

# Economic and Monetary Developments

Summer 2023



## Published by Národná banka Slovenska

© Národná banka Slovenska 2023

## Contact

Národná banka Slovenska  
Imricha Karvaša 1  
813 25 Bratislava  
info@nbs.sk

## Electronic version

<https://www.nbs.sk/en/publications-issued-by-the-nbs/economic-and-monetary-developments>



All rights reserved. Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

This report was discussed by the Bank Board of Národná banka Slovenska on 20 June 2023.

# Contents

<b>1</b>	<b>Summary</b>	<b>6</b>
<b>2</b>	<b>Current macroeconomic developments in the external environment and Slovakia</b>	<b>8</b>
2.1	External environment	8
2.2	Slovakia	12
2.2.1	Consumer prices	12
2.2.2	Residential property prices	14
2.2.3	Economic growth	16
2.2.4	Labour market	19
<b>3</b>	<b>Medium-term forecast</b>	<b>23</b>
3.1	Global outlook and technical assumptions of the forecast	23
3.2	Macroeconomic forecast for Slovakia	25
3.3	Public finance projections	34
3.4	Risks to the forecast	36
<b>List of boxes</b>		
Box 1	People in Slovakia have significantly lowered their inflation expectations, which nevertheless remain elevated	28
<b>List of tables</b>		
Table 1	Key economic indicators	7
Table 2	External environment and technical assumptions	24
Table 3	Components of HICP inflation	27
Table 4	Wages	33
Table 5	Summer 2023 medium-term forecast (MTF-2023Q2) for key macroeconomic indicators	38
<b>List of charts</b>		
Chart 1	China: GDP growth and its components	8
Chart 2	Global Supply Chain Pressures Index	8
Chart 3	Global trade volume	9
Chart 4	Global Purchasing Managers' Index	9
Chart 5	Composite PMI	10
Chart 6	Euro area: Assessment of the level of order books in industry	10
Chart 7	Commodity prices and global inflation	11
Chart 8	Change in selected commodity prices between the start of 2023 and end-May	11
Chart 9	Euro area: HICP inflation and its components	12
Chart 10	Euro area: Negotiated wages and services prices	12
Chart 11	Headline HICP inflation and its components	13

Chart 12	Acceleration/deceleration decomposition of HICP inflation	13
Chart 13	Headline HICP inflation	13
Chart 14	HICP food inflation	13
Chart 15	Housing affordability index (HAI) value as a ratio of its historical average	15
Chart 16	Composite index to assess housing price developments	15
Chart 17	Key ratios	16
Chart 18	GDP and its components	17
Chart 19	Household consumption and its components	17
Chart 20	Absorption of EU funds	18
Chart 21	Employment	20
Chart 22	Employment by sector	20
Chart 23	Employment and foreign workers	21
Chart 24	Number of job vacancies and employment expectations	21
Chart 25	Wage level	22
Chart 26	Foreign demand	23
Chart 27	Three-month EURIBOR	24
Chart 28	Ten-year Slovak government bond yield	24
Chart 29	Gas spot prices for the calculation of administered prices for households	25
Chart 30	Household gas prices	25
Chart 31	HICP inflation and its components	26
Chart 32	Change in projection vis-à-vis the spring 2023 forecast	26
Chart 33	Cost factors and processed food prices	27
Chart 34	Net inflation and its components	27
Chart 35	GDP	30
Chart 36	Household income, household consumption and the household saving ratio	30
Chart 37	Slovakia's absorption of EU funds and net financial position	32
Chart 38	Employment	33
Chart 39	Real compensation per employee	33
Chart 40	Decomposition of the general government balance	34
Chart 41	Fiscal stance	34
Chart 42	Comparison of projections for the deficit and its decomposition	35
Chart 43	Comparison of public debt projections	35
Chart 44	Public debt and factors of change	36

#### Charts in boxes

Chart A	Actual, expected and perceived inflation over time	28
Chart B	Decline in inflation expectations from December 2022 to May 2023 across demographic groups of the population	29

## Abbreviations

bp	basis point(s)
CPI	Consumer Price Index
EA	euro area
ECB	European Central Bank
EC	European Commission
ESA 2010	European System of Accounts 2010
ESI	(the European Commission's) Economic Sentiment Indicator
ESIFs	European Structural and Investment Funds
EU	European Union
EUR	euro
EURIBOR	euro interbank offered rate
Eurostat	statistical office of the European Union
GDP	gross domestic product
HAI	housing affordability index
HFCS	Household Finance and Consumption Survey
HICP	Harmonised Index of Consumer Prices
IMF	International Monetary Fund
MFF	multiannual financial framework
MF SR	Ministry of Finance of the Slovak Republic
NACE	Statistical Classification of Economic Activities in the European Community (Rev. 2)
NARKS	Slovak National Association of Real Estate Agencies / Národná asociácia realitných kancelárií Slovenska
NBS	Národná banka Slovenska
NEIG	non-energy industrial goods
NSRF	National Strategic Reference Framework
OECD	Organisation for Economic Co-operation and Development
pp	percentage point(s)
PMI	Purchasing Managers' Index
PPI	producer price index
RRF	Recovery and Resilience Facility (of the European Union)
RRP	recovery and resilience plan (of the Slovak Republic)
SO SR	Statistical Office of the Slovak Republic
ÚPSVaR SR	Office of Labour, Social Affairs and Family of the Slovak Republic / Ústredie práce, sociálnych vecí a rodiny Slovenskej republiky
USD	US dollar
VAT	value-added tax

### Conventions used in the tables

- data do not exist/data are not applicable
- . data are not yet available
- ... nil or negligible
- (p) provisional

# 1 Summary

The overall picture of global developments is almost unchanged from the spring 2023 forecast.

The European economy has coped relatively well with the energy crisis, while nevertheless not avoiding a slight downturn around the turn of the year. The expected recovery of the global economy has been slow, and high inflation and falling real incomes are still curbing the pace of recovery in consumer demand. It is likely to be some time before the global economic recovery gathers significant momentum. That, however, will not happen before inflation recedes and households' real purchasing power picks up again.

In Slovakia, too, the situation is largely unchanged, and we have not adjusted the medium-term outlook. The early part of the year was marked by a slump in consumer demand amid a persisting decline in real incomes. Economic growth was being entirely sustained by work on existing order books, especially in the automotive industry, and by a decline in imports resulting from stockbuilding in late last year. We expect economic activity to remain subdued in the months ahead. The economy is anticipated to receive some boost this year from the uptake of EU funds. In the following two years, household consumption is expected to rally as inflation retreats from double-digit levels.

The labour market situation is surprising on the upside. Up to now there have been no significant lay-offs in the private sector despite the decline in domestic demand. Employment is holding steady and the unemployment rate is falling. Firms' prevailing concern is whether they will face skilled labour shortages when the economy rebounds, given the country's unfavourable demographic trends. From a macroeconomic stability perspective, however, it is positive that employment is holding up, since the risk of financial instability is lower. As in the spring 2023 forecast, moderate growth in employment and real wages is projected for coming years.

The nascent downward trend in inflation is expected to continue until the end of the projection horizon. The inflation projection for this year has been revised up slightly as prices of food and certain goods have been an upside surprise. Input cost factors are gradually dissipating and should therefore act as a drag on further price increases. At the same time, subdued consumer demand will put pressure on retailers. The inflation projections for the next two years have been revised down. Compared with

the spring forecast, energy price inflation is expected to be lower, with spot prices having fallen sharply and the newly contracted price of electricity also helping.

The general government deficit is projected to worsen in 2023, to 5.7% of GDP, on grounds of inflation's lagged impact on social expenditure and the high volume of permanent measures (especially spending on family support measures). The fiscal deficit is envisaged to remain elevated in 2024 and 2025, compounded by military equipment imports in those years. The high deficit levels from 2023 onwards are structural and permanent in nature, while the business cycle will actually be having a slightly favourable impact on the deficit. To improve public finances in the short term and the outlook in the long term will require the adoption of significant and permanent consolidation measures.

**Table 1 Key economic indicators**

	Actual data	Summer 2023 forecast (MTF-2023Q2)			Difference vis-à-vis the spring 2023 forecast (MTF-2023Q1)		
	2022	2023	2024	2025	2023	2024	2025
GDP (annual percentage change)	1.7	1.4	3.3	3.2	0.1	0.1	0.2
HICP (annual percentage change)	12.1	11.0	6.2	3.7	0.5	-0.5	-1.1
Average nominal wage (annual percentage change)	6.9	10.9	8.3	6.2	0.7	-1.0	-0.3
Average real wage (annual percentage change)	-5.2	0.0	1.6	2.0	0.4	-0.7	0.5
Employment (annual percentage change; ESA 2010)	1.8	0.4	0.7	0.3	-0.1	0.2	0.1
Unemployment rate (percentage; Labour Force Survey)	6.1	6.1	5.4	5.0	0.0	-0.1	-0.1

Source: NBS.

Note: Real wages deflated by CPI inflation.

### Our latest forecast includes a closer look at one very important topic:

- In Box 1, we show how household behaviour has changed in respect of the formation of their inflation expectations for the period ahead. In the past, households' inflation perceptions and expectations went hand in hand, but since the beginning of this year inflation expectations have been lower than perceptions. We attribute this to positive news from commodity markets, government regulatory action on energy prices, and tighter monetary policy.

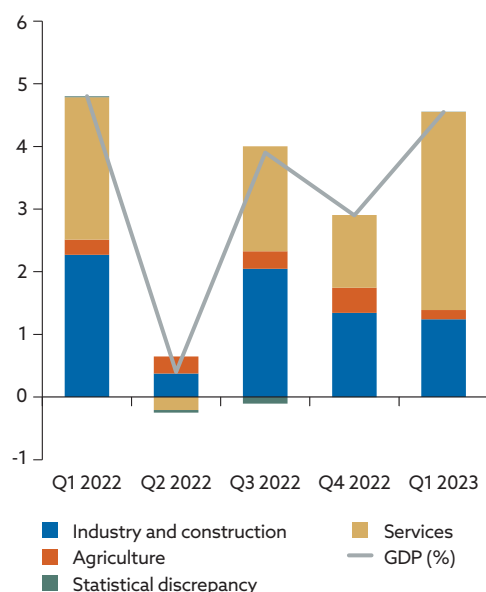
## 2 Current macroeconomic developments in the external environment and Slovakia

### 2.1 External environment

Global economic growth in both the first quarter and subsequent two months was supported by China's economic reopening. The Chinese economy recovered more strongly than expected, with its growth driven largely by surging demand for domestic services (Chart 1), but also buoyed by industry. The functioning of supply chains therefore improved markedly (Chart 2).

**Chart 1**

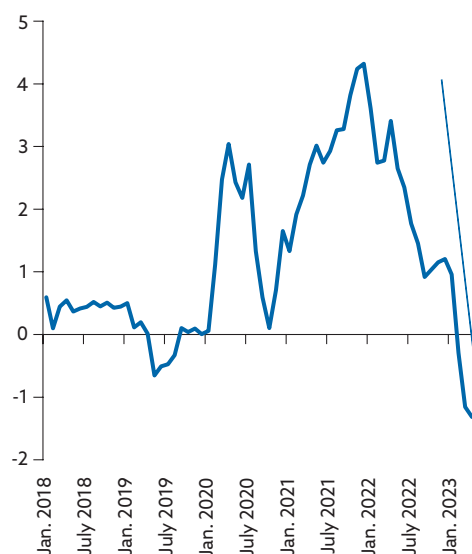
China: GDP growth and its components  
(annual percentage changes;  
percentage point contributions)



Source: Macrobond.

**Chart 2**

Global Supply Chain Pressures Index



Source: Macrobond.

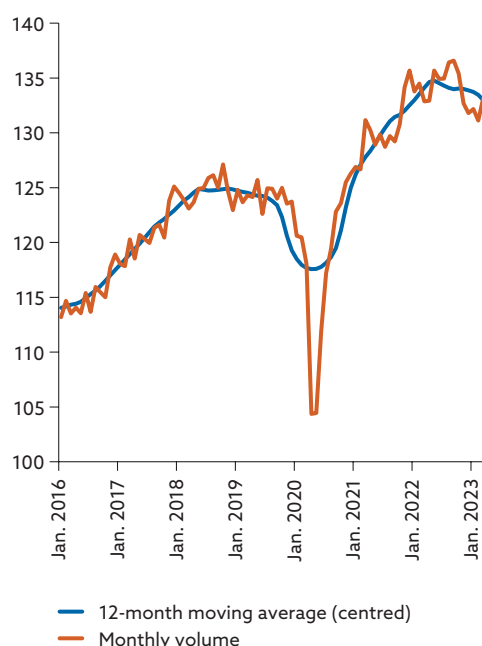
The normalisation of supply chains has also been aided by a softening of global demand. This is indicated by an easing of global trade (Chart 3), as well as the pattern of economic recovery. According to the global Purchasing Managers Index (PMI), the economic recovery has been almost entirely confined to the services sector. On the other hand, manufacturing



activity has, despite some modest improvement, remained at relatively subdued levels (Chart 4).

**Chart 3**

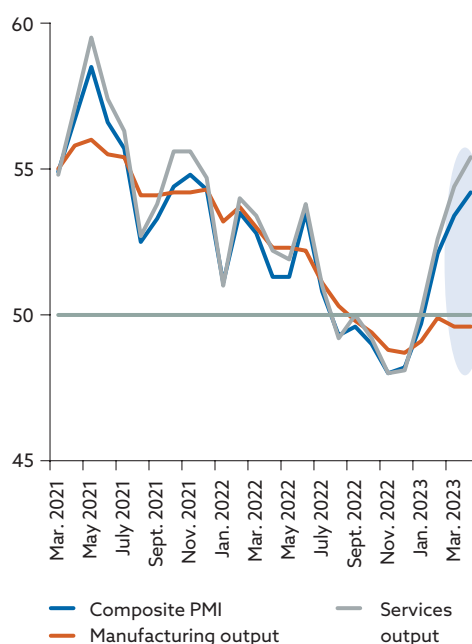
**Global trade volume (index: 2010 = 100)**



Source: Macrobond.

