Economic and Monetary Developments

winter 2021

NÁRODNÁ BANKA SLOVENSKA
EUROSYSTÉM

www.nbs.sk

Published by

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

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Discussed by the NBS Bank Board on 20 December 2021.

ISSN 2729-8604 (ONLINE)

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Abbreviations

CPI	Consumer Price Index
EA	euro area
ECB	European Central Bank
EC	European Commission
EME	emerging market economy
EONIA	euro overnight index average
ESA 2010	European System of Accounts 2010
ESI	Economic Sentiment Indicator (European Commission)
EU	European Union
EUR	euro
EURIBOR	euro interbank offered rate
Eurostat	statistical office of the European Union
GDP	gross domestic product
HICP	Harmonised Index of Consumer Prices
IMF	International Monetary Fund
IPI	industrial production index
MFI	monetary financial institution
MF SR	Ministry of Finance of the Slovak Republic
MTF	NBS's Medium-Term Forecast (published on a quarterly basis)
NACE	Statistical Classification of Economic Activities in the European Community (Rev. 2)
NBS	Národná banka Slovenska
NEER	nominal effective exchange rate
NFC	non-financial corporation
OECD	Organisation for Economic Co-operation and Development
p.a.	per annum
p.p.	percentage point
PMI	Purchasing Managers' Index
REER	real effective exchange rate
SME	small and medium-sized enterprise
SO SR	Statistical Office of the Slovak Republic
ÚPSVR	Ústredie práce, sociálnych vecí a rodiny – Central Office of Labour, Social Affairs and Family
USD	US dollar
VAT	value-added tax

Symbols used in the tables
. – Data are not yet available.
- – Data do not exist / data are not applicable.
(p) – Preliminary data

1 Summary

Slovakia's economic performance is suffering, while at the same time prices of almost everything are accelerating. Component shortages in the automotive industry are more acute than was expected in the autumn. As a result of a low rate of vaccination against COVID-19 and insufficient compliance with voluntary and government-mandated rules on social distancing, the pandemic's evolution has been even worse than projected. Surging input prices in the global economy are having an increasing upward impact on prices across a swathe of goods and services in Slovakia.

The uptrend in consumer prices will gather more pace in coming months. The general increase in prices will receive further impetus with the raising of administered energy prices in January 2022; the headline inflation rate will jump to almost 7%. It is expected that inflation will ease as input and commodity prices gradually stabilise. By the end of next year, the headline rate is expected to have dropped to 4%, and it is projected to go down to around 2% in 2024.

In our latest forecast, we have revised down the economic growth projections for both 2021 and 2022. Because the car industry accounts for a high share of its GDP, Slovakia is more vulnerable than other countries to bottlenecks in the supply of key components. Production downtime in the car industry has weighed on this year's economic growth to the tune of 1.8 percentage points. Moreover, the deteriorating health situation has required, and will continue to require, measures restricting economic activity, which over the next two quarters will dampen consumer demand to an even greater extent than we projected in the previous forecast. The projection for when the Slovak economy will return to its pre-crisis level has been shifted out by one quarter, to early 2022.

Expectations for the economic situation in Slovakia's trading partners indicate that the domestic economy could return to its pre-crisis path once the pandemic has passed. Economic growth is therefore projected to be an elevated 5% in 2023, when production losses from 2021 and the first half of 2022 should be partially recouped. For the economy's performance to return to its pre-pandemic trajectory, it is crucial not only that the health situation improves and car industry supply chains return to normal, but also that there is progress in the absorption of EU funds and related reforms.

In the domestic labour market, the situation will temporarily stop improving in the near term. Firms will postpone recruitment plans, and wage growth will moderate. In subsequent years, as the recovery picks up, there will be an increasing need to fill job vacancies. Current shortages of skilled labour are expected to be covered by foreign workers and by recruiting from the ranks of the unemployed. Wage growth will accelerate over the next two years, driven up mainly by productivity growth related to economic recovery and by shortages of skilled labour. Inflation is set to become an increasingly prominent issue in wage negotiations. The pass-through from inflation to wages is expected to peak in 2023.

As for Slovakia's fiscal performance, the budget deficit for 2021 is projected to be 7.4% of GDP. The deficit's expected year-on-year rise is attributable to the increasing financing needs related to the pandemic. Public financing consolidation should resume as early as 2022, and the fiscal deficit is projected to come in below 3% in 2024. Public debt is projected to fall gradually, to below 56% of GDP.

The risks to the outlook for real GDP growth remain on the downside. Conversely, the upside risk to the inflation outlook is likely to remain present for a longer time. Questions about the evolution of the health situation and about the restoration of industrial supply chains are the main sources of uncertainty surrounding projections for economic growth and employment. Energy price developments during 2022 and 2023, and the possibility of inflation having a greater impact on wages or on inflation expectations, open the possibility that inflation will remain high for a longer time. One relatively large medium- to long-term risk appears to be an absence of reforms and failure to make full use of the huge volume of funding available to Slovakia from standard EU funds and from the EU's Recovery and Resilience Facility (through the implementation of Slovakia's recovery and resilience plan).

Table 1 Basic indicators of economic developments

	Actual data	MTF-2021Q4				Difference vis-à-vis MTF-2021Q3		
	2020	2021	2022	2023	2024	2021	2022	2023
GDP (annual percentage change)	-4.4	3.1	5.8	5.6	2.7	-0.4	-0.5	1.1
HICP (annual percentage change)	2.0	2.8	5.7	2.4	1.9	0.4	1.8	0.2
Average nominal wage (annual percentage change)	3.8	5.0	6.2	6.7	4.8	0.0	0.9	1.3
Average real wage (annual percentage change)	1.8	1.9	0.5	4.0	2.6	-0.4	-0.8	1.0
Employment (annual percentage change; ESA 2010)	-1.9	-0.6	1.1	1.5	0.4	0.3	-0.1	-0.2
Unemployment rate (percentage; Labour Force Survey)	6.7	6.9	6.4	5.6	5.4	-0.1	-0.1	0.0

Source: NBS calculations.

2 Current macroeconomic developments in the external environment and in Slovakia

2.1 External environment

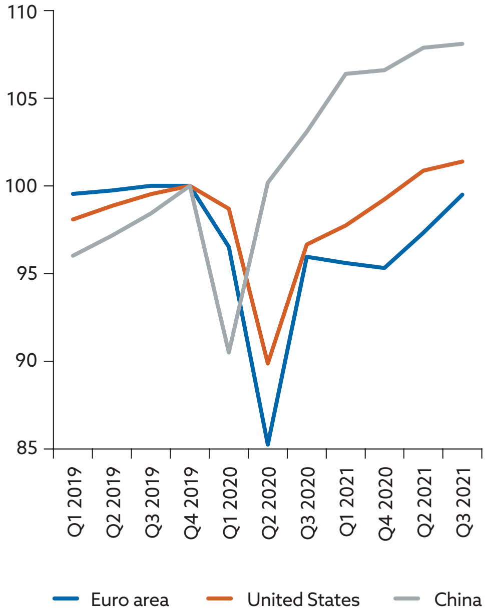
Global economic activity moderated in the third quarter of 2021. A shortage of energy commodities, notably coal, weighed on Chinese output growth and contributed to a slowdown in China's economic growth, which increased by only 0.2% quarter on quarter. The country's industrial performance faltered amid component shortages and weaker demand for Chinese exports (lower consumption demand in the United States). In the United States, too, economic activity growth slowed in the third quarter, to 0.5% (down from 1.6% in the second quarter), owing mainly to the downward impact on private consumption of the fading impact of fiscal policy stimulus and the deteriorating health situation, as well as supply chain bottlenecks for certain components. The component issue affected mainly the automotive industry, and indeed car purchases experienced a greater decline compared with other areas of goods consumption.

