



REPUBLIC OF SLOVENIA  
**FISCAL COUNCIL**

**An ex post evaluation of forecasts  
of macroeconomic and fiscal  
aggregates in the reference  
period 2020 – 2023**

August 2024

Document No.: 30-3/2024/1

Data available up to and including 29 July 2024 was used.

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## EXECUTIVE SUMMARY

The deviations of the macroeconomic and fiscal forecasts for the 2020–2023 period were larger than the long-term average. This is partly understandable, as this period was marked by large unexpected shocks. Although the 2020 intervention legislation provided for 2020 and 2021 to be excluded from the ex post analysis of forecast deviations, it is important that data from crisis periods are also included in the analyses, as they can have important implications for planning and public finances in the longer term. The ex post evaluation of forecasts of macroeconomic and fiscal aggregates excluding the impact of intervention measures also shows that deviations increased markedly on average over the last four years. This suggests the continuation of a lack of realism in fiscal planning. The increased deviations are particularly pronounced in the area of expenditure forecasts, which poses a risk of inefficient spending. At the same time, this approach to fiscal planning poses potential difficulties for target-setting in the context of reformed economic governance at the EU level, which will be centred on a multi-annual plan that cannot be revised. Its starting point should also be based on realistic forecasts of fiscal aggregates.

## 1. Legislative basis

In April this year, Council Directive (EU) 2024/1265<sup>1</sup> on requirements for budgetary frameworks of the Member States was adopted. In paragraph three of Article 1, the Directive stipulates that macroeconomic and budgetary forecasts shall be subject to regular, objective and comprehensive ex post evaluation by an independent body or other bodies functionally independent of the fiscal authorities of the Member States and other than the forecasting body. The results of the evaluations must be made public and taken into account appropriately in future macroeconomic and fiscal forecasts. In addition, in the event that an evaluation detects significant biases affecting macroeconomic forecasts over a period of four consecutive years, the Member State concerned must take the necessary measures to correct them and make them public. The abovementioned Directive amends the previously applicable Council Directive 2011/85/EU<sup>2</sup> and specifies that ex post evaluation must be carried out by independent bodies other than the forecasters.

The Fiscal Rule Act (hereinafter: the ZFisP)<sup>3</sup> of 2015, which lists the tasks of the Fiscal Council in its Article 7, did not foresee the production of ex post evaluations of forecast deviations. The provisions of Directive 2011/85/EU, which was in force until this year, were partially transposed into Slovenian legislation in February 2018 with the Act Amending the Public Finance Act (hereinafter: the ZJF-H).<sup>4</sup> Article 9g thereof provides that every two years, the Fiscal Council shall carry out and make publicly available an analysis of the macroeconomic aggregate 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 shall prepare corrective measures. Since the ZJF-H only required an evaluation of the forecast deviations of the macroeconomic aggregates, it has not fully transposed the provisions of Directive 2011/85/EU into the Slovenian legislation. To this end, in Article 37b of the Decree amending the Decree on development planning documents and procedures for the preparation of the central government budget,<sup>5</sup> adopted in May 2018 (hereinafter: the Decree), it was stipulated that the Fiscal Council must also ex post assess, every two years, the revenue and expenditure forecasts of the general government for the past four years.

Although the Fiscal Council is required by law to analyse macroeconomic and fiscal forecast deviations every two years, the Act on Providing Additional Liquidity to the Economy to Mitigate the Consequences of the COVID-19 Epidemic (hereinafter: the ZDLGPE<sup>6</sup>), adopted at the end of April 2020, stipulates in Article 33 that "Notwithstanding paragraph one of Article 9g of the Public Finance Act (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 2020–2023 period is impaired<sup>7</sup> and does not contain, among other things, recommendations to the producers of macroeconomic and fiscal forecasts.

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<sup>1</sup> Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L\\_202401265](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202401265).

<sup>2</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32011L0085>.

<sup>3</sup> [https://www.fs-rs.si/wp-content/uploads/2018/02/ZFisP\\_EN.pdf](https://www.fs-rs.si/wp-content/uploads/2018/02/ZFisP_EN.pdf)

<sup>4</sup> <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2018-01-0544?sop=2018-01-0544> (Only in Slovene).

<sup>5</sup> <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2018-01-1754?sop=2018-01-1754> (Only in Slovene).

<sup>6</sup> <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-0897?sop=2020-01-0897> (Only in Slovene).

<sup>7</sup> The same applies to the analysis prepared in 2022, when the statutory analysis period covered the 2018–2021 period. Available at: [https://www.fs-rs.si/wp-content/uploads/2022/09/Ex\\_post\\_evaluation\\_August\\_2022.pdf](https://www.fs-rs.si/wp-content/uploads/2022/09/Ex_post_evaluation_August_2022.pdf).

## 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 2022 and 2023 forecasts. These two years were marked by two further shocks (the energy crisis and floods), which led to additional intervention measures. Nevertheless, in the case of these two years, no similar decision was taken as in the case of the epidemic which would have excluded them from the subsequent analysis of forecast deviations. This suggests either an inconsistent approach or the subsequent recognition of an inappropriate approach to the exclusion of individual years. It should be noted that European and national legislation already in force prior to the adoption of the ZDLGPE provision on the omission of 2020 and 2021 provides that only the previous four years were to be considered in the ex post analysis of forecast deviations. This is less appropriate from a technical or statistical point of view. A four-year period is namely too short for an adequate statistically supported evaluation of possible systematic forecast deviations that could indicate forecast bias. This is also the view of institutions in other countries, which therefore draw up ex post evaluations over a longer period.<sup>8</sup>