**Chart 4**

**Global Purchasing Managers' Index**



Source: Macrobond.

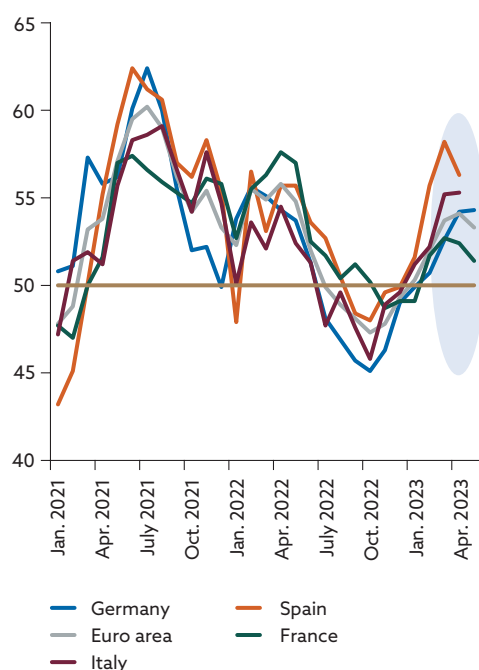
Unlike China, the United States has seen a slowdown in economic growth. Even so, the US labour market has remained robust, with the unemployment rate falling to 50-year lows (3.4% in April). US consumer demand has consequently strengthened, even amid monetary policy tightening, and is adding greater impetus to economic activity. The only negative contribution to growth has come from changes in inventories. The euro area, which among the world economies is the one hardest hit by the repercussions of the Ukraine war, entered a technical recession in the first quarter of this year.<sup>1</sup> As in the fourth quarter of 2022, the economy contracted by 0.1% over the previous quarter. Real household incomes were adversely affected by high inflation. Despite the headline rate gradually moderating, households have continued to struggle with elevated food price inflation, and there has been a consequent drop in private consumption. PMI indices indicate relatively solid activity across euro area countries in the first two months of the second quarter<sup>2</sup> (Chart 5). The economy is being supported mainly by a recovery in services. By contrast, the manufacturing output PMI points to weak growth or even contraction.

<sup>1</sup> An economic contraction in two consecutive quarters.

<sup>2</sup> A PMI value above 50 indicates an increase in economic activity, and vice versa.

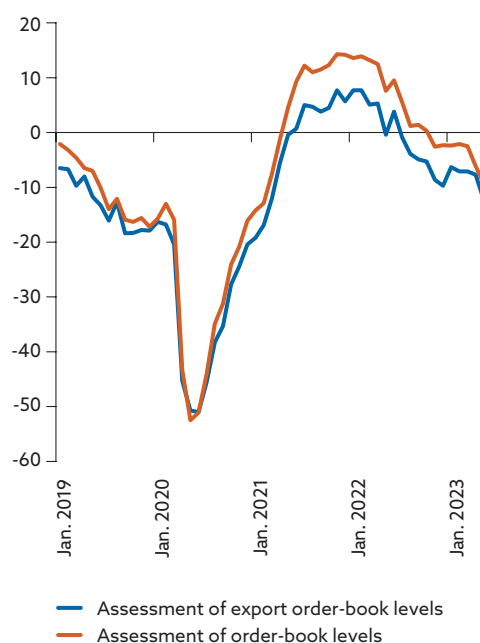
This is related to faltering global demand and a downward trend in new orders (Chart 6).

**Chart 5**  
Composite PMI



Source: Macrobond.

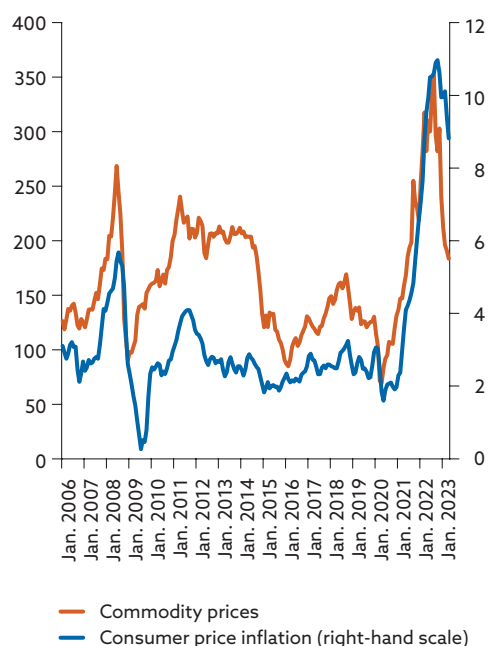
**Chart 6**  
Euro area: Assessment of the level of order books in industry (percentage balances)



Source: Macrobond.

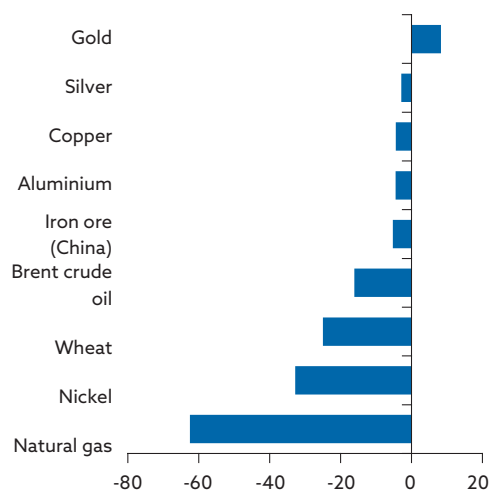
Both the strengthening of supply chains and the softening of global demand have contributed to an easing of price pressures. This effect has been further supported by declines in commodity prices (Charts 7 and 8) and sea freight rates. Europe has been particularly successful in its ability to replace natural gas imports from Russia, as well as in building new liquified natural gas terminals. Together with a reduction in consumption, this has led to a significant reduction in the price of this commodity and, consequently, in electricity prices.

**Chart 7**  
Commodity prices and global inflation  
(annual percentage changes)



Source: Macrobond.

**Chart 8**  
Change in selected commodity prices  
between the start of 2023 and end-May  
(percentages)



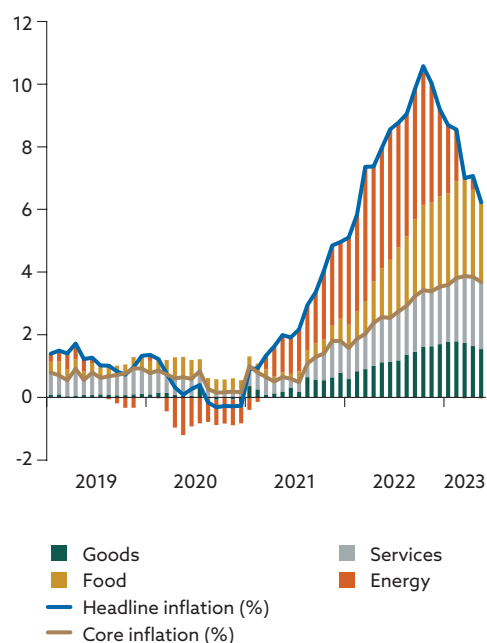
Source: Macrobond.

Energy prices have made the most significant contribution to this year's decline in euro area headline inflation, which is down from historical highs at the start of the fourth quarter of 2022 (Chart 9). Between then and the end of May 2023, inflation slowed by 4.5 pp, to 6.1%. Even so, inflationary pressures remain strong. These stem largely from elevated food price inflation, which is only slowly easing and reflects mainly high costs related to the previous surge in energy prices as well as in prices of other inputs (e.g. fertilisers). Core inflation also remains at high levels (above 5%). The easing of supply pressures has in recent months translated into a moderate slowdown in goods inflation. Services inflation remains elevated and it was not until May that it slowed for the first time this year, due in part to the introduction in Germany of a new low-cost public transport ticket.<sup>3</sup> Demand for services is nevertheless relatively strong, and there are also signs that wage growth is gradually accelerating (Chart 10). These factors may to some extent check the further slowdown in services inflation.

<sup>3</sup> Introduced in May, the so-called Deutschlandticket allows people to travel on all local and regional public transport in Germany for €49 per month.

Chart 9

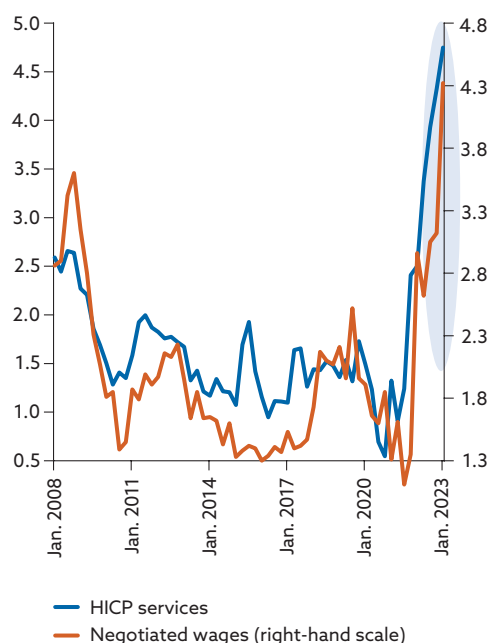
Euro area: HICP inflation and its components (annual percentage changes; percentage point contributions)



Source: Macrobond.

Chart 10

Euro area: Negotiated wages and services prices (annual percentage changes)



Source: Macrobond.

## 2.2 Slovakia

### 2.2.1 Consumer prices

Slovakia's annual inflation rate stood at 12.3% in May 2023 (Chart 11), down by 3.1 pp from the peak reached in February of this year. Net inflation has also started to slow down.

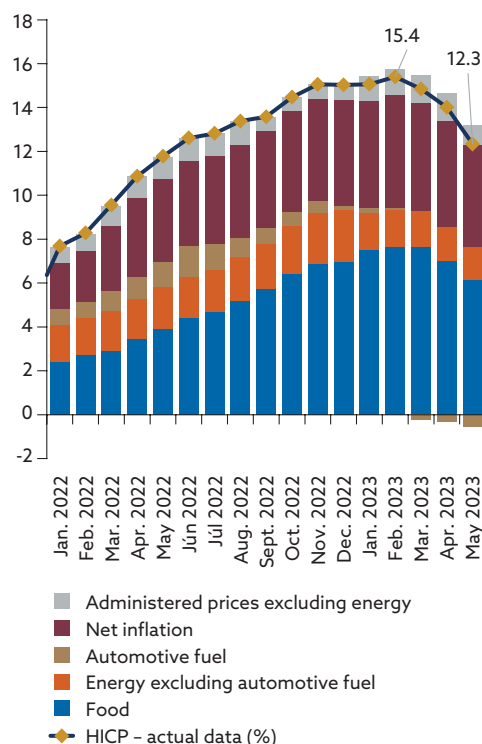
**Headline inflation reached a notional peak in February 2023.** It recorded slower monthly rates in April and May compared with last year (Chart 13), mainly owing to lower month-on-month growth in food prices.

**Food inflation was lower in April and May than in 2022 (Chart 14).** The month-on-month increase in food prices is now approaching the 2009–2021 average. **The downtrend in global prices of agricultural commodities, energy and other inputs have therefore started to have a lagged impact.** Given the pass-through of these factors, food price inflation is expected to moderate in the months ahead.

Another factor behind the 0.29 pp slowdown in headline inflation in May 2023 was the expected reintroduction of free school meals, which had a downward impact on non-energy administered price inflation.

Chart 11

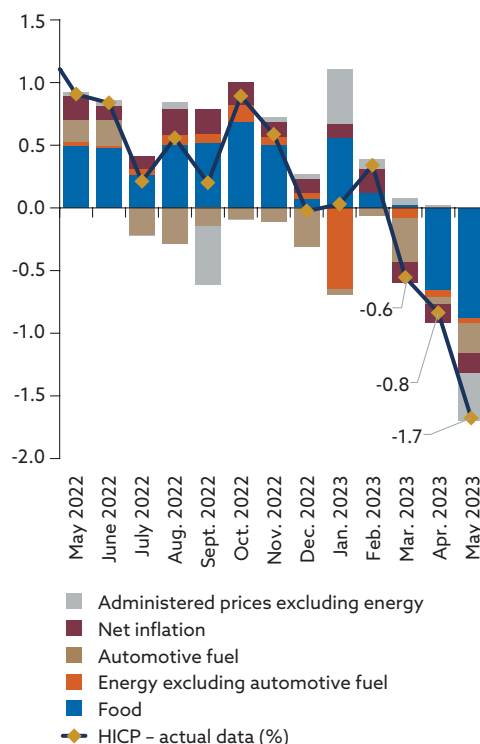
Headline HICP inflation and its components (annual percentage changes; percentage point contributions)



Sources: SO SR, and NBS.

