## HIGHLIGHTS

## **Highlight 1: Major GDP Revision**

Danko Brčerević<sup>1</sup>

At the beginning of October 2024, the Statistical Office of the Republic of Serbia (SORS) published the results of the GDP revision for Serbia. This is a regular fiveyear benchmark revision of GDP calculations and all domains of the national accounts system. Conducting GDP revisions every five years is standard practice in EU countries, and Serbia is no exception. However, Serbia is unique in the magnitude of changes to GDP and its components. In each of the previous three major revisions (2014, 2018/2019, and now in 2024), all data on Serbia's nominal GDP were significantly revised upwards-on average by 5 to 7% per revision. Consequently, the new official GDP figure for 2013 (after three revisions) was increased by as much as 18.6% compared to the figures initially published by the SORS. Specifically, according to the latest data, Serbia's GDP in 2013 is about 38 billion euros, while the official figure at the time was 32 billion euros. Poor data have enormous negative implications for economic policy. If the government and foreign investors had known that Serbia's public debt-to-GDP ratio in 2013 was 55.1% rather than the then-current figure of 65.4%, many things would have been different—the credibility of Serbia with investors would have been higher, the country's borrowing interest rates lower, and economic policies different.

Returning to the current 2024 GDP revision, the base or benchmark year for which a detailed revision was

ard hot ase in hd he he las

conducted was 2022. From this year, adjustments were made to connect data backward (to 1995) and forward into future years. Perhaps the most significant, but not the only one, change due to this revision was the increase in absolute GDP in 2022 by 5.1% (which translated to similar percentages in other years). Table O1-1 shows the old and revised GDP data for Serbia in dinars and euros from 2019 to 2023. It also displays changes in the public debt-to-GDP ratio. Public debt is one of the most important macroeconomic aggregates expressed as a share of GDP, and this example illustrates how the latest GDP revision impacted related aggregates.

Regarding real GDP growth rates, they were slightly reduced throughout the 1995–2023 period. The average annual real GDP growth from 1996 to 2023 is now 3.2%, compared to 3.3% before the revision. Although there were no significant changes in overall real GDP growth during this period, it is noteworthy that there were substantial changes in the dynamics of GDP growth in certain longer sub-periods. For instance, in the 2001–2016 period, the real GDP growth rate was systematically revised downward. The cumulative GDP growth in that period now stands at 59.7%, compared to 70.7% before the revision. Conversely, economic growth from 2016 to 2023 was systematically revised upward, with cumulative real GDP growth now at 27.9%, compared to 24.9% before the revision.

A key change brought by the major revision on the expenditure side of GDP was the introduction of the accrual principle in calculating government final consumption, replacing the previous cash principle. Additionally, the perpetual inventory method (PIM) was implemented for calculating fixed capital

		2019	2020	2021	2022	2023
Nominal GDP (bn RSD)	Old data	5,422	5,504	6,272	7,098	8,150
	Revised data	5,669	5,764	6,576	7,459	8,818
	Difference	247	260	304	361	667
Nominal GDP (mln EUR)	Old data	46,005	46,815	53,345	60,427	69,513
	Revised data	48,105	49,024	55,931	63,501	75,204
	Difference	2,099	2,209	2,586	3,075	5,691
Public debt (% GDP)	Old data	52.8	57.8	57.1	55.6	52.3
	Revised data	50.5	55.2	54.5	52.9	48.4
	Difference	-2.3	-2.6	-2.6	-2.7	-4.0
ource: QM based on SORS and Ministry of Fin	ance data					

Table O1-1. Serbia: Changes in GDP and the public debt-to-GDP ratio following the 2024 major revision, 2019–2023

1 Fiscal Council

	Old data	Revised data	Difference		Contribution to GDP change	
	(bn RSD)	(bn RSD)	bn RSD	%	(p.p.)	
GDP	7097.6	7458.8	361.1	5.1	5.1	
Private consumption	4845.8	4899.9	54.1	1.1	0.8	
Government consumption	1148.7	1369.1	220.4	19.2	3.1	
Investments	1714.5	1783.8	69.4	4.0	1.0	
Exports	4531.2	4531.2	0.0	0.0	0.0	
Imports	5309.8	5309.8	0.0	0.0	0.0	

## Table O1-2. Serbia: Revisions of GDP expenditure components, 2022

consumption, and investment estimates (particularly concerning housing and agricultural investments) were revised using data from the new Population Census and Agricultural Census. This change also led to an increase in imputed rent (visible in private consumption). Other methodological changes on the GDP expenditure side were less significant.

