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Summary

The economic developments in Slovenia and the euro area in 2023 have been marked by the challenges associated with high inflation, a deterioration in export competitiveness, and uncertainty in the domestic and geopolitical environments. These factors drove a significant slowdown in foreign trade and the cooling of domestic demand, which according to our estimates will lead to GDP growth in Slovenia slowing to 1.3% in 2023 following the strong post-pandemic recovery. According to our latest projections, further growth of real disposable income of households and a recovery in foreign demand will stabilise economic growth at over 2% over the next three years (2024: 2.2%; 2025: 2.3%; 2026: 2.5%), but low growth in investment and the tight labour market will see it remain below its long-term potential. The bounded economic growth will be accompanied by inflation, which will over the projection horizon fall gradually and unevenly from 7.2% in 2023, owing to the changing impact of government regulation of energy prices. Despite the gradual slowdown and a narrowing of the gap to the euro area average, inflation in Slovenia will remain above the monetary policy target throughout the projection horizon (2024: 3.0%; 2025: 3.1%; 2026: 2.1%).

The current economic developments and the downturn in the short-term outlook are indicative of the waning of the supportive factors related to the post-pandemic recovery. This is confirmed by the decline in household consumption in the second and third quarters of 2023, which coincided with the cooling activity in services and retail activity. Similar developments have in 2023 also impacted economic activity in Slovenia's main trading partners. This, coupled with the deterioration in the price competitiveness of domestic exporters, has been reflected in a decline in new export orders and exports. The contribution to GDP growth made by net trade has nevertheless remained positive in 2023, on account of the larger decline in imports vis-à-vis exports, driven by weaker household demand and the run-down of inventories. The destocking process can be attributed to the utilisation of inventories accumulated in the past to meet existing business needs, more favourable supply-side factors, and gloomier macroeconomic outlook, reflected in a more cautious business planning by firms.

Economic growth will gradually strengthen over the course of 2024 and will stabilise above 2% over the medium-term. A major factor in this will be an increase in private consumption, which amid high employment and slowing inflation will be based on growth of real disposable income and an improvement in consumer confidence. Domestic demand will also be driven up by strengthened government consumption, which over the projection horizon will largely be defined by the reshaping of supplementary health insurance and the gradual introduction of a long-term care system. The medium-term projection is also based on the assumption of a gradual strengthening of foreign demand. As the effects of the post-pandemic reopening of the economy wane, growth in foreign trade will reflect rebalancing from services to goods trade, in line with pre-pandemic patterns, and additionally further improvements in supply-side factors. In contrast to final consumption and foreign trade, growth in investment during the projection horizon will remain significantly below the rate observed in 2023. Nevertheless, despite the impact of past rises in interest rates and the changeover to the EU's new multiannual financial framework, the level of investment expressed as a share of GDP is expected to remain high, owing in part to the anticipated economic reconstruction following the floods.

The persistent tightness of the labour market and the slowing economic growth will reduce employment growth in the projection horizon, while wage growth is expected to remain high. Employment growth will stand at 1.2% in 2023, before stabilising at 0.5% over the period of 2024 to 2026. Amid further growth in employment, the unemployment rate will remain at a record low of close to 3.5%. The ongoing tightness of the labour market and adjustment to past inflation will see nominal wage growth remain high over the projection horizon, and real wage growth will remain positive. According to the projections, nominal wage growth will reach 11.5% in 2023, before gradually slowing over the remainder of the projection horizon, but still averaging more than 5%.

The slowdown in inflation in Slovenia over the projection horizon is expected to be gradual. Average real wage growth between 2024 and 2026 will outpace average productivity growth, which will prevent faster normalization of inflation, in particular on the account of still elevated services price inflation. The expected inflation developments will also be strongly shaped by the changing impact of government regulation of energy prices. While government measures will reduce headline inflation in 2024, their reversal will again result in positive contribution of energy prices in 2025 and a tick up in the headline inflation. Conversely, the rapid fall in prices of other goods is expected to more strongly support the slowdown in headline inflation over the projection horizon on the back of monetary policy measures and further improvements in global production chains. The inflation in Slovenia is nevertheless projected to remain above its 2% target level and above the euro area average over the entire projection horizon, averaging at 7.2% in 2023, 3.0% in 2024, 3.1% in 2025 and 2.1% in 2026.

Macroeconomic projections are surrounded by various risks, which remain directed slightly on the upside for inflation and are broadly balanced from the economic activity perspective. As the global supply shocks wane, inflation developments will increasingly reflect domestic factors. These relate primarily to wage growth, where Slovenia has one of the highest rates in the euro area, and which amid weaker-than-expected growth in productivity could lead to a stronger pass-through into final consumer prices. Additionally, this could increase cost pressures on production and imply a stronger loss in the export competitiveness of the economy. From a demand perspective, additional risks of higher inflation and at the same time also higher economic growth come from the still-substantial level of household savings, which amid any improvement in confidence could be released through an increase in consumption and in housing investment.

Table 1: Macroeconomic projections for Slovenia, 2023-2026

								Projections							
	2017	2018	2019	2020	2021	2022		**2023**		**2024**		**2025**		**2026**	
							Δ	**Dec.**	Δ	**Dec.**	Δ	**Dec.**	Δ	**Dec.**	Δ
Prices	*annual growth in %*														
HICP	1.6	1.9	1.7	-0.3	2.0	9.3	*0.0*	**7.2**	*-0.3*	**3.0**	*-0.6*	**3.1**	*0.5*	**2.1**	...
HICP excluding energy and food	0.7	1.0	1.9	0.8	0.9	5.9	*0.0*	**6.6**	*-0.4*	**3.9**	*0.1*	**3.5**	*0.0*	**2.7**	...
HICP energy	4.7	6.0	0.8	-10.8	11.3	24.8	*0.0*	**2.3**	*1.6*	**-3.2**	*-3.0*	**0.7**	*4.0*	**-1.3**	...
HICP food	2.2	2.4	1.6	2.8	0.7	10.6	*0.0*	**11.8**	*-0.8*	**3.9**	*-1.0*	**3.6**	*0.0*	**2.2**	...
Economic activity (real)	*annual growth in %*														
GDP	4.8	4.5	3.5	-4.2	8.2	2.5	*-2.9*	**1.3**	*-0.7*	**2.2**	*0.0*	**2.3**	*0.1*	**2.5**	...
Private consumption	1.9	3.5	5.5	-6.5	10.3	3.6	*-5.3*	**0.5**	*-1.8*	**1.4**	*-0.1*	**2.1**	*0.4*	**1.6**	...
Government consumption	0.4	2.9	1.8	4.2	6.1	-0.5	*-1.4*	**1.5**	*0.6*	**7.2**	*4.6*	**2.9**	*0.8*	**4.3**	...
Gross fixed capital formation	10.2	10.2	5.0	-7.2	12.6	3.5	*-4.3*	**8.7**	*2.9*	**0.2**	*0.4*	**3.1**	*1.3*	**2.1**	...
Exports (goods and services)	11.1	6.2	4.5	-8.5	14.5	7.2	*0.7*	**-2.5**	*-3.9*	**1.8**	*-2.6*	**4.1**	*-0.3*	**4.0**	...
Imports (goods and services)	10.7	7.1	4.7	-9.1	17.8	9.0	*-0.8*	**-6.2**	*-6.8*	**3.8**	*0.2*	**4.4**	*0.2*	**4.0**	...
Contributions to real GDP growth	*in percentage points*														
Domestic demand (excluding inventories)	2.9	4.2	4.2	-4.2	8.9	2.5	*-3.9*	**2.3**	*-0.3*	**2.1**	*0.9*	**2.3**	*0.6*	**2.1**	...
Net exports	1.2	-0.2	0.2	-0.3	-1.2	-1.0	*1.1*	**3.0**	*2.3*	**-1.4**	*-2.3*	**0.0**	*-0.5*	**0.3**	...
Changes in inventories	0.7	0.4	-0.9	0.1	0.4	1.0	*-0.1*	**-4.0**	*-2.7*	**1.5**	*1.5*	**0.0**	*0.0*	**0.0**	...
Labour market	*annual growth in % (unless stated otherwise)*														
Survey unemployment rate (in %)	6.6	5.1	4.5	5.0	4.7	4.0	*0.0*	**3.7**	*-0.1*	**3.5**	*-0.2*	**3.5**	*-0.2*	**3.4**	...
Total employment	2.9	3.2	2.4	-0.7	1.3	2.9	*0.5*	**1.2**	*0.4*	**0.5**	*0.0*	**0.5**	*0.1*	**0.5**	...
Compensation per employee	3.0	3.9	5.0	3.4	8.1	5.0	*0.7*	**11.5**	*1.9*	**6.2**	*0.2*	**5.5**	*0.4*	**3.9**	...
...Productivity	1.9	1.2	1.1	-3.6	6.8	-0.4	*-3.3*	**0.1**	*-1.0*	**1.7**	*0.1*	**1.8**	*0.1*	**1.9**	...
...Unit labour costs (ULC)	1.2	2.7	3.9	7.2	1.1	5.4	*4.0*	**11.5**	*3.1*	**4.5**	*0.2*	**3.6**	*0.3*	**2.0**	...
Balance of payments	*annual growth in % (unless stated otherwise)*														
Current account: in bn EUR	2.7	2.7	2.8	3.4	1.7	-0.6	*-0.3*	**3.2**	*2.8*	**2.6**	*1.6*	**2.6**	*1.3*	**2.9**	...
in % GDP	6.2	5.9	5.9	7.2	3.3	-1.0	*-0.6*	**5.1**	*4.4*	**3.9**	*2.4*	**3.7**	*1.8*	**3.9**	...
Terms of trade*	-0.6	-0.1	0.5	0.7	-2.1	-3.1	*-0.1*	**2.9**	*2.6*	**0.4**	*0.3*	**0.0**	*-0.2*	**0.1**	...

Note: * Based on national accounts deflators. Δ: difference between current projection and projection given in the June 2023 issue of the Review of macroeconomic developments and projections.
Sources: Banka Slovenije projections, Eurostat, SORS.

1 Current Economic Developments and Assumptions

Domestic economic activity and inflation have moderated in 2023, partly in response to weaker global economic activity. A gradual normalisation of the situation in the international environment, and a continued fall in inflation and uncertainty over the projection horizon will drive a recovery in foreign demand, and with it international trade.

1.1 International situation and external assumptions

After remaining relatively robust in the first half of 2023, global economic activity moderated in the second half. Growth will remain below its long-term average over the remainder of the projection horizon.

Quarterly growth in global economic activity remained strong in the first quarter of 2023, encouraged by a rebound in demand following the opening of the Chinese economy and strong activity in services, but began showing the first signs of slowdown in the second quarter. According to the survey PMIs, economic growth has continued to slow in the second half of 2023 in manufacturing, where a slowdown has been evident for some time now, and in services. The main factors were the volatile growth in the Chinese economy, worsening financing conditions, geopolitical tensions, weak international trade, and low confidence on the part of consumers and businesses alike. With the exception of India, the fastest-growing economy of recent times, the available PMIs for the final quarter suggest a virtual stagnation of activity in all major economies, including the US, the UK and Japan.

The limiting factors from the end of 2023 will continue to curtail global economic growth in the future. By contrast, activity over the remainder of the projection horizon will be driven up by the persistent robustness of the labour market, which is being reflected in growth in employment and wages. According to the ECB projections, global GDP growth is projected at 3.3% in 2023, 3.1% in 2024, and 3.2% in 2025 and 2026, thereby remaining below its long-term average of 3.8% the entire time.

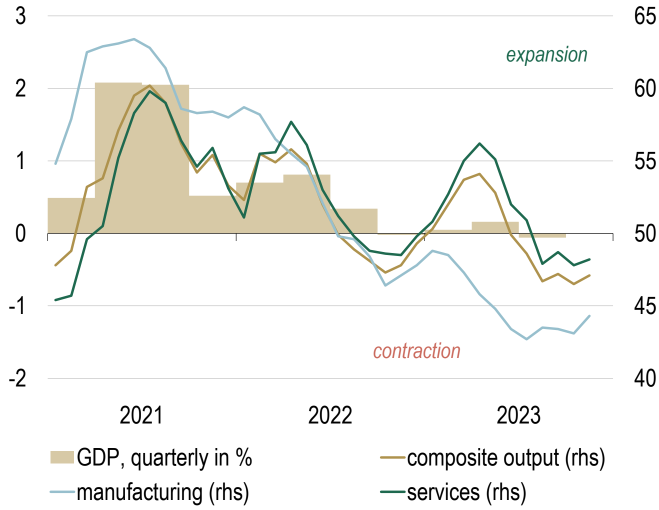
Economic activity in the euro area will remain weak until the end of 2023, before a recovery follows in 2024.

Euro area GDP has been stagnating in 2023, and in the third quarter was down 0.1% on the previous quarter, in line with the ECB's September projections (see Figure 1.1.1, left). Amid low activity in the largest economies, the contraction was also attributable to weaker economic activity in the smaller economies.[1] Year-on-year economic growth in the euro area has been slowing since the second quarter of 2023, and stabilised at 0.1% in the third quarter of 2023. The situation on the labour market remains robust for now amid record low unemployment, but the PMIs are now showing the first signs of a slowdown in hiring in manufacturing.

[1] The contraction in activity was larger than projected in September in Ireland, Finland and Austria in particular.

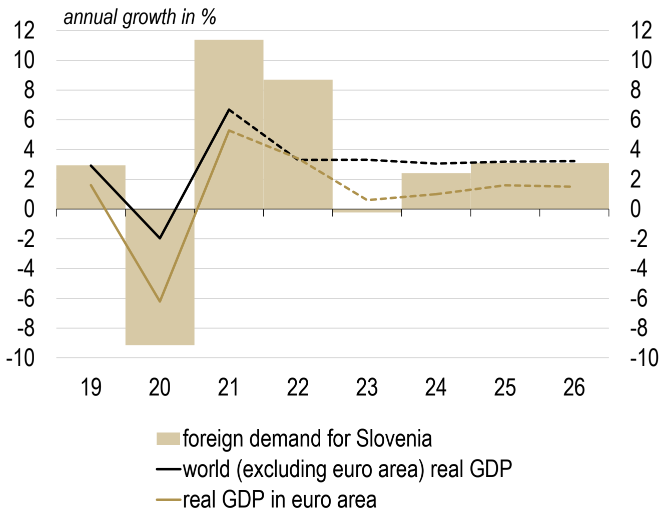
Figure 1.1.1: **Current economic situation in the international environment**

Purchasing Managers' Index (PMI) and GDP growth in euro area



Source: Bloomberg, Eurostat, Banka Slovenije calculations.
Latest data: PMI indicators – November 2023 (first estimates).

Projections of world (excluding euro area) real GDP growth, real GDP growth in euro area and foreign demand for Slovenia



Source: ECB.

Indications of a further slowdown in economic activity in the final quarter of 2023 come from the PMIs in manufacturing and services. The rate of contraction in economic activity, which did slow slightly in November, has remained relatively stable over the last four months; the composite PMI held between 46.7 and 47.2 points (see Figure 1.1.1, left).[2] Despite a long period of elevated inflation, demand in services remains relatively resilient, which is being reflected in the pass-through of wage rises into final prices, and the high rate of 4.0% in service price inflation. Headline inflation in the euro area slowed to 2.4% in November 2023, and core inflation to 3.6%. An even larger fall in headline inflation was prevented by the increases in the contributions by unprocessed food and energy prices, largely as a result of positive base effects. There remains great variation between different countries, while the gap between inflation in Slovenia and in the euro area overall narrowed from 3.7 percentage points to 2.1 percentage points.

The available short-term indicators of economic activity suggest that economic activity in the euro area will continue to stagnate in the final quarter of 2023, as a result of increased uncertainty, tightened financing conditions, persistently high inflation and a decline in competitiveness.

A renewed strengthening of economic activity will follow in the first half of 2024, as inflationary pressures ease and foreign demand recovers. Growth will also be gradually boosted by the waning effects of the monetary policy tightening and adverse lending conditions for banks. Under the influence of these factors, the Eurosystem experts are projecting economic growth in the euro area to reach 0.6% in 2023, and to average 1.3% between 2024 and 2026.

[2] The first estimate of the composite PMI is taken into account for November.

In line with the situation in the international environment, the foreign demand and energy markets assumptions are less favourable than in June.

In light of the cooling economic activity in Slovenia's major trading partners and the worsening geopolitical situation, stagnation in foreign demand for Slovenia is assumed for 2023[3] (see Figure 1.1.1, right). It is expected to strengthen again over the remainder of the projection horizon as the situation in the international environment gradually stabilises. Given the voluntary cuts in pumping by the leading countries of Opec+ (Saudi Arabia, Russia), and the geopolitical situation in the Middle East, the short-term expectations with regard to developments in oil prices are slightly higher than in June, despite the decline in global demand. Despite a gradual fall, oil prices will remain higher than in June over the remainder of the projection horizon.

Economic activity will also be shaped by exchange rate developments, and the slight increase in short-term interest rate expectations compared with June. The euro's sharp rise against the US dollar seen in the early part of 2023 slowed in the second half of the year, and the exchange rate is expected to stabilise over the projection horizon at a similar level to the June projections of approximately USD 1.10 to the euro (see Table 1.1.1[4]).

Table 1.1.1: **Assumptions for the international environment**

					Assumptions			
	2019	2020	2021	2022	**2023**	**2024**	**2025**	**2026**
World (excluding euro area) real GDP growth (in %)	2.9	-2.0	6.7	3.3	3.3	3.1	3.2	3.2
Real GDP growth in euro area (in %)	1.6	-6.2	5.3	3.4	0.6	0.8	1.5	1.5
Foreign demand for Slovenia (growth in %)	3.0	-9.1	11.4	8.7	-0.2	2.4	3.1	3.1
Oil price (in USD/barrel)	64.9	41.5	71.1	103.7	84.0	80.1	76.5	73.6
Oil price (in EUR/barrel)	57.9	36.3	60.1	98.4	77.7	73.9	70.6	67.9
Oil price (in USD/barrel, growth in %)	-8.7	-36.0	71.3	45.8	-19.0	-4.7	-4.4	-3.8
Exchange rate (EUR/USD)	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1
3-month Euribor (in %)	-0.4	-0.4	-0.5	0.3	3.4	3.6	2.8	2.7
Non-energy commodity prices (growth in %)	-6.4	3.4	42.1	6.6	-13.2	-2.3	2.4	1.7

Sources: ECB, Banka Slovenije calculations

1.2 Domestic economic environment

The slowdown in domestic economic activity in the third quarter of 2023 was driven by cooling domestic demand and foreign demand, but the situation is projected to improve again slightly in the final quarter.

Economic activity in the third quarter of 2023 was down 0.2% on the previous quarter (see Figure 1.2.1, left). This was primarily attributable to the further cooling of domestic demand and foreign demand, particularly private consumption. A sharper decline in

[3] Compared with global economic growth, the sharper decline in foreign demand for Slovenia is primarily attributable to less favourable trends in foreign trade with the main trading partners.

[4] The assumptions for the international environment are based on information available by the cut-off date of 30 November 2023. The assumptions with regard to foreign demand for Slovenia and the external technical assumptions of medium-term projections that serve as the basis for the Banka Slovenije projections were drawn up as part of the joint preparation of projections by Eurosystem experts. For more on the methodology used, see the latest release of projections online, which are also available in Slovene, on the ECB website.

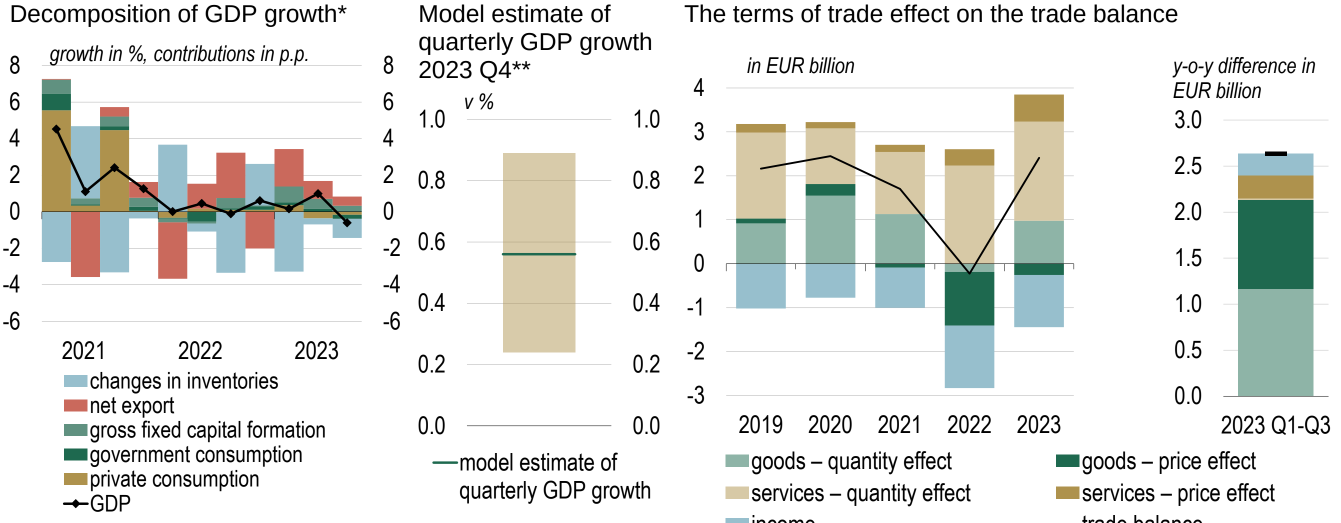
GDP was prevented mainly by government investment activity, supported by the utilisation of funds from the expiring EU financial framework, robust housing investment, and a positive contribution by foreign trade. This was attributable to the sharper year-on-year decline in imports (12.1%) relative to exports (9.2%).

The sectors that contributed most to the quarterly decline in value-added were segments of other service activities, wholesale and retail trade, accommodation and food service activities, transportation, and manufacturing. Manufacturing continues to see major variation between individual segments, but in 2023 the largest decline in output was recorded by energy-intensive low-technology segments. Construction by contrast continued to see strengthening activity.

The deterioration in the economic situation is expected to ease in the final quarter of 2023. The economic sentiment, which remains close to its lowest level since the end of the pandemic, improved slightly over the months leading up to November, primarily as a result of a rise in manufacturing confidence. According to real sales revenue, the situation in retail also improved slightly, the figure having increased in October for the second consecutive month. The situation in both sectors nevertheless remains challenging. Manufacturing is continuing to see a decline in industrial production, which remains down in year-on-year terms (by 6.1%), while real retail turnover also remains down in year-on-year terms (by 15.6%, or by 0.1% excluding motor fuels). The year-on-year dynamics in high-frequency consumption indicators improved slightly in October: real year-on-year growth in invoices registered with tax authorities stood at 1.4%, while real growth in card payments and ATM withdrawals also strengthened slightly to 4.2%.

Confidence remains high in services and construction. Further evidence of the favourable level of activity in both sectors comes from the figures for real turnover and the amount of construction put in place, which were up in year-on-year terms between January and September of 2023. In construction the increase amounted to almost a quar-

Figure 1.2.1: **Breakdown of domestic economic growth and current account balance**



Note: * Due to rounding, sums of components may differ from aggregate values.
** The green line indicates the average model estimate of quarterly growth and the light box indicates the range between the 25th and 75th percentile of all estimates.
Source: SORS, Banka Slovenije calculations.

Note: Presented is the sum of the first three quarters of each year. The terms of trade effect is calculated as the difference between nominal and real trade, based on balance of payments data and price indices from national accounts.
Source: SORS, Banka Slovenije, Banka Slovenije calculations.

ter, and construction activity is expected to gain further support from repairs of infrastructure damaged in the August floods. The relatively limited set of high-frequency indicators presented suggest that economic activity in the final quarter of 2023 will recover again: quarterly GDP growth is projected at 0.6% according to the nowcast.

