.56	4.95	5.47
	based on average	0.41	0.54	0.70	3.03	3.24	3.35	3.89	4.05	4.20
general government expenditure, % of GDP	MoF	-0.37	-2.23	-3.44	1.29	3.20	4.42	1.95	4.84	5.92
	EC	-0.41	-1.83		1.57	3.03		2.63	4.49	
	naïve forecast	-0.21	-0.58	-0.39	3.67	4.49	5.24	4.76	5.46	6.34
	based on average	-0.70	-0.78	-0.92	3.52	3.83	4.00	4.39	4.67	4.85
general government revenue, % of GDP	MoF	-0.19	-0.50	-1.04	0.62	1.14	1.66	0.84	1.37	1.90
	EC	-0.26	-0.78		0.79	1.23		1.00	1.57	
	naïve forecast	0.13	0.15	0.24	0.84	1.13	1.36	1.06	1.41	1.60
	based on average	-0.28	-0.23	-0.21	0.92	0.94	1.08	1.14	1.19	1.29

Source: IMAD, MoF, EC, SORS, FC calculations calculations. In the naïve forecast, the last known outturn of the related variable is taken as a forecast, while in "based on average" an average of outturns available when preparing the forecast is applied as a forecast.