In the euro area, economic growth remained strong (2.2% quarter on quarter). It was largely driven by private consumption, which was buoyed by the reopening of the economy during the summer months. In terms of the pace of economic recovery, the euro area therefore narrowed its gap with the United States and China (Chart 1). Among euro area national economies, France and Italy performed exceptionally well, while in Germany, where industry (especially the car industry) accounts for a larger share of the economy, output performance undershot expectations. According to the most recent data for October (Chart 2), the German car industry is clearly picking up; nevertheless, uncertainty continues to surround global supply chains.

The start of the fourth quarter of 2021 saw a notable deterioration in the health situation in Europe (Chart 3). The sector hardest hit by this development will be services. Moreover, the appearance on the scene of a new coronavirus variant is, in the short term, adding to uncertainty among consumers and investors alike. The economic recovery will also be slowed by ongoing component supply shortages and labour market tightening. A number of firms are reporting that shortages of equipment (including intermediate inputs) and labour are increasingly limiting their activity

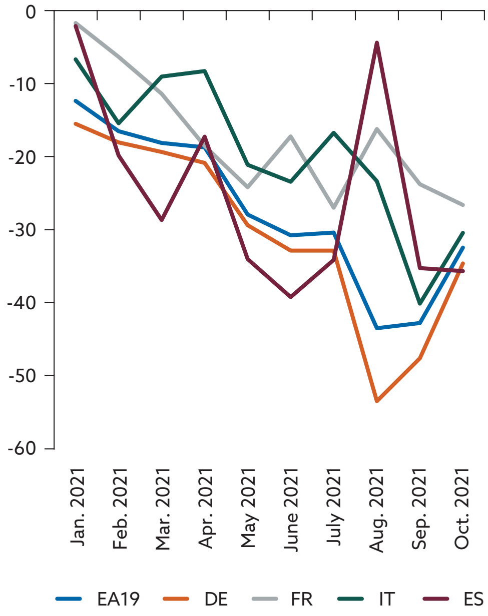
(Chart 4). What is more, the worse pandemic situation could lead to a further outflow of people from the labour market and a further short-term tightening of that market.

Chart 1
GDP of selected countries (index: Q4 2019 = 100)



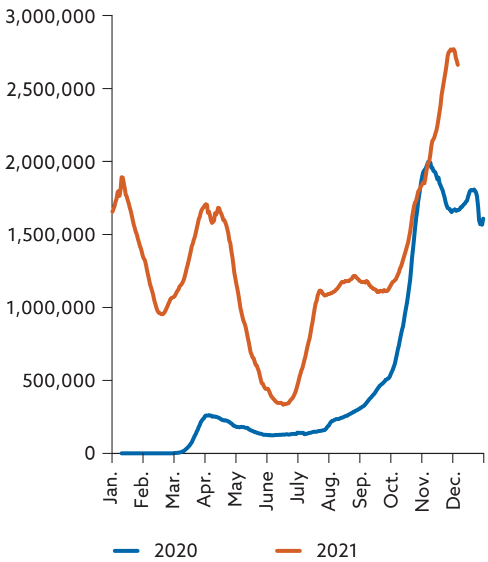
Sources: Macrobond, and NBS calculations.

Chart 2
Motor vehicle production (change vis-à-vis December 2020; percentages)



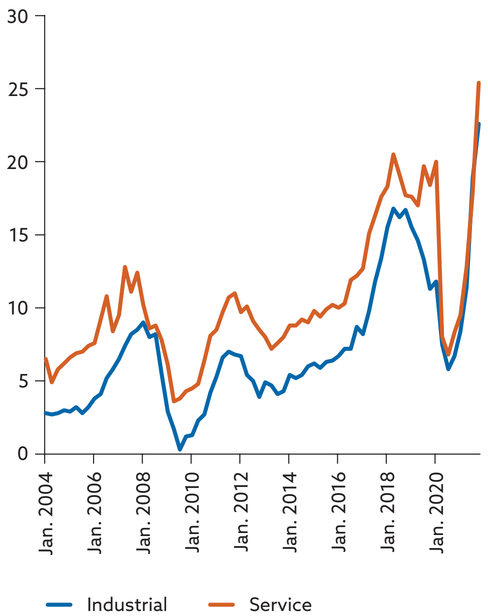
Source: Macrobond, and NBS calculations.

Chart 3
Europe – new cases of COVID-19 (number of people per week)



Source: Macrobond.

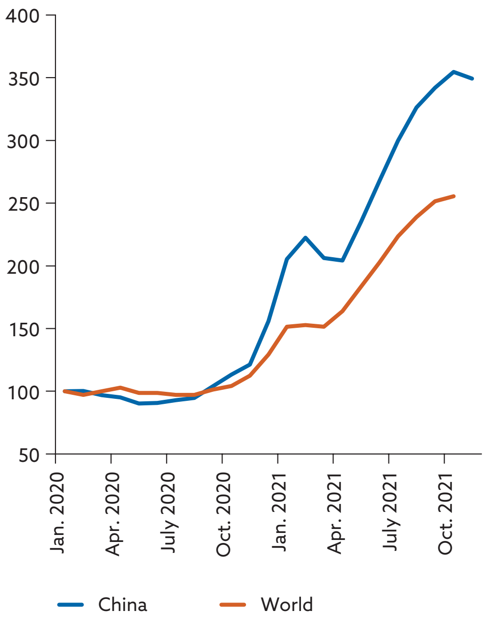
Chart 4
Assessments of labour shortages as a factor limiting economic activity in industry and services (percentages)



Source: Macrobond.

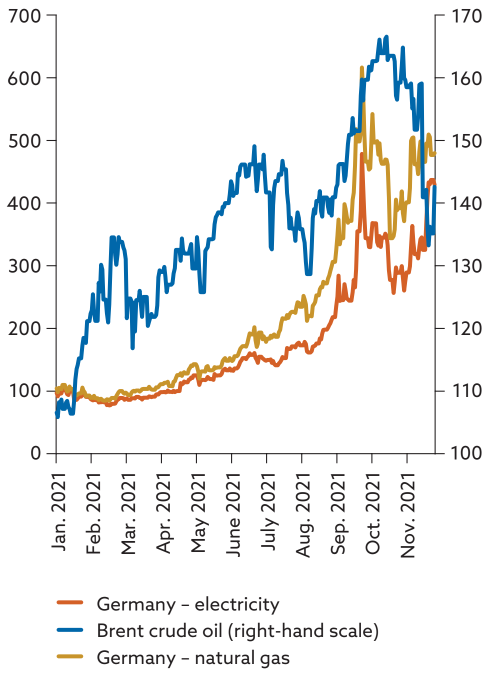
Input and commodity prices have remained elevated. Supply chain bottlenecks have disrupted not only goods production, but also container shipping transportation. As a result, prices have continued to rise (Chart 5). Moreover, high demand for raw materials has run into the problem of supply constraints. Oil prices have increased, as have prices of gas, coal and, consequently, electricity. In late November oil prices decreased amid fears that demand would drop because of the new coronavirus variant (Chart 6). At the same time, OPEC and its allies, a group known as OPEC+, decided to press ahead with a planned increase in output. Rising gas prices reflect low gas storage levels in Europe, a consequence of reduced supplies from Norway and Russia during the year. Prices of tradable emission permits have also increased, to some extent because producers have been turning to more polluting energy sources. This has contributed to a sharp rise in electricity prices.