Despite the loss of competitiveness on export markets, 2023 saw a high current account surplus as a result of an improvement in the terms of trade and a decline in imports.

The current account surplus over the first three quarters of 2023 exceeded EUR 2.4 billion, almost as much as in the same period of 2020, when it peaked (see Figure 1.2.1, right). Amid low domestic consumption, there was again a merchandise surplus (in the amount of EUR 725 million), with almost half of the year-on-year change attributable to an improvement in the terms of trade, as import prices grew more slowly or fell faster than export prices in response to the situation on energy and commodity markets.[5] Amid weak intermediate consumption, nominal merchandise imports were down 8.3% in year-on-year terms, while exports were down 1.9%, as a result of the deterioration in the international situation and in external competitiveness (see Box 2.1.3). The two cumulative declines were among the largest since measurement began in 1994. Approximately EUR 0.5 billion of the increase was attributable to an increase in the services trade surplus, primarily as a result of a decline in imports of transport services and a rise in exports of construction services, and a decline in the deficit in factor income.

The labour market remains tight in the second half of 2023, although the high wage growth seen in the first half of the year has slowed slightly.

Employment hit a record high of 1.1 million in the third quarter of 2023, but year-on-year employment growth nevertheless slowed to 1.0% (see Figure 1.2.2, left). The slowdown in employment growth is most notable in manufacturing, while growth in services remains relatively robust. Registered unemployment stood at 47,232 in October, the lowest figure to date according to seasonally adjusted figures. The low unemployment figure is reflected in the registered unemployment rate, which reached a record low of 4.7% in September (see Figure 1.2.2, left).[6] The tightness of the labour market is also evidenced in high annual wage growth as measured by compensation per employee, which declined in the third quarter, but at 10.7% remained at a historical high (see Figure 1.2.2, right). With inflation falling consistently, real growth in compensation per employee has also strengthened sharply in 2023: it averaged 3.9% over the first three quarters of the year, maintaining a significant gap with productivity growth (-0.2%).

[5] The evolution of the terms of merchandise trade between 2021 and 2023 is described in Box 5.1 of the October 2023 issue of the Review of macroeconomic developments.

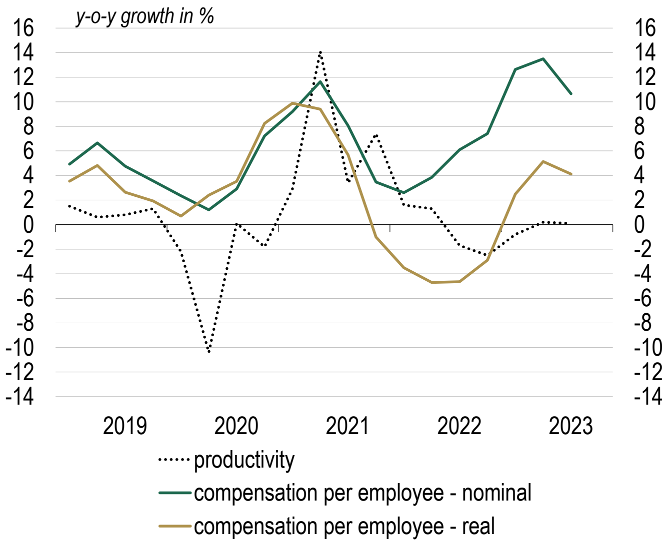
[6] The surveyed unemployment rate rose from 3.6% to 3.9% in the third quarter, but this could be attributed in part to statistical noise, which is highly evident in a relatively volatile series such as surveyed unemployment.

Figure 1.2.2: **Selected labour market indicators**

Employment and unemployed

Source: SORS – national accounts, ESS, Banka Slovenije calculations and seasonal adjustment. Latest data: 2023 Q3.

Compensation per employee



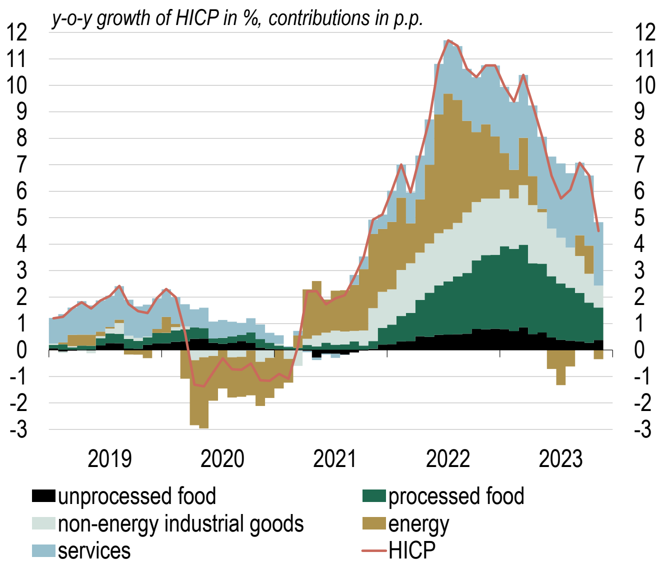
Source: SORS, Banka Slovenije calculations. Latest data: 2023 Q3.

Towards the end of 2023, headline inflation reached its lowest level of the last two years at 4.5%.

Year-on-year inflation as measured by the HICP slowed to 4.5% in November, from 6.6% in October (see Figure 1.2.3, left). With the exception of unprocessed food, the slowdown was driven by slower growth in all price components, most notably energy prices, whose contribution was down 1.4 percentage points on October, as energy price

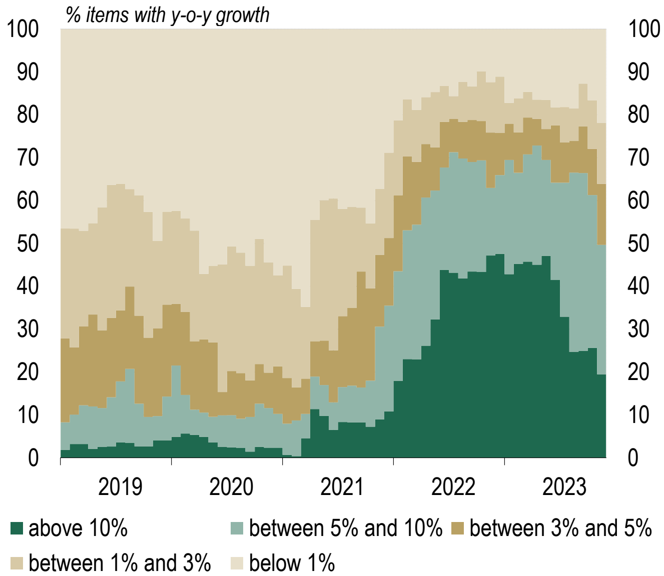
Figure 1.2.3: **Domestic price developments and distribution of inflation across categories of goods**

Inflation in Slovenia



Source: ECB, Eurostat, Banka Slovenije calculations. Latest data: November 2023.

Distribution of price changes in the consumer basket



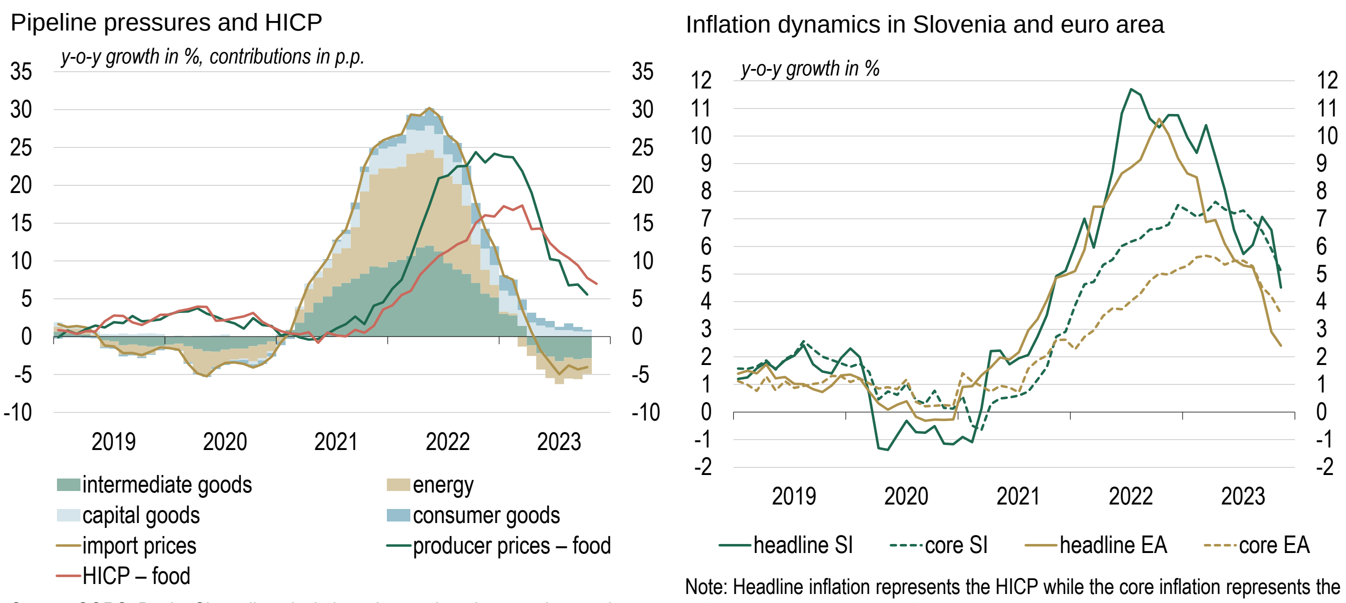
Source: SORS, Banka Slovenije calculations. Latest data: November 2023.

inflation slowed from 8.0% in October to -2.2% in November. The majority of the slowdown was attributable to month-on-month falls in prices of refined petroleum products and, in particular, electricity prices, which were down 18.5% as a result of exemption from environmental tax on renewables.[7] According to our estimates, year-on-year headline inflation in November would have been 0.6 percentage points higher without the government measure on electricity prices, and a further 0.2 percentage points higher if prices of refined petroleum products would not have decreased. Prices were down 0.8% on the previous month, while the share of goods in the consumer basket recording year-on-year inflation of more than 10% has also declined significantly. From almost a half in May, it had declined to less than a fifth by November (see Figure 1.2.3, right).

Food inflation remains high, but slowed slightly from 7.8% in October to 7.0% in November. As price pressures in supply chains are easing, i.e. lower growth in import prices and domestic producer prices (see Figure 1.2.4, left), a faster fall in food inflation was prevented by unusually high monthly growth rates of unprocessed food prices.[8] Its year-on-year growth rate thus picked up pace for the first time since May 2023 (to 8.6%), while the growth in prices of processed food continue its downward trend slowing to 6.7%.

Inflation excluding energy and food slowed to 5.1% in November (see Figure 1.2.4, right). It is falling at a much slower pace than headline inflation, and its persistence is based primarily on services prices. They were up 7.1% in annual terms in November (compared with 7.9% in October) and thus reflecting an important role of wage growth, with Slovenia recording one of the highest rates in the euro area in the second and third

Figure 1.2.4: **Price pressures and comparison of inflation with the euro area**



Source: SORS, Banka Slovenije calculations. Latest data: import prices and producer prices – October 2023, HICP – November 2023.

Note: Headline inflation represents the HICP while the core inflation represents the HICP excluding energy and food.
Source: Eurostat, Banka Slovenije calculations. Latest data: November 2023.

[7] The government passed a temporary resolution based on which households will be exempted from paying the levy to support high-efficiency CHP and renewables generation between 1 November 2023 and 31 December 2024. For more information, see the Government Energy Portal.

[8] According to our calculations, headline inflation would have stood at 6.8% in November, had monthly growth in prices of unprocessed food been in line with its long-term average (2001–2019). The rise in growth in prices of unprocessed food was primarily attributable to a year-on-year rise in prices of fresh fruit and vegetables.

quarter of 2023.[9] From both cost perspective and demand perspective, high wage growth is the main factor in the service price inflation that could further widen the gap between domestic and euro area core inflation. The gap has been exceeding 1.5 percentage points since the beginning of 2022, thereby increasing the risk of a deterioration in the external competitiveness of the domestic economy.[10] Conversely core inflation is being driven down by the ongoing slowdown in growth in prices of non-energy industrial goods, which slowed to 2.8% in November, 0.9 percentage points less than in October. Amid the easing price pressures in supply chains as well as ongoing cooling of demand, this kind of trend is indicates improved conditions on the supply side of the domestic and global economies.

The general government deficit widened over the first ten months of 2023 in year-on-year terms amid moderate economic growth.

The consolidated general government deficit amounted to EUR 848 million over the first ten months of 2023, EUR 462 million wider in year-on-year terms. General government revenues over this period were up 5.6%. Growth in tax revenues was slightly higher, and was boosted in October by a large increase in VAT revenues amid the ongoing solid growth in social security contributions. General government expenditure was up 7.9% in year-on-year terms over the first ten months of the 2023, and by more than a tenth from August on. The highest growth was recorded by subsidies, driven by aid for the energy crisis, wages, and investment. Expenditure is increasingly being shaped by payments in connection with the floods, which had amounted to approximately EUR 435 million by 26 November.

2 Projections

The slowdown in GDP growth in 2023 will be over the projection horizon followed by a renewed strengthening based on the recovery in foreign demand, growth in real disposable household income, and increased government consumption. Meanwhile strengthening labour costs are expected to provide a headwind to faster normalization of inflation.

2.1 Economic activity

The slowdown in economic growth in 2023 will be followed by a gradual recovery based on strengthening growth of export activity, private consumption and government consumption.

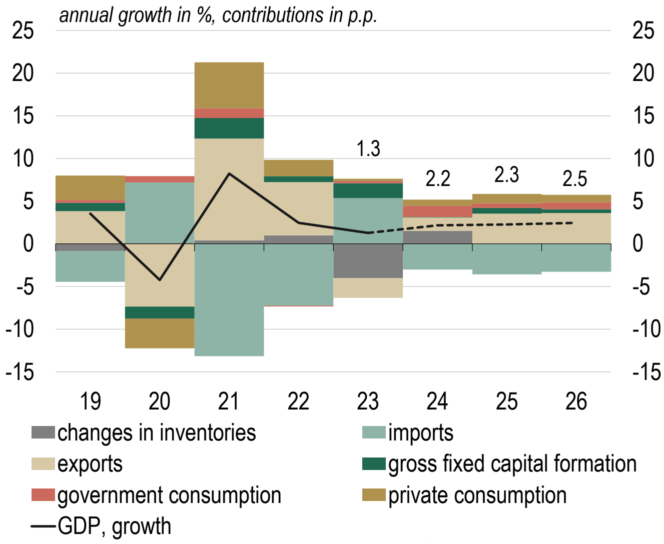
According to our December projections, GDP growth will stand at 1.3% in 2023, before rising again to an average of 2.3% between 2024 and 2026. The projection for 2023,

[9] Year-on-year growth in compensation per employee stood at 13.5% in the second quarter of 2023, ranking Slovenia second among euro area countries, with its highest rate since the data was first monitored (1996). It slowed to 10.7% in the third quarter. For more information, see the subsection about the labour market within Section 1.2.

[10] The factors in the inflation gap between Slovenia and the euro area overall are discussed in detail in Box 2.3.1.

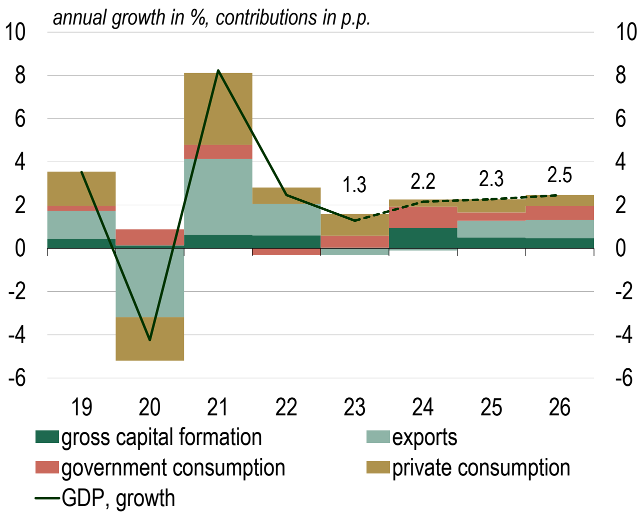
Figure 2.1.1: **Decomposition of GDP growth**

Contributions to real GDP growth



Note: Due to rounding, sums of components may differ from aggregate values.
Source: SORS, Banka Slovenije projections.

Contributions to real GDP growth (alternative method)



Note: In the calculation of contributions to GDP growth the alternative method takes into account the import intensity of each component of economic activity. Due to rounding, sums of components may differ from agregate values.
Source: SORS, Banka Slovenije calculations and projections.

which is revised downward with respect to the June forecast, was profoundly impacted by lower initial point, reflecting negative revisions to past data that are pointing to a more restrained past consumption and investment than initially estimated. The deterioration in the outlook for GDP growth in 2023 is also attributable to the cooling of economic activity in the second half of 2023. This was driven by the slowing domestic demand and weak foreign demand. Domestic factors most prominently reflect the decline in private consumption activity, which is alongside the simultaneous lower activity in services and retail indicative of the waning effects of the post-pandemic re-opening of the economy that importantly supported the economic growth in 2022. The cooling of foreign demand and the resulting substantial decline in export orders led to a decline in exports in 2023. The contribution to GDP growth in 2023 by net trade will nevertheless remain positive, as the decline in imports has been outpacing the decline in exports.

Economic growth will be higher over the remainder of the projection horizon, and in the wake of a recovery in foreign demand and real disposable income will be based on the renewed strengthening of growth in export activity and private consumption. At the same time growth will also be supported by the reconstruction following the August floods. The prospect of higher growth will be curtailed by investment, which after the strong post-pandemic investment cycle will grow at rates below its long-term average over the following years. In the wake of these developments growth will stabilise at 2.2% in 2024 and 2.3% in 2025, before approaching its long-term potential rate in 2026 at 2.5%.

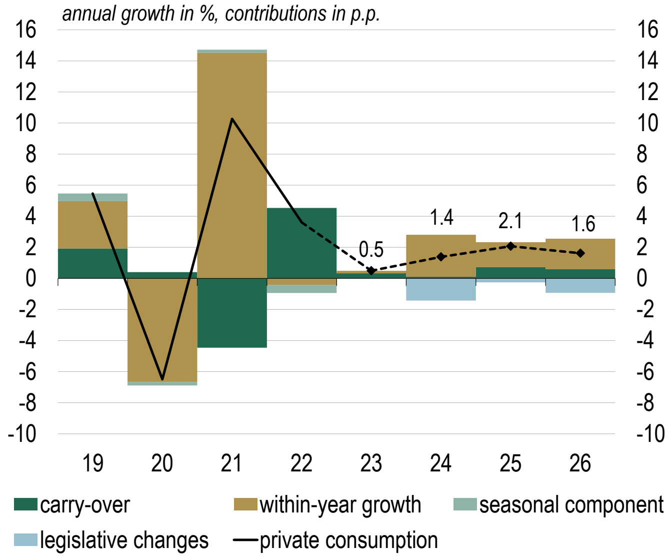
The robust labour market will support growth in private consumption over the projection horizon, which in technical terms will be slightly limited by changes to legislation on supplementary health insurance and long-term care.

Growth in private consumption began to slow in 2023 amid the persistently high uncertainty and price pressures. Considering the revisions to the past data, the growth will reach 0.5% in 2023, down from 3.6% in 2022, before averaging at 1.7% over the remainder of the projection horizon. This is slightly below its long-term average of 2.3%. The expected growth in 2023 has been revised downward by 1.8 percentage points compared to the June projections. In addition to the revision that had a major impact on the estimates of past developments, the downward revision is also attributable to the current decline in consumption, which is also being evidenced in a year-on-year decline in real retail turnover and in invoices registered with tax authorities.

The projected strengthening of growth in private consumption over the remainder of the projection horizon is derived mainly from the persistent robustness of the labour market and a gradual decline in uncertainty. Higher growth in consumption will be limited in the technical sense by legislative changes in connection with the abolition of supplementary health insurance (SHI) and its transformation into compulsory insurance, and the gradual activation of the long-term care act (LTC). These changes will have an impact on the structure of GDP growth, whereby private consumption will be lower and government consumption will be higher. Without the impact of the legislative changes, average annual growth in private consumption between 2024 and 2026 would be approximately 0.9 percentage points higher, and closer to its long-term average (see Figure 2.1.2, left).

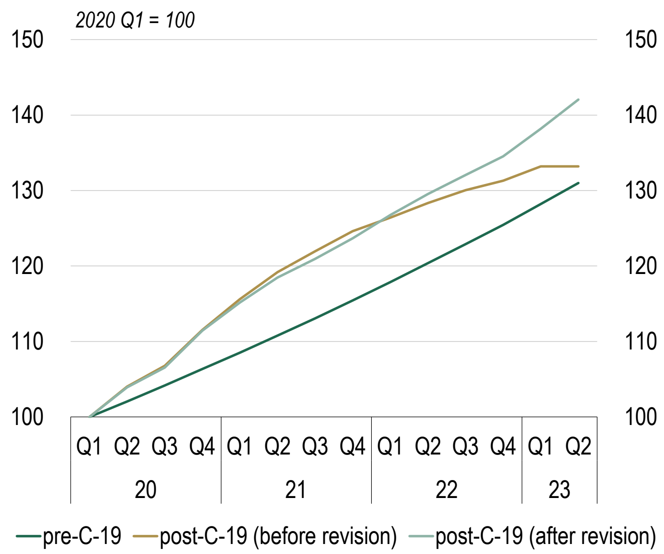
Figure 2.1.2: **Decomposition of growth in private consumption[11] and developments in surplus savings[12]**

Contributions to private consumption growth



Source: SORS, Banka Slovenije calculations and projections.

Accumulated household savings



Source: SORS, Banka Slovenije calculations.

[11] The contributions labelled “legislative changes" illustrate the impact of the conversion of SHI into a compulsory contribution, and the gradual implementation of the LTC on the growth in private consumption.

[12] The “pre-C-19” scenario reflects the developments in savings made on the basis of the average pre-pandemic saving rate between the first quarter of 2020 and the second quarter of 2023. The “post-C-19 (before revision)” scenario illustrates the actual developments in savings over the observation period before September’s revision to the national accounts, while the “post-C-19 (after revision)” scenario illustrates developments after the revision. The gap between the curve illustrating developments before the Covid-19 pandemic and the two curves showing developments after it reflects the estimated value of the surplus savings in the individual quarter before and after the revision to the national accounts.

The revision to past growth rates also had an impact on estimates of household savings (see Figure 2.1.2, right). It follows that private consumption growth in 2022 was lower than previously estimated, and the saving rate was higher and above its long-term average. This suggests that the level of household saving increased further relative to its pre-pandemic level, despite the reopening of the economy and the inflationary pressures on household purchasing power. The elevated household saving rate has coincided with the trend of increased uncertainty accompanying economic activity since the outbreak of the pandemic (see Box 2.1.1). Accordingly, we expect the savings rate to remain elevated throughout the projection horizon, averaging 16.6%, or 3.3 percentage points above the pre-pandemic average for the period between 2005 and 2019. At the same time, the build-up of excess savings poses an upside risk to growth in private consumption and housing investment. Any decline in uncertainty and a return to levels comparable to those before the pandemic could reduce the household saving rate and trigger spending of the excess savings (see Figure 2.1.2, right).

Box 2.1.1: Impact of uncertainty on the saving rate

The savings rate, which significantly increased during the pandemic, remains above the historical average even after the reopening of the economy and the lifting of containment measures.

The sharp increase in the household saving rate at the outbreak of the pandemic was largely driven by the containment measures, which substantially curtailed consumption of goods and, in particular, services. Despite their lifting, the household saving rate has remained elevated. In the first half of 2023, it stood at 17.7%[13], which is 4.5 percentage points above its pre-pandemic average.[14] The persistence of an above-average saving rate is indicative of changes to patterns of consumption and saving following the pandemic, which are also observed in 2023.