Chart 12

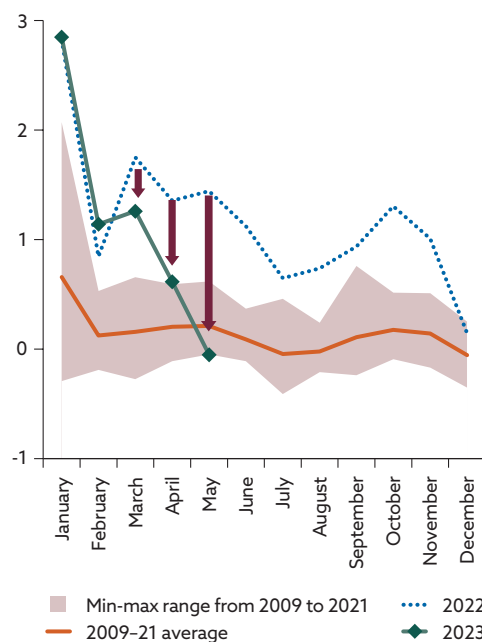
Acceleration/deceleration decomposition of HICP inflation (percentage point contributions; annual percentage changes)



Sources: SO SR, and NBS.

Chart 13

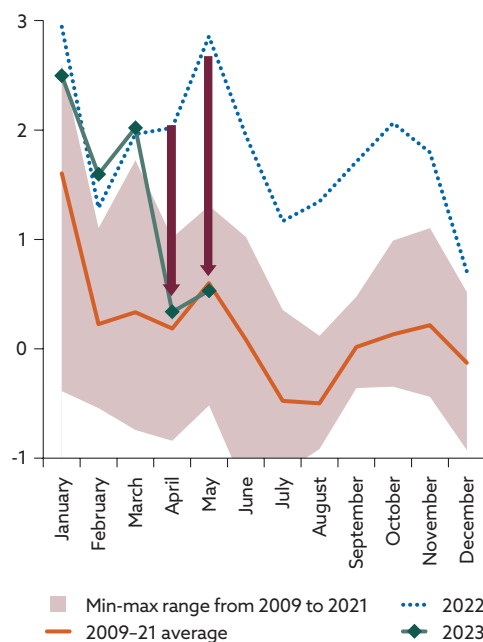
Headline HICP inflation (month-on-month percentage changes)



Sources: SO SR, and NBS.

Chart 14

HICP food inflation (month-on-month percentage changes)



Sources: SO SR, and NBS.

Import price inflation peaked in mid-2022, and household consumer demand started cooling in early 2023. Nevertheless, **net inflation is moderating only gradually, less quickly than expected. This reflects the price shock of the recent extremely high prices of imports, inputs and energy, the impact of which has persisted strongly.** The recently established slowing trend in non-energy industrial goods (NEIG) inflation is expected to continue. The pace of NEIG inflation will be dampened by a strong base effect from 2022, as well as by the impact of domestic demand developments and falling energy prices.

**Services inflation excluding administered prices started slowing from February of this year.** Price-setting decisions will in coming months reflect the pass-through of households' diminishing appetite for consumption, gradually declining energy prices for the corporate sector, input prices, and decelerating food inflation. Prices of services related to housing, accommodation and food service activities are therefore expected to maintain their current trend.<sup>4</sup>

**Energy inflation continues to moderate, largely as the year-on-year decline in fuel prices becomes more pronounced** (reflecting the impact of oil price developments). This trend is projected to bottom-out in the next two months. Wholesale prices of gas and electricity remain on a gradual downward path after peaking in September of last year. Nevertheless, average futures prices since October imply that gas and electricity prices will remain elevated compared with their level before the outbreak of the war in Ukraine.

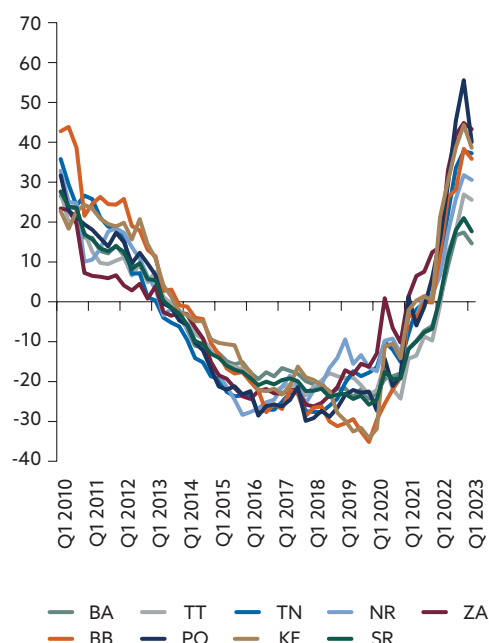
### 2.2.2 Residential property prices

**Housing asking prices continued their downward trend in the first quarter of 2023, falling by 3.9% compared with the previous quarter.** This trend is observed across the whole of Slovakia. Housing prices were cumulatively 7% lower at the end of first quarter than they were at their peak in July 2022. Their downtrend continued in the second quarter of 2023.

---

<sup>4</sup> The abolition of the television licence fee is expected to have a downward impact on services inflation in July 2023, with the fee currently accounting for 0.33 pp of services inflation.

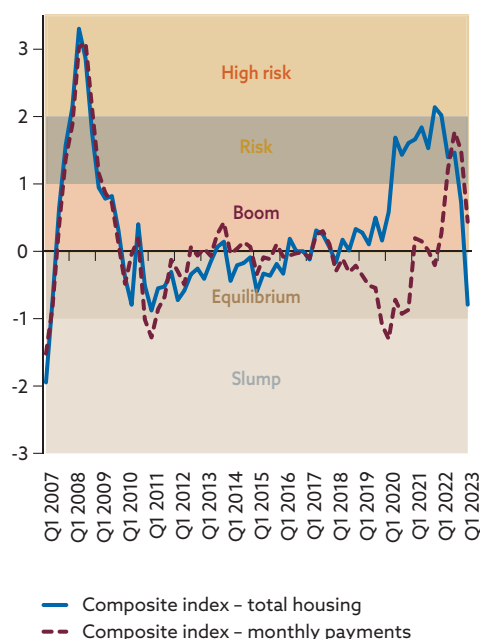
**Chart 15**  
Housing affordability index (HAI)<sup>5</sup>  
value as a ratio of its historical  
average (percentages)



**Sources:** NBS, NARKS, SO SR, and United Classifieds.

**Note:** BA – Bratislava Region; TT – Trnava Region; TN – Trenčín Region; NR – Nitra Region; ZA – Žilina Region; BB – Banská Bystrica Region; PO – Prešov Region; KE – Košice Region; SR – Slovak Republic.

**Chart 16**  
Composite index to assess housing  
price developments



**Sources:** NBS, NARKS, SO SR, and United Classifieds.

**Housing affordability improved marginally in the first quarter of 2023 amid falling housing prices and rising nominal income (Chart 15).** It was the first change in trend in this index since the end of 2020. Nominal economic developments managed even to outweigh rising mortgage rates. However, the index values are still well above their long-term average. To be at that level would require housing prices to be around 14% lower than they are today. Although Prešov Region has seen the most notable improvement in housing affordability, it is, along with Žilina and Košice regions, among the regions of Slovakia with the worst housing affordability.

**Our composite index<sup>6</sup> reflects falling property prices against a backdrop of strong growth on the nominal side of the economy (Chart 16).** While

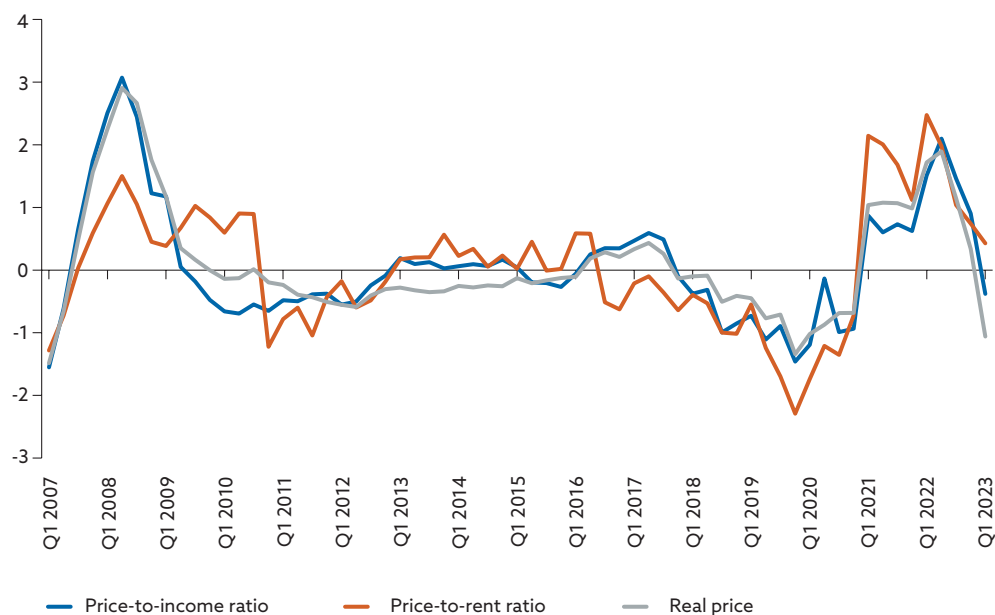
<sup>5</sup> The HAI calculation is based on a so-called adequate income derived from the current average cost of mortgage loan servicing (taking into account current housing prices and interest rates). The adequate income is compared with the wage level on a region-by-region basis. The final ratio is then interpreted in relation to the long-run average.

<sup>6</sup> In order to assess the impact of housing prices on financial and economic stability, we compare their evolution with the evolution of their underlying theoretical fundamentals. We do so using a composite index based on ratio indicators (the real housing price; price/

housing prices increased by 1.8%, year-on-year, in the first quarter of 2023, disposable income climbed by 11.6% and consumer prices surged by more than 15%. Average rent was 11.2% higher compared with the same period of the previous year. Because of these differences, the three main ratios constituting the composite index (price-to-income, price-to-rent and real price) have deviated significantly downwards from their long-term trend. Taking interest rates into account, the composite index would remain at a higher level.

**Chart 17**

**Key ratios (deviation from the long-term trend; percentages)**



**Sources:** NBS, NARKS, SO SR, and United Classifieds.

### 2.2.3 Economic growth

**The Slovak economy maintained moderate quarterly growth of 0.3% in the first quarter of 2023. While all components declined, growth was supported by low imports, resulting from subdued consumption and from stockbuilding by industrial firms last year (Chart 18).** Households were starting to rein in their consumption after tapping out excess savings built up during the pandemic period, and it even appears they had to dip into current savings. Automotive firms were able to continue catching up on production in the first quarter, as supply chain disruptions abated. Most firms, however, remain cautious about future production, and many are relying on working through existing order backlogs. As a result of

---

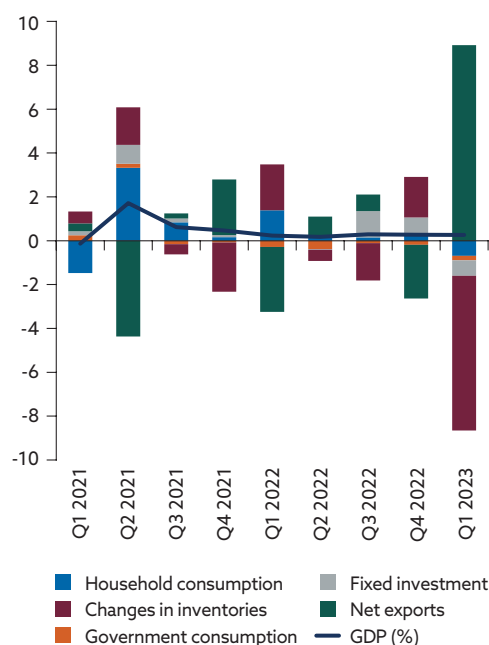
income; price/rent; mortgage loans/households' gross disposable income; amount of residential construction/GDP). Further information on the composite index's compilation is provided in Cár, M. and Vrbovský, R., 'Composite index to assess housing price development in Slovakia', Biatic, Vol. 27, No 3, Národná banka Slovenska, Bratislava, 2019.



worsening signals from abroad and some degree of stockbuilding, imports became greatly reduced in the latter part of 2023.

**Chart 18**

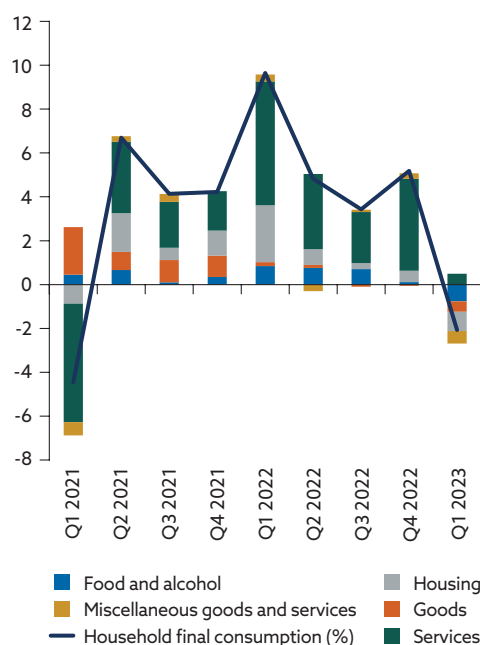
GDP and its components (quarter-on-quarter percentage changes; percentage point contributions)



Sources: SO SR, and NBS.

**Chart 19**

Household consumption and its components (quarter-on-quarter percentage changes; percentage point contributions)



Sources: SO SR, and NBS.

**With their incomes continuing to fall and their savings depleted, households have been constrained to cut back on purchases.** Wage increases early in the year, together with government social support measures, have cushioned, but not entirely offset, the weight of inflation on people's incomes. Moreover, indebted households have started feeling the pinch of rising interest rates to a greater extent. Savings were underpinning consumption for almost a year, but this channel has now dried up and almost all categories of household consumption showed a decline in the first quarter of 2023. Consumers cut back mainly on purchases of miscellaneous household goods; they also trimmed their grocery shopping and, thanks to the warm winter, reduced their energy consumption (Chart 19).