Chart 5
Container shipping prices (index: January 2020 = 100)



Source: Macrobond.

Chart 6
Energy commodity and electricity prices (index: January 2021 = 100)



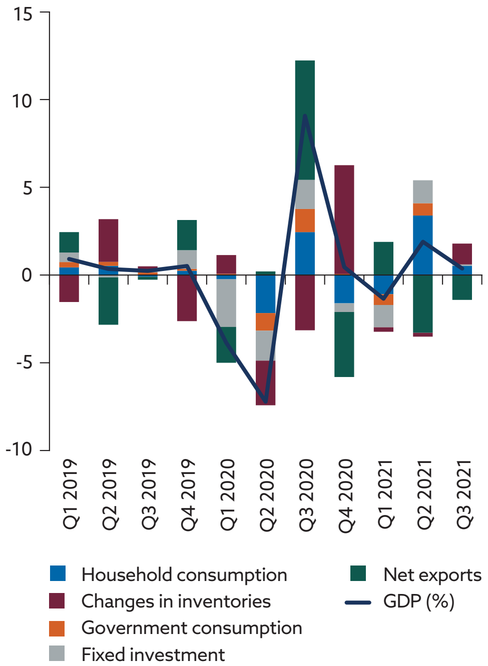
Source: Macrobond.

2.2 Slovakia

In the third quarter of 2021, the recouping of previous economic losses was hampered by problems in industry. The economy grew by 0.4%, quarter on quarter, on the back of domestic demand (Chart 7). The favourable pandemic situation during the summer months and the spending of accumulated savings continued to support household consumption. On the other hand, component supply bottlenecks intensified. Moreover, firms had to struggle with rapidly rising input prices that hindered their ability to recoup losses from earlier in the pandemic. In these circumstances, output in the automotive industry slumped by almost one-third. Since this industry is a major part of the domestic economy, such adversities significantly impeded the economy from returning to its pre-pandemic level. The economy was still some 1.4% below that level at the end of the quarter. Slovakia's economic growth in the third quarter was among the lowest rates in the euro area (Chart 8).

Chart 7

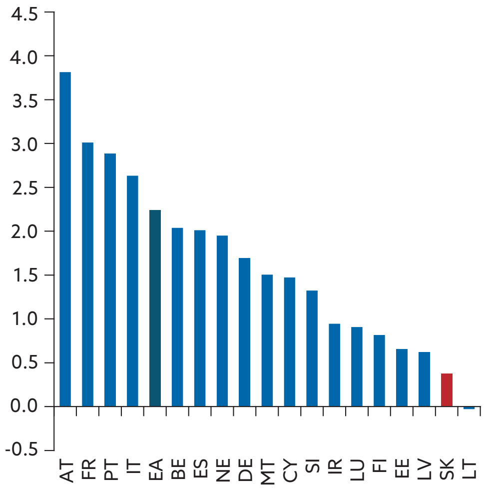
GDP in Slovakia and its components (quarter-on-quarter percentage changes; percentage point contributions)



Sources: SO SR, and NBS calculations.

Chart 8

GDP in euro area countries for Q3 2021 (quarter-on-quarter percentage changes)

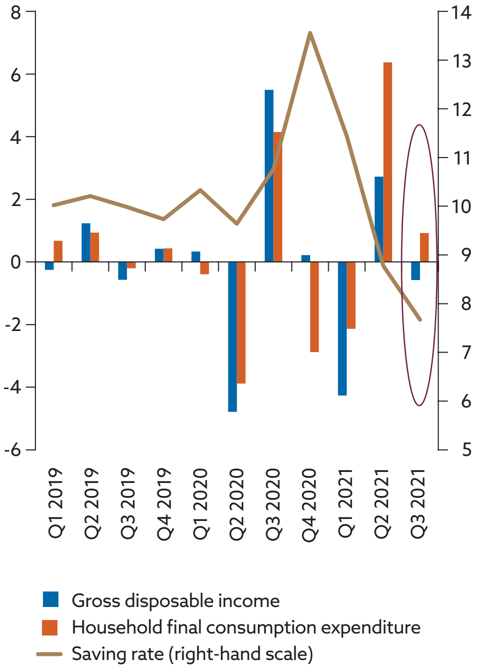


Source: Eurostat.

With inflation further reducing their current income, households were partly financing their third-quarter consumption by dipping into savings (Chart 9). The acceleration of inflation had a downward impact on real household income. However, because of the savings they accumulated in bank accounts during the previous lockdown, households could afford to further increase their consumption. As a result, the saving rate decreased.

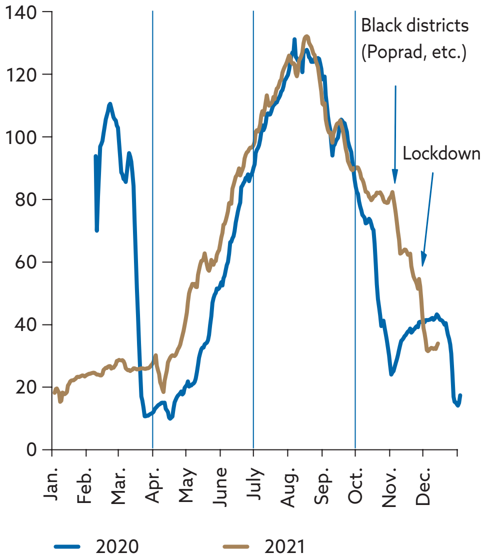
The swift onset of the pandemic's third wave is expected to see consumption drop back again in the latter part of the year. During October, the implementation of containment measures at the local level (only in the regions with the worst epidemiological situation) helped maintain increased mobility and higher retail sales compared with the same period of the previous year. Subsequently, however, the rapid deterioration of the situation led to the imposition of measures and a lockdown across the country. As indicated by data collected from electronic cash registers (Chart 10), the revenues of hotel and restaurant operators consequently fell to minimal levels in late November.

Chart 9
Household income and consumption (constant prices; quarter-on-quarter changes)



Sources: SO SR, and NBS calculations.

Chart 10
Accommodation and food service revenues according to the eKasa online cash register system (moving weekly average; index: February 2020 = 100)



Sources: eKasa, and NBS calculations.
Note: Black districts are districts designated as black, i.e. as having the most serious epidemiological situation, by the COVID-19 warning system ("Covid automat").

Industry suffered heavily from component shortages in the third quarter of 2021, which had a downward impact on exports. The worsening of semiconductor supply bottlenecks resulted in repeated plant shutdowns, particularly in the automotive industry. At the same time, producers were struggling with rising input prices, so foreign demand began to show signs of weakening after previously being stable. All these factors contributed to a decline in exports in the third quarter of 2021.

The difficulties facing producers also had an impact on imports, though these were supported to some extent by rising consumption. As a result, Slovakia reported a trade deficit for a second successive quarter.

Because shortages of certain intermediate inputs were at times preventing producers from exporting their products, the third quarter saw a more marked build-up of stocks of finished products, work in progress and materials. The growth in inventories partly mitigated the negative pressure on the trade balance.