Our assessment is that the persistence of an elevated saving rate after the removal of the pandemic containment measures and the forced saving that marked this period can partly be attributed to the trend of increased uncertainty, which is driving precautionary saving by households. Since the reopening of the economy, uncertainty has remained elevated due to the unstable geopolitical situation, the energy crisis, and the downturn in the macroeconomic outlook in the main trading partners. Further evidence of the correlation between the saving rate and uncertainty is evident on the left chart in

Figure 2.1.1.1, which shows that the average level of the two indicators has been higher since the outbreak of the pandemic than before it.[15] By contrast, inflation reduces the saving rate, as households compensate for the loss of purchasing power and smooth out their consumption.

The dynamic impact of the increased uncertainty and price pressures was estimated using an identified VAR model with four lags, which includes annual growth in the HICP in addition to the savings rate and the aforementioned uncertainty measure.[16] The model is estimated on quarterly data until the end of 2019 in order to disentangle the

[13] The saving rate is defined as the seasonally adjusted ratio of saving to gross disposable income, and is based on non-financial sectoral accounts.

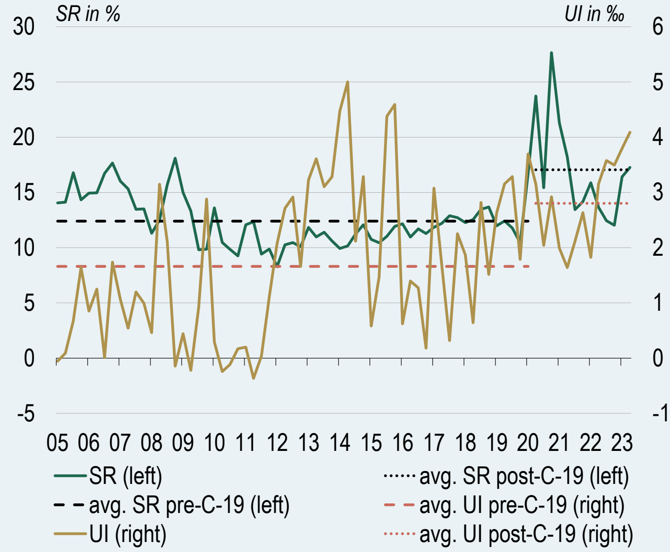
[14] The average saving rate in the analysis is calculated on the basis of quarterly data between 2005 and 2019.

[15] The analysis uses a seasonally adjusted uncertainty index for Slovenia, estimated using the method of Ahir, P,.oom, N. and Furceri, D. (2018): The World Uncertainty Index.

[16] The set of variables for examining the impact of uncertainty on the saving rate is based on the research of Xu (2023), the Office for Budget Responsibility (2022) and Bobasu, di Nino and Osbat (2023).

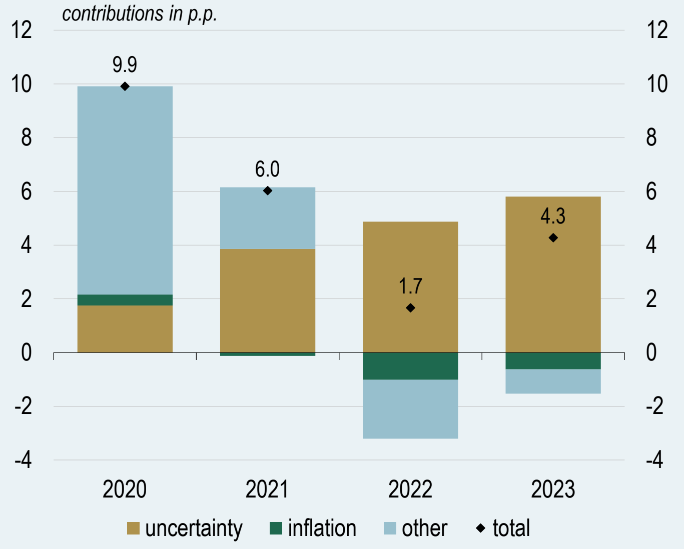
Figure 2.1.1.1: **Decomposition of the saving rate (SR) and comparison of its dynamics with the uncertainty index (UI)**

Savings rate (SR) and uncertainty index (UI)



Source: SORS, FRED, Banka Slovenije calculations.

The contribution of uncertainty and inflation to the savings rate



Source: SORS, Banka Slovenije calculations.

impact of uncertainty on consumption from the restrictive measures on the economy during a pandemic.

The decomposition of developments in the saving rate on the basis of the estimated model shows (see Figure 2.1.1.1, right) that at the outbreak of the pandemic the saving rate was primarily influenced by factors related to restrictions on consumption and forced saving (covered in the chart by the share unexplained by the model), while the influence of uncertainty began to dominate upon the re-opening of the economy. As a result of direct shocks related to increased uncertainty, the household saving rate was 4 percentage points higher on average between 2020 and 2023. Inflation also impacted household saving during this period. The saving rate was 1 percentage point lower in 2022, on account of the strong price pressures on purchasing power, amid headline inflation that averaged 9.3% over the course of the year. The persistently elevated inflation also reduced the savings rate in the first half of 2023, by 0.6 percentage points, thus mitigating the positive contribution from the high uncertainty.

These results confirm the hypothesis that the current high household saving rate is largely attributable to the increased uncertainty. At the same time the current situation poses an upside risk to medium-term growth in private consumption: in the wake of a decline in uncertainty and normalisation to the pre-pandemic level, the saving rate might be lower than projected, and growth in private consumption higher.

The analysis also explains the developments in surplus savings[17] during the post-pandemic period. If the level of uncertainty during the observation period had been comparable to the pre-pandemic period, the saving rate between 2020 and 2023 would have been significantly lower, and households would have spent their excess savings by the early part of 2024.

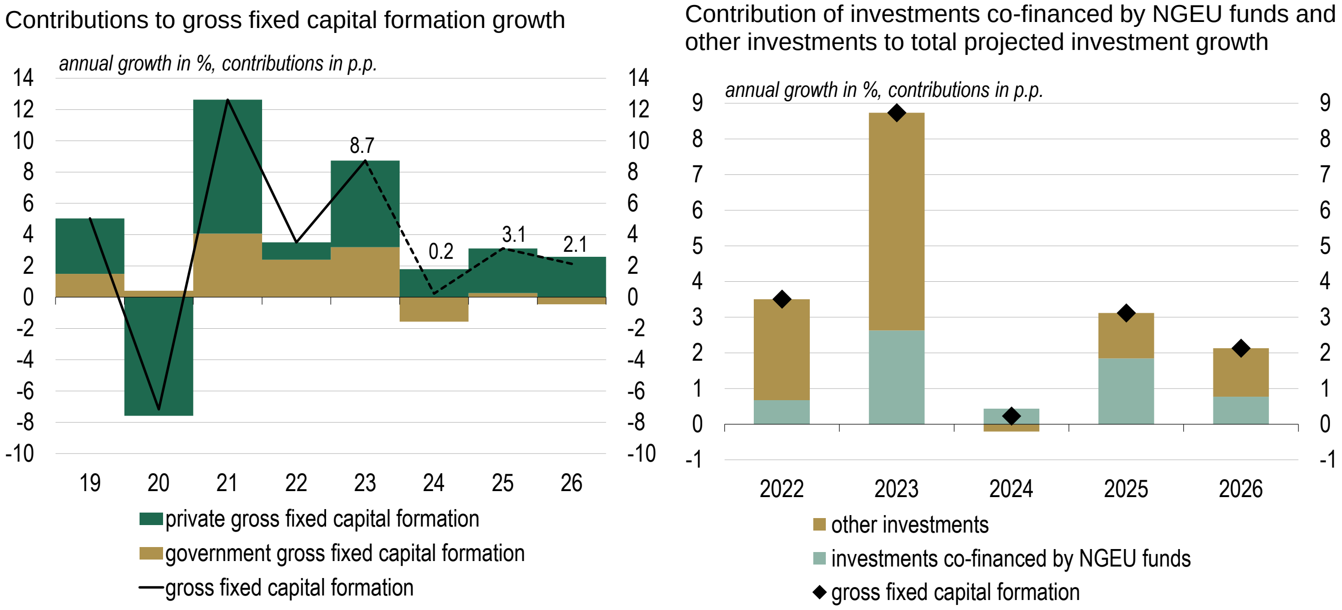
[17] Surplus savings are defined as the difference between actual savings and those that would have been built up under the average saving rate.

Growth in private investment will slow over the short term, and will remain limited over the projection horizon on account of the tighter financing conditions.

Growth in private investment will stand at 7.3% in 2023, and will primarily be attributable to favourable developments in the first quarter, while the second quarter saw a pronounced decline in corporate investment activity. This was mainly attributable to increased borrowing costs, to uncertainty and the cooling activity in the external environment, and to firms' reduced ability to support current operations with built-up inventories. The aforementioned factors were reflected in a decline in investment in machinery and equipment in the third quarter, which coincided with a significant slowdown in manufacturing, in part through a decline in export orders and production expectations. Housing investment has also slowed in the second half of the 2023, which has been reflected in a fall in the number of issued building permits and the cooling of the real estate market, where price growth has stalled and the number of transactions has fallen.

Current growth in private investment will be strengthened again over the remainder of the projection horizon by the anticipated decline in uncertainty in the external environment, and by investment supported by funding from the EU Recovery and Resilience Facility (NGEU) (see Figure 2.1.3, right). However a faster recovery will be prevented by the persistence of the less favourable financing conditions. In line with these expectations growth in private investment will average 3.1% between 2024 and 2026, lower than the average rate of 4.1% between 2015 and 2022 (see Figure 2.1.3, left).

Figure 2.1.3: **Breakdown of growth in gross fixed capital formation, and estimated impact of the NGEU instrument**



Source: SORS, Banka Slovenije projections.

Source: SORS, MF, SVRK, Banka Slovenije estimations and projections.

After rising sharply in 2023, government investment will decline in 2024 in the wake of the expiry of the 2014-2020 European financial framework. Growth in government consumption will be strengthened by legislative changes to health insurance and long-term care.

The developments in government investment over the projection horizon will to a significant extent reflect the institutional framework in connection with European funding. Amid the completion of projects within the framework of the expiring European financial framework 2014-2020, growth in government investment will hit 13.4% in 2023. The high investment activity during 2023 supported economic growth, particularly via construction activity. The temporary slowdown in the execution of projects under the new European financial framework will reduce government investment in 2024, and it will remain broadly unchanged over the remainder of the projection horizon. It will nevertheless remain at high levels of more than 5% of GDP, owing in part to the anticipated investment in reconstruction following the severe weather events of August 2023.

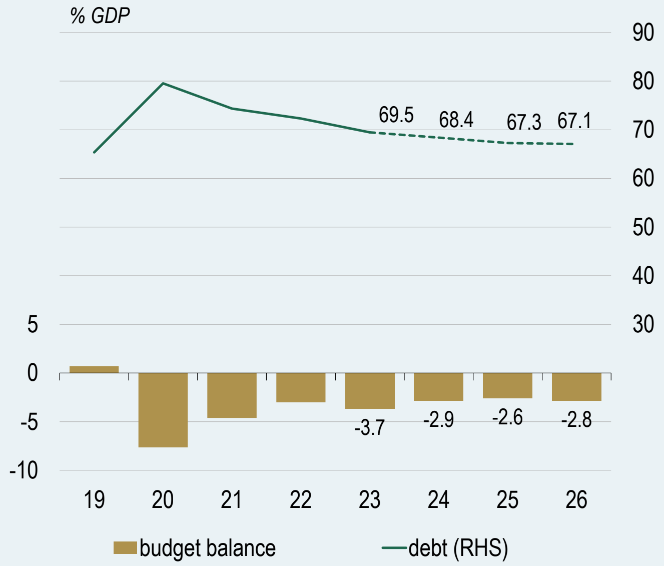
Growth in government consumption will be high. This is mainly attributable to the transformation of supplementary health insurance and the changes in the area of long-term care. The impact of these legislative factors will be most pronounced in 2024 during the transformation of supplementary health insurance, and in 2026 during the enactment of all changes in the area of long-term care. Growth in final government consumption will stand at 7.2% and 4.3% respectively in the aforementioned years. From the perspective of economic growth, the effects of the aforementioned legislative changes will largely compensate for the decline in private consumption. The projections of nominal growth in government consumption also take account of information about the wage negotiations between the government and the public sector trade unions, within the framework of which the government proposal from mid-September 2023 to overhaul the wage system by eliminating disparities was costed at approximately EUR 1 billion (including the salaries of officials and directors). Given the costs caused by the floods, the agreement is now supposed to begin implementation a year later than originally scheduled, i.e. in 2025, and will gradually come into full effect over the course of three years. The negotiations had not been completed by the projections cut-off date.

Box 2.1.2: **Projections of general government balance and debt**

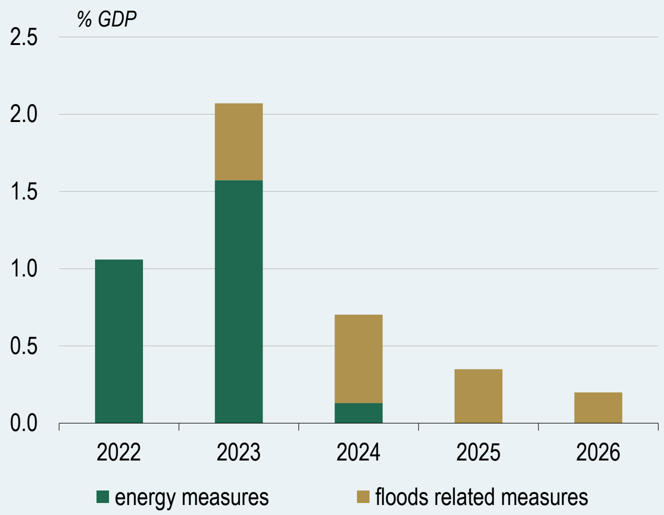
The general government deficit will widen temporarily in 2023 amid the financing of post-flood reconstruction, but as the support measures are scaled back it will then fall to below 3% of GDP amid moderate economic growth and rising interest rates. Government debt as a ratio to GDP will decline.

The general government deficit will be less than 3% of GDP over the projection horizon, with the exception of 2023, on account of the energy crisis and the expenditure related to the floods. Nominal growth in revenues remained high in 2023, in reflection of the developments on the labour market and the high inflation. In addition to subsidies, general government expenditure is also being driven up by investments and compensation of employees. As inflation eases and the economy records moderate growth, growth in general government revenues and expenditures is expected to slow over the following years. The ratio of debt to GDP will be reduced further by growth in nominal GDP,

Figure 2.1.2.1: **General government balance and debt, and measures to mitigate high energy prices and for post-flood reconstruction**



Source: SORS, Banka Slovenije projections.



Source: Ministry of finance, estimates and projections of Banka Slovenije.

despite the persistence of primary deficits and tighter monetary policy, which is increasing interest expenditure (see Figure 2.1.2.1, left).

In addition to the temporary measures to mitigate high energy prices, the anticipated post-flood reconstruction will also have an impact on fiscal developments in 2023 and over the next three years.[18] The measures to mitigate high energy prices are estimated at around 1.6% of GDP in 2023 (1.1% of GDP in 2022), and this will be joined over the entire projection horizon by funding for post-flood reconstruction, which is currently estimated to widen the general government deficit by an annual average of approximately 0.4% of GDP, the largest impact coming in the first two years (see Figure 2.1.2.1, right).[19] These measures are the main reason for larger general government deficits over the projection horizon compared with the June projections.

The public finance projections are exposed to risks, which primarily relate to the required funding and the timetable for the post-flood reconstruction, wage negotiations in the public sector, potential additional measures to mitigate high energy prices, the implementation of investment, and the impact of reforms that have been adopted or are planned (pensions, healthcare and long-term care). The general government debt could be reduced by the utilisation of pre-financing.

After declining in 2023, growth in international trade in merchandise and services will remain below its long-term average over the whole of the projection horizon.

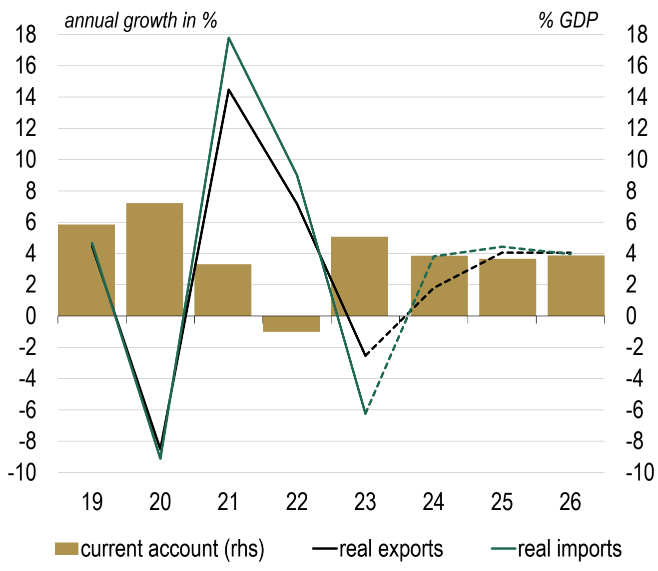
Given the contraction in global trade and slowdown in major trading partners, foreign demand for Slovenian products and services will stagnate in 2023. Exports will decline

[18] See Box 7.2 of the October 2023 issue of the Review of macroeconomic developments.

[19] The estimated impact of the flood measures on the general government position was derived from the estimates for 2023 and 2024 given in the 2024 Draft budgetary plan. The estimate also takes account of the draft Act on reconstruction, development and the provision of financial resources, which was approved by the government on 23 November 2023. The sources of the financing for reconstruction envisaged by the draft act include, inter alia, a five-year tax on bank's balance sheet assets and a five-year rise of 3 percentage points in the corporate income tax rate (to 22%).

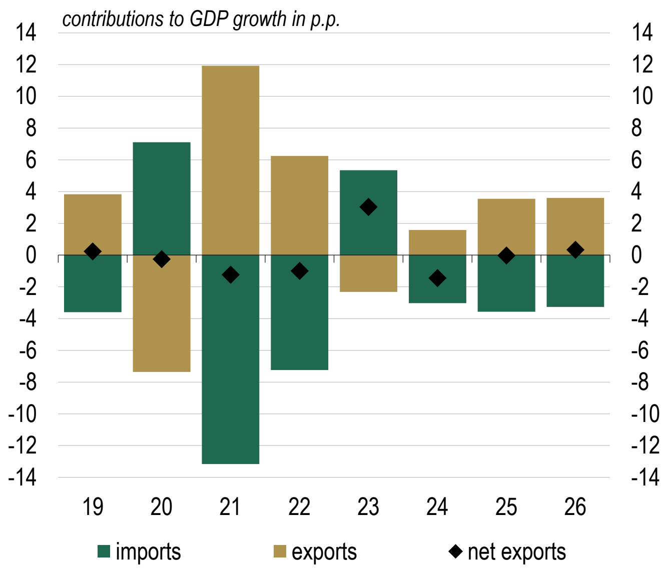
Figure 2.1.4: **Imports, exports and current account balance**

Current account, real exports and imports projections



Source: SORS, Banka Slovenije projections.

Projection of net exports' contributions to GDP growth



Source: SORS, Banka Slovenije projections.

by 2.5%, driven in part by a deterioration in the price competitiveness of Slovenian exporters (see Box 2.1.3). The parallel decline in inventories and private consumption will drive an even larger decline in imports of 6.2%. Export growth will recover in 2024, in line with growth in foreign demand, as a result of the easing of supply-side pressures (particularly in the car industry) and increased demand for merchandise, which accounts for the majority of international trade.[20] Alongside the gradual growth in domestic demand, the recovery in exports will raise imports by 3.8%. The growth of imports will also be supported by the anticipated rebuilding of inventories, which have declined significantly in 2023 and are expected to undergo a cyclical reversal in the first half of 2024 (see Box 2.1.4). Growth in international trade will strengthen slightly further over the remainder of the projection horizon in 2025 and 2026, but will remain below its long-term average, while contribution from net exports to GDP will remain negligible. The current account surplus will decrease to 3.9% of GDP this year (1.2 p. p. lower than in 2023), and it is expected to remain at approximately the same level in the years 2025 and 2026.

Box 2.1.3: **Impact of inflation on Slovenia's export competitiveness in the euro area market**

Amidst the slowdown in economic activity in our main trading partners, the adverse effects of high domestic inflation and the resulting decline in competitiveness are adversely impacting the growth of exports.

Export activity is influenced over the medium-term by the economic activity in our trading partners and by price competitiveness, as measured by relative export prices. The weakened economic outlook in the euro area, a major market for Slovenian exporters,

[20] The volume of global merchandise trade, which has been falling since the end of 2022, was projected to recover in the second half of 2023 according to the WTO's Goods Trade Barometer, primarily as a result of an increase in car sales and production, and an increase in trade in electronic components.

representing approximately 51% of exports as per 2022 data and the high rate of domestic inflation, consistently outpacing the euro area average by nearly 2 percentage points on average in 2023, poses a risk to the export projections over the following years.

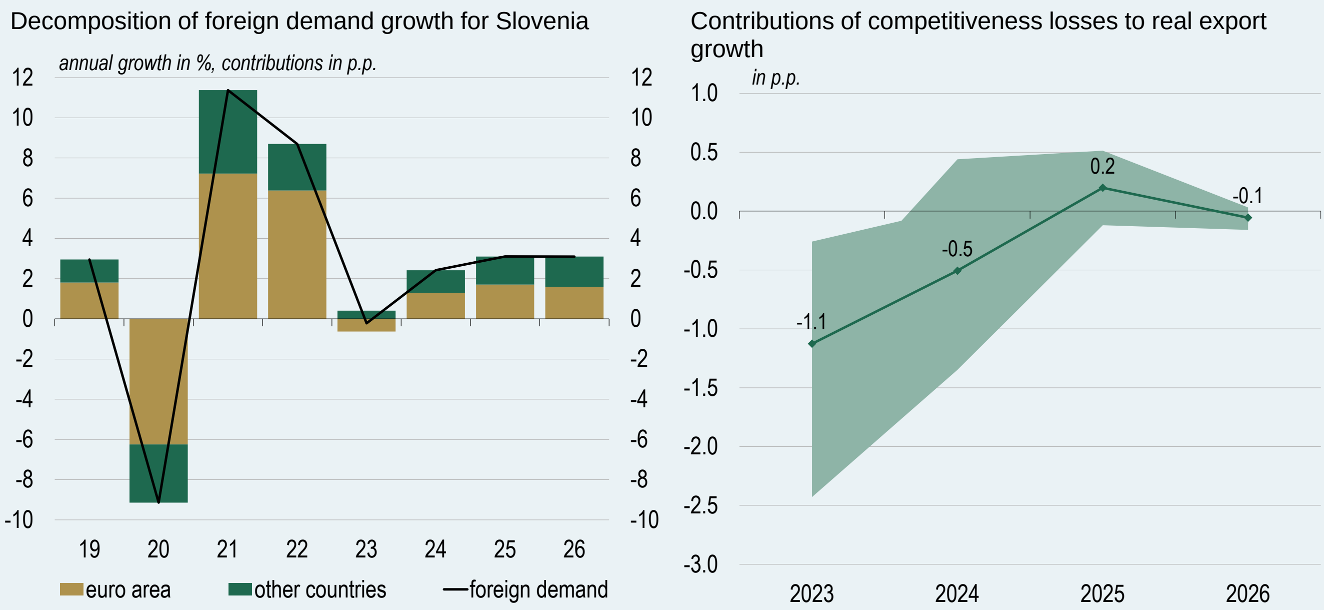
The sustained gap between domestic inflation and the euro area average is being reinforced by factors that are becoming less transitional and global, and are increasingly domestic, particularly evident in faster rising labour costs in Slovenia. From a macroeconomic perspective, the impact of higher domestic inflation rates is directly manifested in the export deflator, making it larger than that of similar goods and services from countries with lower inflation. This change could potentially lead to reduced demand for Slovenian products in foreign markets, risking the loss of market share.