**An easing of supply bottlenecks has supported a recovery of exports in the automotive industry,** but more energy-intensive sectors have yet to rally. The electronics industry has also started to struggle, reflecting the prolonged impact of gradually deteriorating foreign demand on its order books. The trade balance posted a surplus in the first quarter on the back of lower imports, with firms having built up imported inventory in the last

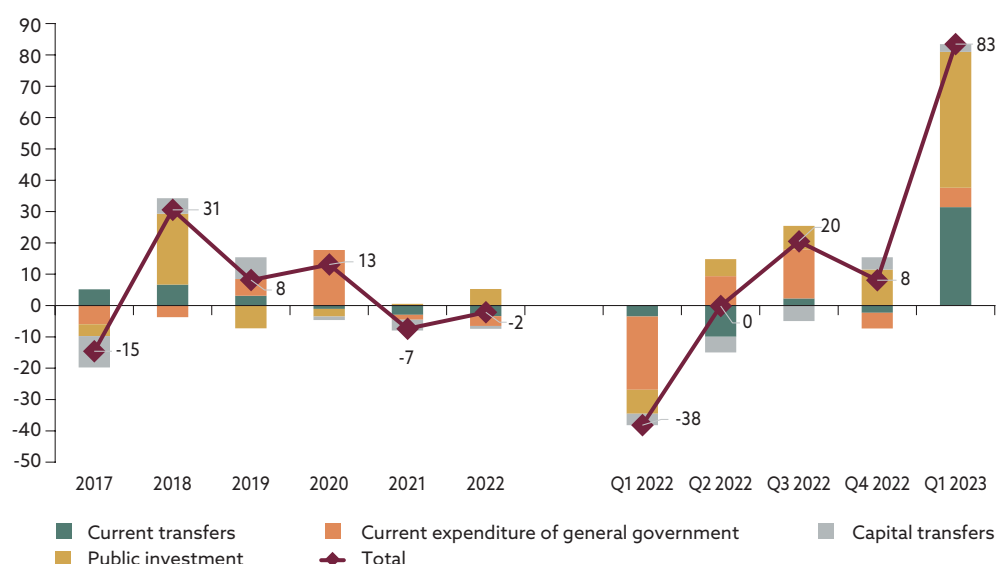
quarter of 2022 and with reduced consumption and concerns about future output also having a dampening effect. Another boost to the trade balance was lower imports of energy commodities, especially gas, whose storage level remained high after a relatively warm winter.

**Business investment has picked up mainly in the energy and automotive industries. By contrast, household residential investment has continued to decline**, as monetary policy tightening has for some time been making mortgages more difficult to obtain. Government investment, supported by the absorption of EU funds, has gained momentum. We expect the disbursement of EU funds to have a positive impact in the near future and to have knock-on benefits for private sector investment.

**The absorption of EU funds increased significantly in the first quarter of 2023, supported by public investment (Chart 20).** EU fund disbursements went mainly to projects to digitalise central government public services and to increase internet access in municipalities. The modernisation of railway infrastructure and rolling stock also accounted for a share of the disbursements.. Current transfers in the first quarter were affected by agricultural subsidies whose payment was carried over from the end of the 2022 to January. EU funds received from the Recovery and Resilience Facility (RRF) through the implementation of Slovakia's recovery and resilience plan (RRP) were spent on public consumption (administrative costs) and amounted to a negligible overall amount.

**Chart 20**

**Absorption of EU funds (annual percentage changes)<sup>1)</sup>**



**Sources:** State Treasury, and NBS.

1) Adjusted for spending on financial instruments.

**General government consumption** accelerated in the first quarter of 2023, outpacing its average growth rate for 2022. The increase was driven by compensation per employee (reflecting mainly strong public sector wage growth) and higher expenditure on intermediate consumption, which stemmed largely from purchases of energy and fuel.

**The relatively rapid growth in labour tax and social contribution revenues reflects the still comparatively strong labour market situation.**

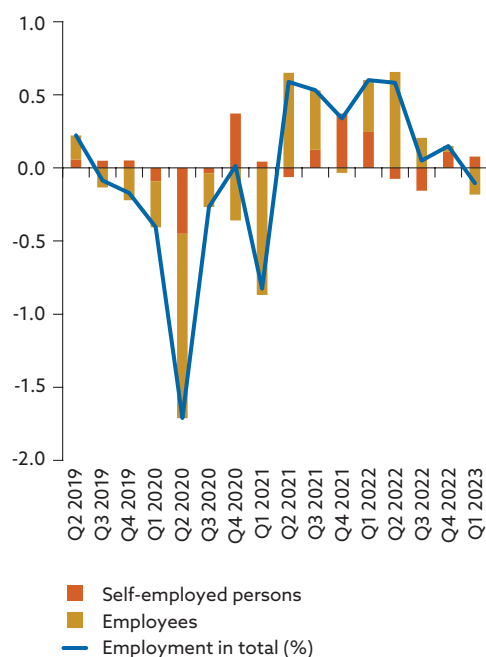
On the other hand, labour tax revenues were affected by the introduction of a family support measure (tax allowance) and its downward impact on personal income tax flows. VAT revenue remains buoyed by rising prices of consumer goods and services. Revenue from excise duty on spirits in the first quarter was significantly affected by widespread stocking up of this item ahead of an increase in the duty, hence the duty increase will have a less than expected impact this year.

#### 2.2.4 Labour market

**The favourable labour market trend has come to a halt and private sector employment has stagnated.** Firms continue to face labour shortages but are also cautious about creating new jobs. In the services sector, employment was still increasing during the first quarter despite sagging consumer demand. Services firms thus overcame the shortages from the previous period, and a large share of their vacancies were filled by foreigners. The number of people switching from employment to self-employment has probably increased (Chart 21). In the sector of public administration, defence, education and human health, there has been a notable drop in the number of people subject to labour activation policies (Chart 22). Absent this effect, overall employment would have remained flat in the first quarter of 2023. The inflow of foreign workers continues to have a positive impact on the labour market, but not even their higher number has been able to offset the decline in the resident workforce, reflecting to a large extent developments in activation policies (Chart 23).

Chart 21

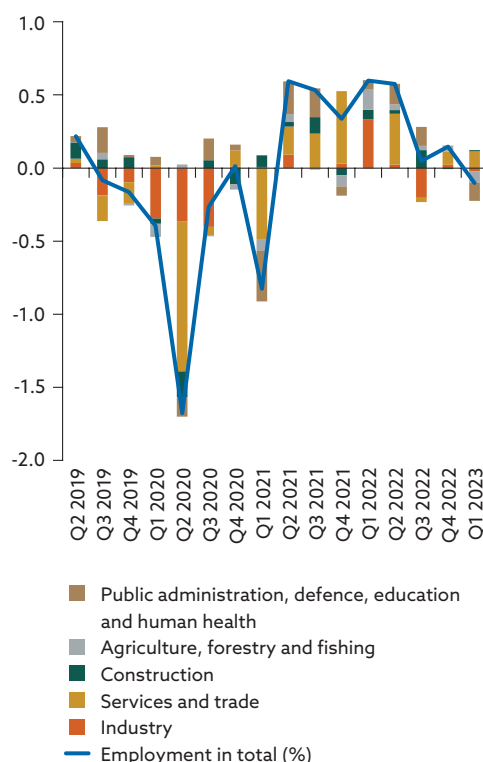
Employment (quarter-on-quarter percentage changes; percentage point contributions)



Sources: SO SR, and NBS.

Chart 22

Employment by sector (quarter-on-quarter percentage changes; percentage point contributions)

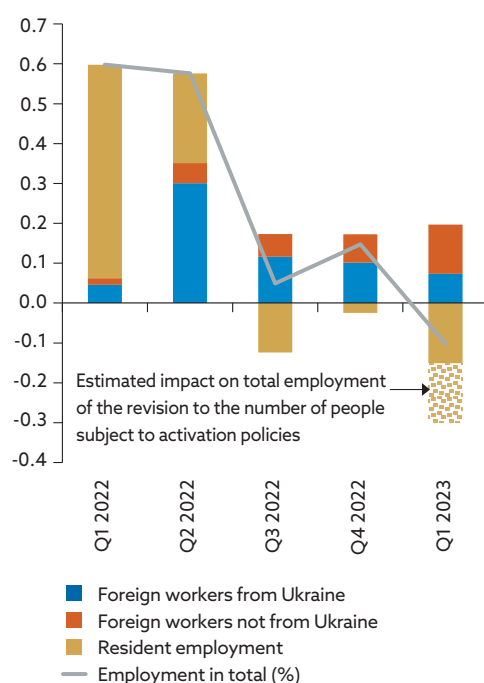


Sources: SO SR, and NBS.

**Both labour demand and labour supply are stagnating.** Although, according to business surveys, firms were expecting to increase recruitment, the number of job vacancies is stagnating (Chart 24). At the same time, labour supply in the form of the economically active population remained almost unchanged (increased slightly) in the first quarter of 2023, with the number of employed people falling and the number of unemployed rising. The unemployment rate therefore increased slightly. People returning to the labour market from inactivity were mostly those who had been at home owing to family reasons other than caring for a family member or to incapacity to work. A greater number of people left the labour market to receive a disability pension or to care for a household member.

Chart 23

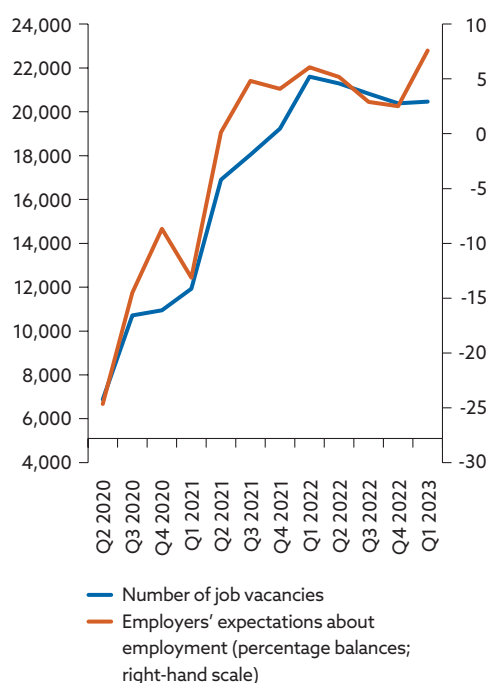
Employment and foreign workers  
(quarter-on-quarter percentage  
changes; percentage point  
contributions)



Sources: SO SR, and NBS.

Chart 24

Number of job vacancies and  
employment expectations

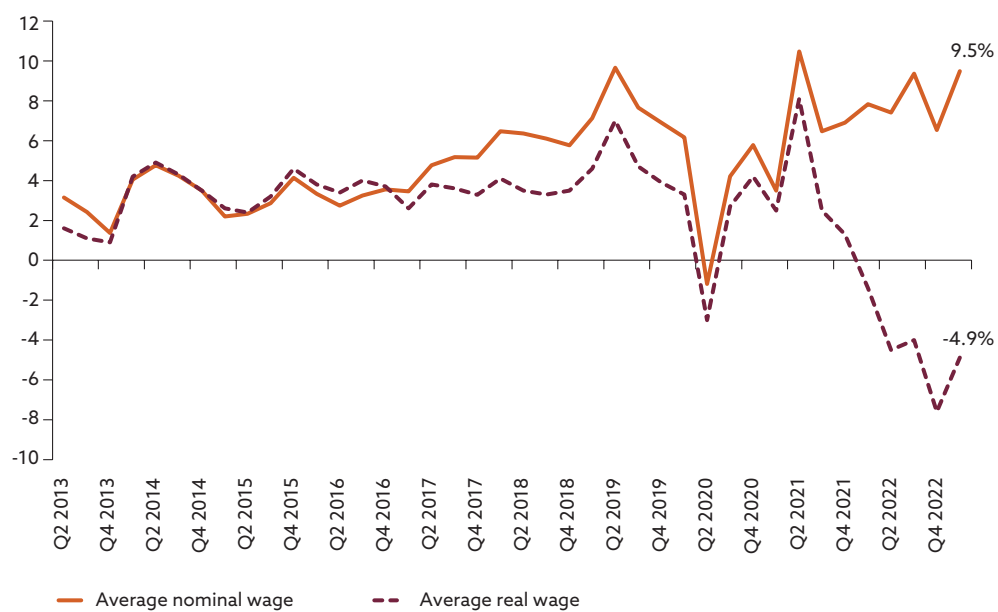


Sources: SO SR, Profesia online job portal ([www.profesia.sk](http://www.profesia.sk)), and NBS.

**Wage growth continued to accelerate in the first quarter of 2023 but did not reach double digits.** Both the public and private sectors experienced higher wage growth. In the sectors of construction, accommodation and food services, wage growth is strong. Wage developments are being largely shaped by inflation and labour market tightness. Despite accelerating in the first quarter, nominal wage growth was unable to keep pace with peaking inflation, so employees' purchasing power fell further (Chart 25).