**Shocks affecting the deviation of actual outturns from previous forecasts are common and do not necessarily affect the bias of the forecast.**<sup>9</sup> Deviations of forecasts from outturns are an unavoidable part of any forecast. It is therefore useful to compare official macroeconomic and fiscal forecasts not only with realisations but also with the forecasts of other institutions. The same approach was used in the previous two analyses by the Fiscal Council. A similar approach is also used by other institutions that evaluate forecast deviations. The reason for the decision to exclude the years 2020 and 2021 from the Fiscal Council's ex post forecast analyses was not explicitly stated in the explanatory memorandum to the draft ZDLGPE. 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. It is worth pointing out that unexpected shocks have become increasingly frequent and significant in recent years.<sup>10</sup> The resulting forecast deviations do not necessarily reflect the forecast bias that the evaluation analyses are primarily designed to identify. At the same time, when comparing forecasts with realisations, various indicators are used which, especially when analysed over a longer period of time, at least to some extent relativise the more significant deviations in individual years.

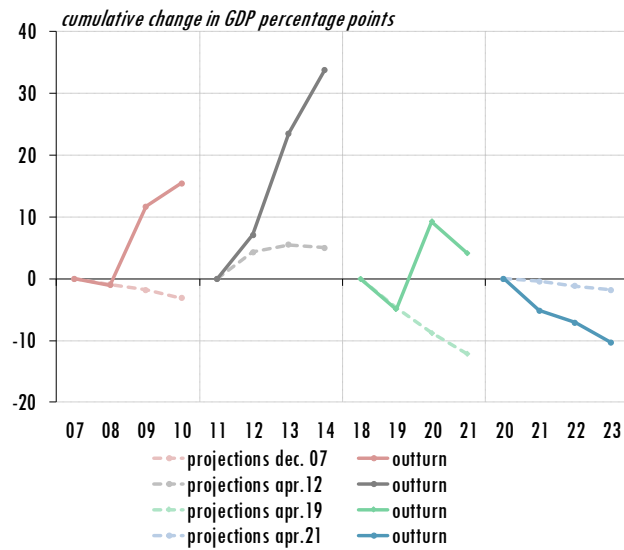
**Despite the enabled omission of individual years from ex post analyses of forecast deviations, unexpected shocks can have important long-term fiscal implications.** In the past two decades, we have experienced three unexpected large shocks with significant fiscal implications. These were the global 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 (see Figure 2.1). In the case of the epidemic, the excess of the pre-shock level was in fact the smallest among the

<sup>8</sup> For example, see Box 2.1 in Fiscal Council (2020).

<sup>9</sup> The bias of forecast errors indicates whether forecasts are systematically under- or over-estimated during the observed period (see e.g. Section 2.2.1 in Fiscal Council (2020), which presents standard indicators for forecast deviations analysis).

<sup>10</sup> See e.g. Weidmann (2022).

**Figure 2.1: Gross general government debt - projections and outturn**



Source: Ministry of Finance, SORS, FC calculations.

three crisis periods. The gross debt-to-GDP ratio exceeded the level of the year before the shock (2019) by 9% of GDP in the year after the shock (2021), by around 12% of GDP during the financial crisis and by almost 27% of GDP during the bank recovery. The two shocks of the past two years, the energy crisis and the floods, had a less negative impact on the macroeconomic situation than the three above-mentioned shocks. The size of the intervention measures was also smaller and, as a consequence, the negative impact on public debt dynamics was limited.

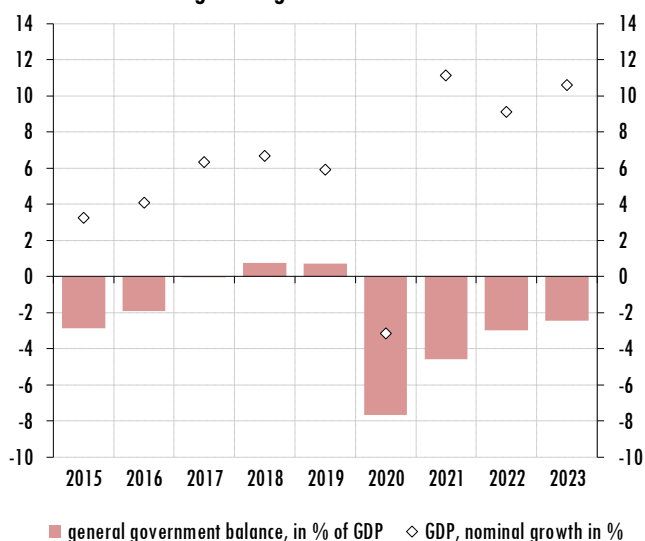
**As the effects of shocks can significantly limit the future room for manoeuvre of fiscal policy, the periods of more significant shocks must also be included in ex post analyses of forecast deviations.** In times of heightened uncertainty characteristic of crisis-ridden periods, a lack of transparency 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. By transparently recording and reporting the direct fiscal effects of intervention measures, these can be adequately separated from the rest of the developments both in the fiscal projections and in the outturns published by SORS. Again, since the beginning of the epidemic, the Fiscal Council has consistently distinguished between developments with and without the direct fiscal impact of intervention measures to limit the impact of the various shocks in all evaluations of the budget documents. Thus, despite the provisions of the ZDLGPE, in the present paper we analyse the whole four-year period, excluding the direct effect of the intervention measures from both the projections and the forecast.