The unfavourable situation in regard to semiconductor supplies is expected to stabilise gradually. Exports are projected to return to growth in the latter part of the year and so support the recouping of losses on order backlogs. Business surveys indicate, however, that despite the gradual improvement, firms expect component supply shortages to remain an issue during the course of next year.

Investment activity remained subdued in the third quarter, with not even the government component supporting it. Firms appear to be wary of engaging in significant investment during the uncertain pandemic period and are moreover contending with production difficulties. Nor was there an improvement in construction production, which usually picks up during the summer months. Most investment during the period under review was focused on machinery and equipment.

The improving situation in the domestic side of the economy provided a boost to tax revenues in the third quarter. The additional receipts are offsetting elevated expenditure on pandemic containment. Tax revenues in the third quarter surprised on the upside, particularly as regards taxes and levies on the labour market and household consumption. In the case of labour market taxes[1] and levies, receipts were even higher than in 2019 – the year before the pandemic crisis. Tax receipts were up in all sectors apart from industry.

This year has seen a marked increase in government final consumption. Goods and services expenditure and healthcare expenditure increased sharply during the first three quarters. The impact of these increases was tempered, however, by revenue growth. Health expenditure growth in the second and third quarters was, in our view, a case of catching-up after health expenditure postponements caused by restrictions in force during the pandemic's second wave.

After surging early in the year, expenditure financed with EU funds has remained flat. In overall real terms, it fell by around one-fifth during the eleventh months from January to November (Chart 11). This expendi-

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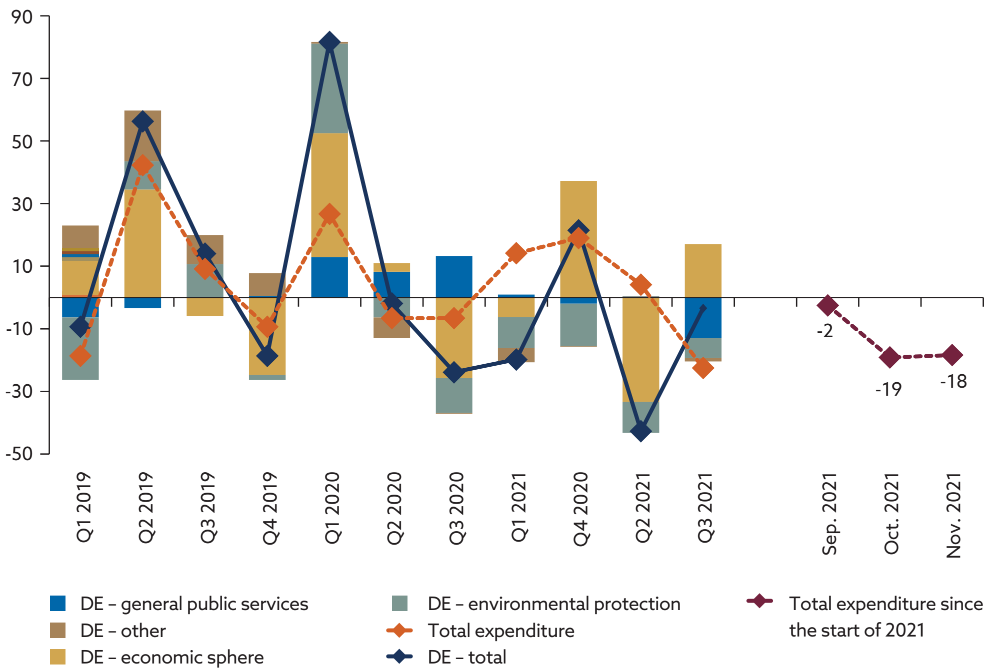
1 VAT revenue in 2021 has been affected by a one-off VAT payment related to the D4/R7 road-building project, a public-private partnership (PPP). Even after adjusting for this revenue, the year-on-year change remained substantial.

ture has been supported during 2021 by demand-driven spending in the economic sphere,[2] notably expenditure on transportation and on labour market support. Except for certain projects in the rail sector, investment in transport infrastructure is stagnating, and this year only a negligible proportion of Slovakia's unused allocation of EU funds has been spent on road building. Besides transportation, environmental projects are also significantly supported by EU-funded investment in Slovakia, but since the start of this year, investment has dropped in all three main areas of these projects (waste management, wastewater management, and air quality management). Also contributing positively to EU-funded expenditure at the start of the year was the absorption of outstanding funds allocated, as part of pandemic containment measures, to support job retention through short-term work schemes ("Kurzarbeit").

Chart 11

EU-funded expenditure in Slovakia[1)] (constant prices in 2015; annual percentage changes)



Sources: State Treasury of the Slovak Republic, IMTS 2014+, and NBS calculations.
1) Adjusted for transfers to financial instruments. In the second quarter, EU funds amounting to 0.1% of GDP were taken up to strengthen funding for micro loans to entrepreneurs (financial instruments); since this was a financial operation as part of a revolving fund, it is not included in the analysis of EU funds absorption.
Notes: DE – demand-side expenditure adjusted for public sector wage expenditure and social transfers to households (for example, under "Kurzarbeit" schemes). Total expenditure – includes demand-driven expenditure, wage expenditure of administrative units, and social transfers to households.

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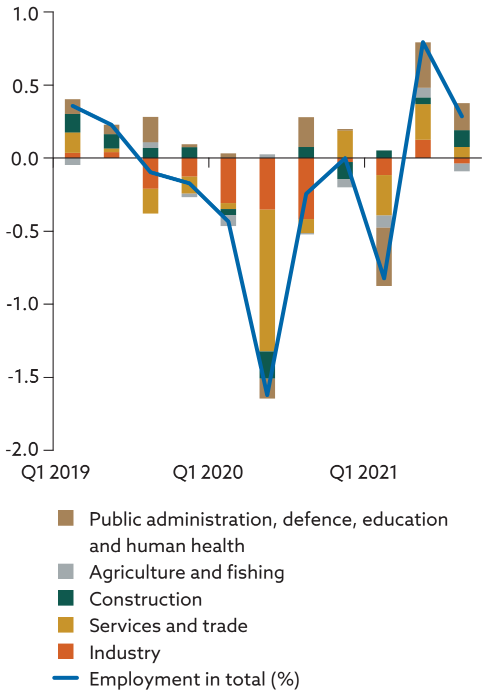
2 Including expenditure on regional development, public infrastructure development, the electronisation of public administration, supporting education and science, and so on.

The economy's reopening supported employment growth (Chart 12). Employment increased by 0.3% in the third quarter but was still around 2% below its pre-pandemic level (a difference of some fifty thousand in headcount terms). The labour market nevertheless remained tight. On the one hand, industry was struggling with component shortages and a price shock; on the other hand, they were experiencing skilled labour shortages. According to surveys, an increasing number of firms are reporting labour shortages as a factor limiting their production. In the services sector, a corollary of increasing demand was an increase in the number of job vacancies. Firms had mixed success in filling them, since, like firms in industry, they were hampered by shortages of skilled labour.