**Chart 25**

**Wage level (annual percentage changes)**



**Sources:** SO SR, and NBS.

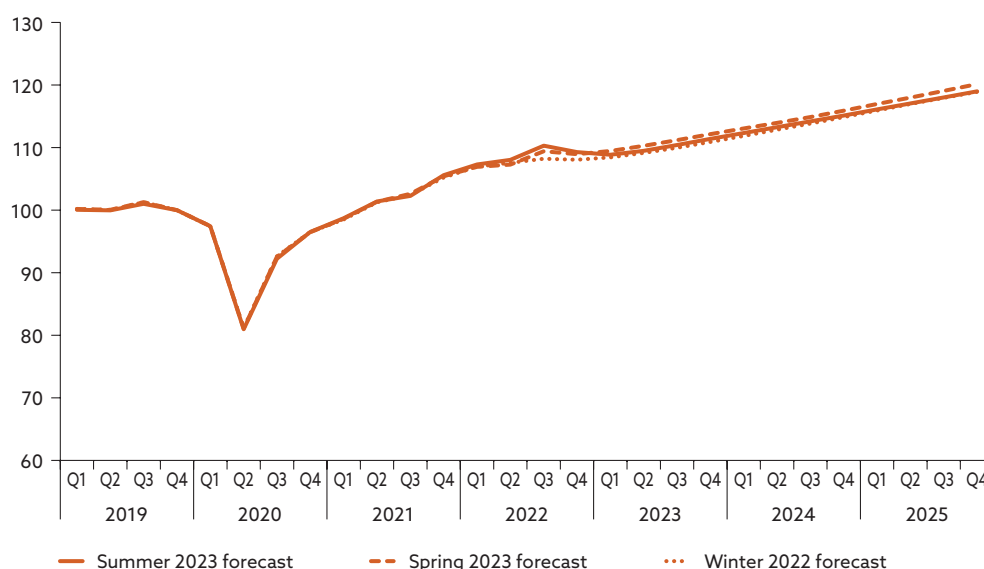
## 3 Medium-term forecast

### 3.1 Global outlook and technical assumptions of the forecast<sup>7</sup>

The outlook for foreign demand for Slovak products is slightly worse than we envisaged in the spring 2023 forecast, especially in respect of 2023 (Chart 26). Developments in the current year have been worse than originally expected, owing to weaker import growth in Slovakia's main trading partners. Compared with the spring forecast, the assumption for the level of foreign demand at the end of 2025 has been revised down by 0.7%.

Chart 26

Foreign demand (index: Q4 2019 = 100)



Source: NBS.

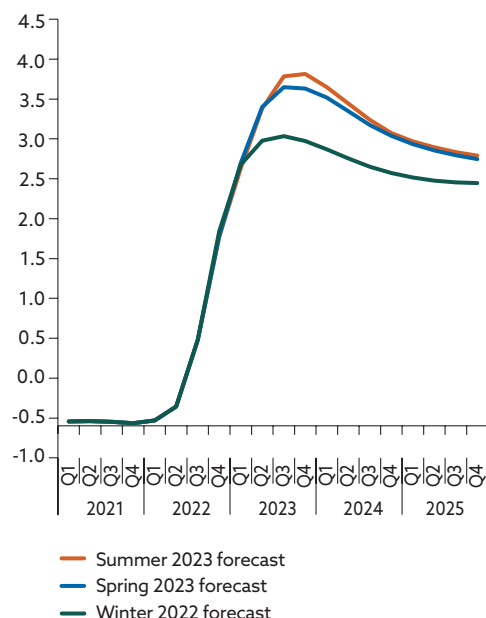
As for the oil price in US dollars, which peaked in the second quarter of 2022, the assumption for its level is lower in this forecast than in the spring 2023 forecast, and its downtrend is expected to continue until the end of 2025. Compared with the previous forecast, the euro's average exchange rate against the US dollar over 2023-25 is assumed to be 2% stronger, with the exchange rate assumed to be just below 1.1 US dollars per euro throughout the projection horizon.

In response to monetary policy tightening amid elevated inflation and to the readjustment of market expectations for interest rates, we have

<sup>7</sup> The technical assumptions of this medium-term forecast are based on the June 2023 Eurosystem staff macroeconomic projections for the euro area.

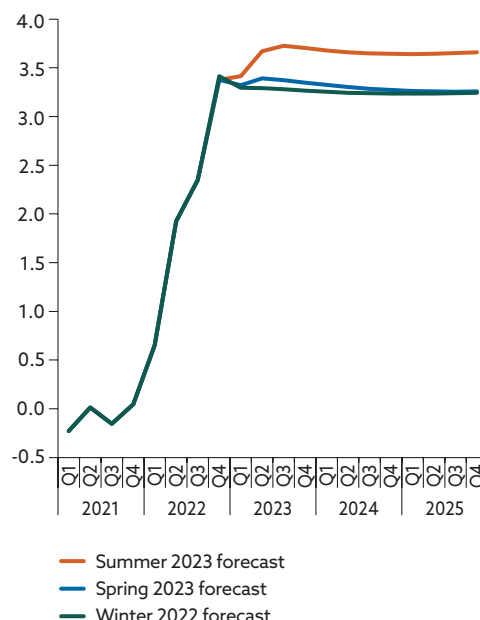
further revised up assumptions for long-term and, albeit only marginally, short-term market interest rates (Charts 27 and 28).

**Chart 27**  
**Three-month EURIBOR**



**Sources:** European Commission, and NBS.

**Chart 28**  
**Ten-year Slovak government bond yield**



**Sources:** SO SR, and NBS.

**Table 2 External environment and technical assumptions (annual percentage changes, unless otherwise indicated)**

	Actual data	Summer 2023 forecast (MTF-2023Q2)			Difference vis-à-vis the spring 2023 forecast (MTF-2023Q1)		
	2022	2023	2024	2025	2023	2024	2025
Slovakia's foreign demand	6.6	1.2	3.4	3.4	-1.2	0.1	-0.2
USD/EUR exchange rate <sup>1), 2)</sup> (level)	1.05	1.08	1.09	1.09	1.9	2.3	2.3
Oil price in USD <sup>1), 2)</sup> (level)	103.7	78.0	72.6	70.4	-5.6	-6.8	-5.0
Oil price in USD <sup>1)</sup>	45.8	-24.7	-7.0	-3.1	-4.5	-1.2	1.9
Oil price in EUR <sup>1)</sup>	63.8	-26.8	-7.1	-3.1	-5.8	-1.6	1.9
Non-energy commodity prices	6.6	-11.5	-2.0	1.3	-5.1	-2.3	0.1
Three-month EURIBOR (percentage per annum)	0.3	3.4	3.4	2.9	0.1	0.1	0.1
Ten-year Slovak government bond yield (percentage)	2.1	3.6	3.7	3.6	0.2	0.4	0.3

**Sources:** ECB, SO SR, and NBS.

**Notes:**

1) Annual percentage changes and changes vis-à-vis the previous forecast are calculated from unrounded figures.

2) Differences vis-à-vis the previous forecast are in percentages.

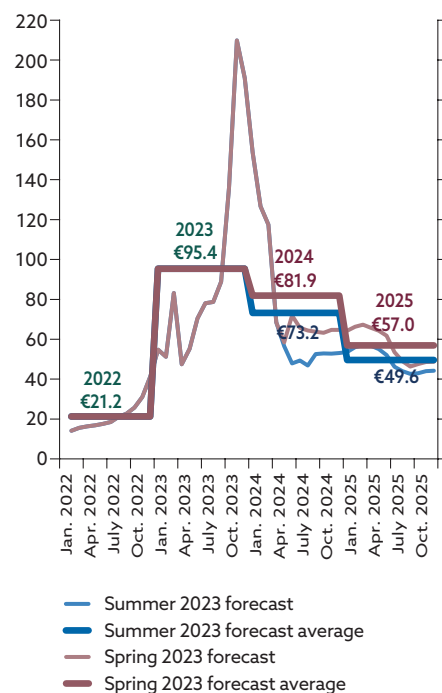
Given that gas spot prices have returned to pre-Ukraine war levels and that the administered gas price in Slovakia has been set a low level for 2023, the assumptions for the level of consumer gas prices are only marginally lower in this forecast than in the previous forecast. Consumer gas prices



are expected to increase more significantly in 2024 (Charts 29 and 30). The decline in spot prices will put downward pressure on price compensation payments in 2024. With a further moderate increase in 2025, gas prices will be back at market levels.

**Chart 29**

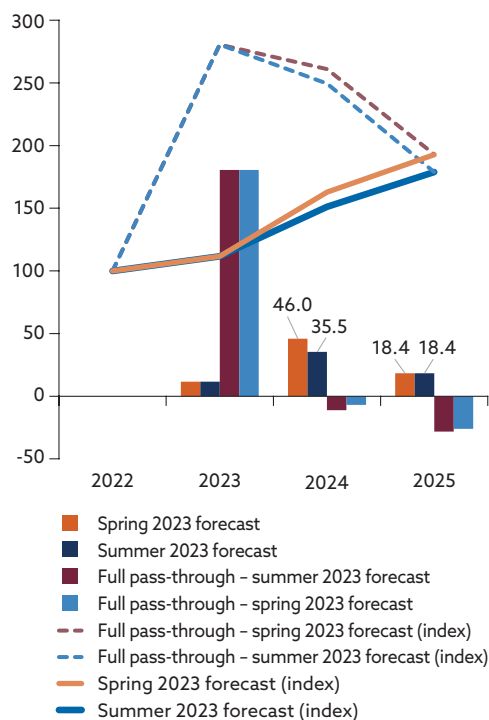
Gas spot prices for the calculation of administered prices for households (EUR)



Sources: Macrobond, and NBS.

**Chart 30**

Household gas prices (annual percentage changes; index: 2022 = 100)



Sources: Macrobond, and NBS.

## 3.2 Macroeconomic forecast for Slovakia

Headline inflation is expected to continue its trend deceleration from elevated levels, owing to declining prices of commodities, in particular energy. It is projected to be back into single digits by the end of the summer (Chart 31). Compared with the spring 2023 forecast, the inflation projection for this year has been revised up slightly while the projections for subsequent years are adjusted downwards.

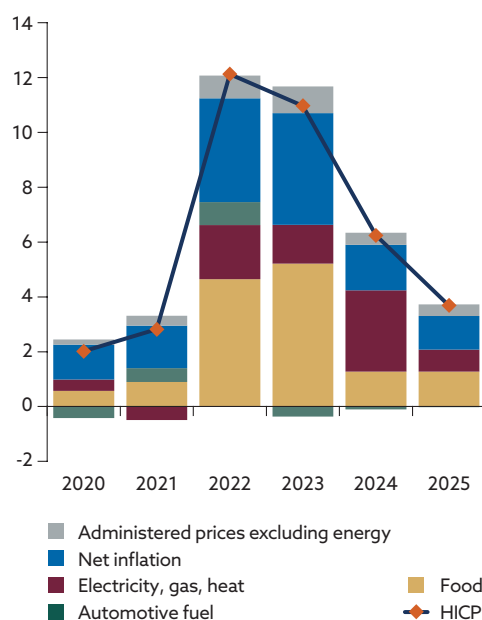
The pass-through of cost increases to consumer prices that we have seen in recent months may still have a short time to run. However, the situation is changing, and the ongoing weakening of consumer demand will curb further price increases.

Consumer energy prices are not expected to rise as quickly as projected in the spring forecast. Indeed, they are the main factor behind the downward

**revision of inflation projections for subsequent years.** Energy spot prices have reached their lowest level in two years. The recent extension of a memorandum between the Slovak government and the power utility Slovenské elektrárne will check the increase in consumer electricity prices throughout the projection period. Hence we have revised our assumption of these prices returning to market levels in 2025. Since information on the amount of discounted electricity is so far only of a general nature, we assume that the memorandum will affect only 40% of household electricity consumption and that the rest will be supplied at market prices. Despite the fall in spot gas prices, consumer gas prices are projected to increase by 36% in 2024 and by 18% in 2025, when they will return back to market levels.

**Chart 31**

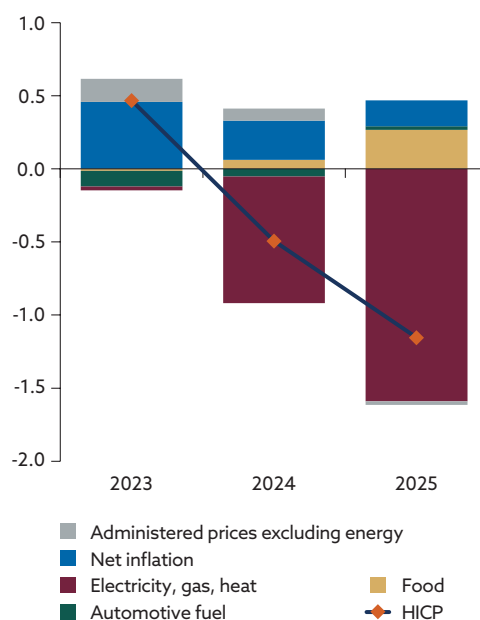
**HICP inflation and its components**  
(annual percentage changes;  
percentage point contributions)



Sources: SO SR, and NBS.

**Chart 32**

**Change in projection vis-à-vis the  
spring 2023 forecast (percentage  
point contributions)**

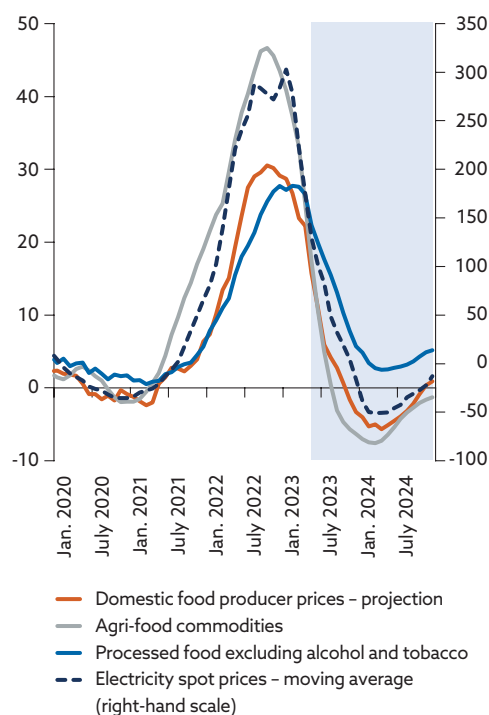


Sources: SO SR, and NBS.