### 3. Macroeconomic and fiscal developments in the 2020–2023 period

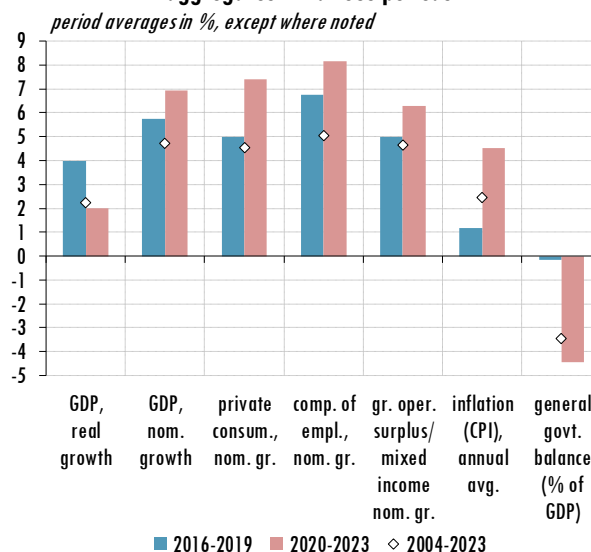
The 2020–2023 period was crucially marked by the outbreak of the epidemic in 2020, followed by a relatively rapid recovery in economic activity, while the fiscal situation did not improve to the same extent. The outbreak of the epidemic in 2020 resulted in a significant drop in economic activity and a deterioration of the fiscal situation. A rapid economic recovery followed in 2021, with real GDP already visibly above the pre-crisis level of 2019 on average for the year. The general government deficit decreased, but it remained relatively high, mainly due to further large-scale COVID-19 measures. Among these, the Fiscal Council estimates that there were also some that were not directly related to the crisis. 2021 was also marked by a spike in inflation, which was exacerbated by the energy crisis in 2022. This resulted in an exceptionally high growth in nominal tax bases and, consequently, in government revenue, despite the slowdown in real economic growth. Despite the two new shocks, the size of the intervention measures in 2022 and 2023 was on average almost half that in 2020 and 2021. At the same time, expenditure growth picked up significantly, net of the direct impact of the intervention measures. It averaged 8.7% in 2021–2023, three times higher than the average of the four years preceding the outbreak. As a result, despite the highest revenue growth on record, the fiscal position last year was still less favourable than before the outbreak of the epidemic. The overall balance was -2.5% of GDP in 2023 and 0.1% of GDP excluding the intervention measures (2019: +0.7% of GDP). Gross debt at the end of 2023 was about four percentage points of GDP higher than at the end of 2019.

**Figure 3.1: Nominal GDP growth and general government balance**



Source: SORS, FC calculations.

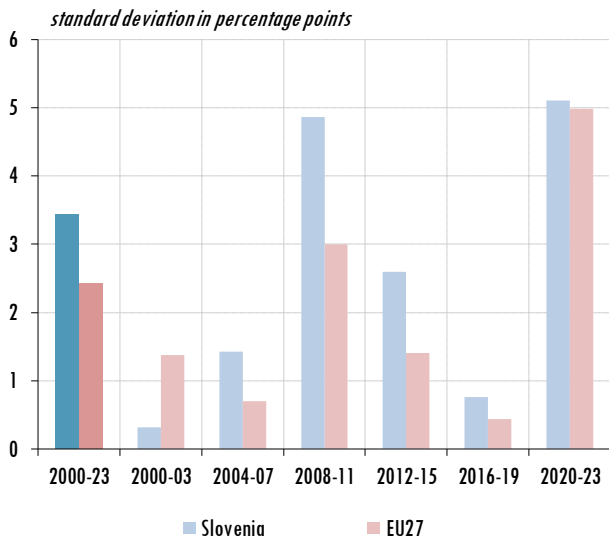
**Figure 3.2: Selected macroeconomic and fiscal aggregates in various periods**



Sources: SORS, Eurostat, FC calculations.

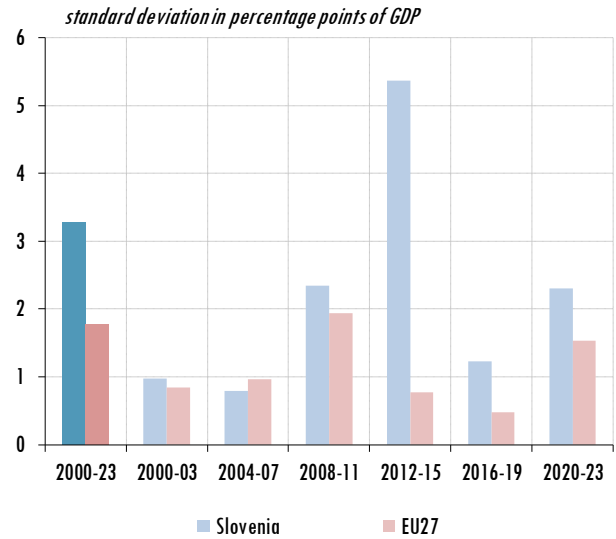
The unexpected and significant shock of an epidemic also resulted in highly volatile trends, particularly in key macroeconomic and, to some extent, fiscal indicators. Real GDP was the most volatile on average over the last four years, while the banking system bailout and the sharp fiscal consolidation led to even more volatile developments in the general government balance over the 2012–2015 period. GDP and the general government balance were also more volatile on average over the 2020–2023 period than on average in the EU. This is not surprising given that volatility tends to be higher in small and open economies. Even at EU average, the epidemic caused more volatility in

**Figure 3.3: Real GDP growth**



Source: Eurostat, FC calculations.