Detailed empirical analysis reveals that comparatively higher inflation significantly affects the export competitiveness of Slovenian firms. The decrease in foreign demand for Slovenian exports in 2023 (see Figure 2.1.3.1, left) can only be partly attributed to the economic slowdown in our main trading partners: the higher growth in export prices compared to competitors is also playing a significant role. GDP growth in our main trading partners on average explains only around 66% developments in growth in export demand for Slovenia, with the remaining percentage is attributed to less favourable relative export prices and other changes related to trading partners' preferences.

Utilising a panel VR model, the analysis assesses the dynamic impact of a decline in price competitiveness on exports over the projection horizon. Input variables for the model include real growth in domestic exports, GDP growth in Slovenia's trading partners, and relative export prices, defined as the difference between the export deflator for Slovenia and the composite indicator of euro area countries' export deflators. The panel approach take into account and distinguishes between the impact of trading partners' economic situation and relative export prices on real growth in exports.

The dynamic impact estimated from the empirical model reveals that the increase in Slovenian export prices statistically significant hindered the growth in real exports in

Figure 2.1.3.1: **Decomposition of foreign demand growth and impact competitivness losses on real exports**



Source: ECB, Banka Slovenije calculations.

Source: Banke Slovenije estimates.

2023 (see Figure 2.1.3.1, right). Our estimate indicates that growth in real exports would have been approximately 1.1 percentage points higher had export prices been comparable to those in Slovenia's trade competitors. This would have entailed a 1.4% decline in real exports in 2023 instead of 2.5%, which would have led to approximately 0.4 percentage points higher GDP growth than the current projection. Looking further in the projection horizon, the dynamic impact suggests that the effect of relatively higher export prices will diminish by the second half of 2024, barring any new shocks.

Box 2.1.4: **Utilisation of inventories and their cyclical position**

At the projected pace of investment and export growth, available inventories are likely to be depleted towards the end of 2023. The need to replenish inventories in the first half of 2024 will have an adverse impact on net exports.

Following robust growth in the preceding two years, imports of goods and services declined significantly in real terms in 2023. The year-on-year contraction averaged over 6% during the first three quarters, partly attributable to a slowdown in final consumption and export activity, with the remainder significantly influenced by the change in inventories. The decline in the change in inventories has been substantial in 2023, exerting a significant negative contribution to economic growth in the first half of the year (see Figure 2.1.4.1, left). The discrepancy between the decline in imports and other components of aggregate demand underscores the significant reliance of investment and export activities by firms in 2023 on the use of inventories accumulated in the past. The necessity to fulfil past orders has supported ongoing operations, alleviating the marked deceleration in export activity following the decline in new orders that firms have faced since the beginning of the year.

The central concern guiding the projections for private investment and exports of goods and services in the latter part of 2023 and the early part of 2024 pertains to the ongoing ability to deploy inventories to mitigate the adverse effects of the cooling international environment. To this end, the box delves into the current cyclical position of inventories in the Slovenian economy, relying on quarterly seasonally adjusted time series of changes in inventories regularly released by SORS within the national accounts reporting framework.[21] The approximation for the level of inventories is calculated by summing the mentioned time series, converted into natural logarithms for analytical purposes. Recent observations, using three standard methods for analysing cyclical developments, namely the Hodrick-Prescott filter (HP filter; Hodrick & Prescott, 1997),[22] the Hamilton filter (Hamilton, 2018) and the Beveridge-Nelson filter (BN filter), which accounts for structural breaks in the series (Kamber et al., 2018),[23] indicate notable negative gaps in inventories, signalling a stronger departure from past trend developments (see Figure 2.1.4.1, right). The emergence of such gaps indicates a depletion of inventories, diminishing firms' capacity to sustain current trends over an extended period.

[21] The SORS also publishes monthly indices of inventories, relying on data related to both finished and unfinished products. These indices are categorised across major production sectors, with the largest category encompassing mining and manufacturing. When comparing the cumulatively summed national account series converted into an index with a base of 2015 to the monthly index of inventories in the largest industrial category mentioned above, substantial deviations in the recent dynamics of the two series become apparent. This difference is primarily attributable to inventories of merchandise and material, which are excluded from the monthly statistics but play a significant role in the identified depletion of inventories.

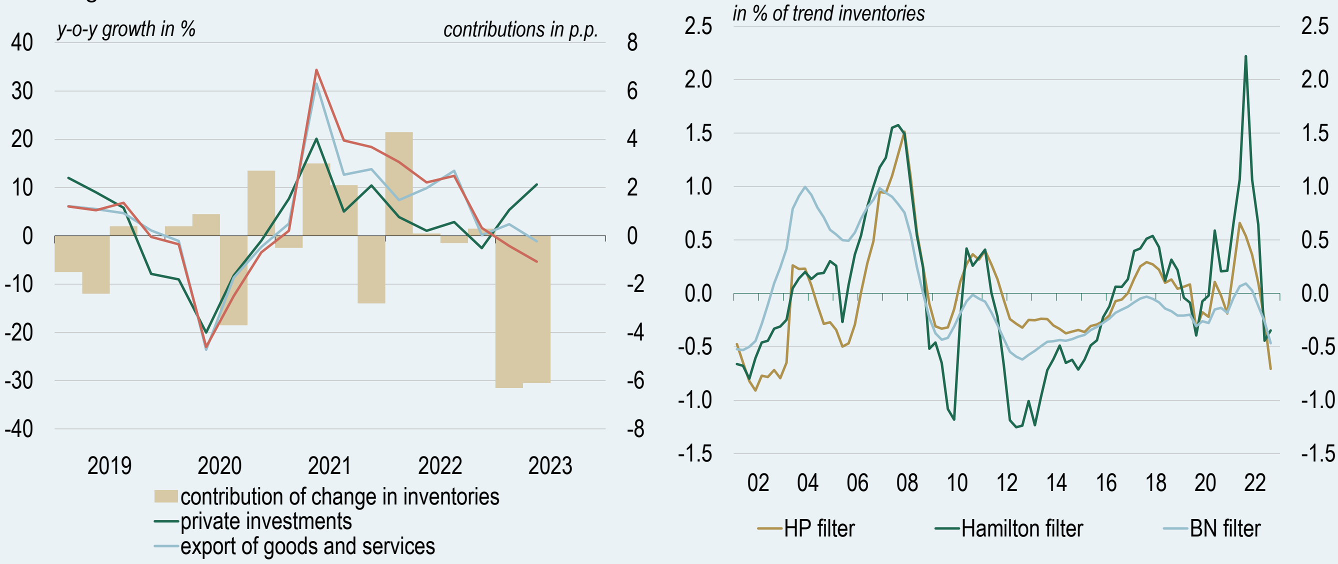
[22] A standard value of 1,600 is used for the parameter λ.

[23] Structural breaks have been identified in Q3 2003, Q1 2007, Q3 2010, Q4 2016 and Q2 2020, determined through the Bai-Perron (2003) test for multiple breakpoints, considering 1 to M globally defined breaks.

Figure 2.1.4.1: **Developments in inventories and inventory gaps**

Private investments, international trade and the contribution of changes in inventories

Inventories gaps



Source: SORS, Banka Slovenije calculations. Last observation: 2023 Q2.

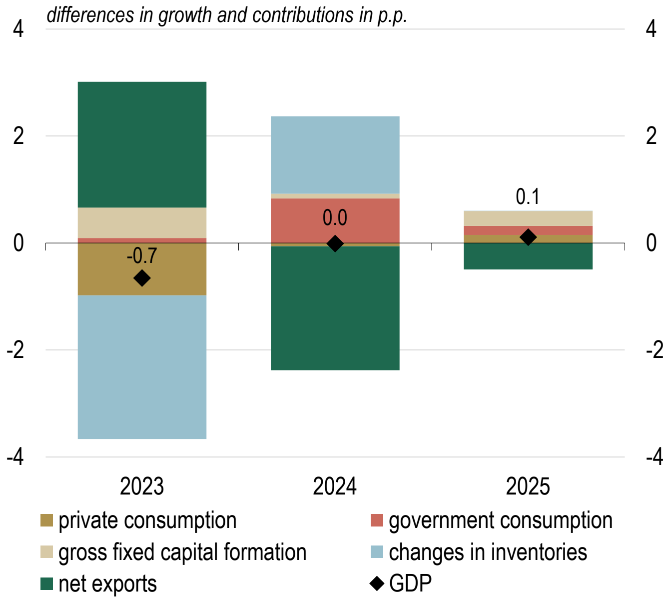
Source: SORS, Banka Slovenije calculations. Last observations: 2023 Q3.

This has already been partially confirmed in the release of national accounts data for the third quarter: the negative contribution of changes in inventories nearly halved compared to the two previous quarters (to -3.2 percentage points). Moreover, investment in machinery and equipment, along with export of goods and services, both experienced substantial quarterly declines (of -3.4% and -2.4% respectively), indicating that past inventories are providing lesser support to current operations. Similar developments are expected in the final quarter of 2023, while a gradual rebuilding of inventories is anticipated in the first half of 2024, likely resulting in strengthened growth in imports in the same year. The recovery of domestic and foreign demand will progressively bolster export and investment activities.

Compared to the June projections, we envisage economic growth to be lower in 2023, unchanged in 2024, and slightly higher in 2025.

December's GDP growth projection for 2023 is 0.7 percentage points lower than in the June projections (see Figure 2.1.5). From a technical point of view the growth revision is primarily attributable to revisions to past data, while from the point of view of components it is reflected primarily in a lower growth projection for private consumption and faster reduction of inventories. An even larger decline in the GDP growth projection for 2023 relative to the June projection was prevented by increased government investment and net exports. The GDP growth projection for 2024 remains unchanged, relative to the June projections, at 2.2%. The lower baseline for growth derived from the weaker current activity at the end of the 2023 has been mitigated in comparison with the June projections by faster growth in real household disposable income and construction activity in connection with the post-flood reconstruction. These two factors also contribute to the slightly higher GDP growth projection for 2025.

Figure 2.1.5: **Revision to the projections of economic growth**



Source: SORS, Banka Slovenije projections.

2.2 Labour market

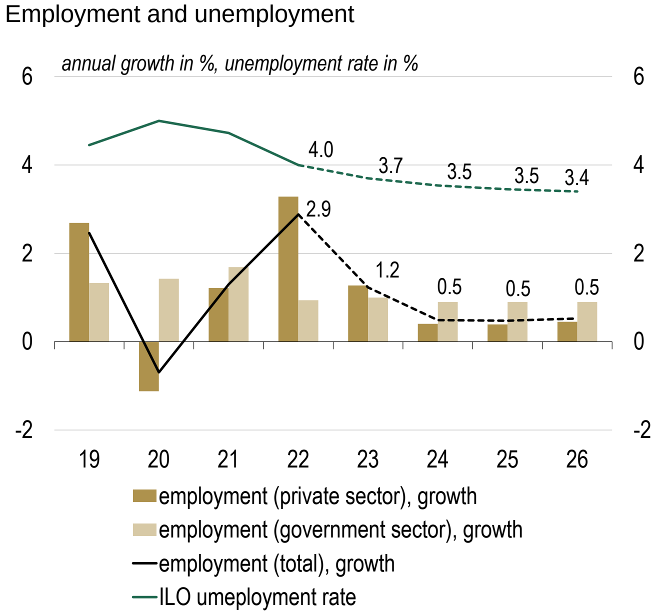
Employment growth is expected to remain positive over the projection horizon, but it will be lower than in previous years, given the tight labour market and the slowdown in economic growth.

Employment growth will reach 1.2% in 2023 according to our latest projections. The relatively high growth will mostly be driven by a carry-over effect from the second half of 2022, and high growth in the early part of 2023, while a slowdown in hiring is indicated in the second half of the year. Employment growth will remain positive over the projection horizon in line with the developments in economic activity, but will be significantly lower than in previous years. It will slow to 0.5% in 2024, where it will remain until the end of the projection horizon (see Figure 2.2.1, left).

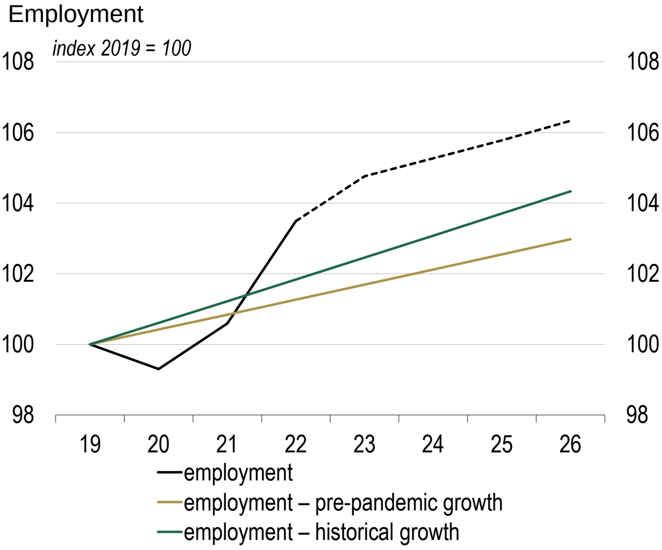
Current employment developments vary significantly between economic sectors: while employment growth has beenstill positive in services and construction, it has virtually come to a standstill in manufacturing. This trend is expected to continue over the following quarters as the employment expectations indicator is in the negative territory in manufacturing, but remains positive in construction and, in particular, services. The robustness of the labour market evident in 2022 and 2023 reflects the extremely fast post-pandemic employment recovery. Employment will be 3% higher in 2023 than it would have been had it followed its pre-pandemic trend of growth over the last four years (see Figure 2.2.1, right). The strong employment growth over the last two years can be ascribed to the rapid recovery in economic growth, and in part also to changes in patterns on the labour market, which have stabilised since the pandemic and might to a certain extent also be a reflection of labour hoarding (see Box 2.2.1).[24]

[24] Labour hoarding can be defined as that part of labour input that is not fully utilised during the business process. One of the indicators to measure the phenomenon of labour hoarding is the gap between employment developments and expected economic developments and productivity.

Figure 2.2.1: **Employment and unemployment rate**



Source: SORS, Banka Slovenije projections and calculations.



Note: pre-pandemic growth covers the period 2009-2019, historical growth covers the period 1996-2019.
Source: SORS, Banka Slovenije calculations and projections.

The survey unemployment rate will hit record lows during the projection horizon.

The survey unemployment rate will fall over the projection horizon, in line with growth in employment and economic activity. Our projection is for it to reach 3.7% in 2023, and to gradually fall even further to 3.4% by the end of the projection horizon (see Figure 2.2.1, left). The fall will be relatively restrained compared with employment growth, which is primarily attributable to the exhaustion of domestic pool of available workers. Employment growth over the projection horizon will thus continue to originate mainly from recruitment of foreign workers and, to a lesser extent, from the unemployed.

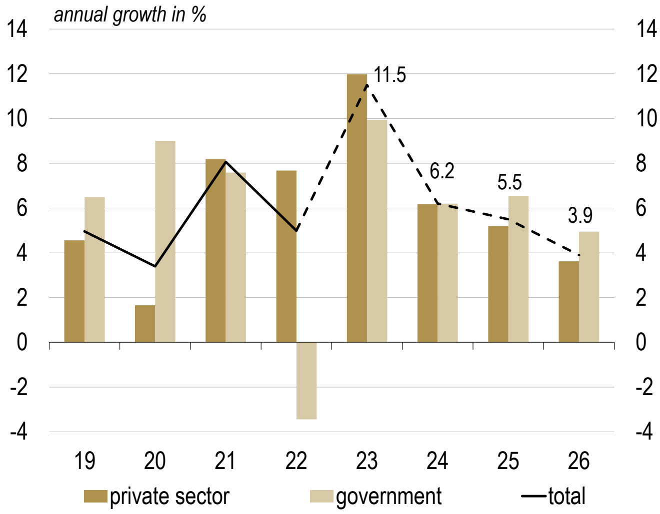
The unemployment rate over the entire projection horizon has been revised slightly downwards compared with the June projections, as a result of developments in the second half of 2023 and the upward revision to the employment growth projection.

Wage growth will remain high over the projection horizon amid a tight labour market.

Nominal wage growth as measured by compensation per employee is estimated to reach 11.5% in 2023, the highest rate since 1997. The high growth is primarily attributable to the tightness of the labour market, past inflation, and the rise in the minimum wage at the beginning of 2023. Amid falling inflation, low unemployment will keep the upward pressure on wage growth, which will thus remain relatively high over the entire projection horizon. It is projected at 6.2% in 2024 and 5.5% in 2025, before slowing to 3.9% towards the end of the projection horizon (see Figure 2.2.2, left).

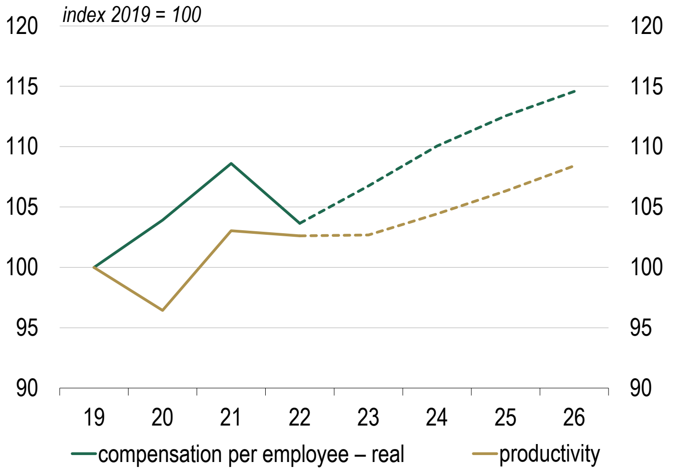
Figure 2.2.2: **Wage growth**

Nominal growth of compesation per employee



Note: Average salary is calculated as an average compensation per employee based on the national accounts definition.
Source: SORS, Banka Slovenije calculations and projections.

Real compensation per employee and productivity



Note: Average salary is calculated as an average compensation per employee based on the national accounts definition. Real wages are calculated as nominal wages deflated by personal consumption expenditure deflator.
Source: SORS, Banka Slovenije calculations and projections.

With inflation slowing, real wage growth is also strengthening, and is projected to reach 3.0% in 2023. The high real wage growth in 2023 will help to compensate for the loss of purchasing power that employees suffered in 2022 due to high inflation as by the end of 2023 real wages[25] will have surpassed their level from 2021 (see Figure 2.2.2, right). Real wage growth will also significantly outpace productivity growth in 2023, by approximately 3 percentage points. Despite narrowing, the gap between real wage growth and productivity growth will be maintained all the way to the end of the projection horizon, which will intensify the labour cost pressures for firms. The high level of real wage growth compared with productivity growth is also being reflected in a pronounced increase in the ratio of employee compensation to GDP, which is projected to peak at a record high in 2025 (53.0%).

Wage growth in the December projections has been revised upwards compared with the June projections over the entire projection horizon in the private sector and the public sector. The revisions for 2023 are attributable to realised data from the second and third quarters, which was higher than expected. The upward revisions to the projections for the following years are based primarily on a higher wage growth projection for the public sector.

Box 2.2.1: **The gap between employment growth and economic growth in the post-pandemic period**

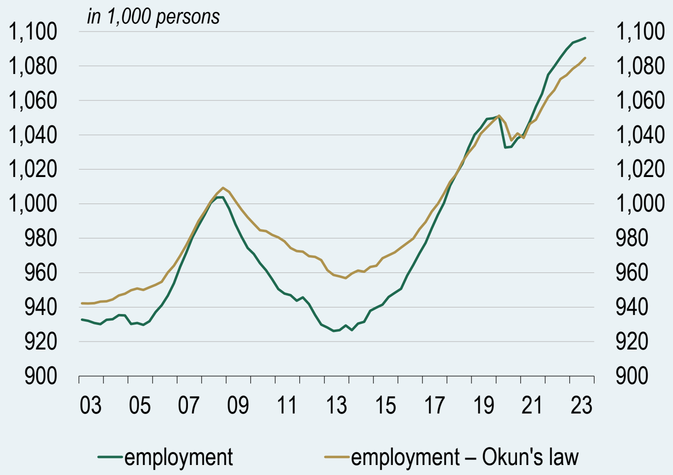
The extremely high post-pandemic employment growth might be indicative of changed patterns on the labour market since the pandemic that are partly a reflection of labour hoarding, alongside other factors.

The post-pandemic recovery in the domestic economy has featured extremely high employment growth and a fall in unemployment to record lows (see Figure 2.2.1, left). Although Slovenia has seen one of the strongest post-pandemic economic recoveries in the euro area, employment growth has been even stronger, and higher than the rate

[25] The level of real wages is calculated as the ratio of nominal compensation per employee to the HICP.

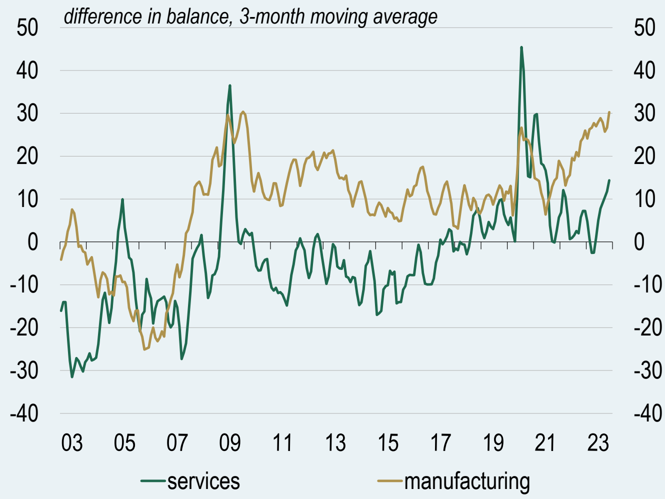
Figure 2.2.1.1: **Post-pandemic recovery of the labour market, and labour hoarding**

Employment and Okun's law



Note: Employment – Okun's law is based on ARDL model with 2 lags for employment and 1 lag for GDP.
Source: SORS – national accounts, Banka Slovenije calculations.
Latest data: 2023 Q3.

Labour hoarding indicator



Note: Labour hoarding indicator is calculated as the difference between employment expectations and sentiment in the sector.
Source: Eurostat, Banka Slovenije calculations. Latest data: November 2023.

expected on the basis of Okun's law, which defines the empirical correlation between real economic activity and employment (see Figure 2.2.1.1, left). A deviation in employment growth from economic activity and from Okun's law was a trait seen on the labour market even before the pandemic, and has continued since 2020, which is indicative of the robustness of the labour market, which might be attributable in part to labour hoarding.

Labour hoarding can be defined as that part of labour input that is not fully utilised in the production process. The idea behind the concept is that companies, in a period of deteriorating economic conditions, retain more employees than they would need given the current workload and the expected business environment. There are several reasons for firms to behave in this way. While the gap between employment and the economic outlook during the pandemic was primarily attributable to job preservation measures, patterns of this kind after the pandemic are most often linked to the costs of recruiting and onboarding new employees, and the retention of skills within firms for the upswing of the economic cycle.[26] This is even more important in a period when the labour market is extremely tight, as this makes it even harder to recruit qualified personnel.

In the absence of an objective metric, this box measures the potential level of labour hoarding in the economy using an indicator composed from the gap between the employment expectations metric and the indicators of the economic situation in each sector.[27] Any widening of the gap between employment expectations and the business environment is indicative of retention or additional hiring during times of relatively weak economic outlook. It is important to note that the indicator is accompanied by a high degree of uncertainty, as a widening gap between the aforementioned indicators can also be the result of changes that are not directly related to labour hoarding.[28]

[26] See the European Commission's definition in European Business Cycle Indicators – A new survey-based labour hoarding Indicator. 2nd Quarter 2023.

[27] The survey indicators taken as indicators of the economic situation are order book levels in manufacturing, and current demand for services in services.

[28] The post-pandemic period has seen a trend of divergence between survey data and tangible data on economic activity.