**We still expect headline inflation to average double digits in 2023, with its main driver being food prices (Chart 33).** Inflation has already peaked, and the decline in input prices will be reflected in shelf prices. Early in the year, costs were still passing through to both food inflation and net inflation (Chart 34). The current easing of inflation reflects mainly a decline in consumer demand.

**Chart 33**

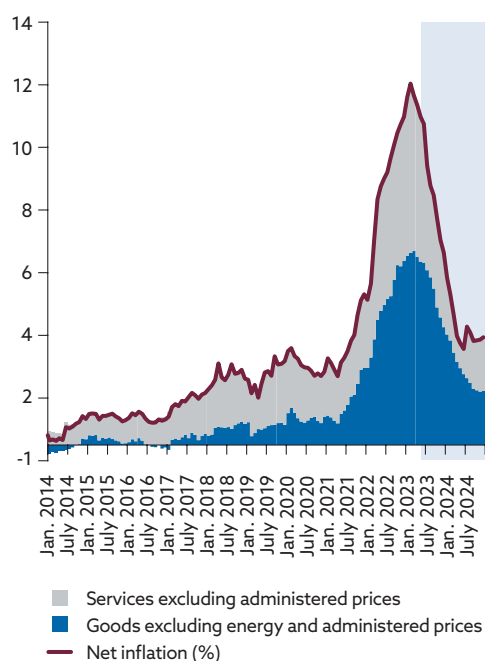
**Cost factors and processed food prices (annual percentage changes)**



Sources: SO SR, and NBS.

**Chart 34**

**Net inflation and its components (annual percentage changes; percentage point contributions)**



Sources: SO SR, and NBS.

**Table 3 Components of HICP inflation (annual percentage changes)**

	Average for 2004–08 (pre-crisis period)	Average for 2010–14 (post-crisis period with euro currency)	2022	2023	2024	2025
<b>HICP</b>	4.1	2.0	12.1	11.0	6.2	3.7
Food	3.6	3.1	16.1	15.9	4.0	4.0
Non-energy industrial goods	0.2	0.3	7.3	9.4	4.2	2.8
Energy	8.3	2.3	18.8	6.7	19.0	5.2
Services	5.3	2.5	9.3	9.5	3.7	3.5
Net inflation	1.8	1.0	8.3	9.2	3.7	2.8

Sources: SO SR, and NBS.

Households are sending good signals through the reassessment of their future inflation expectations, despite their high inflation perceptions. This is creating sound conditions for anchoring inflation expectations and preventing a wage-inflation spiral.

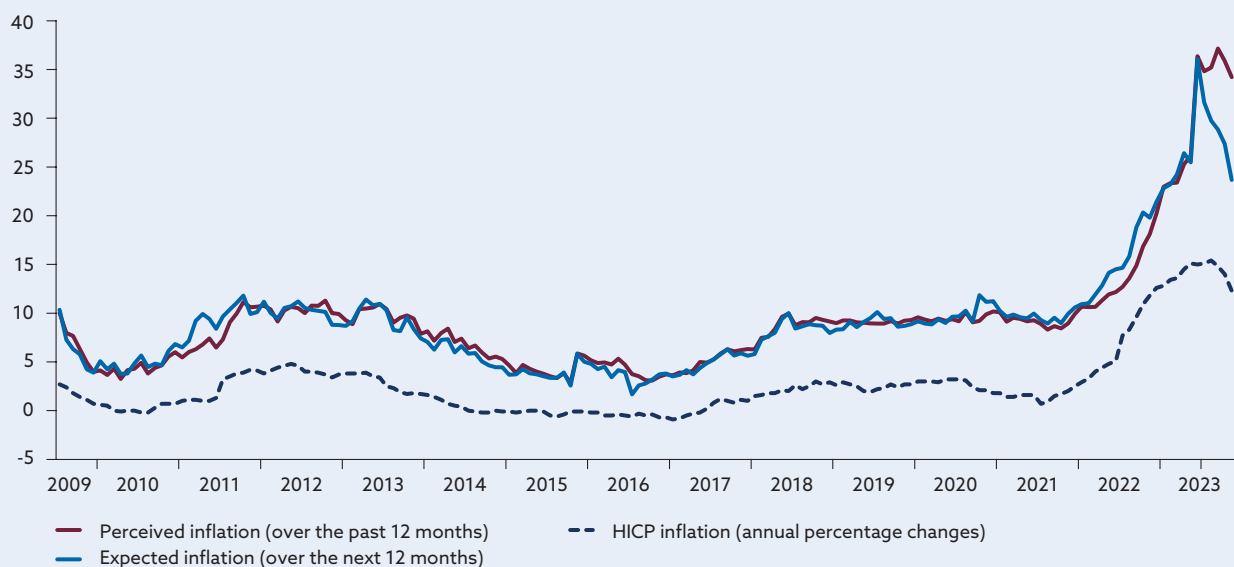
## Box 1

### People in Slovakia have significantly lowered their inflation expectations, which nevertheless remain elevated

The annual HICP inflation rate in Slovakia peaked at 15.4% in February 2023. Individual inflation expectations were highest in December 2022 and have been steadily declining since then. Even so, perceived inflation remains at record-high levels (Chart A), meaning that people correctly expected inflation to fall in the early part of this year despite still perceiving it to be exceptionally high.

#### Chart A

Actual, expected and perceived inflation over time (percentages)<sup>8</sup>



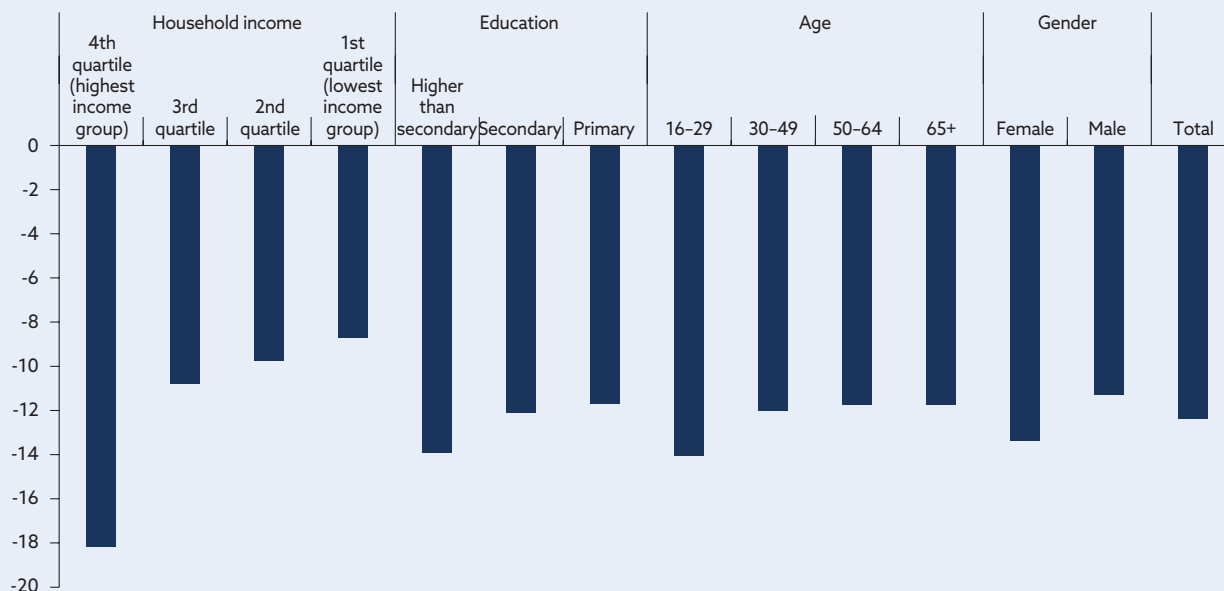
Source: SO SR.

Inflation expectations for the next 12 months have fallen from an average of over 36% in December 2022 to below 25% in May 2023. The decline is observed across all demographic groups of the population (Chart B) and is most pronounced among highest-income households.

<sup>8</sup> The data source is the European Commission's monthly Harmonised Consumer Survey for Slovakia, which is conducted by the Slovak Statistical Office. Perceived inflation is determined by responses to the question 'By what percentage do you think consumer prices in Slovakia have increased or decreased in the past 12 months?'; expected inflation, by responses to the question 'By what percentage do you think consumer prices in Slovakia will increase or decrease in the next 12 months?' Chart A shows the average responses for each month, i.e. perceived inflation over the past 12 months and the average expected inflation over the next 12 months.

**Chart B**

**Decline in inflation expectations from December 2022 to May 2023 across demographic groups of the population**



Source: SO SR.

However, a development not previously observed in Slovakia is the divergence between inflation expectations and perceptions. Until December 2022, inflation perceptions and expectation in Slovakia moved hand in hand (Chart A), but since January this year, expectations have been out of step with perceptions. This observation may be a result of several factors.

On the one hand, people may have changed the way they form their inflation expectations. In past times of lower inflation, people formed expectations adaptively on the basis of observed inflation, but today they pay greater attention to news about inflation, monetary policy, commodity input prices, energy prices, and wage growth. Another reason for the decline in inflation expectations may be the government's capping of energy prices for households.

Households might have expected higher inflation at the end of the year, mainly in respect of energy and food prices. Following the calming of commodity markets, however, households do not expect further increases of this nature, hence their inflation expectations have fallen significantly.

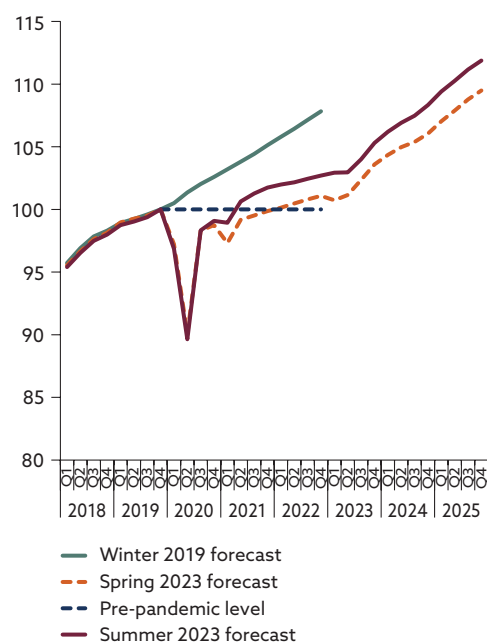
**The growth outlook for the Slovak economy is unchanged from the spring 2023 forecast<sup>9</sup> (Chart 35).** It is still assumed that foreign demand and the increasing uptake of EU funds will drive economic growth this year, while

<sup>9</sup> Because of its revision, the GDP level is approximately 2% higher from 2021.

consumer demand will have a dampening effect. In subsequent years, domestic demand should slightly outweigh foreign demand in terms of its positive impact on GDP growth. In addition to the impact of investment spending, domestic demand will increasingly reflect the contribution of private consumption growth amid the recovery of real incomes.

**Chart 35**

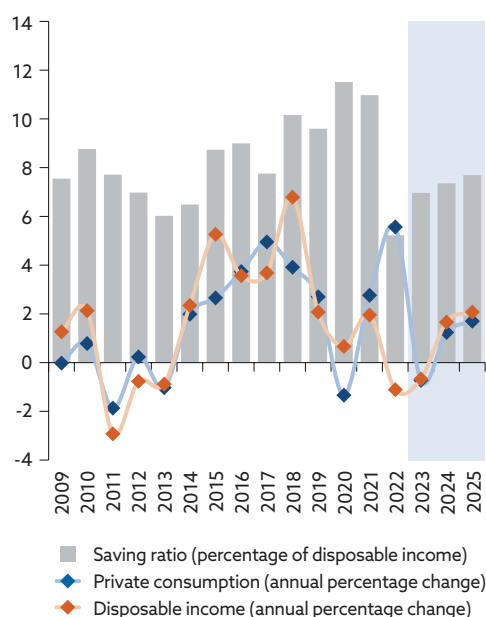
GDP (index: Q4 2019 = 100)



Source: NBS.

**Chart 36**

Household income, household consumption and the household saving ratio (annual percentage changes; constant prices)



Source: NBS.

**Consumer price inflation will continue to be the key factor in the evolution of domestic demand.** High inflation has been eroding people's purchasing power since early last year. Rather than rein in their spending, households were tapping into savings; however, the period of overconsumption ended last year, and the decline in consumer demand became even greater than expected in the first quarter of this year. This is another reason why our projection for private consumption is more pessimistic now than it was in the spring. High-frequency data indicate that this downtrend will carry on in the period ahead, hence we expect households to be less well off this year. As inflation recedes and nominal incomes catch up, we envisage a rebuilding of savings in the short term and then a resumption of private consumption growth (Chart 36). The slightly downward revision of the inflation projections for the next two years implies some relief for households' finances and therefore an increase in the funds they have available for consumption.

**Indications of a stronger global recovery driven by the Chinese economy remain no more than that for the time being.** Although Europe has coped relatively well with its energy crisis and the Chinese economy has undergone a post-pandemic recovery, our outlook for the global economy is slightly worse than it was in the spring forecast.