**Figure 3.4: General government balance**



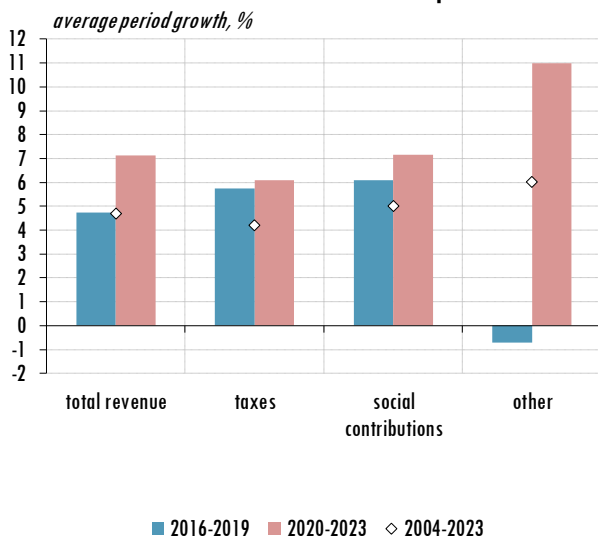
Source: Eurostat, FC calculations.

real GDP than in any four-year period since 2000, while the volatility of the general government balance was higher during the global economic and financial crisis.

**Most of the key macroeconomic indicators relevant for government revenue were favourable on average over the 2020–2023 period, despite a number of shocks.** Average real GDP growth was lower on average over the last four years (2.0%) than in the previous four-year period and over the long-term average. However, the key macroeconomic bases underlying the projections of government revenues<sup>11</sup> were more favourable than the average of the previous four years and the longer-term average since 2004, due to high inflation on average over the 2020–2023 period.

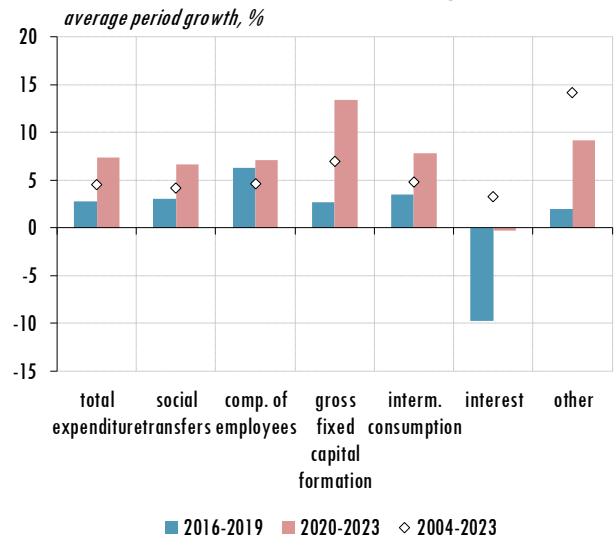
**In conjunction with the generally favourable macroeconomic situation, general government revenue growth was higher on average over the 2020–2023 period than in the previous four-year**

**Figure 3.5: General government revenue excluding intervention measures in various periods**



Source: SORS, FC calculations.

**Figure 3.6: General government expenditure excluding intervention measures in various periods**



Source: SORS, FC calculations.

<sup>11</sup> Ministry of Finance (2019).

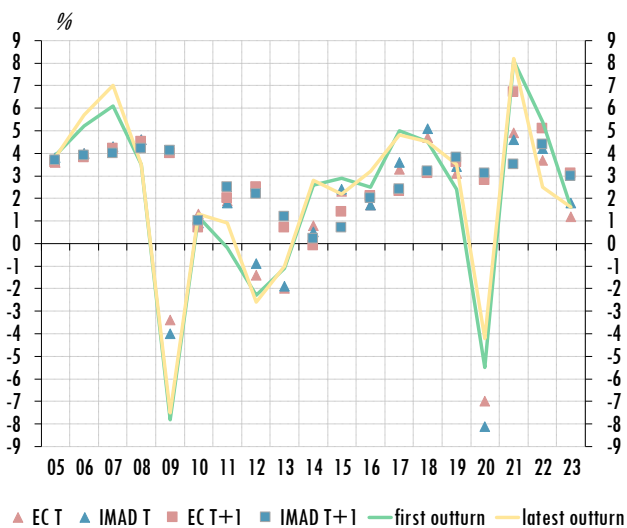
**period and over the long-term average.** Average general government revenue growth was 7.0%, by around half more than the average for 2016–2019. Both average growth in tax revenue and average growth in social contributions were higher. With a strong economic recovery, tax revenues in 2023 were a quarter higher than in 2019, while social contribution revenues, which did not decline in 2020, were almost a third higher. However, it was growth in other revenue that outpaced the long-term average by far the most, mainly due to EU funding at the end of the multiannual financial framework and the introduction of new sources.

**Expenditure growth excluding the intervention measures was around twice the long-term average over the 2020–2023 period.** Average expenditure growth excluding intervention measures averaged 7.3% over the last four-year period (2004–2019: 3.6%); only in 2008 was it higher than in any of the last three years. Investment spending growth picked up the most and was also the highest. Growth in social benefits and intermediate consumption were also significantly higher than in the previous four-year period and over the long-term average. Growth in compensation of employees was also slightly higher than in the previous four-year period and the long-term average, even after the elimination of the large epidemic allowances. The decline in interest expenditure slowed on average over the last four years, due to both higher interest rates and higher debt levels.