According to the right chart in Figure 2.2.1.1, the labour hording indicators for manufacturing and services hit their peaks at the time of the global financial crisis in 2008 and at the outbreak of the pandemic, which confirms the hypothesis that labour hoarding mainly occurs during periods of economic slack or downturn. Focusing on the developments in the indicator in the period during and after the pandemic, it can be noted that the indicator for manufacturing sector rose significantly during the pandemic, and after a discernible decline in 2021 it increased again in line with the deterioration in the situation in the sector driven by the energy crisis and the cooling of global demand. The high level is potentially indicative of labour hoarding within the sector, where despite a downturn in the business outlook and a decline in productivity, firms maintain a certain level of employment to avoid the costs of recruiting and training qualified personnel when there is an upturn in the economic cycle. Further evidence comes from other indicators. For example, the number of monthly hours per employee in manufacturing has averaged 2.5 hours less than in other sectors, while before the pandemic the gap amounted to just 0.8 hours. Labour hoarding in manufacturing might explain employment growth outpacing the rate expected on the basis of empirical estimates of Okun's law. In contrast to manufacturing, after rising significantly in 2020 the indicator for services sector has stabilised at much lower levels after the pandemic. This indicates that the additional hiring in services compared with manufacturing is largely in line with the more favourable business conditions in the sector. Services activity remains at high levels, despite slowing economic activity in 2023.

2.3 Inflation

The 2023 inflation rate of 7.2% will primarily be a reflection of services and food inflation, and a base effect in energy prices.

Headline inflation as measured by the HICP is expected to average 7.2% in 2023 according to our latest projections (see Figure 2.3.1, left). Having hit almost 10% in the first quarter, it had been decelerating consistently until September, when it rose again to 7.1%. The uptick was primarily attributable to a base effect in connection with the government measures to mitigate the impact of high energy prices on households, which came into effect in September of 2022. Headline inflation has been slowing again since September of 2023, and fell to 4.5% in November. Amid the stabilisation of supply chains and slower growth in global demand, prices of non-energy industrial goods were an important factor in the fall in headline inflation in the second half of 2023. Despite slowing, domestic headline inflation is continuing to outpace the euro area overall. The gap with the overall euro area rate averaged almost 2 percentage points over the course of the year, and was attributable to a faster post-pandemic economic recovery in Slovenia as well as higher wage growth compared to the euro area average.

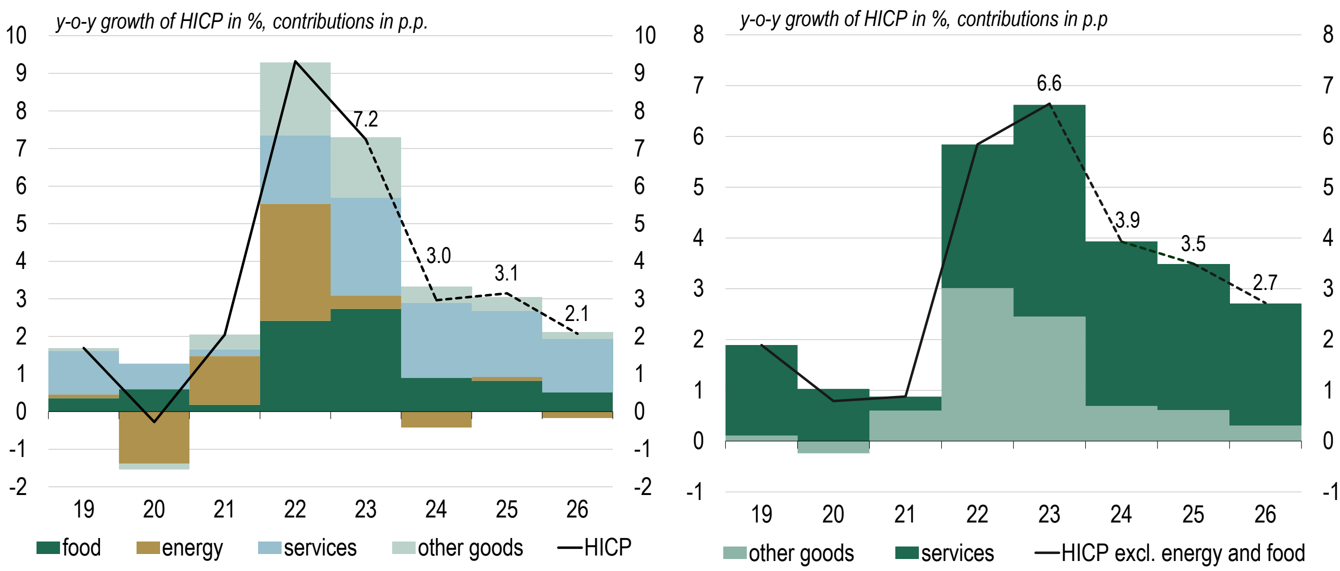
There will be a gradual slowdown in inflation over the following years, with a faster fall being prevented in particular by persistently high core inflation and by variability in the contribution by energy prices.

After averaging 7.2% in 2023, inflation in Slovenia is projected to stabilise at 3.0% in 2024 and 3.1% in 2025, before decelerating to 2.1% in the final year of the projection

Figure 2.3.1: **Headline and core inflation**

Projection of contributions to inflation by components

Projection of contributions to core inflation by components



Source: SORS, Eurostat, Banka Slovenije projections.

Source: SORS, Eurostat, Banka Slovenije projections.

horizon. The slowdown over the next two years will be driven in particular by food and other goods prices. Meanwhile, the contribution by energy prices will vary as the extension of the government measures to mitigate the impact of high energy prices will reduce headline inflation in 2024, before raising it again in 2025 when the measures expire. As the global factors wane, inflation will increasingly be driven by domestic factors, most notably wage growth, which will be reflected most evidently in services inflation. The pass-through of rising labour costs into inflation will partly be mitigated by cuts in profit margins. Amid these developments, inflation excluding energy and food will outpace headline inflation by an average of 0.6 percentage points over the next three years.

High core inflation over the following years will mainly be driven by services inflation, with high labour costs as its most important contributor.

Lagged impact of high energy and food inflation led to an increase in core inflation, as higher input costs were passed through. However, by the end of 2023, core inflation showed signs of slowing down. It fell to 5.1% in November, primarily as a result of a decline in the contribution by non-energy industrial goods. Meanwhile, services inflation remains high, and has exceeded 7% for more than 12 months now. In line with the high projected growth in wages, which represents the largest share of costs in services, services inflation will average more than 5% over the projection horizon. Core inflation will thus also remain elevated and it will outpace headline inflation on average, and is projected at 6.6% in 2023, 3.9% in 2024, 3.5% in 2025 and 2.7% in 2026 (see Figure 2.3.1, right). Given the higher projected wage growth, the differential in core inflation between Slovenia and the euro area overall will also remain present over the projection horizon. It averaged 1.8 percentage points in 2023, and will gradually narrow over the remainder of the projection horizon, however, it will average 1 percentage point over the next three years.[29]

[29] The factors in the inflation gap between Slovenia and the euro area overall are discussed in detail in Box 2.3.1.

Table 2.3.1: **Inflation projections**

	2018	2019	2020	2021	2022	2023		2024		2025		2026	
						Dec.	**Δ**	**Dec.**	**Δ**	**Dec.**	**Δ**	**Dec.**	**Δ**
	average y-o-y growth in %												
Consumer prices (HICP)	1.9	1.7	-0.3	2.0	9.3	**7.2**	-0.3	**3.0**	-0.6	**3.1**	0.5	**2.1**	…
food	2.4	1.6	2.8	0.7	10.6	**11.8**	-0.8	**3.9**	-1.0	**3.6**	0.0	**2.2**	…
energy	6.0	0.8	-10.8	11.3	24.8	**2.3**	1.6	**-3.2**	-3.0	**0.7**	4.0	**-1.3**	…
non-energy industrial goods	-0.8	0.3	-0.5	1.3	6.3	**5.3**	-0.4	**1.5**	0.1	**1.3**	0.6	**0.6**	…
services	2.4	3.1	1.8	0.6	5.5	**7.8**	-0.2	**5.9**	0.2	**5.1**	-0.5	**4.2**	…
Core inflation indicators (HICP)													
excluding energy	1.0	1.9	0.8	0.9	5.9	**6.6**	-0.4	**3.9**	0.1	**3.5**	0.0	**2.7**	…
excluding energy and unprocessed food	1.1	1.8	1.0	1.0	6.8	**7.8**	-0.4	**3.8**	-0.2	**3.4**	0.0	**2.6**	…
excluding energy and food	1.4	1.8	1.3	0.8	7.1	**8.0**	-0.5	**3.9**	-0.3	**3.5**	-0.1	**2.6**	…

Note: Δ: difference between current projections and projections given in the June 2023 issue of the Review of macroeconomic developments and projections.
Sources: SORS, Eurostat, Banka Slovenije projections.

Food inflation will slow significantly over the projection horizon, but will remain above its pre-pandemic average amid higher labour costs and climate-related effects.

After the shock to markets for primary agricultural commodities following the outbreak of the war in Ukraine, wholesale food prices fell consistently in 2023, helped in part by a fall in oil and natural gas prices, which reduced the prices of fertilisers and certain basic food commodities. Year-on-year food inflation is projected to average 11.8% in 2023, the rate hitting single digits as of September. This is attributable in particular to a fall in the prices of processed food, and also to a base effect, September and October of 2022 having seen significantly higher monthly growth than the same months in 2023.[30] Food inflation will slow over the remainder of the projection horizon, to average 3.9% in 2024, 3.6% in 2025 and 2.2% in 2026. It will remain above its pre-pandemic average over the entire projection horizon, primarily on account of rising labour costs, which have an impact on prices of processed food in particular, and the higher prices of food commodities after the pandemic, which in addition to the geopolitical situation are a reflection of the increasing frequency of extreme weather events.

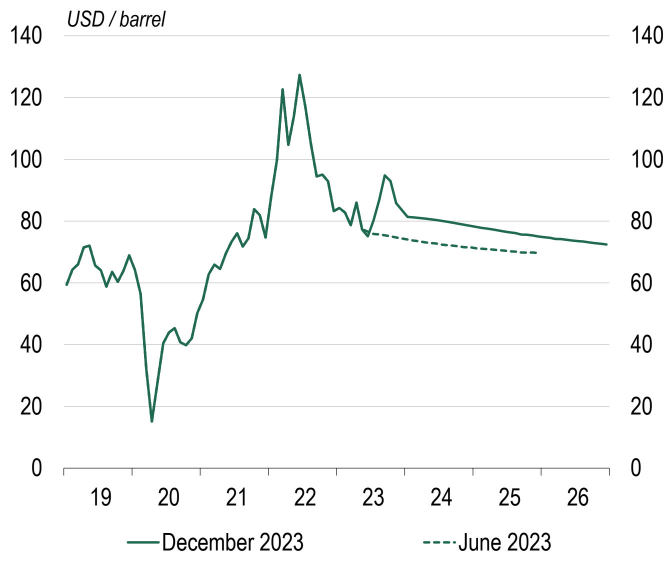
The contribution to headline inflation by energy prices will vary over the projection horizon, and will be conditioned by the timeframe of the price regulation of electricity, gas and motor fuels.

While energy prices fell over the summer months, energy inflation was again positive and relatively high in September and October at 5.8% and 8.0% respectively, largely as a result of a base effect from the government measures introduced in September 2022 related to prices of electricity, gas and heat energy. The contribution by energy prices to the headline inflation will remain volatile over the remainder of the projection horizon. The extension of electricity and gas price regulation and exemption from the environmental levy on electricity will reduce energy prices in 2024. Conversely, energy

[30] The methodology for calculating base effects in energy and food price inflation is described in detail on page 27 of the June 2023 issue of the Review of macroeconomic developments and projections.

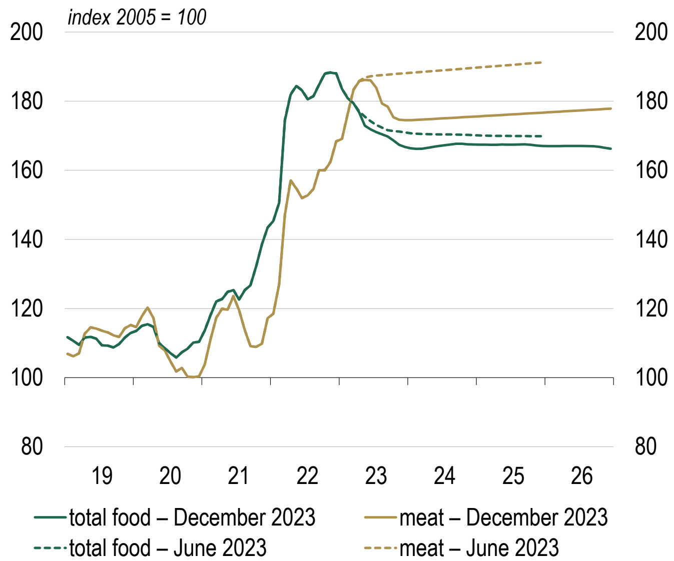
Figure 2.3.2: **Evolution of inflation assumptions**

Oil price on global markets



Source: ECB.

Food and meat prices on global markets



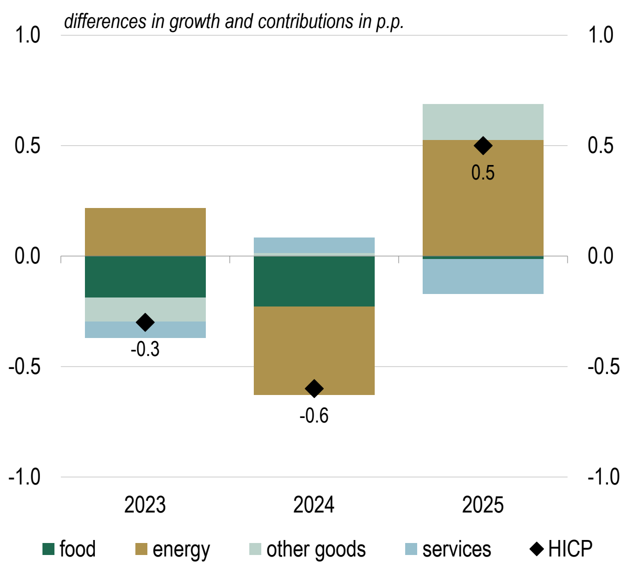
Source: ECB.

inflation will again make a positive contribution to headline inflation in 2025 as the measures expire and prices gradually return to the market levels. Considering current developments, the institutional framework of government measures and the expected developments in wholesale market prices, which reflect the assumptions of external environment, energy inflation will stand at 2.3% in 2023, -3.2% in 2024, 0.7% in 2025 and -1.3% in 2026. Despite the slowdown in inflation, energy prices will end the projection horizon up more than 20% on their pre-pandemic level.

The revision the inflation projection is most prominently driven by energy price inflation on the account of changed framework of the government measures and the corresponding base effects.

Our latest inflation projection for 2023 is 0.3 percentage points lower than June's (see Figure 2.3.3). The revision was driven by lower observed inflation in all price categories other than energy, where refined petroleum products rose in price. Despite current price rises and the upward revised assumption for global oil price (see Figure 2.3.2, left), the energy inflation projection for 2024 has been revised downwards. The revision is based on the extension of price regulation for electricity and gas, and on the introduced exemption of environmental levy, which will reduce inflation in 2024 before raising it in 2025. The food inflation projection for 2023 and 2024 has also been revised downwards, by 0.9 percentage points on average, where the revision comes mainly from a decline in current and expected developments in prices of international food products (see Figure 2.3.2, right). Moreover, the core inflation projection has been revised downwards too compared to the June projections, by 0.4 percentage points for 2023. A major factor in this was a downward revision of the non-energy industrial goods prices projection, as a result of a faster waning of supply-side pressures amid the sharp cooling of global demand. Services inflation is also decelerating faster than expected, which is indicative of the decline in domestic demand and the less pronounced pass-

Figure 2.3.3: **Revision to inflation projections**



Source: SORS, Banka Slovenije projections.

through of input costs. The projection for services inflation in 2023 was thus revised slightly downwards, while the projection for 2024 was revised slightly upwards due to the higher expected wage growth. In the wake of the described revisions in individual price categories, the headline inflation projection was lowered by 0.6 percentage points for 2024, and raised by 0.5 percentage points for 2025.

Box 2.3.1: **Model estimation of factors in the inflation gap between Slovenia and the euro area**

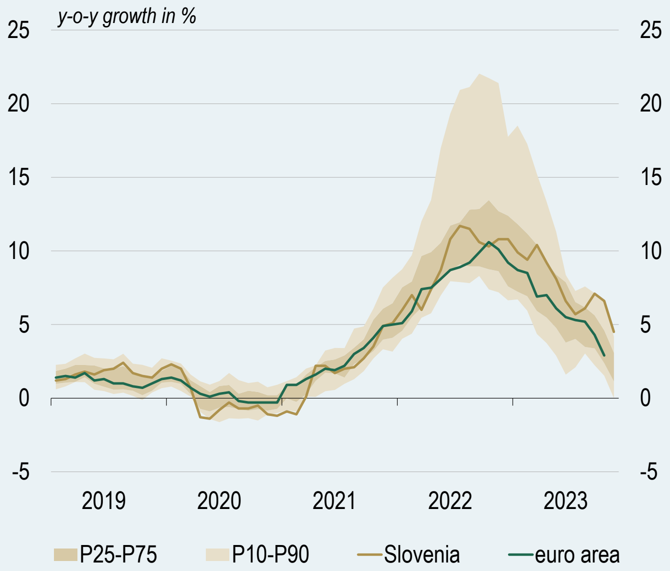
The persistence of domestic inflation above the euro area average is largely attributable to the robust labour market and to domestic demand. The gap is projected to narrow, and to gradually disappear by the end of the projection horizon.

This box analyses the inflation gaps between Slovenia and other euro area countries, focusing on the contributions of three major structural shocks: a demand shock, a labour market supply shock, and other supply shocks.

After the shock to global supply chains and the economic recovery in 2021, inflation developments in 2022 were profoundly shaped by the rise in energy prices that followed the outbreak of the war in Ukraine. Inflation consequently rose significantly in all euro area countries. In addition, differences in fiscal measures aimed at mitigating the impact of fast-rising energy prices, and the heterogeneity of labour market tightness and the resilience of domestic demand led to a significant divergence of inflation rates between individual countries (see Figure 2.3.1.1). Driven by the aforementioned factors, inflation in Slovenia remains in the third quartile of the euro area snapshot distribution.

From the perspective of macroeconomic projections, the key is understanding the factors that are contributing to the persistence of the inflation gap, and their waning over time. A VAR model with the following endogenous variables was used to identify the factors and their dynamic impact on the inflation gap over the projection horizon: real

Figure 2.3.1.1: **Inflation in the euro area**



Source: Eurostat, Banka Slovenije calcualtions.
Last observation: for all countries – November 2023, for EA – October 2023.

Table 2.3.1.1: **Sign restrictions in the SVAR model**

	Demand shocks	Labour supply shocks	Other supply shocks
HICP	+	+	+
real GDP	+	–	–
real compensation per employee	+	+	–

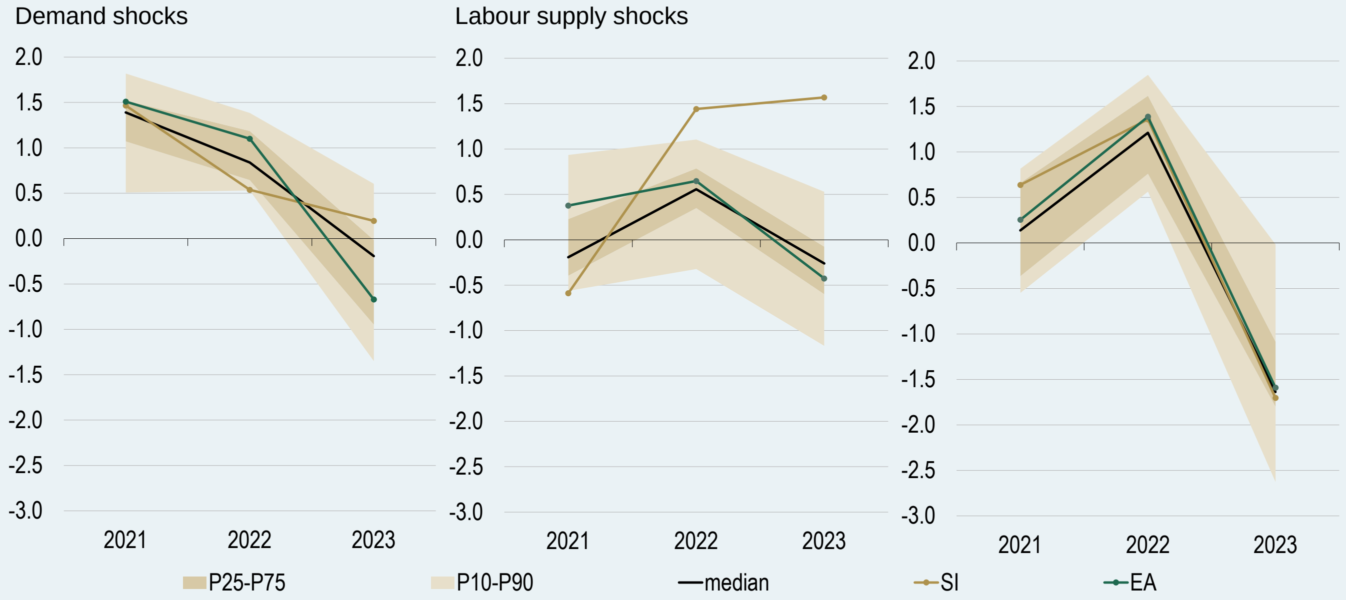
Note: The signs in the table illustrate the restrictions applying to the immediate impact on variables during the time of the occurrence of the shock.

GDP, the HICP, and real compensation to employees.[31] Structural shocks were identified in the analysis by means of sign restrictions.[32] The aggregate demand shocks describe factors that simultaneously raise aggregate demand, prices, and compensation to employees. Conversely, the labour supply shocks lead to a decline in aggregate supply, and a rise in prices driven by rising labour costs. Other supply shocks relate to factors that simultaneously lead to lower economic activity and higher prices in the context of lower compensation to employees. These include energy price shocks, disruption to supply chains, and the like.

Analysis of data from all euro area countries reveals details about the size of the structural shocks that economies were exposed to between 2021 and 2023 (see Figure 2.3.1.2). The highlighted areas in the figure represent the distribution of the size of the structural shocks across countries. It should be noted that during a strong recovery in demand and through fiscal incentives, euro area countries were exposed to a demand shock in 2021, and also to a lesser extent to other supply shocks, which mostly originated in restrictions in production chains. The supply shocks strengthened in 2022 as a result of labour market tightness and the shock to energy prices after the outbreak of the war in Ukraine. Amid the normalisation of energy prices and production chains,

[31] The analysis makes use of quarterly seasonally adjusted data. All variables are expressed as year-on-year rates of growth.
[32] The sign restrictions aimed at identifying structural shocks are illustrated in Table 2.3.1.1.

Figure 2.3.1.2: **Size of estimated structural shocks**

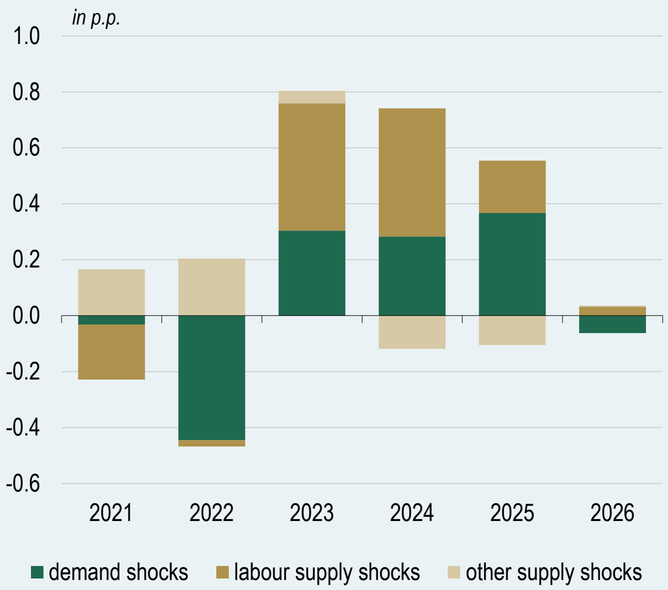


Source: Banka Slovenije calculations.

euro area countries were not exposed to additional global supply shocks in 2023. Conversely, the supply shocks on the labour market were positive in 2023, and were considerably more pronounced in Slovenia than in the euro area aggregate.