Table O1-2 shows the changes in GDP by the expenditure approach for 2022 (the base, benchmark year of the revision). The changes made in 2022 were then approximately proportionally carried over to the entire data series. The table shows that the largest change occurred in government consumption, which was revised upward by nearly 20%, representing a significant difference. When looking at the total GDP increase of 5.1%, government consumption accounts for 3.1 percentage points of this increase.<sup>2</sup>

Major changes were also made on the production side of GDP. These significantly altered the structure of production-based GDP and the growth rates of individual economic sectors. The SORS stated in its announcement that the most significant change was that gross value added (GVA) is now calculated at the level of establishments or local units of similar activity, rather than at the enterprise level. This means that a company's GVA is divided into its primary and secondary activities, allowing for greater calculation accuracy. However, this change should not impact the overall GDP size but rather its better classification by sectors. Other changes related to improving calculations for entrepreneurial entities, along with adjustments made during the reconciliation of production and expenditure GDP approaches during the compilation of supply and use tables.

Table O1-3 shows the change in the structure of GDP by the most significant sectors of the economy after the revision. It reveals that the largest increase occurred in the Information and Communication sector (mainly related to the telecommunications and IT industry). The estimated added value of this sector increased by as much as 1.4 billion euros (46%), raising its share in the economy from 6% to 8.3% in 2022. Conversely, the largest decrease occurred in the sector of Electricity, Gas, Steam, and Air Conditioning Supply (dominated by EPS's electricity production). The revision reduced the added value of this sector by more than 700 million euros (42.8%). This is one of the more unusual changes that the SORS should clarify. Namely, the separation into primary and secondary activities should not significantly impact this sector, given that coal production in Kolubara had already been statistically separated from the power industry and classified under mining well before the latest revision. Therefore, it would be helpful to provide a clearer explanation of the exact basis for such a significant reduction in this sector, as it is unlikely to be solely due to the division of secondary and primary activities.<sup>3</sup>

Considering all the above, it is clear that the 2024 major revision fundamentally changed the statistical representation of the domestic economy and raised numerous questions that deserve detailed and concrete

<sup>2</sup> Almost simultaneously with the GDP revision, the Statistical Office of the Republic of Serbia (SORS) published, for the first time, fiscal statistics for the period from 1995 to 2023. Unlike Serbia, where fiscal data has so far been exclusively published by the Ministry of Finance, the practice in EU countries is for statistical offices to manage fiscal statistics. From this perspective, the progress made by the SORS is commendable. However, the problem lies in the fact that the published data are incorrect. The estimated share of public revenues and public expenditures in GDP is excessively high (around 65%), and the long-term fiscal deficit does not correspond even remotely to the increase in public debt (it is about two-thirds lower), which is also implausible. The SORS will need to correct these data in the future, but a potentially far greater issue could arise if this data was used for revising government consumption in GDP, and consequently the entire GDP.

<sup>3</sup> The most unusual change in the Electricity, Gas, Steam, and Air Conditioning Supply sector pertains to its growth rate in 2022. Before the revision, statistics estimated that this sector experienced a real decline of about 7% in 2022, consistent with the decline in EPS production. Now, however, the revision estimates a real growth rate of 5.2% for this sector in 2022, which appears unlikely.

		2019	2020	2021	2022	2023
Nominal GDP (bn RSD)	Old data	5,422	5,504	6,272	7,098	8,150
	Revised data	5,669	5,764	6,576	7,459	8,818
	Difference	247	260	304	361	667
Nominal GDP (mln EUR)	Old data	46,005	46,815	53,345	60,427	69,513
	Revised data	48,105	49,024	55,931	63,501	75,204
	Difference	2,099	2,209	2,586	3,075	5,691
Public debt (% GDP)	Old data	52.8	57.8	57.1	55.6	52.3
	Revised data	50.5	55.2	54.5	52.9	48.4
	Difference	-2.3	-2.6	-2.6	-2.7	-4.0
Source: QM based on SORS data						

## Table 01-3. Serbia: Revisions of economic production sectors, 2022

answers. Therefore, we believe it is necessary for the SORS to promptly create and publish a document explaining all the changes from the latest revision in detail. This is in the SORS's interest as the current lack of detailed information fosters various interpretations of the GDP revision and politically charged comments. Publishing such a document would be crucial to steering the discussion towards productive and quality professional debates, which could lead to further improvements in domestic statistics.

What has been demonstrated in this and previous major GDP revisions as an undeniable and significant problem

is that economic policymakers do not have access to sufficiently high-quality statistical data in real time. Such a situation is very detrimental to economic policy, as it can lead to very dangerous and costly mistakes. Therefore, one of the government's priorities should be to dedicate more attention and allocate significantly greater resources to developing the professional capacities of the Statistical Office of the Republic of Serbia (SORS) and increasing the number of qualified employees. We believe this is a fundamental prerequisite for obtaining timely data from this important institution that will not undergo significant changes later. **Highlights**