#### 4. Assessment of macroeconomic and fiscal forecast deviations for the 2020–2023 period<sup>12</sup>

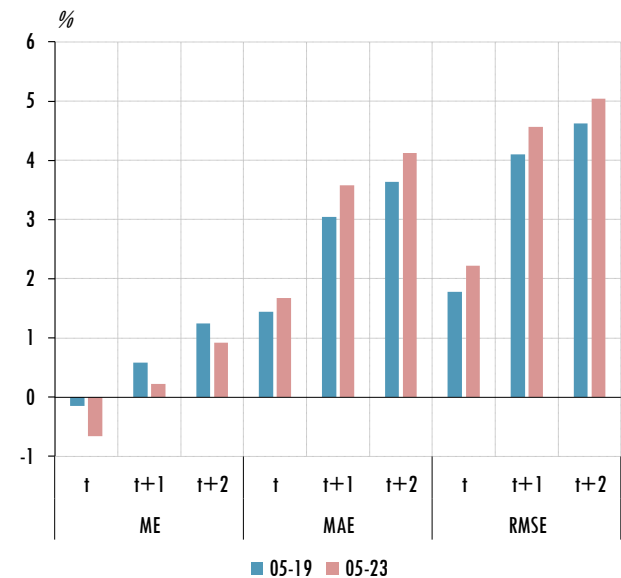
The deviations of the macroeconomic forecasts for the 2020–2023 period were more significant than over the long-term average, mainly due to large and numerous shocks. We compared the official domestic macroeconomic forecasts by the IMAD with the EC forecasts. There are no major differences in the deviations between the IMAD and the EC forecasts.<sup>13</sup> The real GDP forecasts of both institutions deviated more from outturn on average over the period analysed than on average over the previous four years and on average over the longer term (2005–2019). In particular, the forecasts of both institutions overestimated the actual economic downturn in 2020<sup>14</sup> and underestimated the strength of the recovery in 2021. The forecasts for 2022 and 2023 were largely overestimated in the face of the energy shock. Such deviation is to be expected over the four-year period analysed, given the magnitude and frequency of the shocks. The forecast deviations increase with the length of the forecast time horizon and are larger for the nominal change forecasts than for the real GDP change forecasts. The bias in the nominal GDP change forecasts has important implications for the forecasting of government revenue. It is also worth noting the significant forecast deviation from the first and last known outturn for 2022, when national accounts data were revised the most ever,<sup>15</sup> is also significant. In addition to forecasts of nominal macroeconomic aggregates in particular, high-quality statistical releases of national accounts data are a prerequisite for realistic fiscal projections.

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



Sources: SORS, EC, IMAD, FC calculations. Note: Spring forecasts are shown.

Figure 4.2: Nominal GDP growth



Source: IMAD, SORS, FC calculations. Note: Spring forecasts are shown.

The deviations of the government finance projections over the 2020–2023 period were also larger than the long-term average, which was not only due to uncertainties about the intervention measures. Also in the case of the general government balance projections, there are no major differences between the official domestic projections of the Ministry of Finance and the EC projections. In both cases, the deviations were larger on average over the past four years than in the previous four years (2016–2019) and over the long-term average. This is partly understandable, due to the uncertainty about the scope of the intervention measures at the time of the budget documents

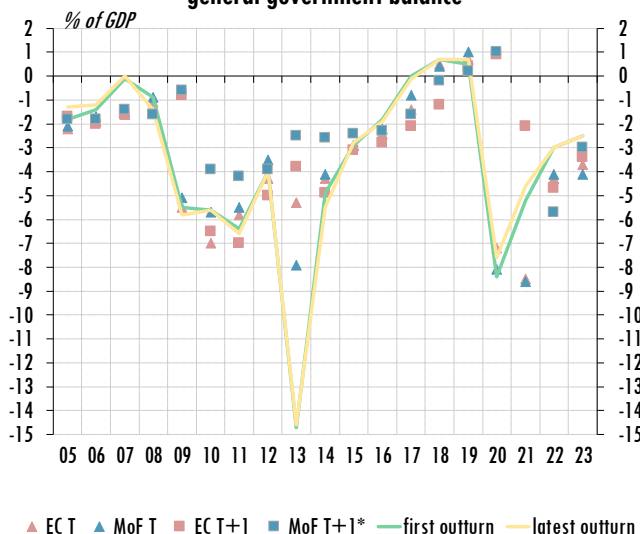
<sup>12</sup> Deviations from the last known SORS outturn, unless otherwise stated.

<sup>13</sup> IMAD prepares its forecast earlier than the EC, which may affect the results of the deviations. However, since 2018, IMAD's own forecast deviations comparisons have used a methodology that should exclude the timing of publication from the forecast comparisons. For more, see IMAD (2024), p. 45.

<sup>14</sup> The deviations were only larger after the onset of the economic and financial crisis in 2009.

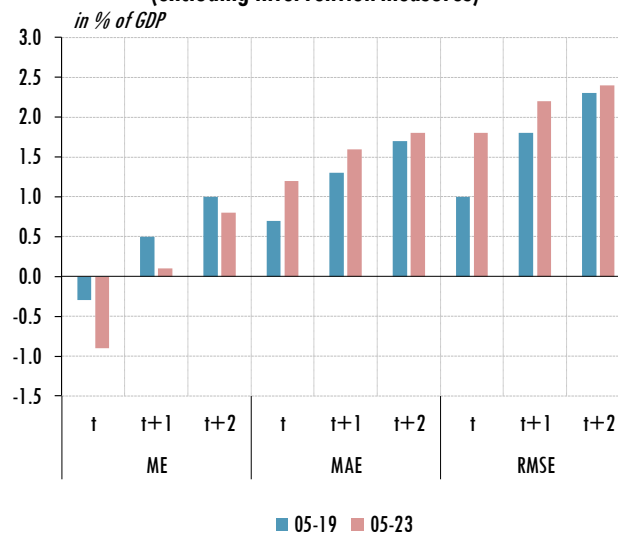
<sup>15</sup> For more, see Box 1.1 in Fiscal Council (2023).