Given the delayed impact of the shocks from 2022 and 2023, the model estimates show that the inflation gap between Slovenia and the euro area aggregate will be maintained in 2024, but should have dissipated by the end of 2025 in the absence of new shocks. Figure 2.3.1.3 illustrates the estimates of the cumulative contributions by structural shocks to the gap between the stochastic components of annual inflation in the euro

Figure 2.3.1.3: **Contributions by structural shocks to gap in annual inflation between Slovenia and the euro area**



Source: Banka Slovenije calculations and projections.

area and in Slovenia, where account is taken of the difference in the structural shocks (see Figure 2.3.1.2) and the persistence of their effects, which are reflected by the estimated impulse responses. The differences in the supply shocks on the labour market account for approximately 0.5 percentage points of the inflation gaps in 2023 and 2024, and 0.2 percentage points in 2025, despite the considerable differences between countries in the size of the shocks. By contrast, the relatively comparable demand shocks account for 0.3 percentage points of the inflation gaps in 2023 and 2024, and 0.4 percentage points in 2025, primarily on account of their stronger pass-through and greater persistence.

3 Risks and Uncertainties

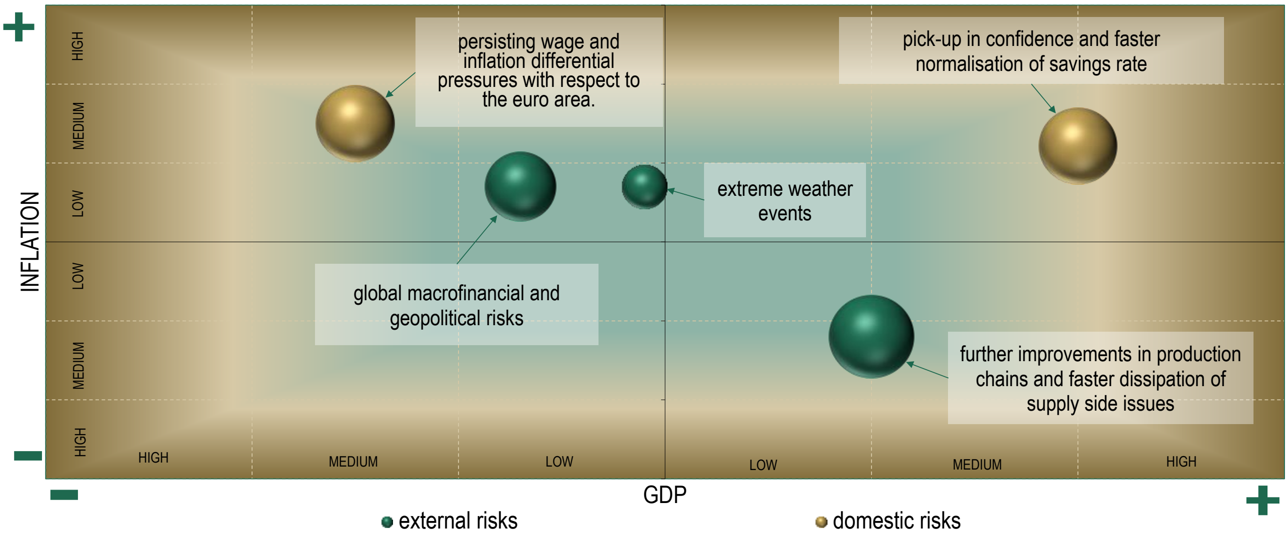
Risks to the economic growth projections are broadly balanced.

The economic growth projections are reliant to a significant extent on the assumption of the anticipated recovery in foreign demand. The persistent geopolitical uncertainty, the fragmentation of international trade and the increased risks to macrofinancial stability in parts of the global economy could curtail activity in trading partners and lead to renewed supply shocks, which would delay the recovery in output and export activity in Slovenia. Alongside the uncertain external environment, the existing difficulties on the production side of the economy could be deepened by the strengthened wage pressures and the inflation gap with respect to the euro area, which might evolve into reduced cost-effectiveness and a deterioration in the price competitiveness of the economy. Conversely factors from the domestic environment could lead to a faster rebound in domestic demand and economic growth. The household saving rate remains high and is projected to continue to exceed its long-term average in the medium-term. An improvement in confidence in the absence of new macroeconomic shocks could in turn lead to faster normalisation of the current high saving rate and the redirection of excess savings into private consumption and housing investment.

The risks to the inflation projection remain directed to the upside.

The main risk of inflation being higher than projected stems from real wage growth outpacing the productivity growth stronger than anticipated and more persistently over the projection horizon. This could lead to an intensified pass-through of wages into final prices, which would further increase wage pressures amid the tight labour market. The inflation projection is also based on the assumption of the partial mitigation of higher labour costs via a reduction in firms' profit margins. Risk to this assumption would entail a faster-than-expected recovery in domestic demand, which is highlighted as an upside risk to economic activity and would increase ability of firms to maintain profit margins higher than foreseen in the projections. Another factor that might lead to a higher inflation is the fragmentation of international trade and the deepening of geopolitical risks, which could deteriorate supply side conditions via higher commodity prices and renewed bottlenecks in global production chains. Additional risk to inflation from the supply-side perspective stems from the increasing frequency of extreme weather events

Figure 3.1: **Risks to the projections**



Note: Circle size indicates probability of risk realisation.
Source: Banka Slovenije calculations.

and their direct impact on prices of unprocessed food. Conversely, weaker than projected global demand amid the ongoing improvement in the situation in international production chains might lead to a faster disinflation process, particularly via lower global energy prices and prices of non-energy industrial goods. The relative significance of the risks to the macroeconomic projections are illustrated in Figure 3.1.

4 Comparison Between Institutions

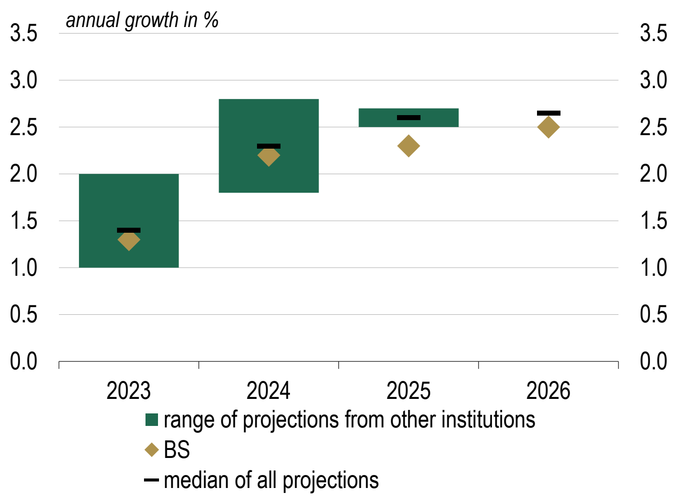
Among the available projections, the average GDP and consumer price inflation projection by Banka Slovenije over the 2023 to 2026 period are slightly lower.

The latest economic growth projections for the 2023 to 2026 period indicate a noticeable slowdown in 2023. All selected institutions anticipate a gradual stabilisation in both domestic and international environments throughout the remainder of the projection period, with economic growth approaching the long-term potential of the Slovenian economy. In 2023, the IMF has the highest economic growth projection for Slovenia at 2.0%, followed by IMAD, Consensus, and EBRD (1.6% and 1.5%). The lowest projection is from the CCI at 1.0%. Banka Slovenije's projection of 1.3% is 0.1 percentage points lower than the median of all projections for 2023.

For 2024, IMAD tops the economic growth projections at 2.8%, followed by WIIW, Consensus, EBRD, and CCI (2.7% and 2.3%). Banka Slovenije's projection of 2.2% falls in the lower half of the projection range, along with the projections of the IMF (2.2%), European Commission (2.0%), and OECD (1.8%). It is 0.1 percentage points lower than the median of 2.3% for the year in question. Projections for 2025 are available

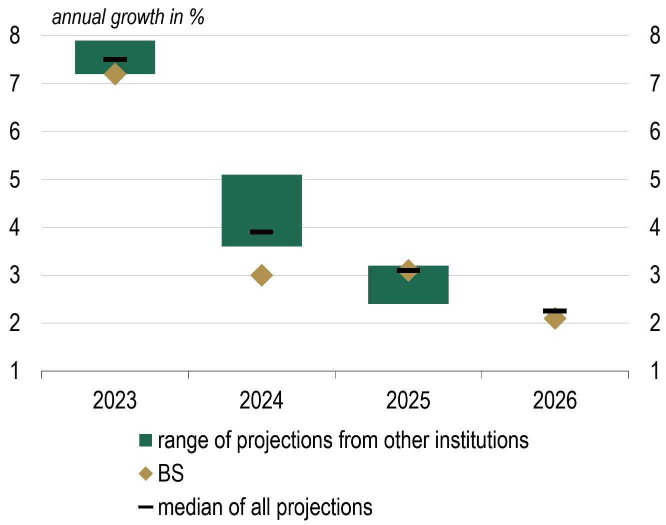
Figure 4.1: **Comparison of GDP and inflation projections between institutions**

Comparison of GDP projections



Source: Consensus Economics (Nov. projection), EBRD (Sep. projection), European Commission (Nov. projection), IMF (Oct. projection), OECD (Nov. projection), CCIS (Oct. projection), IMAD (Sep. projection), WIIW (Oct. projection), BS (Dec. projection).

Comparison of inflation projections



Source: Consensus Economics (Nov. projection), European Commission (Nov. projection), IMF (Oct. projection), OECD (Nov. projection), CCIS (Oct. projection), IMAD (Sep. projection), WIIW (Oct. projection), BS (Dec. projection).

from five institutions, with Banka Slovenije presenting the most conservative projection at 2.3%. Only two institutions provide economic growth projections for 2026: 2.8% from the IMF and 2.5% from Banka Slovenije.

In terms of inflation, the projections for 2023 remain elevated. For the subsequent years, institutions predict a gradual slowdown, but the median projection for consumer price inflation remains above the ECB's monetary policy target by the end of the projection period. The highest inflation projection for 2023 is from the CCI at 7.9%, followed by Consensus, IMAD, and OECD (7.6% and 7.5%). The lowest projections of 7.2% come from Banka Slovenije and WIIW, 0.3 percentage points less than the median projection of 7.5% for 2023.

In 2024, the CCI and OECD provide the highest inflation projections at 5.1% and 4.8%, respectively, followed by the European Commission, IMAD and Consensus (3.9% and 3.8%). Banka Slovenije again has the lowest projection at 3.0%, 0.9 percentage points less than the median projection of 3.9% for the year in question. In 2025, inflation projection from five institutions are available: the highest comes from the OECD (3.2%) and the lowest from the European Commission (2.4%). Banka Slovenije's projection lies at the median of 3.1% for the year in question, along with that of the IMF. As with economic growth projections, inflation projections for 2026 are available from the IMF and Banka Slovenije (2.4% and 2.1%, respectively).

Banka Slovenije has been the most accurate in projecting economic growth and inflation across all observation periods (2001 to 2022, 2001 to 2022 excluding 2008 and 2009, and 2009 to 2022).33

The accuracy of real GDP growth and consumer price inflation projections over the 2001 to 2022 period is measured by comparing the statistical estimate or observed values with past projections.[34] To assess projections accuracy, indicators such as mean error (ME), mean absolute error (MAE), standard deviation (STDEV), root mean square error (RMSE) and standardised root mean square error (SRMSE) are computed.[35]

Of the institutions in question, only Banka Slovenije, the European Commission, the IMF and the IMAD released projections for the entire observation period. The majority of institutions have projections available from 2004 (WIIW since 2008, the OECD since 2009, and the EBRD since 2011). The analysis also includes the entire observation period excluding 2008 and 2009 (the economic crisis) and the period of 2009 to 2022. In light of the past pandemic developments, a paragraph comparing the projections accuracy between the examined institutions in all observation periods up to 2020 and containing 2020, 2021 and 2022 is included at the end of the analysis.

According to MAE and RMSE, the European Commission, Banka Slovenije, and the IMAD provided the most accurate economic growth projections for the period spanning 2001 to 2022, while the most accurate inflation projections were attributed to Banka Slovenije, the CCI, and the IMAD. In terms of economic growth projections, MAE varied from 0.6 to 2.8 and from 0.9 to 2.7, while RMSE ranged from 0.8 to 4.0 and 1.1 to 3.9 over the entire period.[36]. Notably, the institutions exhibited slightly higher accuracy in projecting inflation, with narrower ranges of 0.2 to 1.4 for MAE and 0.3 to 2.2 for RMSE.

Examining the projections for all years except 2008 and 2009, the European Commission, Banka Slovenije, and the IMAD remained consistently accurate in economic growth projections. Banka Slovenije, the CCI, and the IMAD also continued to excel in projecting inflation. Excluding the years of 2008 and 2009 led to slightly improved accuracy in economic growth projections, as the increased volatility during the economic crisis was eliminated. MAE for economic growth projections ranged from 0.6 to 2.3 and 0.9 to 2.2, while RMSE ranged from 0.8 to 3.0 and 1.1 to 2.8 during this period. Inflation projections accuracy remained relatively stable compared to the entire observation period (2001 to 2022), with MAE ranging from 0.2 to 1.4 and RMSE from 0.3 to 2.3.

For the period from 2009 to 2022, the European Commission and the CCI emerged as top performers in projecting economic growth, followed by the OECD, the IMAD, and

[33] The comparative analysis of projections for real GDP growth and consumer price inflation in Slovenia involves nine institutions, with eight institutions providing projections for the latter. These institutions include Consensus Economics, the European Bank for Reconstruction and Development (EBRD), the European Commission, the analysis unit at the Chamber of Commerce and Industry of Slovenia (CCI), the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the Institute of Macroeconomic Analysis and Development (IMAD), the Vienna Institute for International Economic Studies (WIIW), and Banka Slovenije. Specifically, the consumer price inflation projections by the European Commission, the OECD, the WIIW, and Banka Slovenije pertain to inflation as measured by the HICP. In contrast, Consensus, the IMF, the CCI, and the IMAD focus on inflation as measured by the CPI.

[34] In the examination of projections accuracy between institutions in the 2001 to 2022 period and in the various sub-periods, the first and second observed values and projections of variables are compared. The selected projections for comparison closely align with the timing of Banka Slovenije's projections.

[35] For a comprehensive understanding of the statistical methods employed (in Slovene), refer to Cimperman and Savšek (2014): Accuracy of projections of macroeconomic aggregates for Slovenia.

[36] Two intervals are provided for each indicator regarding the accuracy of the real GDP growth projections. These intervals correspond to comparisons between the first and second observed values. In the case of inflation projections, the ranges in the observed indicators remain consistent, as historical data for this variable has not been revised since 2007. All calculations incorporate the spring and autumn projections from institutions for the current year and the following year.

Banka Slovenije. Banka Slovenije, the CCI, and Consensus displayed accuracy in inflation projections. Economic growth projections improved slightly compared to the entire observation period, particularly reflected in the RMSE range of 0.9 to 3.6 and 1.3 to 3.4 over the period in question. Range of MAE remained relatively consistent at 0.7 to 2.8 and 0.9 to 2.7. However, inflation projections accuracy showed a slight decline, as indicated by the RMSE range of 0.1 to 2.5, while MAE remained within the similar range of 0.1 to 1.5.

Errors in the economic growth projections increased substantially in 2020 and 2021, while key errors affecting inflation projections accuracy occurred in 2022.

A review of projections accuracy for all the periods in question including 2020, 2021 and 2022 highlights more pronounced errors in economic growth projections due to increased volatility following the 2020 pandemic outbreak and the subsequent robust economic recovery in 2021. Although the lower bounds of the MAE and RMSE intervals for economic growth projections remained broadly unchanged (between 0.1 and 0.3 points, taking into account both indicators, the first and the second observed values, and all of the aforementioned periods of comparison), the upper bounds, including the 2020 to 2022 period, saw a notable increase (between 0.2 and 0.7 points, taking into account the aforementioned specifications). Conversely, the accuracy of consumer price inflation projections was primarily affected by the war in Ukraine and the resulting energy price surge in 2022. This was reflected in a marked rise in the upper bounds of MAE and RMSE intervals (between 0.4 and 1.3 points, taking into account the aforementioned specifications), while the lower bounds remained stable.

5 Statistical Appendix

Table 5.1: **Key macroeconomic indicators at the monthly level for Slovenia**

	2020	2021	2022	22Q4	23Q1	23Q2	23Q3	2020	2021	2022	22Q4	23Q1	23Q2	23Q3
				Slovenia							*euro area*			
Economic developments							*q-o-q growth in %*							
GDP				0.6	0.2	1.0	-0.2				-0.1	0.1	0.1	-0.1
- industry				-0.8	-0.5	1.4	0.2				-0.3	-1.1	-0.4	-1.0
- construction				5.5	3.8	6.1	2.3				-0.2	1.9	-0.9	-0.1
- mainly public sector services (OPQ)				3.4	-2.2	0.9	-0.5				0.3	0.3	0.1	0.2
- mainly private sector services (without OPQ)				0.1	0.9	1.0	-0.1				-0.2	0.2	0.0	-0.1
Domestic expenditure				2.2	-2.6	-1.3	0.4				-0.5	-0.6	0.8	-0.1
- general government				1.0	0.8	0.9	0.3				0.5	-0.5	0.2	0.3
*- households and NPISH**				-0.1	0.3	-0.2	0.1				-0.8	0.0	0.0	0.3
- gross capital formation				2.3	-4.2	-6.8	2.9				-0.8	-2.1	2.9	-1.4
- gross fixed capital formation				0.3	4.3	2.6	0.8				-0.4	0.4	-0.1	0.0
							y-o-y growth in %							
GDP	-4.2	8.2	2.5	-0.2	1.0	1.6	1.1	-6.1	5.9	3.4	1.5	1.5	0.3	-0.3
- industry	-3.2	8.7	-3.1	-4.1	-2.0	2.0	1.2	-6.0	8.8	1.3	0.5	0.0	-1.6	-3.3
- construction	-1.5	10.4	7.2	11.1	15.1	21.0	18.4	-5.3	2.9	1.1	-1.4	0.8	-0.8	0.1
- mainly public sector services (OPQ)	2.4	4.1	1.4	3.5	0.1	1.8	1.6	-2.9	3.5	1.9	2.0	1.8	1.0	0.8
- mainly private sector services (without OPQ)	-5.5	8.3	4.9	0.4	1.7	2.6	1.6	-6.6	6.3	3.8	1.7	1.8	0.3	-0.4
Domestic expenditure	-4.3	10.1	3.7	0.1	-3.2	-3.0	-1.4	-5.7	4.7	3.5	0.9	0.8	0.2	-0.7
- general government	4.2	6.1	-0.5	-1.6	-0.8	3.4	2.8	1.0	4.2	1.6	0.6	-0.3	0.1	0.4
- households and NPISH	-6.5	10.3	3.6	0.2	3.1	0.3	-0.8	-7.7	4.4	4.2	1.1	1.6	0.3	-0.6
- gross capital formation	-6.3	13.9	7.9	1.9	-16.9	-14.9	-6.1	-7.1	6.1	3.9	0.8	0.1	0.1	-2.0
- gross fixed capital formation	-7.2	12.6	3.5	0.7	7.7	11.2	8.3	-5.9	3.5	2.6	0.2	2.3	0.6	-0.7
- inventories and valuables, contr. to GDP growth in p.p.	0.1	0.4	1.0	0.3	-6.3	-6.1	-3.2	-0.3	0.6	0.3	0.1	-0.5	-0.1	-0.3
Labour market							*q-o-q growth in %*							
Employment				0.4	0.4	0.1	0.1				0.4	0.5	0.1	0.2
- mainly private sector (without OPQ)				0.4	0.4	0.1	0.1				0.4	0.6	0.1	0.2
- mainly public services (OPQ)				0.4	0.3	0.4	0.4				0.3	0.3	0.2	0.3
							y-o-y growth in %							
Employment	-0.7	1.3	2.9	2.4	1.8	1.4	1.0	-1.4	1.4	2.3	1.5	1.7	1.4	1.3
- mainly private sector (without OPQ)	-1.4	1.0	3.1	2.6	1.9	1.4	0.9	-2.2	1.2	2.5	1.6	1.8	1.5	1.4
- mainly public services (OPQ)	2.2	2.7	2.0	1.5	1.4	1.5	1.5	1.0	2.1	1.6	1.3	1.2	1.1	1.2
Labour costs per employee	3.4	8.1	5.0	7.4	12.6	13.5	10.7	-0.3	4.2	4.5	5.0	5.6	5.6	5.2
- mainly private sector (without OPQ)	1.5	8.1	7.7	8.0	13.4	13.5	10.0	-1.3	4.9	4.8	4.7	6.1	5.7	5.4
- mainly public services (OPQ)	9.4	7.7	-3.1	5.5	10.1	13.5	13.0	2.0	2.3	3.8	5.8	4.1	5.1	4.5
Unit labour costs, nominal**	7.2	1.1	5.4	10.2	13.5	13.3	10.6	4.7	-0.4	3.4	5.0	5.7	6.7	6.8
Unit labour costs, real***	6.0	-1.5	-1.0	3.1	2.0	3.8	2.9	2.8	-2.5	-1.2	-0.6	-0.5	0.6	1.0
							in %							
LFS unemployment rate	5.0	4.7	4.0	3.5	3.8	3.6	3.9	7.9	7.7	6.8	6.7	6.8	6.3	…
Foreign trade							*q-o-q growth in %*							
Real export of goods and services				-5.8	0.4	-1.0	-2.4				-0.3	-0.3	-1.1	-1.1
Real import of goods and services				-4.0	-2.0	-2.3	-3.5				-1.1	-1.6	0.0	-1.2
							y-o-y growth in %							
Real export of goods and services	-8.5	14.5	7.2	-1.3	2.5	-1.3	-9.2	-9.1	11.5	7.2	3.8	3.2	-0.4	-3.4
Real import of goods and services	-9.1	17.8	9.0	-1.1	-2.1	-6.2	-12.1	-8.5	9.2	7.9	2.7	2.0	-0.6	-4.3
Current account balance as % of GDP****	7.2	3.3	-1.0	-1.0	0.3	2.5	3.3	1.6	2.3	-0.7	-0.7	-0.6	-0.3	0.3
External trade balance as contr. to GDP growth in p.p.	-0.3	-1.0	-1.0	-0.2	4.3	4.4	2.4	-0.6	1.4	0.0	0.6	0.7	0.1	0.5
Financing							*in % of GDP*							
Banking system's balance sheet	98.0	94.4	90.8	90.8	88.0	87.3	…	293.3	282.2	277.9	277.9	275.6	270.3	…
Loans to NFCs	20.2	19.2	20.0	20.0	19.6	19.2	18.6	39.7	37.4	37.0	37.0	36.3	35.8	35.2
Loans to households	22.8	21.6	21.5	21.5	21.0	20.6	20.4	52.7	50.7	48.9	48.9	48.1	47.3	46.7
Inflation							*in %*							
HICP	-0.3	2.0	9.3	10.6	9.9	7.9	6.3	0.3	2.6	8.4	10.0	8.0	6.2	5.0
HICP excl. energy, food, alcohol and tobacco	0.8	0.9	5.9	7.0	7.2	7.4	6.9	0.7	1.5	4.0	5.1	5.6	5.5	5.1
Public finance							*in % of GDP*							
Debt of the general government	79.6	74.4	72.3	72.3	72.0	70.4	…	97.2	94.7	90.9	90.9	90.7	90.3	…
One year net lending/net borrowing of the general government****	-7.6	-4.6	-3.0	-3.0	-3.2	-3.1	…	-7.1	-5.2	-3.6	-3.6	-3.7	-3.8	…
*- interest payment**** *	1.6	1.2	1.1	1.1	1.1	1.2	…	1.5	1.5	1.7	1.7	1.7	1.7	…
*- primary balance**** *	-6.1	-3.4	-1.9	-1.9	-2.0	-2.0	…	-5.5	-3.8	-1.9	-1.9	-2.0	-2.1	…

Note: The figures for economic developments are calendar-adjusted (with the exception of economic sentiment indicators, which are seasonally adjusted). The other figures in the table are unadjusted. The monthly activity indicators in industry, construction and services are given in real terms.
[1] HICP deflator. [2] Inflation excluding energy, food, alcohol and tobacco. [3] Consolidated position of the state budget, local government budgets, pension and disability insurance subsector and compulsory health insurance subsector, according to the principle of paid realisation.
Sources: SORS, Banka Slovenije, Ministry of Finance, Banka Slovenije calculations.