Slovakia's export performance is currently affected by two opposing factors. On the one hand, at the global level, consumption is shifting slightly from goods to services, leading to a downward revision of global flows of goods. On the other hand, there are relatively favourable developments, especially in the automotive sector, driven by firms working through order backlogs. Component shortages should no longer be an obstacle to manufacturing and exports by automotive firms. Current developments indicate a slightly greater prevalence of adverse data, hence the slight downward revision in our projections for export performance this year. Inflation is taking a toll in all countries. In most of the countries with which Slovakia has closer trade relations, real purchasing power continues to decline. When inflation rates abate, these countries should also see a significant pick-up in consumer demand, which should in turn boost demand for Slovak products. In the coming years, the expansion of automotive production capacity should be a further driver of export growth.

Although projected export performance is slightly worse in this forecast than in the previous one, net exports are projected to contribute positively to this year's GDP growth. This is due to a decline in imports, which stems from weaker consumer demand and an upsurge in imports for stockbuilding in the last quarter of 2022. As a result, import intensity is expected to decline temporarily, and therefore the current account deficit, which was high last year, should improve significantly.

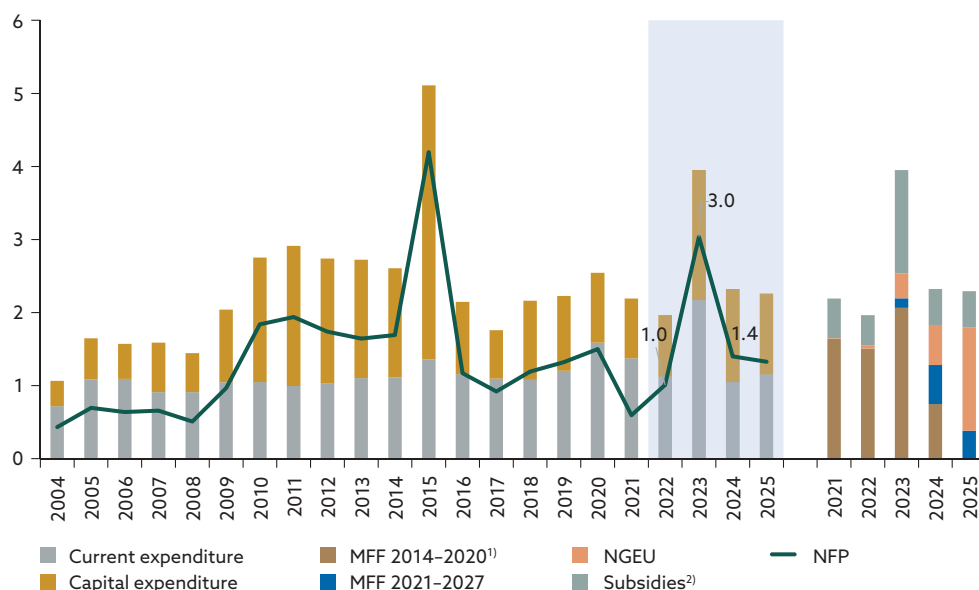
**Of all the components of domestic demand, investment alone is expected to have a positive impact on GDP growth this year.** The large amount of Slovakia's EU funds allocation that remains undisbursed is a potentially significant driver of investment demand, concentrated mainly in the government sector. Part of the EU funds allocation under the 2014-2020 EU budget (around 3%) is expected to be decommitted. Private investment should be curbed in the short term by monetary policy normalisation, before gathering momentum in subsequent years as the effects of the energy crisis subside.

**Receipts from the EU budget are projected to amount to 4.0% of GDP this year. After deducting its contributions, Slovakia's net financial position vis-à-vis the EU budget is projected to be 3.0% of GDP in 2023 (Chart 37).** The improvement of the budgetary position should be supported by the completion of the disbursement of funds allocated under the 2014-2020

EU budget. These funds should provide economic stimulus via higher investment demand, largely through the completion of infrastructure projects. With the fading of this impact, subsequent years are expected to see a decline in receipts from the EU budget. However, the decrease in EU-funded demand is expected to be mitigated by the start of disbursements of EU funds allocated under the 2021-2027 EU budget and under Recovery and Resilience Facility (through the implementation of Slovakia's recovery and resilience plan).

**Chart 37**

**Slovakia's absorption of EU funds and net financial position (percentages of GDP)**



Source: NBS.

1) Net of own resources collection costs.

2) The subsidies comprise mainly agricultural funds under the 2014-2020 and 2021-2027 budgets.

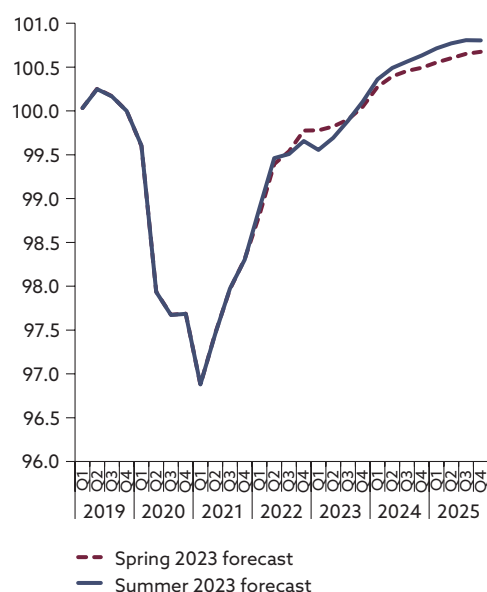
**Note:** NFP – net financial position; MFF – Multiannual Financial Framework; NGEU – Next Generation EU instrument (the forecast envisages funding under the NGEU's Recovery and Resilience Facility, Recovery Assistance for Cohesion and the Territories of Europe (REACT-EU) initiative, and Just Transition Fund).

**The labour market situation is expected to remain stable, and its outlook is the same as in the spring 2023 forecast.** After stagnating briefly in the first half of this year, employment should start increasing slightly (Chart 38). With the softening of domestic demand, net job creation is expected to weaken temporarily, especially in the services sector. Services firms have benefited from demand growth and have been hiring; however, with real incomes falling and households reining in spending on non-essential services, we expect these firms to stop hiring for some time. Although the outlook for the domestic part of the economy has worsened, we do not expect an increase in lay-offs. Population ageing and the resulting labour shortage should curb the increase in unemployment. As global and domestic demand picks up again, employment is projected to gradually increase, supported by a higher labour participation rate and foreign workers.



**Chart 38**

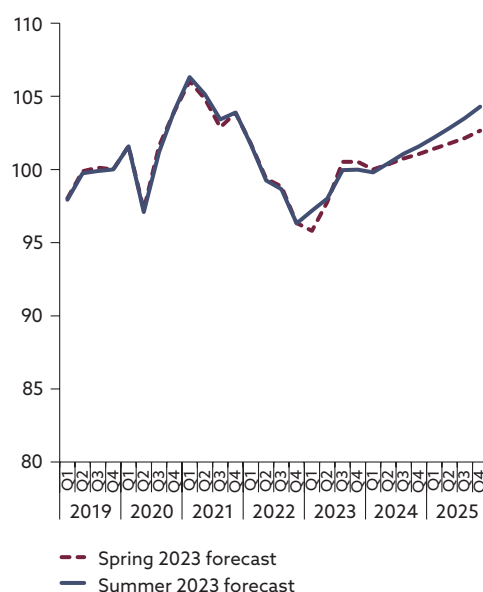
**Employment (index: Q4 2019 = 100)**



Source: NBS.

**Chart 39**

**Real compensation per employee  
(index: Q4 2019 = 100)**



Source: NBS.

**Inflation and the decline in households' real purchasing power over the past year will put strong upward pressure on wage growth (Chart 39).**

This is evident from recent developments, with nominal wages increasing more than expected in the early part of this year. Owing to indexation based on past inflation, as well as to a shortage of skilled labour, wage growth is projected to exceed 10% this year. Despite a surge in nominal wages, purchasing power is expected to stagnate on average. People working in the private sector will be slightly better off, as they see a marginal increase in real wages. Public sector employees will have two consecutive years of belt-tightening, as their negotiated wage increases fail to keep pace with inflation. The projected pace at which inflation will ease in coming years has been revised up, implying a moderation of wage demands. There will, however, start to be gradual recouping of real income losses.

**Table 4 Wages (annual percentage changes)**

	2021	2022	2023	2024	2025
Nominal labour productivity	6.1	7.4	10.4	7.0	6.1
Whole economy – nominal wages	6.1	7.1	10.9	8.3	6.2
Whole economy – real wages	2.8	-5.0	0.0	1.6	2.0
Private sector – nominal wages	6.4	8.1	11.4	8.3	6.0
Private sector – real wages	3.1	-4.1	0.4	1.7	1.8
Public administration, education and health care – nominal wages	5.3	4.1	9.3	8.0	6.8
Public administration, education and health care – real wages	2.1	-7.7	-1.5	1.4	2.6

Sources: SO SR, and NBS.

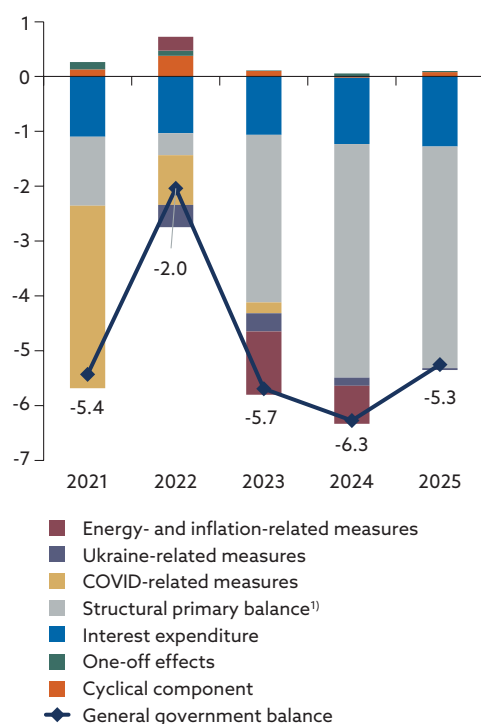
Notes: Deflated by the CPI. Nominal labour productivity – GDP divided by persons in employment (ESA 2010).

### 3.3 Public finance projections

Slovakia's general government deficit for 2023 is expected to be 5.7% of GDP, which represents a deterioration of 3.7 pp compared with the previous year (Chart 40). The higher deficit is partly due to temporary measures to compensate for high energy prices, but mostly it is caused by the structural balance. The high level of the deficit is a result of permanent factors: increasing social spending related to the lagged impact of inflation; and a high level of permanent measures, notably the so-called family package. Elevated inflation had a positive impact on the fiscal deficit in 2022 by its upward effect on tax revenues; however, its adverse impact resulting from the indexation of social payments (old-age pensions in particular) only becomes apparent from 2023. The social payments indexation, together with the new family support measures of a permanent nature, result in a high structural balance over the projection horizon. Also included in the budgetary balance are expected deliveries of military equipment in 2024 and 2025.

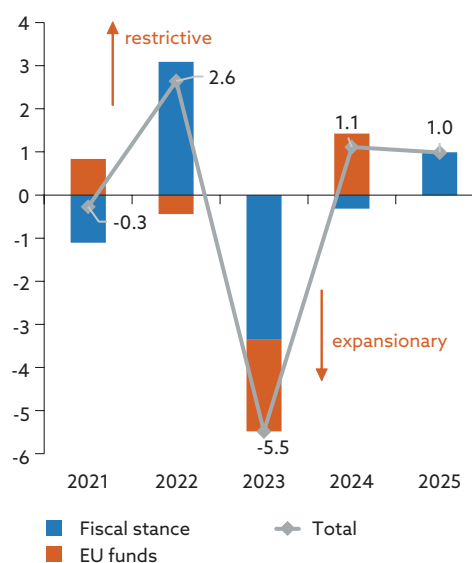
**Chart 40**

**Decomposition of the general government balance (percentages of GDP)**



**Chart 41**

**Fiscal stance (percentage points of GDP)**



**Sources:** SO SR, and NBS.

1) Excluding pandemic-, Ukraine- and energy-related measures.

**Note:** One-off factors include non-cyclical effects that have a temporary impact on the general government balance and are supposed to be eliminated in the future.

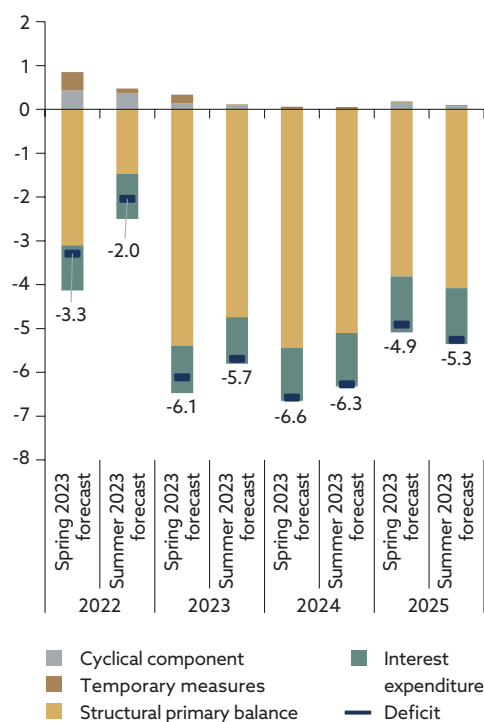
**Sources:** SO SR, and NBS.

**Note:** Fiscal stance – annual rate of change in the cyclically adjusted primary balance.

**Compared with the previous forecast, the fiscal deficit projection for 2023 is slightly better, by 0.4 pp of GDP.** Favourable developments in energy commodity markets have reduced the expected need for energy price compensation measures, particularly in 2023 and to a lesser extent in 2024. On the other hand, worse than expected macroeconomic developments have a negative impact on tax revenues over the entire projection horizon. This, together with the need for higher expenditure due to persistently higher inflation (mainly on social spending and government investment) is why the deficit projection revision is less positive for 2024 than for 2023 and is slightly negative for 2025 (Chart 42).