**Figure 4.3: Forecasts and outturn of general government balance**



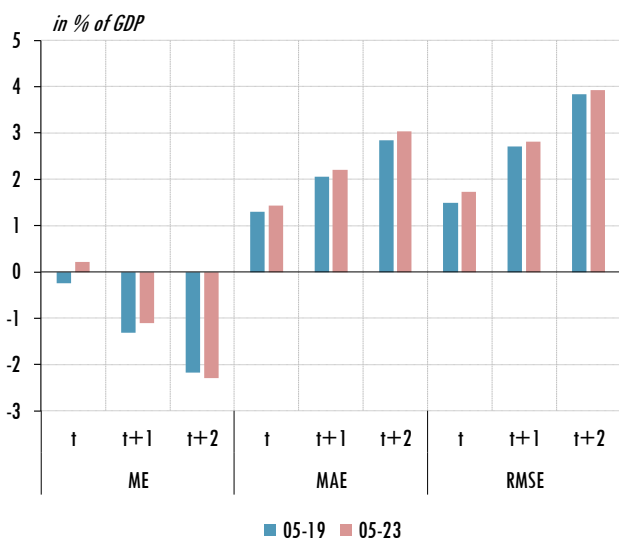
Sources: SORS, EC, MoF, FC calculations. \*Note: SP20 did not include forecast for 2021. Spring forecasts are shown.

**Figure 4.4: General government balance (excluding intervention measures)**



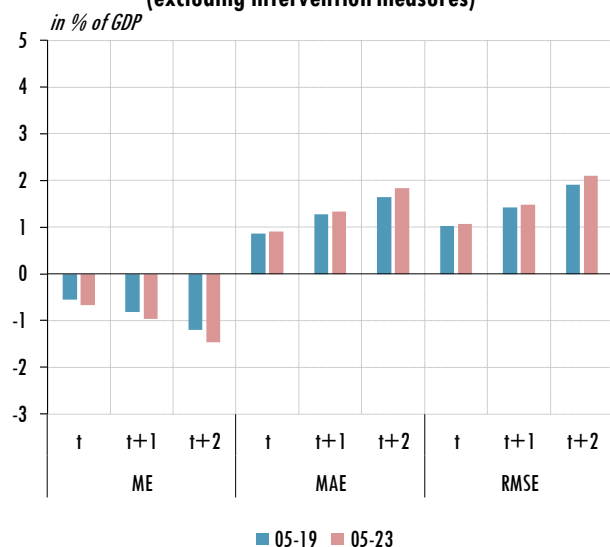
Source: MoF, SORS, FC calculations. Note: Spring forecasts are shown.

**Figure 4.5: General government expenditure (excluding intervention measures)**



Source: MoF, SORS, FC calculations. Note: Spring forecasts are shown.

**Figure 4.6: General government revenue (excluding intervention measures)**



Source: MoF, SORS, FC calculations. Note: Spring forecasts are shown.

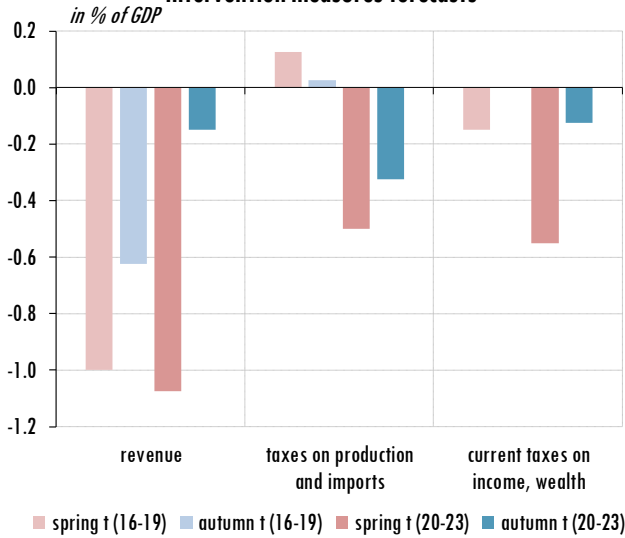
adoption. However, an important reason for the larger deviations in the government finance projections in the 2020–2023 period is the less realistic projection of "core" government revenue and expenditure, which excludes the impact of the intervention measures. Comparing the deviations of the current year projections for 2020–2023 with those for 2016–2019, it is clear that, on average over the last four years, the deviations of the projections of the "core" aggregates (excluding the intervention measures) increased and became more systematic over the last four years. This is particularly the case for the "core" expenditure forecasts. The deviation of the "core" expenditure forecast<sup>16</sup> was on average at least twice as large for the 2020–2023 period as for the average of the previous four years (see Figure 4.10). The deviations of the forecasts were the largest and also

<sup>16</sup> Measured by root mean squared error (RMSE). Instead of absolute values, this indicator takes into account the square forecast error. Not all forecast errors are equivalent in the calculation of the average, as in comparison to the mean absolute error indicator (MAE), the more significant forecast deviations have more weight. Because of this characteristic, this indicator is usually the one most commonly used in forecast performance analyses.

increased the most compared to the 2016–2019 period for the investment forecast. The deviations in the forecasts for intermediate consumption and compensation of employees also increased significantly.

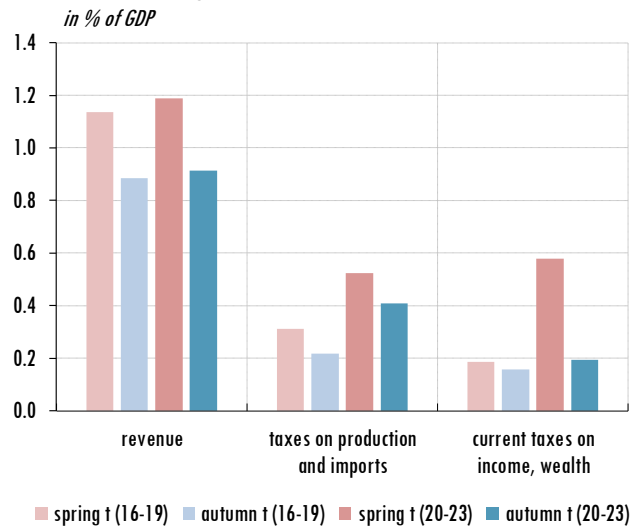
**While on average the deviations in the 2020–2023 projections indicate a less negative balance than projected, the size of the deviations suggests a lack of realism in the budget documents.** The deviations in the forecast of the "core" current year balance, as measured by the average error,<sup>17</sup> imply a less negative actual balance than forecast on average for 2020–2023. The underestimation of the balance was also larger on average in the 2020–2023 forecasts than in the 2016–2019 forecasts, as a result of both underestimated revenue and overestimated expenditure on average.