Table 5.2: **Key macroeconomic indicators at the quarterly level for Slovenia and the euro area**

	2020	2021	2022	22Q4	23Q1	23Q2	23Q3	2020	2021	2022	22Q4	23Q1	23Q2	23Q3
				Slovenia							*euro area*			
Economic developments							*q-o-q growth rates in %*							
GDP				0.6	0.2	1.0	-0.2				-0.1	0.1	0.1	-0.1
- industry				-0.8	-0.5	1.4	0.2				-0.3	-1.1	-0.4	-1.0
- construction				5.5	3.8	6.1	2.3				-0.2	1.9	-0.9	-0.1
- mainly public sector services (OPQ)				3.4	-2.2	0.9	-0.5				0.3	0.3	0.1	0.2
- mainly private sector services (without OPQ)				0.1	0.9	1.0	-0.1				-0.2	0.2	0.0	-0.1
Domestic expenditure				2.2	-2.6	-1.3	0.4				-0.5	-0.6	0.8	-0.1
- general government				1.0	0.8	0.9	0.3				0.5	-0.5	0.2	0.3
*- households and NPISH**				-0.1	0.3	-0.2	0.1				-0.8	0.0	0.0	0.3
- gross capital formation				2.3	-4.2	-6.8	2.9				-0.8	-2.1	2.9	-1.4
- gross fixed capital formation				0.3	4.3	2.6	0.8				-0.4	0.4	-0.1	0.0
							y-o-y growth rates in %							
GDP	-4.2	8.2	2.5	-0.2	1.0	1.6	1.1	-6.1	5.9	3.4	1.5	1.5	0.3	-0.3
- industry	-3.2	8.7	-3.1	-4.1	-2.0	2.0	1.2	-6.0	8.8	1.3	0.5	0.0	-1.6	-3.3
- construction	-1.5	10.4	7.2	11.1	15.1	21.0	18.4	-5.3	2.9	1.1	-1.4	0.8	-0.8	0.1
- mainly public sector services (OPQ)	2.4	4.1	1.4	3.5	0.1	1.8	1.6	-2.9	3.5	1.9	2.0	1.8	1.0	0.8
- mainly private sector services (without OPQ)	-5.5	8.3	4.9	0.4	1.7	2.6	1.6	-6.6	6.3	3.8	1.7	1.8	0.3	-0.4
Domestic expenditure	-4.3	10.1	3.7	0.1	-3.2	-3.0	-1.4	-5.7	4.7	3.5	0.9	0.8	0.2	-0.7
- general government	4.2	6.1	-0.5	-1.6	-0.8	3.4	2.8	1.0	4.2	1.6	0.6	-0.3	0.1	0.4
- households and NPISH	-6.5	10.3	3.6	0.2	3.1	0.3	-0.8	-7.7	4.4	4.2	1.1	1.6	0.3	-0.6
- gross capital formation	-6.3	13.9	7.9	1.9	-16.9	-14.9	-6.1	-7.1	6.1	3.9	0.8	0.1	0.1	-2.0
- gross fixed capital formation	-7.2	12.6	3.5	0.7	7.7	11.2	8.3	-5.9	3.5	2.6	0.2	2.3	0.6	-0.7
- inventories and valuables, contr. to GDP growth in p.p.	0.1	0.4	1.0	0.3	-6.3	-6.1	-3.2	-0.3	0.6	0.3	0.1	-0.5	-0.1	-0.3
Labour market							*q-o-q growth rates in %*							
Employment				0.4	0.4	0.1	0.1				0.4	0.5	0.1	0.2
- mainly private sector (without OPQ)				0.4	0.4	0.1	0.1				0.4	0.6	0.1	0.2
- mainly public services (OPQ)				0.4	0.3	0.4	0.4				0.3	0.3	0.2	0.3
							y-o-y growth rates in %							
Employment	-0.7	1.3	2.9	2.4	1.8	1.4	1.0	-1.4	1.4	2.3	1.5	1.7	1.4	1.3
- mainly private sector (without OPQ)	-1.4	1.0	3.1	2.6	1.9	1.4	0.9	-2.2	1.2	2.5	1.6	1.8	1.5	1.4
- mainly public services (OPQ)	2.2	2.7	2.0	1.5	1.4	1.5	1.5	1.0	2.1	1.6	1.3	1.2	1.1	1.2
Labour costs per employee	3.4	8.1	5.0	7.4	12.6	13.5	10.7	-0.3	4.2	4.5	5.0	5.6	5.6	5.2
- mainly private sector (without OPQ)	1.5	8.1	7.7	8.0	13.4	13.5	10.0	-1.3	4.9	4.8	4.7	6.1	5.7	5.4
- mainly public services (OPQ)	9.4	7.7	-3.1	5.5	10.1	13.5	13.0	2.0	2.3	3.8	5.8	4.1	5.1	4.5
Unit labour costs, nominal**	7.2	1.1	5.4	10.2	13.5	13.3	10.6	4.7	-0.4	3.4	5.0	5.7	6.7	6.8
Unit labour costs, real***	6.0	-1.5	-1.0	3.1	2.0	3.8	2.9	2.8	-2.5	-1.2	-0.6	-0.5	0.6	1.0
							in %							
LFS unemployment rate	5.0	4.7	4.0	3.5	3.8	3.6	3.9	7.9	7.7	6.8	6.7	6.8	6.3	...
Foreign trade							*q-o-q growth rates in %*							
Real export of goods and services				-5.8	0.4	-1.0	-2.4				-0.3	-0.3	-1.1	-1.1
Real import of goods and services				-4.0	-2.0	-2.3	-3.5				-1.1	-1.6	0.0	-1.2
							y-o-y growth rates in %							
Real export of goods and services	-8.5	14.5	7.2	-1.3	2.5	-1.3	-9.2	-9.1	11.5	7.2	3.8	3.2	-0.4	-3.4
Real import of goods and services	-9.1	17.8	9.0	-1.1	-2.1	-6.2	-12.1	-8.5	9.2	7.9	2.7	2.0	-0.6	-4.3
Current account balance as % of GDP****	7.2	3.3	-1.0	-1.0	0.3	2.5	3.3	1.6	2.3	-0.7	-0.7	-0.6	-0.3	0.3
External trade balance as contr. to GDP growth in p.p.	-0.3	-1.0	-1.0	-0.2	4.3	4.4	2.4	-0.6	1.4	0.0	0.6	0.7	0.1	0.5
Financing							*in % of GDP*							
Banking system's balance sheet	98.0	94.4	90.8	90.8	88.0	87.3	...	293.3	282.2	277.9	277.9	275.6	270.3	...
Loans to NFCs	20.2	19.2	20.0	20.0	19.6	19.2	18.6	39.7	37.4	37.0	37.0	36.3	35.8	35.2
Loans to households	22.8	21.6	21.5	21.5	21.0	20.6	20.4	52.7	50.7	48.9	48.9	48.1	47.3	46.7
Inflation							*in %*							
HICP	-0.3	2.0	9.3	10.6	9.9	7.9	6.3	0.3	2.6	8.4	10.0	8.0	6.2	5.0
HICP excl. energy, food, alcohol and tobacco	0.8	0.9	5.9	7.0	7.2	7.4	6.9	0.7	1.5	4.0	5.1	5.6	5.5	5.1
Public finance							*in % of GDP*							
Debt of the general government	79.6	74.4	72.3	72.3	72.0	70.4	...	97.2	94.7	90.9	90.9	90.7	90.3	...
One year net lending/net borrowing of the general government****	-7.6	-4.6	-3.0	-3.0	-3.2	-3.1	...	-7.1	-5.2	-3.6	-3.6	-3.7	-3.8	...
*- interest payment**** *	1.6	1.2	1.1	1.1	1.1	1.2	...	1.5	1.5	1.7	1.7	1.7	1.7	...
*- primary balance**** *	-6.1	-3.4	-1.9	-1.9	-2.0	-2.0	...	-5.5	-3.8	-1.9	-1.9	-2.0	-2.1	...

Note: Original figures are used to calculate the year-on-year rates, and seasonally adjusted figures are used to calculate the current rates of growth.
* The figures for Slovenia are calculated as the difference between the seasonally adjusted figures for aggregate final consumption and government final consumption.
** Nominal unit labour costs are the ratio of nominal compensation per employee to real labour productivity.
*** Real unit labour costs are the ratio of nominal compensation per employee to nominal labour productivity.
**** 4-quarter moving sum.
Sources: SORS, Eurostat, Banka Slovenije, ECB, Ministry of Finance, Banka Slovenije calculations.

Table 5.3: **Basic measures of projection accuracy for real GDP growth measured on the basis of first observed value**

Real GDP	2001-2022			2001-2008			2009-2022			2008 and 2009			excl. 2008-2009			2004-2022		
	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV
								spring projections										
current year																		
BS	0.1	1.2	1.8	0.4	0.9	1.1	-0.1	1.4	2.2	-3.4	3.4	3.8	0.5	1.0	1.2	0.2	1.4	2.0
Consensus	0.2	1.5	2.0	0.4	1.1	1.3	0.1	1.7	2.3	-3.5	3.5	3.3	0.6	1.3	1.5	0.3	1.6	2.1
EBRD							0.8	1.4	1.6									
EC	0.3	1.3	1.7	0.3	1.1	1.3	0.3	1.5	2.0	-2.7	2.7	2.8	0.6	1.2	1.4	0.4	1.4	1.8
CCIS	0.4	1.5	2.0	0.8	1.0	1.1	0.3	1.7	2.2	-3.1	3.1	3.6	0.8	1.3	1.4	0.4	1.5	2.0
IMF	0.4	1.6	2.0	0.3	1.0	1.3	0.5	1.9	2.4	-3.0	3.0	3.4	0.7	1.4	1.6	0.6	1.7	2.1
OECD							0.6	1.5	1.8									
IMAD	0.2	1.4	1.7	0.2	1.0	1.2	0.3	1.6	2.0	-2.5	2.5	2.3	0.5	1.3	1.5	0.4	1.5	1.8
WIIW							-0.5	2.5	3.7									
next year																		
BS	-0.8	2.4	3.7	-1.2	2.5	4.6	-0.5	2.4	3.3	-6.3	6.3	8.1	-0.2	2.0	2.8	-0.9	2.7	4.0
Consensus	-0.7	2.7	4.0	-1.4	2.9	5.1	-0.4	2.6	3.4	-6.0	6.6	9.3	-0.2	2.3	3.0	-0.8	2.9	4.2
EBRD							0.1	2.6	3.6									
EC	-0.8	2.4	3.6	-1.4	2.6	4.5	-0.5	2.2	3.1	-5.6	6.3	8.9	-0.3	1.9	2.7	-0.8	2.6	3.9
CCIS	-0.6	2.8	4.1	-1.7	3.6	6.1	-0.2	2.4	3.3	-6.3	6.3	8.6	0.1	2.3	3.0	-0.6	2.8	4.1
IMF	-0.7	2.4	3.7	-1.2	2.4	4.4	-0.4	2.4	3.3	-5.8	5.8	8.2	-0.2	2.0	2.8	-0.7	2.7	4.0
OECD							-0.3	2.5	3.4									
IMAD	-0.8	2.6	3.9	-1.4	2.6	4.6	-0.4	2.6	3.4	-5.9	6.3	8.9	-0.3	2.2	3.0	-0.8	2.9	4.2
WIIW							-0.3	2.8	3.6									
								autumn projections										
current year																		
BS	0.3	0.7	0.9	0.2	0.6	0.7	0.3	0.8	1.0	-1.2	1.2	0.3	0.4	0.7	0.8	0.3	0.8	1.0
Consensus	0.1	0.8	1.0	0.0	0.7	0.9	0.2	0.9	1.1	-1.6	1.6	0.5	0.3	0.7	0.9	0.2	0.8	1.0
EBRD							0.6	1.0	1.1									
EC	0.2	0.6	0.8	0.2	0.6	0.7	0.3	0.7	0.9	-0.8	0.8	0.1	0.3	0.6	0.8	0.2	0.7	0.8
CCIS	0.3	0.8	0.9	0.0	0.8	1.0	0.4	0.8	0.9	-1.3	1.3	0.2	0.4	0.7	0.8	0.3	0.8	0.9
IMF	0.2	1.0	1.3	0.2	0.8	1.0	0.1	1.0	1.4	-2.1	2.1	1.8	0.4	0.8	1.0	0.2	1.0	1.3
OECD							0.4	0.7	0.9									
IMAD	0.2	0.7	0.9	0.0	0.6	0.8	0.3	0.7	0.9	-1.1	1.1	0.4	0.3	0.6	0.8	0.3	0.7	0.9
WIIW							0.1	1.2	1.7									
next year																		
BS	-0.4	2.4	3.7	-1.0	2.5	4.5	-0.1	2.3	3.3	-5.9	5.9	8.1	0.2	2.0	2.8	-0.5	2.6	4.0
Consensus	-0.6	2.4	3.7	-1.3	2.6	4.4	-0.1	2.4	3.2	-5.5	6.2	8.7	-0.1	2.1	2.8	-0.5	2.7	3.9
EBRD							0.6	2.7	3.7									
EC	-0.4	2.2	3.5	-1.0	2.4	4.3	-0.1	2.1	3.1	-5.5	5.6	7.8	0.1	1.9	2.7	-0.5	2.5	3.8
CCIS	-0.4	2.5	3.8	-1.3	3.0	5.2	0.0	2.3	3.2	-5.5	6.2	8.7	0.2	2.0	2.9	-0.5	2.6	3.9
IMF	-0.4	2.5	3.8	-1.0	2.5	4.5	-0.1	2.5	3.4	-5.5	6.3	8.9	0.1	2.1	2.9	-0.5	2.8	4.1
OECD							-0.1	2.3	3.3									
IMAD	-0.6	2.3	3.6	-1.1	2.4	4.3	-0.3	2.3	3.3	-5.4	5.9	8.3	-0.1	2.0	2.8	-0.7	2.6	3.9
WIIW							-0.4	2.4	3.3									

Sources: Banka Slovenije, Consensus Economics, EBRD, European Commission, CCI, IMF, OECD, IMAD, WIIW.

Table 5.4: **Basic measures of projection accuracy for real GDP growth measured on the basis of second observed value**

Real GDP	2001-2022			2001-2008			2009-2022			2008 and 2009			excl. 2008-2009			2004-2022		
	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV
spring projections																		
current year																		
BS	0.2	1.4	2.0	0.6	0.9	1.1	-0.1	1.7	2.4	-3.3	3.3	3.9	0.5	1.2	1.5	0.2	1.6	2.2
Consensus	0.3	1.6	2.2	0.6	1.1	1.3	0.1	1.8	2.5	-3.3	3.3	3.4	0.6	1.4	1.7	0.3	1.7	2.3
EBRD							0.8	1.3	1.5									
EC	0.3	1.4	1.8	0.4	1.1	1.3	0.3	1.5	2.0	-2.6	2.6	2.9	0.6	1.2	1.4	0.5	1.4	1.8
CCIS	0.4	1.4	1.9	1.0	1.1	1.1	0.3	1.6	2.2	-2.9	2.9	3.7	0.8	1.3	1.4	0.4	1.4	1.9
IMF	0.5	1.6	2.1	0.4	1.1	1.3	0.5	1.8	2.5	-2.9	2.9	3.5	0.8	1.4	1.7	0.6	1.6	2.2
OECD							0.6	1.6	2.1									
IMAD	0.3	1.4	1.8	0.3	1.0	1.2	0.3	1.7	2.1	-2.4	2.4	2.3	0.5	1.3	1.6	0.4	1.6	1.9
WIIW							-0.5	2.3	3.4									
next year																		
BS	-0.7	2.4	3.6	-1.0	2.4	4.6	-0.6	2.3	3.0	-6.3	6.3	7.9	-0.2	1.9	2.6	-0.8	2.7	3.9
Consensus	-0.7	2.6	3.8	-1.2	2.9	5.1	-0.4	2.4	3.1	-6.0	6.4	9.1	-0.1	2.2	2.8	-0.7	2.8	4.0
EBRD							0.1	2.4	3.3									
EC	-0.8	2.3	3.5	-1.2	2.5	4.5	-0.6	2.2	2.9	-5.7	6.2	8.7	-0.3	1.9	2.6	-0.8	2.5	3.8
CCIS	-0.6	2.7	4.0	-1.5	3.6	6.1	-0.2	2.3	3.0	-6.3	6.3	8.3	0.1	2.2	2.9	-0.6	2.7	4.0
IMF	-0.7	2.3	3.5	-1.0	2.3	4.4	-0.5	2.3	3.0	-5.9	5.9	8.0	-0.1	1.9	2.6	-0.7	2.6	3.8
OECD							-0.4	2.3	3.1									
IMAD	-0.8	2.5	3.7	-1.2	2.6	4.6	-0.5	2.4	3.2	-6.0	6.2	8.7	-0.2	2.1	2.8	-0.8	2.8	4.0
WIIW							-0.3	2.6	3.4									
autumn projections																		
current year																		
BS	0.3	0.9	1.2	0.3	0.6	0.7	0.3	1.1	1.5	-1.1	1.1	0.4	0.4	0.9	1.2	0.3	1.0	1.3
Consensus	0.2	1.0	1.3	0.2	0.7	0.9	0.2	1.2	1.5	-1.4	1.4	0.6	0.4	1.0	1.3	0.3	1.1	1.4
EBRD							0.6	1.3	1.7									
EC	0.3	0.9	1.3	0.3	0.7	0.7	0.2	1.0	1.5	-0.7	0.7	0.1	0.4	0.9	1.3	0.3	0.9	1.3
CCIS	0.3	0.9	1.2	0.2	0.7	0.9	0.3	1.0	1.3	-1.1	1.1	0.1	0.5	0.9	1.2	0.3	0.9	1.2
IMF	0.2	1.2	1.5	0.4	0.9	1.1	0.1	1.3	1.7	-2.0	2.0	1.9	0.4	1.1	1.3	0.2	1.2	1.6
OECD							0.4	0.9	1.4									
IMAD	0.2	0.9	1.1	0.2	0.6	0.8	0.3	1.0	1.3	-0.9	0.9	0.3	0.3	0.9	1.1	0.3	1.0	1.2
WIIW							0.1	1.6	2.0									
next year																		
BS	-0.4	2.3	3.6	-0.8	2.5	4.5	-0.1	2.2	3.1	-6.0	6.0	7.8	0.2	1.9	2.7	-0.5	2.5	3.9
Consensus	-0.5	2.3	3.5	-1.2	2.5	4.4	-0.1	2.1	2.9	-5.5	6.0	8.5	0.0	1.9	2.5	-0.5	2.5	3.8
EBRD							0.5	2.7	3.5									
EC	-0.4	2.1	3.4	-0.8	2.4	4.3	-0.1	2.0	2.8	-5.5	5.5	7.6	0.2	1.8	2.5	-0.5	2.4	3.6
CCIS	-0.4	2.4	3.7	-1.2	3.0	5.2	0.0	2.1	2.9	-5.5	6.0	8.5	0.2	2.0	2.7	-0.4	2.5	3.8
IMF	-0.4	2.4	3.7	-0.9	2.4	4.6	-0.1	2.4	3.2	-5.6	6.2	8.7	0.2	2.0	2.7	-0.5	2.7	4.0
OECD							-0.2	2.4	3.2									
IMAD	-0.6	2.2	3.5	-1.0	2.3	4.3	-0.3	2.2	3.1	-5.4	5.7	8.1	-0.1	1.9	2.7	-0.6	2.5	3.8
WIIW							-0.4	2.2	3.0									

Sources: Banka Slovenije, Consensus Economics, EBRD, European Commission, CCI, IMF, OECD, IMAD, WIIW.

Table 5.5: **RMSE and SRMSE for real GDP growth projections measured on the basis of first observed value**

Real GDP	RMSE						SRMSE					
	2001-2022	2001-2008	2009-2022	2008-2009	w/o 08-09	2004-2022	2001-2022	2001-2008	2009-2022	2008-2009	w/o 08-09	2004-2022
						spring projections						
current year												
BS	1.8	1.1	2.1	4.3	1.3	1.9	0.5	0.7	0.5	0.5	0.4	0.5
Consensus	2.0	1.3	2.3	4.2	1.6	2.1	0.5	0.9	0.5	0.5	0.5	0.5
EBRD			1.7						0.4			
EC	1.7	1.3	1.9	3.4	1.4	1.8	0.4	0.8	0.4	0.4	0.5	0.4
CCIS	2.0	1.3	2.2	4.0	1.6	2.0	0.5	0.9	0.5	0.5	0.5	0.5
IMF	2.0	1.2	2.4	3.8	1.8	2.2	0.5	0.8	0.5	0.5	0.6	0.5
OECD			1.8						0.4			
IMAD	1.7	1.1	1.9	3.0	1.5	1.8	0.4	0.8	0.4	0.4	0.5	0.4
WIIW			3.6						0.8			
next year												
BS	3.7	4.4	3.2	8.5	2.8	4.0	1.0	3.0	0.7	1.0	0.9	1.0
Consensus	3.9	5.0	3.3	8.8	2.9	4.1	1.0	3.3	0.7	1.1	0.9	1.0
EBRD			3.4						0.8			
EC	3.6	4.4	3.1	8.4	2.7	3.9	1.0	3.0	0.7	1.0	0.8	0.9
CCIS	4.0	5.7	3.1	8.7	3.0	4.0	1.1	3.8	0.7	1.1	0.9	1.0
IMF	3.6	4.3	3.2	8.2	2.8	3.9	1.0	2.9	0.7	1.0	0.9	1.0
OECD			3.3						0.7			
IMAD	3.8	4.5	3.3	8.6	2.9	4.1	1.0	3.1	0.8	1.1	0.9	1.0
WIIW			3.5						0.8			
						autumn projections						
current year												
BS	0.9	0.7	1.0	1.2	0.9	1.0	0.2	0.5	0.2	0.1	0.3	0.2
Consensus	1.0	0.8	1.1	1.6	0.9	1.0	0.3	0.6	0.2	0.2	0.3	0.3
EBRD			1.2						0.3			
EC	0.8	0.6	0.9	0.8	0.8	0.8	0.2	0.4	0.2	0.1	0.3	0.2
CCIS	0.9	0.9	0.9	1.3	0.8	0.9	0.2	0.6	0.2	0.2	0.3	0.2
IMF	1.2	1.0	1.4	2.5	1.0	1.3	0.3	0.7	0.3	0.3	0.3	0.3
OECD			1.0						0.2			
IMAD	0.9	0.7	0.9	1.1	0.8	0.9	0.2	0.5	0.2	0.1	0.3	0.2
WIIW			1.7						0.4			
next year												0.4
BS	3.7	4.3	3.2	8.2	2.8	3.9	1.0	2.9	0.7	1.0	0.9	1.0
Consensus	3.6	4.3	3.1	8.2	2.7	3.9	0.9	2.9	0.7	1.0	0.8	0.9
EBRD			3.6						0.8			
EC	3.4	4.1	3.0	7.8	2.6	3.7	0.9	2.8	0.7	0.9	0.8	0.9
CCIS	3.7	4.9	3.0	8.2	2.8	3.8	1.0	3.3	0.7	1.0	0.9	0.9
IMF	3.7	4.4	3.3	8.4	2.8	4.0	1.0	2.9	0.7	1.0	0.9	1.0
OECD			3.2						0.7			
IMAD	3.6	4.2	3.2	7.9	2.8	3.9	0.9	2.8	0.7	1.0	0.9	0.9
WIIW			3.2						0.7			

Sources: Banka Slovenije, Consensus Economics, EBRD, European Commission, CCI, IMF, OECD, IMAD, WIIW.