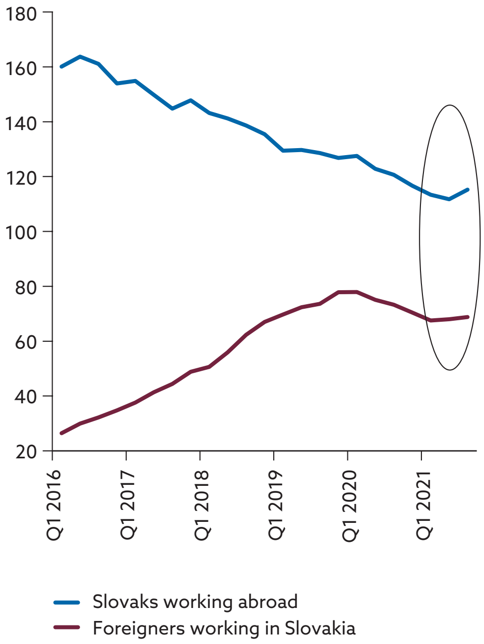
After falling in the previous five quarters, the number of Slovaks working abroad started to increase in the third quarter. With the improving health situation in Europe, labour mobility began to improve. At the same time, the employment of foreigners in Slovakia was rising (Chart 13).

Chart 12
Employment (quarter-on-quarter percentage changes; percentage point contributions)



Sources: SO SR, and NBS calculations.

Chart 13
Slovaks employed abroad and foreigners employed in Slovakia (thousands)

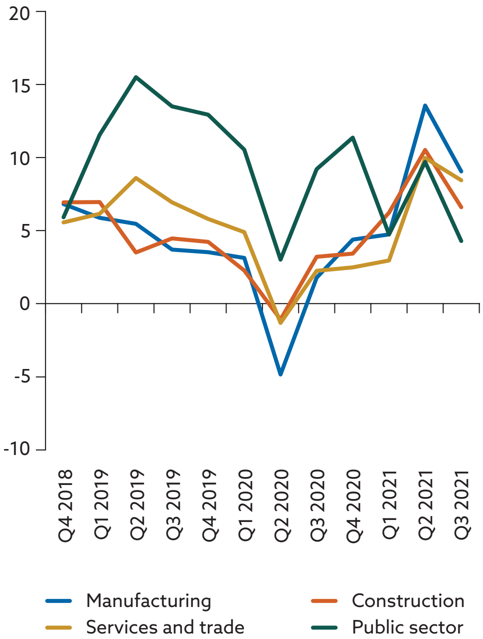


Sources: SO SR, and ÚPSVR.

Despite moderating, wage growth remained relatively elevated in the summer. In order to attract workers, firms in industry and services had to make the largest increases in remuneration (Chart 14). One impact of rising wages was the increasing return to employment of people who had been economically inactive for an extended period while waiting for the situation to improve. Hence discouraged workers and people who had left the labour market for family or other personal reasons were returning to work, as was evident from a notable increase in the labour force participation rate (Chart 15).

Chart 14

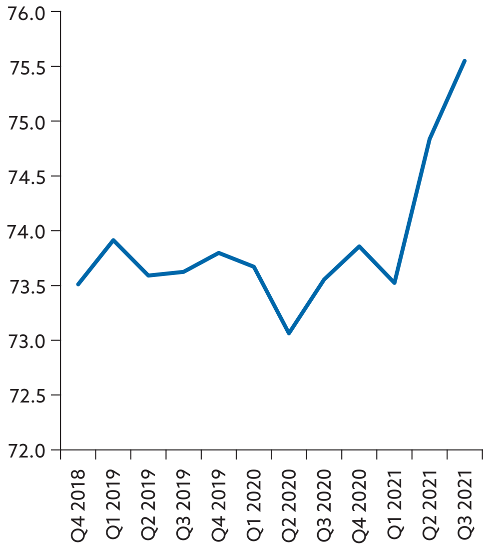
Wage growth by sector (annual percentage changes)



Sources: SO SR, and NBS calculations.

Chart 15

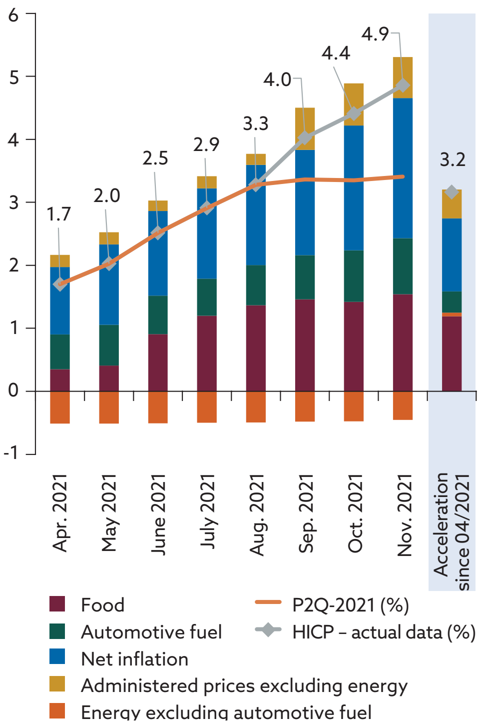
Labour force participation rate (percentage share)



Sources: SO SR, and NBS calculations.

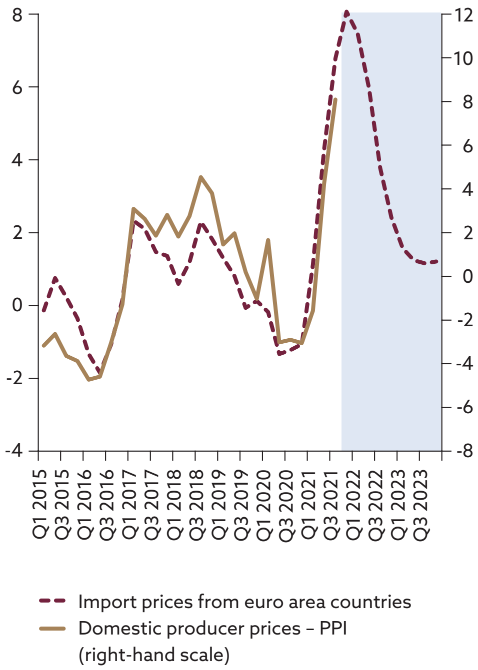
Inflation pressures are building up, and the headline inflation rate reached almost 5% in November 2021 (Chart 16). The impact of global factors on input prices is the most important driver of inflation pressures. Prices of imports from euro area countries are at their highest level since Slovakia adopted the euro in 2009 (Chart 17). Previous months saw an acceleration in prices of all the main components of the consumption basket, except for energy prices. Prices of agricultural commodities and international transport are hitting multi-year highs. A combination of elevated demand for goods and supply chain disruptions is putting strong upward pressure on prices of intermediate goods and industrial products. Pressure on domestic and foreign producer prices is passing through to consumer prices of industrial goods, in particular semi-durable goods. Unlike in the euro area as a whole, the main source of inflation pressures in Slovakia is net inflation (Box 1).

Chart 16
HICP inflation and the composition of its acceleration (annual percentage changes; percentage point contributions)



Sources: SO SR, and NBS calculations.