**Chart 42**

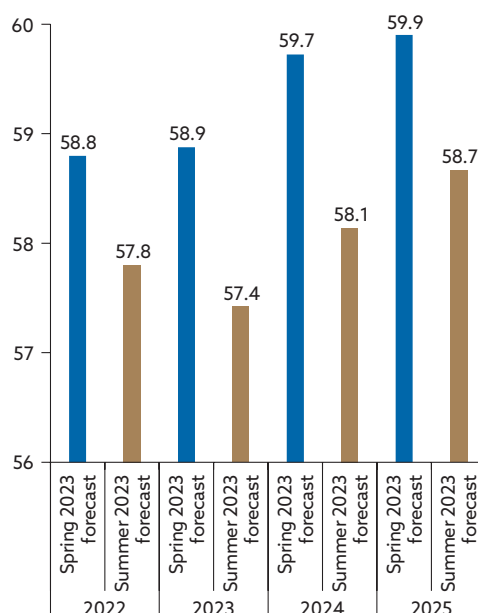
**Comparison of projections for the deficit and its decomposition (percentages of GDP; percentage point contributions)**



Source: NBS.

**Chart 43**

**Comparison of public debt projections (percentages of GDP)**



Source: NBS.

**Public debt fell below the 60% of GDP threshold in 2022, to 57.8%, but remained above the upper limit of the debt brake<sup>10</sup> (Chart 43).** The decline in relative debt was due in large part to nominal economic growth, which reflected the rise in the price level (with GDP as the denominator of the

<sup>10</sup> For 2022, the upper limit of sanction bands under the debt brake regime was 55%. Under a transitional provision of the constitutional Fiscal Responsibility Act, the upper limit of general government debt is to be reduced by one percentage point per year from 2018 to 2027, when it will drop to the level of 50% of GDP.

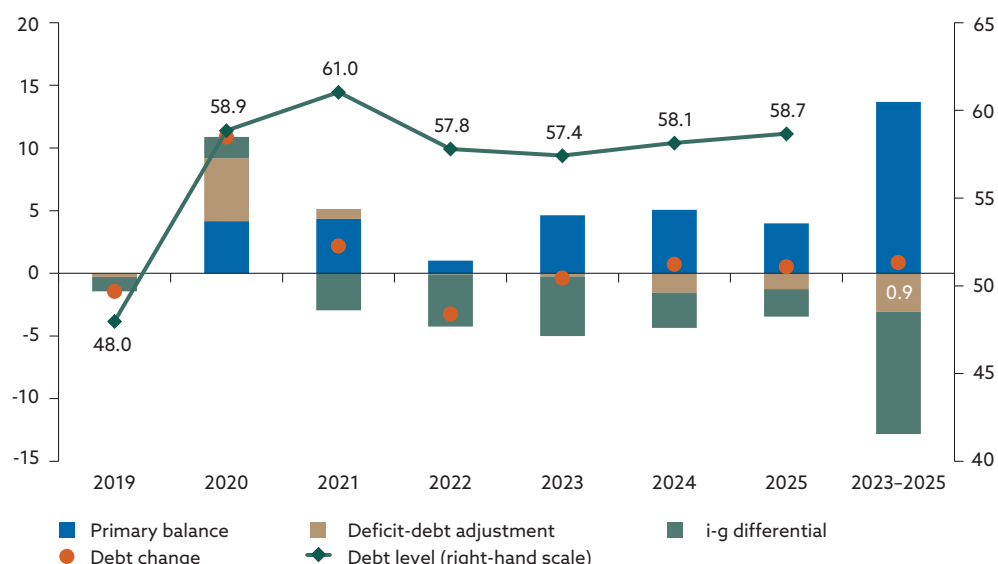
indicator). The deficit's impact has diminished with the easing of the impact of short-term measures.

There is a projected further decline in public debt in 2023, but at a much slower pace. The impact of nominal economic growth is expected to be curbed by a higher primary deficit. The deterioration compared with the previous forecast is due largely to short-term measures (energy assistance and anti-inflationary measures). The debt is projected to rise gradually in coming years, reaching 58.7% of GDP in 2025, mainly because of the ongoing fiscal deficit performance.

With rising interest costs associated with the issuance of new debt, accumulated reserves are expected to be used to finance the fiscal deficit. Partial financing from reserves is expected to have a moderating effect on debt growth (deficit-debt adjustment factor) (Chart 44).

**Chart 44**

**Public debt and factors of change (percentages of GDP; percentage points of GDP)**



**Sources:** NBS, and SO SR.

**Notes:** Deficit-debt adjustment – a factor of consistency between the fiscal deficit and the debt change; i-g differential – a factor taking into account the impact of interest costs and economic growth on the debt change.

### 3.4 Risks to the forecast

**Risks to the current economic outlook are tilted predominantly to the downside.** The greatest risk lies in the evolution of global demand. Although commodity prices have returned to pre-Ukraine war levels, they may remain volatile, and a potential commodity market turnaround could delay the global recovery. Another risk for the export-oriented Slovak economy is weaker global trade in goods. As for domestic demand,

uncertainty surrounds the duration and extent of the decline in private consumption. A deterioration in household confidence could also lead to a longer period of spending restraint and/or greater accumulation of savings than this forecast envisages. The absorption of EU funds and slower implementation of Slovakia's recovery and resilience plan remain downside risks. Given the need to put public finances on a sustainable path, consolidation measures will need to be taken in line with expenditure limits, potentially reducing economic activity in the years ahead.

The risks to the inflation outlook remain largely on the upside. Consumer energy pricing in the years ahead poses the greatest risk in respect of price developments. Significant uncertainty and the risk of higher prices in following years are being created by a lack of information on the convergence to market prices and by the government's signing of a contract with power utility Slovenské elektrárne pursuant to the memorandum concluded with that company. Despite the decline in wholesale energy prices, we see energy prices as the principal risk to the outlook for price developments.

The risks to the public finance projections are tilted towards an improvement in fiscal performance. This is due to medium-term consolidation necessitated by deviation from long-term sustainability of public finances. We see the risks to this year's outlook on both sides. If the absorption of EU funds is less than envisioned in this forecast, there will be less need for domestic public co-financing of EU-funded projects. The ongoing decline in energy market prices is also reducing demand for financial assistance. On the other hand, adverse risks exist in the form of members' bills currently before the Slovak parliament, which represent potential additional demands on the public purse.

**Table 5 Summer 2023 medium-term forecast (MTF-2023Q2) for key macroeconomic indicators**

Indicator	Unit	Actual data	Summer 2023 forecast (MTF-2023Q2)				Difference vis-à-vis the spring 2023 forecast (MTF-2023Q1)		
		2022	2023	2024	2025	2023	2024	2025	
Price developments									
HICP inflation	annual percentage change	12.1	11.0	6.2	3.7	0.5	-0.5	-1.1	
CPI inflation	annual percentage change	12.8	10.8	6.2	3.9	0.2	-0.4	-1.0	
GDP deflator	annual percentage change	7.5	9.6	4.1	3.0	0.5	0.1	0.1	
Economic activity									
Gross domestic product	annual percentage change, constant prices	1.7	1.4	3.3	3.2	0.1	0.1	0.2	
Private consumption	annual percentage change, constant prices	5.6	-0.7	1.2	1.7	-1.4	0.3	0.4	
General government final consumption	annual percentage change, constant prices	-4.3	-1.2	1.9	3.4	-0.6	1.3	0.6	
Gross fixed capital formation	annual percentage change, constant prices	5.9	8.4	4.2	3.7	-0.6	0.4	0.1	
Exports of goods and services	annual percentage change, constant prices	2.4	3.3	6.2	3.8	-1.7	-0.3	-0.1	
Imports of goods and services	annual percentage change, constant prices	4.3	1.6	5.0	3.0	-3.3	0.3	-0.1	
Net exports	EUR millions at constant prices	1,240	2,724	3,932	4,775	1,944.8	1,409.9	1,369.4	
Output gap	percentage of potential output	1.2	0.2	-0.1	0.3	-0.1	0.0	-0.3	
Gross domestic product	EUR millions at current prices	109,652	121,927	131,060	139,375	2,806.3	3,225.7	3,916.8	
Labour market									
Employment	thousands of persons, ESA 2010	2,427	2,438	2,455	2,461	-1.9	2.7	3.8	
Employment	annual percentage change, ESA 2010	1.8	0.4	0.7	0.3	-0.1	0.2	0.1	
Number of unemployed	thousands of persons, LFS <sup>1)</sup>	170	168	151	139	0.4	-2.5	-3.0	
Unemployment rate	percentage	6.1	6.1	5.4	5.0	0.0	-0.1	-0.1	
NAIRU estimate <sup>2)</sup>	percentage	6.4	6.2	6.1	6.1	-0.1	-0.1	0.0	
Labour productivity <sup>3)</sup>	annual percentage change	-0.1	1.0	2.6	2.9	0.2	0.0	0.2	
Nominal productivity <sup>4)</sup>	annual percentage change	7.4	10.7	6.7	6.1	0.7	-0.1	0.4	
Nominal compensation per employee	annual percentage change, ESA 2010	6.0	10.8	8.4	6.3	0.7	-1.0	-0.3	
Nominal wages <sup>5)</sup>	annual percentage change	6.9	10.9	8.3	6.2	0.7	-1.0	-0.3	
Real wages <sup>6)</sup>	annual percentage change	-5.2	0.0	1.6	2.0	0.4	-0.7	0.5	
Households and non-profit institutions serving households									
Disposable income	annual percentage change, constant prices	-1.1	1.0	1.7	2.1	0.1	0.2	0.9	
Saving ratio <sup>7)</sup>	percentage of disposable income	5.2	7.0	7.4	7.7	1.1	0.8	1.3	
General government sector <sup>8)</sup>									
Total revenue	percentage of GDP	40.2	40.0	38.7	38.4	-0.7	-0.9	-1.0	
Total expenditure	percentage of GDP	42.3	45.7	45.0	43.7	-1.1	-1.2	-0.7	
General government balance <sup>9)</sup>	percentage of GDP	-2.0	-5.7	-6.3	-5.3	0.4	0.3	-0.3	
Cyclical component	percentage of trend GDP	0.4	0.1	0.0	0.1	0.0	0.0	-0.1	
Structural balance	percentage of trend GDP	-2.5	-5.8	-6.3	-5.4	0.6	0.3	-0.3	
Cyclically adjusted primary balance	percentage of trend GDP	-1.4	-4.7	-5.0	-4.1	0.5	0.3	-0.3	
Fiscal stance <sup>10)</sup>	annual percentage point change	3.1	-3.4	-0.3	1.0	-0.9	-0.1	-0.6	
General government gross debt	percentage of GDP	57.8	57.4	58.1	58.7	-1.5	-1.6	-1.2	

**Table 5 Summer 2023 medium-term forecast (MTF-2023Q2) for key macroeconomic indicators (continued)**

Indicator	Unit	Actual data	Summer 2023 forecast (MTF-2023Q2)				Difference vis-à-vis the spring 2023 forecast (MTF-2023Q1)		
		2022	2023	2024	2025	2023	2024	2025	
Balance of payments									
Goods balance	percentage of GDP	-6.0	-1.1	0.1	1.3	1.5	0.3	0.2	
Current account	percentage of GDP	-8.2	-2.5	-1.8	-0.5	1.7	0.5	0.3	
External environment and technical assumptions									
Slovakia's foreign demand	annual percentage change	6.6	1.2	3.4	3.4	-1.2	0.1	-0.2	
USD/EUR exchange <sup>11), 12)</sup>	level	1.05	1.08	1.09	1.09	1.9	2.3	2.3	
Oil price in USD <sup>11), 12)</sup>	level	103.7	78.0	72.6	70.4	-5.6	-6.8	-5.0	
Oil price in USD <sup>11)</sup>	annual percentage change	45.8	-24.7	-7.0	-3.1	-4.5	-1.2	1.9	
Oil price in EUR <sup>11)</sup>	annual percentage change	63.8	-26.8	-7.1	-3.1	-5.8	-1.6	1.9	
Non-energy commodity prices in USD	annual percentage change	6.6	-11.5	-2.0	1.3	-5.1	-2.3	0.1	
Three-month EURIBOR	percentage per annum	0.3	3.4	3.4	2.9	0.1	0.1	0.1	
Ten-year Slovak government bond yield	percentage	2.1	3.6	3.7	3.6	0.2	0.4	0.3	

**Sources:** NBS, ECB, and SO SR.

**Notes:**

- 1) Labour Force Survey.
- 2) Non-accelerating inflation rate of unemployment
- 3) GDP at constant prices / employment (ESA 2010).
- 4) Nominal GDP divided by persons in employment (according to SO SR quarterly statistical reporting).
- 5) Average monthly wages (ESA 2010).
- 6) Wages (ESA 2010) deflated by CPI inflation.
- 7) Saving ratio = gross savings / (gross disposable income + adjustments for any pension entitlement change) \*100.  
Gross savings = gross disposable income + adjustments for any pension entitlement change – private consumption.
- 8) Sector S.13.
- 9) B9n – Net lending (+) / net borrowing (-).
- 10) Year-on-year change in cyclically adjusted primary balance; a positive value denotes a restrictive stance.
- 11) Year-on-year percentage changes and changes vis-à-vis the previous forecast are calculated from unrounded figures.
- 12) Changes vis-à-vis the previous forecast (percentages).

More detailed time series of selected macroeconomic indicators can be found on the NBS website at:

<https://nbs.sk/en/publications/economic-and-monetary-developments/>