**Figure 4.7: Mean error (ME) of the revenue excluding intervention measures forecasts**



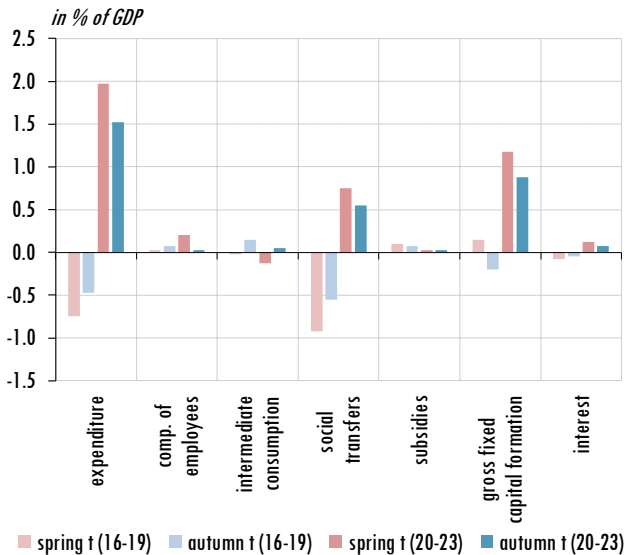
Source: MoF, SORS, FC calculations.

**Figure 4.8: Root mean squared error (RMSE) of the revenue excluding intervention measures forecasts**



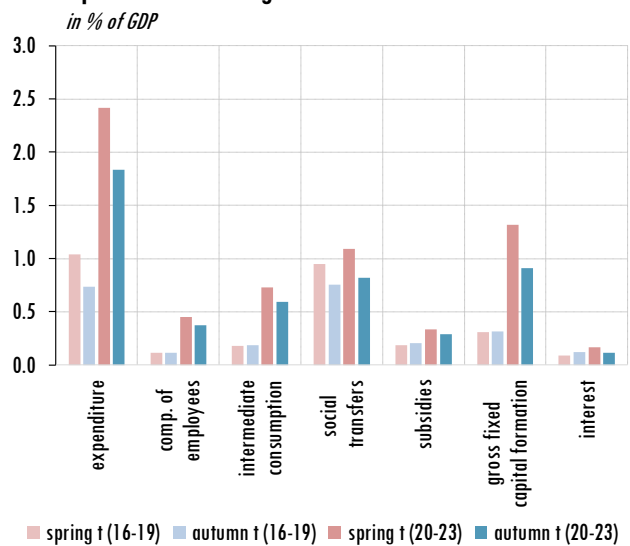
Source: MoF, SORS, FC calculations.

**Figure 4.9: Mean error (ME) of the expenditure excluding intervention measures forecasts**



Source: MoF, SORS, FC calculations.

**Figure 4.10: Root mean squared error (RMSE) of the expenditure excluding intervention measures forecasts**



Source: MoF, SORS, FC calculations.

<sup>17</sup> The mean error (ME) measures the bias of the forecast deviations over a given period. The bias of forecast errors indicates whether forecasts are systematically under- or over-estimated during the observed period. The main drawback of the mean error indicator is that positive and negative forecast deviations can cancel each other, which allows this indicator to show low values even in the case of high forecast deviations of different directions.

While revenue forecasts for the current year were also underestimated on average in 2016–2019, expenditure forecasts in the 2020–2023 projections were on average overestimated, unlike in the 2016–2019 projections. This reflects an apparent reversal in the approach to forecasting, which may also be a result of the exceptional circumstances and the associated reduced scrutiny of budget documents. The overestimation of the current year expenditure forecast averaged between 1.5 and 2.0 percentage points of GDP in the 2020–2023 forecasts, mainly stemming from the overestimation of the investment (around 1.0 percentage points of GDP) and social compensation (around 0.5 percentage points of GDP) forecasts.

**The lack of realistic fiscal planning beyond the direct impact of intervention measures poses a systemic risk of inefficient spending and constitutes an obstacle to meeting the requirements of reformed economic governance at the EU level.** The Fiscal Council has warned of unrealistic planning, especially of "core" expenditure, in every assessment of budget documents since the beginning of the 2020 epidemic.<sup>18</sup> This analysis confirms the validity of such warnings, as in the 2020–2023 period the Government's fiscal projections for the coming year were generally based on an overestimation of the actual outturn of "core" public spending for the current year. As a consequence, 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 of the preparation of budget documents. This opened the potential room for higher than justified public spending, taking into account the measures in force at the time the budget documents were adopted. The risk to the medium-term sustainability of public finances posed by such a planning approach was that this space could be filled by discretionary measures, and to a certain extent this was the case. However, the overestimation of investment spending points to systemic weaknesses in their planning and implementation. Systemic weaknesses in the public investment planning and execution system were also highlighted by the IMF in its Public Investment Management Assessment (PIMA) analysis, which is not publicly available.<sup>19</sup> The increase in the deviations of public finance forecasts over the past four years also suggests that such an approach to forecasting could pose a significant challenge in the context of the reformed EU economic governance. A central element of it will be a four- or seven-year fiscal trajectory which cannot be changed. The estimate of the starting position of public finances, which will need to be based on realistic projections of public finances, will play an important role in setting the binding path of net expenditure in this plan.