Chart 17
Import and domestic producer prices (annual percentage changes; percentage point contributions)

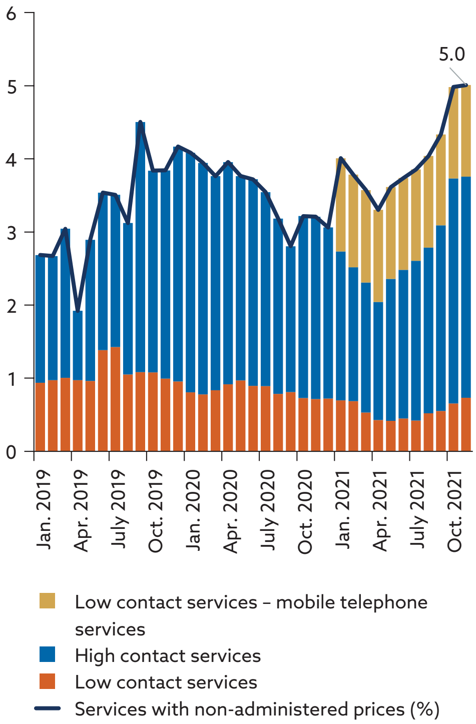


Sources: SO SR, and NBS calculations.

This year's acceleration of services inflation reflects the impact of the economy's reopening and the pass-through of rising input prices to service providers' costs. Prices of high contact services are rising faster than prices of other services (Chart 18). Revenue losses from previous pandemic waves have translated into accelerating price growth. Another factor that has contributed positively to services inflation since September is the government's cancellation of free school meals, which added almost two percentage points to services inflation.

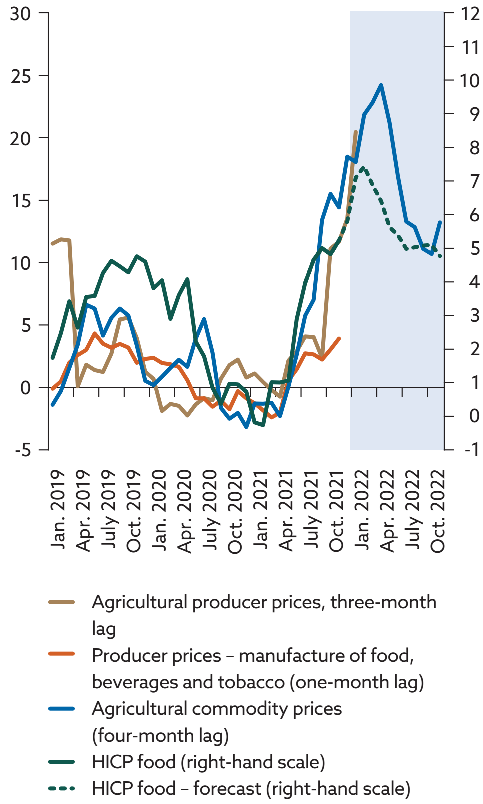
Food prices have been accelerating since the start of the year and are expected to peak in the first quarter of 2022 (Chart 19). This year's energy price growth has so far only passed through to automotive fuel prices.

Chart 18
Non-administered prices of services
(annual percentage changes)



Sources: SO SR, and NBS calculations.

Chart 19
Agricultural commodity prices and food producer and consumer prices
(annual percentage changes)



Sources: SO SR, and NBS calculations.

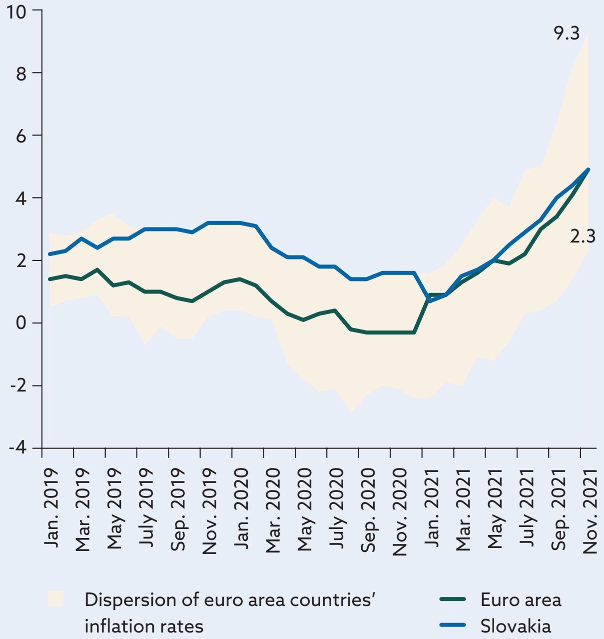
Box 1
What's driving inflation in Slovakia and the euro area?

Prices in Slovakia and the euro area are rising at the same pace (4.9% in November). Their acceleration since April has also been similar (around 3 percentage points). The elevated inflation rates have a common cause: persistent supply bottlenecks and rapid growth in prices of inputs, such as commodities and transportation. There are, however, also substantial differences that are somewhat difficult to explain.

The inflation pressures in the euro area stem largely from energy prices. Besides the impact of standard energy prices and commodity price movements, there is also the inflationary effect of a higher share of household expenditure on automotive fuel. Given the nature of its regulatory framework, Slovakia is somewhat out of sync with other euro area countries in terms of the timing of changes in administered energy prices. Since January energy prices in Slovakia have been falling and have therefore moderated the strong increase in inflation. In terms of energy price inflation, Slovakia has this year been at the tail end of euro area countries. Next year, however, when the strong growth in energy commodity prices is expected to fade, Slovakia will probably find itself at the other end of the energy inflation scale.

Chart A

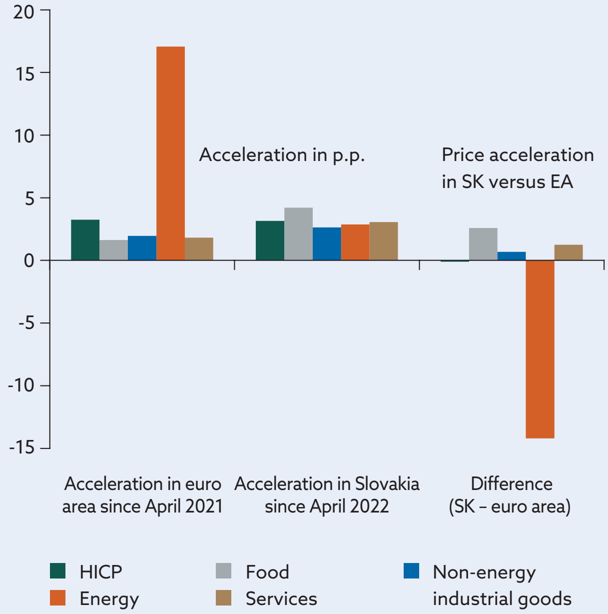
Headline inflation in Slovakia and the euro area (annual percentage changes)



Sources: Eurostat, and NBS calculations.

Chart B

Change in headline inflation in Slovakia and the euro area since April 2021 (percentage points)

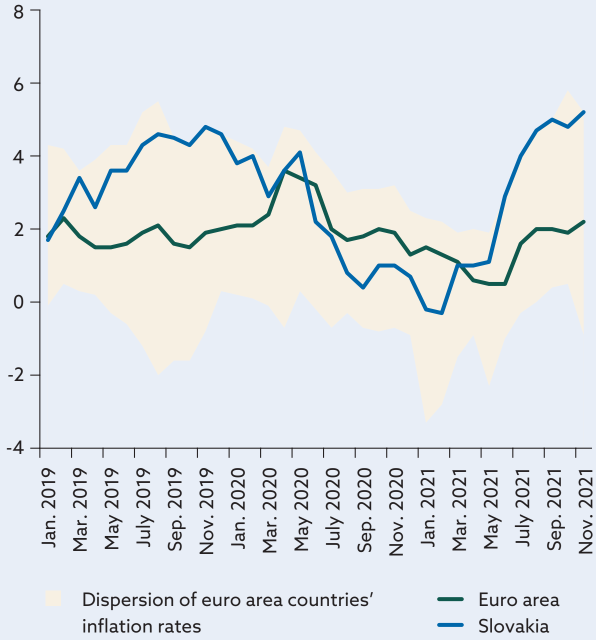


Sources: Eurostat, and NBS calculations.