Table 5.6: **RMSE and SRMSE for real GDP growth projections measured on the basis of second observed value**

Real GDP	RMSE						SRMSE					
	2001-2022	2001-2008	2009-2022	2008-2009	w/o 08-09	2004-2022	2001-2022	2001-2008	2009-2022	2008-2009	w/o 08-09	2004-2022
spring projections												
current year												
BS	2.0	1.1	2.3	4.3	1.6	2.1	0.5	0.8	0.6	0.5	0.5	0.5
Consensus	2.1	1.3	2.4	4.1	1.8	2.2	0.6	0.9	0.6	0.5	0.6	0.6
EBRD			1.7						0.4			
EC	1.8	1.3	2.0	3.3	1.5	1.9	0.5	0.9	0.5	0.4	0.5	0.5
CCIS	1.9	1.4	2.1	3.9	1.6	1.9	0.5	1.0	0.5	0.5	0.5	0.5
IMF	2.1	1.3	2.4	3.8	1.9	2.2	0.6	0.9	0.6	0.5	0.6	0.6
OECD			2.1						0.5			
IMAD	1.8	1.2	2.1	2.9	1.7	1.9	0.5	0.8	0.5	0.3	0.6	0.5
WIIW			3.3						0.8			
next year												
BS	3.6	4.4	3.0	8.4	2.6	3.9	1.0	3.1	0.7	1.0	0.9	1.0
Consensus	3.8	4.9	3.0	8.8	2.7	4.0	1.0	3.4	0.7	1.1	0.9	1.0
EBRD			3.2						0.8			
EC	3.5	4.4	2.9	8.4	2.5	3.8	1.0	3.0	0.7	1.0	0.9	1.0
CCIS	3.9	5.7	2.9	8.6	2.8	3.9	1.1	3.9	0.7	1.0	0.9	1.0
IMF	3.5	4.3	2.9	8.1	2.6	3.8	1.0	3.0	0.7	1.0	0.9	1.0
OECD			3.0						0.7			
IMAD	3.7	4.5	3.1	8.6	2.7	4.0	1.0	3.1	0.8	1.0	0.9	1.0
WIIW			3.3						0.8			
autumn projections												
current year												
BS	1.2	0.7	1.4	1.1	1.2	1.3	0.3	0.5	0.3	0.1	0.4	0.3
Consensus	1.3	0.9	1.5	1.5	1.3	1.4	0.4	0.6	0.4	0.2	0.4	0.4
EBRD			1.8						0.4			
EC	1.3	0.7	1.5	0.7	1.3	1.3	0.3	0.5	0.4	0.1	0.4	0.3
CCIS	1.2	0.9	1.3	1.1	1.2	1.2	0.3	0.6	0.3	0.1	0.4	0.3
IMF	1.5	1.1	1.7	2.4	1.4	1.5	0.4	0.7	0.4	0.3	0.5	0.4
OECD			1.4						0.3			
IMAD	1.1	0.8	1.3	0.9	1.1	1.2	0.3	0.5	0.3	0.1	0.4	0.3
WIIW			2.0						0.5			
next year												
BS	3.5	4.3	3.0	8.1	2.6	3.8	1.0	3.0	0.7	1.0	0.9	1.0
Consensus	3.4	4.3	2.8	8.1	2.5	3.7	0.9	3.0	0.7	1.0	0.8	0.9
EBRD			3.4						0.8			
EC	3.3	4.1	2.7	7.7	2.4	3.6	0.9	2.8	0.7	0.9	0.8	0.9
CCIS	3.6	4.9	2.8	8.1	2.6	3.7	1.0	3.4	0.7	1.0	0.9	0.9
IMF	3.6	4.3	3.1	8.3	2.7	3.9	1.0	3.0	0.7	1.0	0.9	1.0
OECD			3.0						0.7			
IMAD	3.5	4.1	3.0	7.9	2.6	3.7	1.0	2.9	0.7	0.9	0.9	1.0
WIIW			2.9						0.7			

Sources: Banka Slovenije, Consensus Economics, EBRD, European Commission, CCI, IMF, OECD, IMAD, WIIW.

Table 5.7: **Basic measures of projections accuracy for inflation measured on the basis of first observed value**

HICP/CPI	2001-2022			2001-2008			2009-2022			2008 and 2009			excl. 2008-2009			2004-2022		
	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV
							spring projections											
current year																		
BS	0.1	0.4	0.5	0.3	0.5	0.6	0.0	0.3	0.4	0.2	0.3	0.4	0.1	0.4	0.5	0.1	0.3	0.4
Consensus	0.0	0.6	0.8	0.0	0.6	0.8	-0.1	0.6	0.8	-0.1	0.7	1.0	0.0	0.6	0.8	0.0	0.6	0.8
EC	0.1	0.6	0.9	0.0	0.4	0.7	0.2	0.6	1.0	0.2	0.2	0.1	0.1	0.6	1.0	0.2	0.5	0.9
CCIS	-0.1	0.4	0.6	0.2	0.5	0.6	-0.2	0.4	0.5	0.1	0.2	0.3	-0.1	0.5	0.6	-0.1	0.4	0.6
IMF	0.3	0.7	0.9	0.4	0.7	0.9	0.3	0.6	0.9	1.0	1.0	0.8	0.3	0.6	0.9	0.4	0.7	0.9
OECD							0.0	0.6	0.8									
IMAD	0.3	0.6	0.9	0.1	0.6	0.8	0.4	0.6	0.9	0.4	0.4	0.1	0.3	0.6	0.9	0.4	0.6	0.8
WIIW							-0.1	1.1	1.6									
next year																		
BS	0.4	1.4	2.2	0.5	1.4	1.8	0.3	1.4	2.4	-1.2	1.5	2.1	0.5	1.4	2.2	0.3	1.4	2.3
Consensus	0.0	1.4	2.3	0.0	1.5	2.0	0.0	1.4	2.5	-1.6	1.6	1.3	0.2	1.4	2.3	0.0	1.5	2.3
EC	0.0	1.4	2.2	-0.4	1.5	1.9	0.2	1.3	2.5	-1.2	1.3	1.8	0.1	1.4	2.3	0.2	1.4	2.3
CCIS	0.0	1.4	2.3	0.2	1.5	2.0	0.0	1.3	2.5	-1.2	1.5	2.1	0.2	1.4	2.3	0.0	1.4	2.3
IMF	0.2	1.4	2.2	0.3	1.5	1.8	0.2	1.3	2.5	-0.5	1.1	1.5	0.3	1.4	2.3	0.3	1.4	2.3
OECD							0.3	1.5	2.6									
IMAD	0.2	1.3	2.2	0.2	1.2	1.6	0.2	1.3	2.5	-0.9	1.4	2.0	0.3	1.2	2.2	0.3	1.4	2.3
WIIW							0.1	1.3	2.5									
							autumn projections											
current year																		
BS	-0.1	0.2	0.2	-0.2	0.3	0.4	-0.1	0.1	0.1	-0.4	0.4	0.3	-0.1	0.2	0.2	-0.1	0.2	0.2
Consensus	-0.1	0.3	0.3	-0.2	0.4	0.5	0.0	0.2	0.2	-0.4	0.4	0.2	0.0	0.2	0.3	0.0	0.2	0.3
EC	-0.2	0.3	0.4	-0.5	0.5	0.6	0.0	0.1	0.2	-0.4	0.4	0.5	-0.2	0.3	0.4	-0.1	0.2	0.2
CCIS	-0.1	0.3	0.4	-0.2	0.3	0.4	0.0	0.3	0.3	-0.2	0.3	0.4	-0.1	0.3	0.4	0.0	0.3	0.3
IMF	0.0	0.4	0.5	-0.1	0.5	0.6	0.1	0.4	0.4	0.0	0.4	0.6	0.0	0.4	0.5	0.0	0.3	0.4
OECD							0.0	0.1	0.2									
IMAD	-0.1	0.3	0.4	-0.4	0.5	0.5	0.0	0.2	0.3	-0.4	0.4	0.4	-0.1	0.3	0.4	0.0	0.2	0.3
WIIW							-0.1	0.4	0.4									
next year																		
BS	0.1	1.2	1.7	0.0	1.1	1.5	0.1	1.3	1.9	-1.0	1.6	2.3	0.2	1.1	1.7	0.1	1.3	1.8
Consensus	0.0	1.3	2.1	-0.2	1.5	2.0	0.1	1.2	2.3	-1.6	1.6	2.2	0.2	1.3	2.1	0.1	1.3	2.2
EC	0.1	1.4	2.2	-0.4	1.4	1.8	0.3	1.4	2.4	-1.2	1.6	2.3	0.2	1.4	2.2	0.2	1.4	2.2
CCIS	0.0	1.4	2.2	-0.1	1.3	1.7	0.0	1.4	2.4	-1.0	1.8	2.5	0.1	1.3	2.2	0.0	1.4	2.2
IMF	0.1	1.3	2.1	-0.1	1.3	1.6	0.3	1.3	2.4	-0.9	1.5	2.1	0.2	1.3	2.1	0.2	1.3	2.2
OECD							0.3	1.4	2.2									
IMAD	0.1	1.3	2.1	-0.2	1.2	1.6	0.3	1.4	2.4	-1.2	1.8	2.5	0.2	1.3	2.0	0.2	1.4	2.2
WIIW							0.2	1.2	2.4									

Sources: Banka Slovenije, Consensus Economics, European Commission, CCI, IMF, OECD, IMAD, WIIW.

Table 5.8: **Basic measures of projections accuracy for inflation measured on the basis of second observed value**

HICP/CPI	2001-2021			2001-2008			2009-2021			2008 and 2009			excl. 2008-2009			2004-2021		
	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV
							spring projections											
current year																		
BS	0.1	0.4	0.5	0.3	0.5	0.6	0.0	0.3	0.4	0.2	0.3	0.4	0.1	0.4	0.5	0.1	0.3	0.5
Consensus	0.0	0.6	0.8	0.1	0.7	0.8	-0.1	0.6	0.8	-0.1	0.7	1.0	0.0	0.6	0.8	0.0	0.6	0.8
EC	0.1	0.6	0.9	0.0	0.5	0.7	0.2	0.6	1.0	0.2	0.2	0.1	0.1	0.6	1.0	0.2	0.5	0.9
CCIS	-0.1	0.4	0.6	0.2	0.5	0.7	-0.2	0.4	0.5	0.1	0.2	0.3	-0.1	0.5	0.6	-0.1	0.4	0.6
IMF	0.3	0.7	0.9	0.5	0.7	0.9	0.3	0.6	0.9	1.0	1.0	0.8	0.3	0.6	0.9	0.4	0.7	0.9
OECD							0.0	0.6	0.8									
IMAD	0.3	0.6	0.8	0.1	0.6	0.8	0.4	0.6	0.9	0.4	0.4	0.1	0.3	0.6	0.9	0.4	0.6	0.8
WIIW							-0.1	1.1	1.6									
next year																		
BS	0.4	1.4	2.2	0.5	1.4	1.8	0.3	1.4	2.4	-1.2	1.5	2.1	0.5	1.4	2.2	0.3	1.4	2.3
Consensus	0.0	1.4	2.3	0.0	1.6	2.0	0.0	1.4	2.5	-1.6	1.6	1.3	0.2	1.4	2.3	0.0	1.5	2.4
EC	0.0	1.4	2.2	-0.4	1.6	1.9	0.2	1.3	2.5	-1.2	1.3	1.8	0.1	1.4	2.3	0.2	1.4	2.3
CCIS	0.0	1.4	2.3	0.2	1.5	2.1	0.0	1.3	2.5	-1.2	1.5	2.1	0.2	1.4	2.4	0.0	1.4	2.3
IMF	0.2	1.4	2.2	0.3	1.5	1.8	0.2	1.3	2.5	-0.5	1.1	1.5	0.3	1.4	2.3	0.3	1.4	2.3
OECD							0.3	1.5	2.6									
IMAD	0.2	1.3	2.2	0.2	1.2	1.6	0.2	1.3	2.5	-0.9	1.4	2.0	0.4	1.3	2.2	0.3	1.4	2.3
WIIW							0.1	1.3	2.5									
							autumn projections											
current year																		
BS	-0.1	0.2	0.3	-0.2	0.3	0.4	-0.1	0.1	0.1	-0.4	0.4	0.3	-0.1	0.2	0.2	-0.1	0.2	0.2
Consensus	-0.1	0.3	0.3	-0.2	0.4	0.5	0.0	0.2	0.2	-0.4	0.4	0.2	0.0	0.3	0.3	0.0	0.2	0.3
EC	-0.2	0.3	0.3	-0.5	0.5	0.6	0.0	0.1	0.2	-0.4	0.4	0.5	-0.2	0.3	0.4	-0.1	0.2	0.2
CCIS	-0.1	0.3	0.4	-0.2	0.3	0.4	0.0	0.3	0.3	-0.2	0.3	0.4	-0.1	0.3	0.4	0.0	0.3	0.3
IMF	0.0	0.4	0.5	-0.1	0.5	0.6	0.1	0.4	0.4	0.0	0.4	0.6	0.0	0.4	0.5	0.0	0.3	0.4
OECD							0.0	0.1	0.2									
IMAD	-0.1	0.3	0.4	-0.4	0.5	0.5	0.0	0.2	0.3	-0.4	0.4	0.4	-0.1	0.3	0.4	0.0	0.2	0.3
WIIW							-0.1	0.4	0.4									
next year																		
BS	0.1	1.2	1.7	0.1	1.1	1.5	0.1	1.3	1.9	-1.0	1.6	2.3	0.2	1.2	1.7	0.1	1.3	1.8
Consensus	0.0	1.3	2.1	-0.2	1.5	2.0	0.1	1.2	2.3	-1.6	1.6	2.2	0.2	1.3	2.1	0.1	1.3	2.2
EC	0.1	1.4	2.2	-0.4	1.4	1.8	0.3	1.4	2.4	-1.2	1.6	2.3	0.2	1.4	2.2	0.2	1.4	2.2
CCIS	0.0	1.4	2.2	-0.1	1.3	1.7	0.0	1.4	2.4	-1.0	1.8	2.5	0.1	1.3	2.2	0.0	1.4	2.2
IMF	0.1	1.3	2.1	0.0	1.3	1.6	0.3	1.3	2.4	-0.9	1.5	2.1	0.3	1.3	2.1	0.2	1.3	2.2
OECD							0.3	1.4	2.2									
IMAD	0.1	1.3	2.1	-0.2	1.2	1.6	0.3	1.4	2.4	-1.2	1.8	2.5	0.2	1.3	2.0	0.2	1.4	2.2
WIIW							0.2	1.2	2.4									

Sources: Banka Slovenije, Consensus Economics, European Commission, CCI, IMF, OECD, IMAD, WIIW.

Table 5.9: **RMSE and SRMSE for inflation projections measured on the basis of first observed value**

HICP/CPI	RMSE						SRMSE					
	2001-2022	2001-2008	2009-2022	2008-2009	w/o 08-09	2004-2022	2001-2022	2001-2008	2009-2022	2008-2009	w/o 08-09	2004-2022
						spring projections						
current year												
BS	0.5	0.6	0.4	0.4	0.5	0.4	0.2	0.3	0.2	0.1	0.2	0.2
Consensus	0.8	0.7	0.8	0.7	0.8	0.8	0.3	0.4	0.3	0.2	0.3	0.3
EC	0.9	0.6	1.0	0.2	1.0	0.9	0.4	0.3	0.4	0.0	0.4	0.4
CCIS	0.6	0.6	0.5	0.2	0.6	0.6	0.2	0.3	0.2	0.1	0.2	0.2
IMF	0.9	1.0	0.9	1.1	0.9	0.9	0.3	0.5	0.4	0.3	0.3	0.4
OECD			0.8						0.3			
IMAD	0.9	0.7	0.9	0.4	0.9	0.9	0.3	0.4	0.4	0.1	0.3	0.4
WIIW			1.6						0.6			
next year												
BS	2.2	1.8	2.4	1.9	2.2	2.2	0.8	0.9	1.0	0.6	0.8	1.0
Consensus	2.2	1.8	2.4	1.8	2.3	2.3	0.9	1.0	1.0	0.6	0.9	1.0
EC	2.2	1.8	2.4	1.7	2.2	2.2	0.8	0.9	1.0	0.5	0.9	1.0
CCIS	2.2	1.8	2.4	1.9	2.3	2.2	0.9	1.0	1.0	0.6	0.9	1.0
IMF	2.2	1.7	2.4	1.1	2.2	2.2	0.8	0.9	1.0	0.4	0.9	1.0
OECD			2.5						1.0			
IMAD	2.1	1.5	2.4	1.7	2.2	2.3	0.8	0.8	1.0	0.5	0.8	1.0
WIIW			2.4						1.0			
						autumn projections						
current year												
BS	0.3	0.4	0.1	0.4	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1
Consensus	0.3	0.5	0.2	0.4	0.3	0.3	0.1	0.3	0.1	0.1	0.1	0.1
EC	0.4	0.7	0.2	0.5	0.4	0.3	0.2	0.4	0.1	0.2	0.2	0.1
CCIS	0.4	0.4	0.3	0.3	0.4	0.3	0.1	0.2	0.1	0.1	0.1	0.1
IMF	0.5	0.6	0.4	0.4	0.5	0.4	0.2	0.3	0.2	0.1	0.2	0.2
OECD			0.2						0.1			
IMAD	0.5	0.6	0.3	0.5	0.4	0.3	0.2	0.3	0.1	0.2	0.2	0.1
WIIW			0.4						0.2			
next year												
BS	1.7	1.4	1.9	1.9	1.7	1.8	0.7	0.7	0.8	0.6	0.6	0.8
Consensus	2.1	1.8	2.2	2.2	2.1	2.1	0.8	1.0	0.9	0.7	0.8	0.9
EC	2.1	1.7	2.3	2.0	2.1	2.1	0.8	0.9	0.9	0.6	0.8	0.9
CCIS	2.1	1.6	2.3	2.0	2.1	2.2	0.8	0.8	1.0	0.6	0.8	1.0
IMF	2.0	1.5	2.3	1.7	2.1	2.1	0.8	0.8	1.0	0.5	0.8	0.9
OECD			2.1						0.9			
IMAD	2.0	1.5	2.3	2.2	2.0	2.1	0.8	0.8	0.9	0.7	0.8	0.9
WIIW			2.3						1.0			

Sources: Banka Slovenije, Consensus Economics, European Commission, CCI, IMF, OECD, IMAD, WIIW.

Table 5.10: **RMSE and SRMSE for inflation projections measured on the basis of second observed value**

HICP/CPI	RMSE						SRMSE					
	2001-2022	2001-2008	2009-2022	2008-2009	w/o 08-09	2004-2022	2001-2022	2001-2008	2009-2022	2008-2009	w/o 08-09	2004-2022
						spring projections						
current year												
BS	0.5	0.7	0.4	0.4	0.5	0.4	0.2	0.3	0.2	0.1	0.2	0.2
Consensus	0.8	0.7	0.8	0.7	0.8	0.8	0.3	0.4	0.3	0.2	0.3	0.3
EC	0.9	0.7	1.0	0.2	1.0	0.9	0.4	0.4	0.4	0.0	0.4	0.4
CCIS	0.6	0.6	0.5	0.2	0.6	0.6	0.2	0.3	0.2	0.1	0.2	0.2
IMF	0.9	1.0	0.9	1.1	0.9	0.9	0.4	0.5	0.4	0.3	0.3	0.4
OECD			0.8						0.3			
IMAD	0.9	0.8	0.9	0.4	0.9	0.9	0.3	0.4	0.4	0.1	0.4	0.4
WIIW			1.6						0.6			
next year												
BS	2.2	1.8	2.4	1.9	2.2	2.2	0.8	0.9	1.0	0.6	0.8	1.0
Consensus	2.2	1.8	2.4	1.8	2.3	2.3	0.9	1.0	1.0	0.6	0.9	1.0
EC	2.2	1.8	2.4	1.7	2.2	2.2	0.8	0.9	1.0	0.5	0.9	1.0
CCIS	2.2	1.9	2.4	1.9	2.3	2.2	0.9	1.0	1.0	0.6	0.9	1.0
IMF	2.2	1.7	2.4	1.1	2.2	2.2	0.8	0.9	1.0	0.4	0.9	1.0
OECD			2.5						1.0			
IMAD	2.1	1.5	2.4	1.7	2.2	2.3	0.8	0.8	1.0	0.5	0.8	1.0
WIIW			2.4						1.0			
						autumn projections						
current year												
BS	0.3	0.4	0.1	0.4	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1
Consensus	0.3	0.5	0.2	0.4	0.3	0.3	0.1	0.3	0.1	0.1	0.1	0.1
EC	0.4	0.7	0.2	0.5	0.4	0.2	0.2	0.4	0.1	0.2	0.2	0.1
CCIS	0.4	0.4	0.3	0.3	0.4	0.3	0.1	0.2	0.1	0.1	0.1	0.1
IMF	0.5	0.6	0.4	0.4	0.5	0.4	0.2	0.3	0.2	0.1	0.2	0.2
OECD			0.2						0.1			
IMAD	0.5	0.6	0.3	0.5	0.4	0.3	0.2	0.3	0.1	0.2	0.2	0.1
WIIW			0.4						0.2			
next year												
BS	1.7	1.4	1.9	1.9	1.7	1.8	0.7	0.7	0.8	0.6	0.6	0.8
Consensus	2.1	1.9	2.2	2.2	2.1	2.1	0.8	1.0	0.9	0.7	0.8	0.9
EC	2.1	1.7	2.3	2.0	2.1	2.1	0.8	0.9	0.9	0.6	0.8	0.9
CCIS	2.1	1.6	2.3	2.0	2.1	2.2	0.8	0.8	1.0	0.6	0.8	0.9
IMF	2.0	1.5	2.3	1.7	2.1	2.1	0.8	0.8	1.0	0.5	0.8	0.9
OECD			2.1						0.9			
IMAD	2.0	1.5	2.3	2.2	2.0	2.1	0.8	0.8	0.9	0.7	0.8	0.9
WIIW			2.3						1.0			

Sources: Banka Slovenije, Consensus Economics, European Commission, CCI, IMF, OECD, IMAD, WIIW.

6 List of abbreviations

Abbreviations

BoS	Banka Slovenije
CCI	Chamber of Commerce and Industry of Slovenia
CHP	Combined heat and power
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
EC	European Commission
EA	Euro area
FRED	Federal Reserve Economic Data
GDP	Gross domestic product
HICP	Harmonised index of consumer prices
IMAD	Institute of Macroeconomic Analysis and Development
IMF	International Monetary Fund
NGEU	NextGenerationEU
OECD	Organisation for Economic Co-operation and Development
PMI	Purchasing Managers' Index
RES	Renewable energy sources
SHI	Supplementary health insurance
SORS	Statistical Office of the Republic of Slovenia
VAT	Value added tax
WIIW	Vienna Institute for International Economic Studies
WTO	World Trade Organisation
ZDO	Long-Term Care Act