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<sup>18</sup> The Fiscal Council's estimates are available at: <https://www.fs-rs.si/publications/assessments-of-compliance-with-fiscal-rules/>

<sup>19</sup> See IMF (2024).

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## Annex 1: An overview of IMAD/MoF forecasts 2019-2023

	SF19	AF19	SF20	AF20	SF21	AF21	SF22	AF22	SF23	AF23	first outturn	latest outturn
<b>GDP, real growth in %</b>												
2019	3.4	2.8									2.4	3.5
2020	3.1	3.0	-8.1	-6.7							-5.5	-4.2
2021			3.5	5.1	4.6	6.1					8.1	8.2
2022					4.4	4.7	4.2	5.0			5.4	2.5
2023							3.0	1.4	1.8	1.6	1.6	1.6
	SF19	AF19	SF20	AF20	SF21	AF21	SF22	AF22	SF23	AF23	first outturn	latest outturn
<b>GDP, nominal level</b>												
2019	48,797	48,242									48,007	48,582
2020	51,578	50,910	45,586	45,769							46,297	47,045
2021			47,843	48,818	48,453	50,364					52,020	52,279
2022					51,345	53,352	56,167	57,921			58,989	57,038
2023							59,768	61,951	64,723	62,970	63,090	63,090
	SF19	AF19	SF20	AF20	SF21	AF21	SF22	AF22	SF23	AF23	first outturn	latest outturn
<b>General government balance, in % of GDP</b>												
2019	1.0	0.8									0.5	0.7
2020	1.0	0.9	-8.1	-8.6							-8.4	-7.6
2021			...	-6.6	-8.6	-7.5					-5.2	-4.6
2022					-5.7	-5.4	-4.1	-3.8			-3.9	-3.0
2023							-3.0	-5.0	-4.1	-4.5	-2.5	-2.5
	SF19	AF19	SF20	AF20	SF21	AF21	SF22	AF22	SF23	AF23	first outturn	latest outturn
<b>General government revenue, in % of GDP</b>												
2019	43.2	44.5									44.2	44.1
2020	42.6	43.9	43.7	45.2							43.6	43.7
2021			...	44.4	43.5	43.7					43.9	44.9
2022					43.1	43.5	43.2	43.5			42.7	44.2
2023							42.8	43.5	42.4	44.0	44.2	44.2
	SF19	AF19	SF20	AF20	SF21	AF21	SF22	AF22	SF23	AF23	first outturn	latest outturn
<b>General government expenditure, in % of GDP</b>												
2019	42.2	43.7									43.7	43.4
2020	41.6	43.0	51.8	53.9							52.0	51.4
2021			...	51.0	52.2	51.2					49.1	49.5
2022					48.8	48.9	47.2	47.3			46.6	47.2
2023							45.7	48.5	46.5	48.4	46.7	46.7
	SF19	AF19	SF20	AF20	SF21	AF21	SF22	AF22	SF23	AF23	first outturn	latest outturn
<b>General government gross debt, in % of GDP</b>												
2019	65.4	66.3									66.1	65.4
2020	61.3	62.1	82.4	82.4							80.8	79.6
2021			...	80.9	80.4	78.5					74.7	74.4
2022					79.6	77.5	73.3	71.5			69.9	72.5
2023							71.5	71.0	68.9	69.9	69.2	69.2

Source: IMAD, MoF, SORS, FC calculations.

**Annex 2: Statistical forecast measures - first outturn 2005-2023**

		ME			MAE			RMSE		
		t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
GDP, real growth in %	IMAD	-0.33	0.79	1.18	1.39	2.73	3.09	1.72	3.98	4.34
	EC	-0.34	0.95		1.34	2.48		1.70	3.78	
	naïve forecast	-0.29	-0.24	0.20	3.64	4.14	4.18	5.36	5.47	5.12
	based on average	1.19	1.32	1.54	3.01	3.13	3.25	4.33	4.39	4.52
GDP, nominal growth in %	IMAD	-0.51	0.37	1.30	1.86	3.89	4.14	2.49	5.10	5.26
	EC	-0.48	0.76		1.82	3.42		2.40	4.76	
	naïve forecast	-0.41	-0.55	-0.13	4.63	5.55	5.40	6.94	7.34	6.78
	based on average	4.32	4.00	4.30	5.62	5.73	6.06	6.96	7.15	7.54
general government balance, % of GDP	MoF	0.03	1.36	2.19	1.05	2.34	2.89	1.88	4.00	4.36
	EC	-0.02	0.78		1.28	2.17		2.42	3.66	
	naïve forecast	0.05	0.08	0.42	3.18	3.87	4.38	4.57	5.00	5.40
	based on average	0.36	0.39	0.54	2.89	2.96	3.04	3.78	3.83	3.95
general government expenditure, % of GDP	MoF	-0.25	-1.85	-3.26	1.25	3.08	4.19	1.88	4.64	5.75
	EC	-0.29	-1.54		1.52	2.85		2.52	4.27	
	naïve forecast	0.12	0.07	-0.15	3.79	4.61	5.05	4.82	5.48	6.12
	based on average	-0.53	-0.50	-0.62	3.46	3.59	3.72	4.30	4.44	4.59
general government revenue, % of GDP	MoF	-0.23	-0.49	-1.08	0.68	1.12	1.67	0.91	1.34	1.89
	EC	-0.29	-0.74		0.82	1.19		1.02	1.52	
	naïve forecast	0.18	0.16	0.28	0.84	1.11	1.33	1.06	1.37	1.57
	based on average	-0.16	-0.09	-0.06	0.97	0.94	1.08	1.18	1.21	1.30

Source: IMAD, MoF, EC, SORS, FC 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.