Slovakia is now seeing unprecedented general price growth. Since May, food prices have been rising faster in Slovakia than in any other euro area country. This is likely because Slovakia had comparatively lower food price inflation in 2020. In 2021, as economies reopened across Europe, services prices increased in all European countries. Nowhere was this increase higher than in Slovakia, owing largely to increases in mobile telephone service prices in spring and to the government's cancellation of free school meals for children in the first to fourth years of primary school from September 2021 (without this change, services inflation would have been slightly above the euro area average).

Chart C

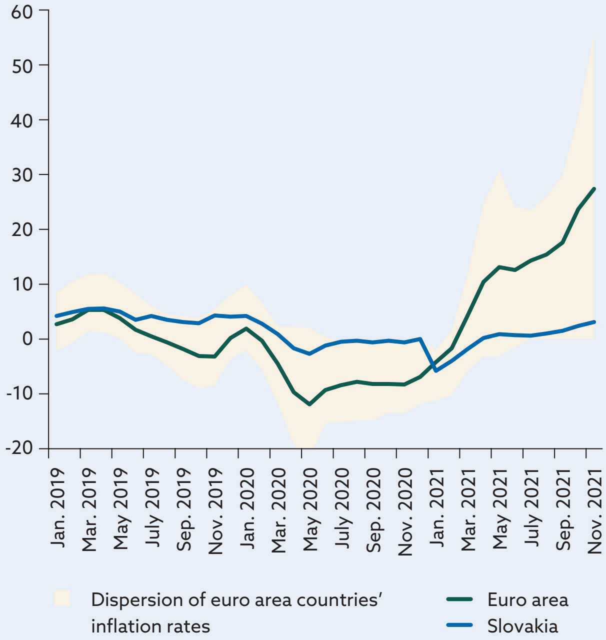
Food inflation in Slovakia and the euro area (annual percentage changes)



Sources: Eurostat, and NBS calculations.

Chart D

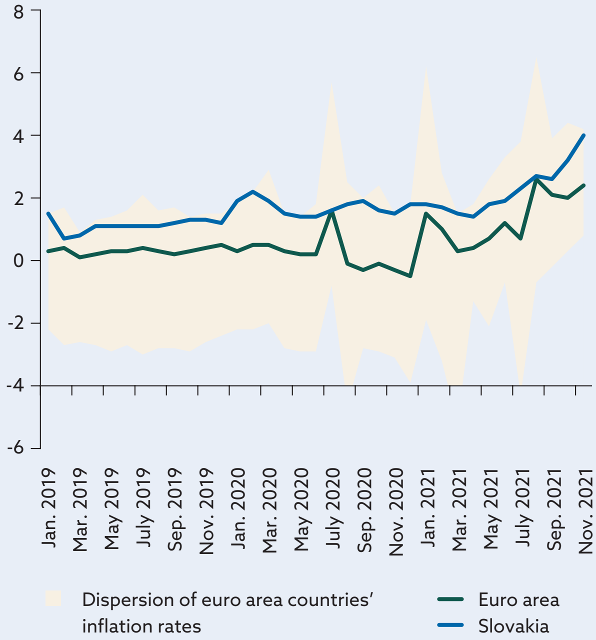
Energy inflation Slovakia and the euro area (annual percentage changes)



Sources: Eurostat, and NBS calculations.

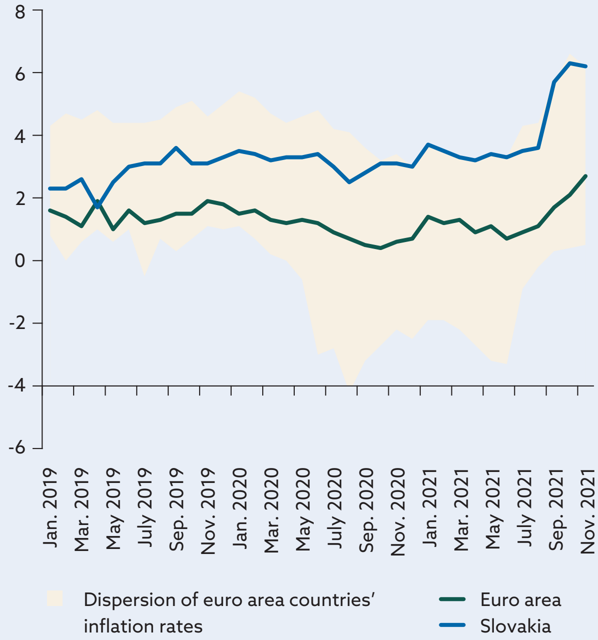
The increase in goods prices in Slovakia in December 2021 was among the highest in the euro area. What all countries have been facing are shortages of certain inputs and rising transportation costs, all of which is having an upward impact on goods prices. This is most notable in prices of semi-durable and durable goods. Probably because of its small market with consequently weaker competition, Slovakia will remain for some time among those countries with the highest goods inflation.

Chart E
Non-energy industrial goods inflation in Slovakia and the euro area (annual percentage changes)



Sources: Eurostat, and NBS calculations.

Chart F
Services inflation and the euro area (annual percentage changes)



Sources: Eurostat, and NBS calculations.

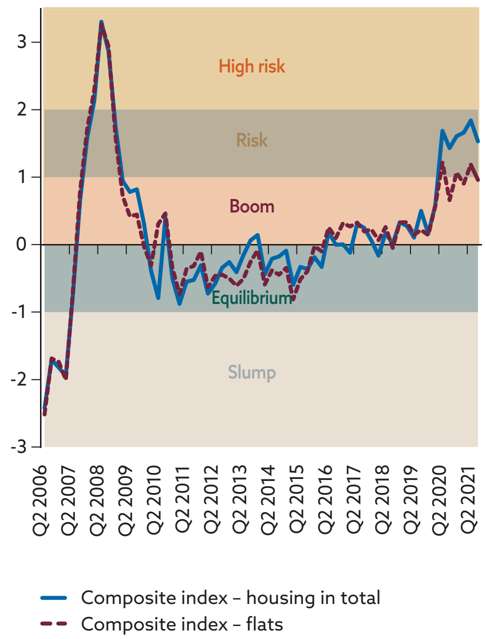
In the residential real estate market, the rate of increase in offer prices moderated in the third quarter of 2021, to 3.4%. Such a level is still above average by historical standards. For several successive quarters, prices of houses have been rising faster than prices of flats.

The composite index for assessing housing price evolution[3] indicates a slight correction in the third quarter of 2021 (Chart 20). This is largely because housing price growth slowed after rising sharply in the previous quarter. As regards the assessment of prices for flats, the composite index is now just on the boundary of the band indicating a price correction risk. This difference is largely attributable to prices of houses, which since mid-2020 (except in the fourth quarter of 2020) have been regularly rising faster than prices of flats.

[3] 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/income; price/rent; housing 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", Biatec, Vol. 27, No 3, Národná banka Slovenska, Bratislava, 2019.

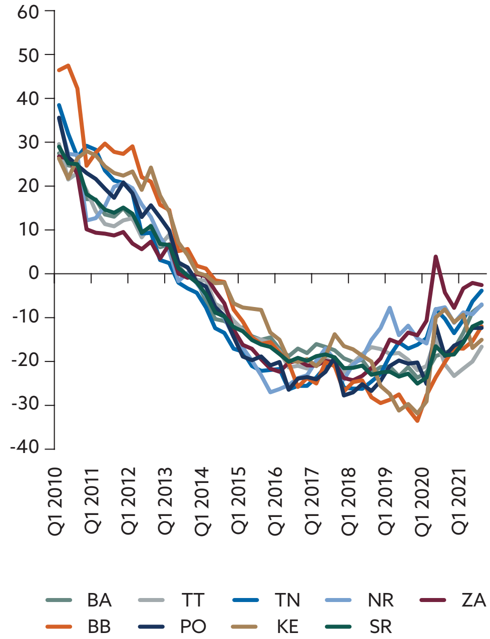
The risk of a price correction is diminishing as the economic recovery gains momentum. With rental prices rising and income growing, the level of housing prices appears to be more in line with broader developments in the economy.

Chart 20
Composite index for assessing housing price evolution



Sources: NBS, NARKS, and SO SR.

Chart 21
The housing affordability index (HAI) value as a ratio of its historical average (percentages)



Sources: NBS, NARKS, and SO SR.

Residential construction was 5.3% higher in the third quarter of 2021 than in the same period of the previous year. Compared with the third quarter of 2019, however, it was lower by more than 11%. Growth in residential construction activity is usually coupled with strong demand in the housing market. From that perspective, current developments indicate a slight overheating of the market.

In all regions of Slovakia, housing affordability remains above its historical average. Nevertheless, the housing affordability index (HAI)[4] shows a continuing downtrend in housing affordability (Chart 21), despite favourable wage trends. In the recent period, housing price growth has been outpacing income growth, thereby undermining the impact of low interest

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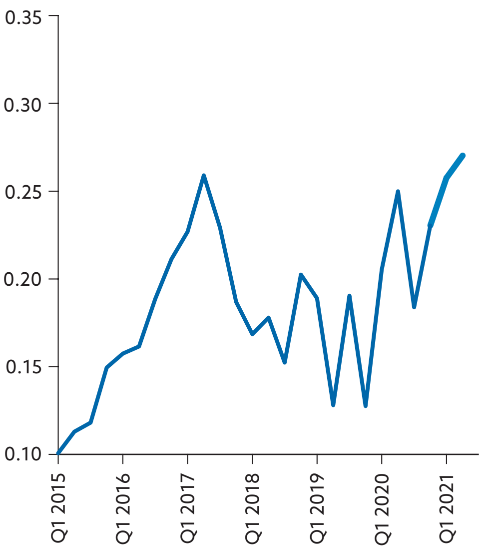
4 The HAI calculation is based on a so-called adequate income derived from the current average cost of mortgage loan servicing (taking into account current housing prices and interest rates). The adequate income is compared with the wage level on a region-by-region basis. The final ratio is then interpreted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

rates. The HAI values for individual regions are therefore moving back towards their long-run average.

Monetary policy is creating financial conditions in Slovakia that are conducive to domestic demand growth. As their concerns about the future situation have receded, banks have become more willing to increase their lending. This trend has been supported by ECB measures, such as targeted longer-term refinancing. The financial conditions index is at an all-time high (Chart 22). Favourable financial conditions are largely underpinned by low market interest rates. At the retail level, lending rates for firms and mortgage lending rates are at historical lows. Low interest rates and rising income are making mortgages more affordable and are stimulating property price growth.

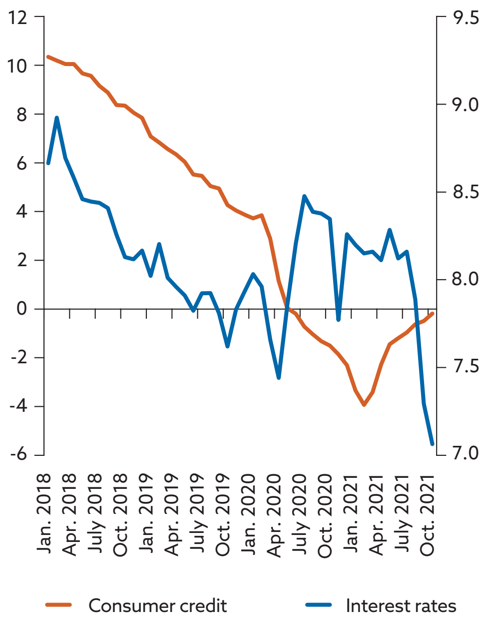
As for consumer lending, it has picked up in recent months after experiencing a period of subdued demand resulting from the pandemic crisis and climate of uncertainty (Chart 23). Its upturn has been supported by a competition-driven drop in interest rates. With rates at lowest ever levels, consumer credit has become more attractive to households.

Chart 22
Financial conditions index[5]



Source: NBS calculations.

Chart 23
Consumer credit and interest rates on consumer credit (annual percentage changes; percentage level)



Source: NBS calculations.

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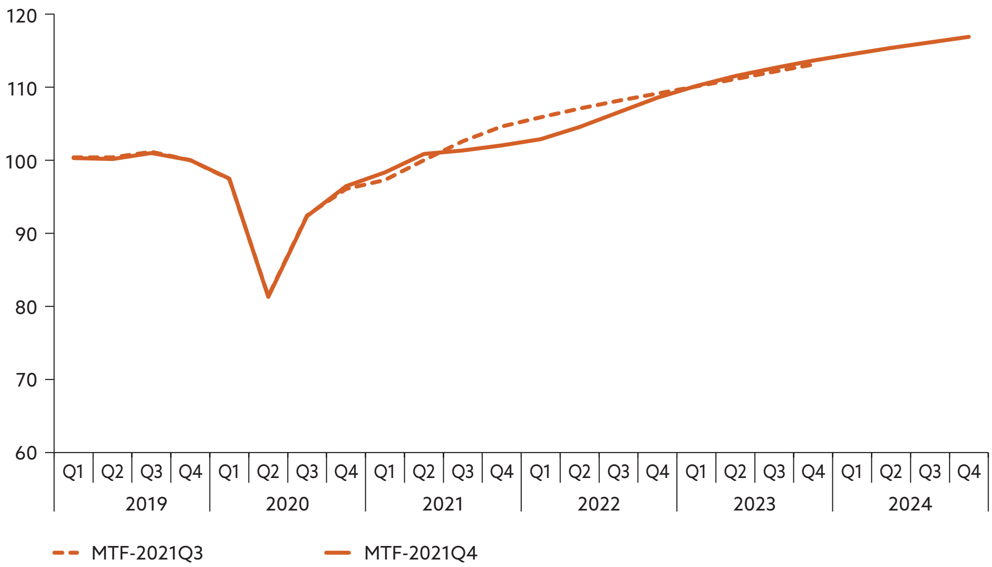
5 The financial conditions index is an application of an approach presented in Kupkovič, P. and Šuster, M., “Identifying the Financial Cycle in Slovakia”, *NBS Working Paper*, No 2, Národná banka Slovenska, Bratislava, 5 February 2020.

3 Medium-term forecast

3.1 Global outlook and technical assumptions of the forecast[6]

Developments in the third quarter of 2021 were adversely affected by component supply shortages, hence the assumption for **foreign demand** growth has been revised down from the previous forecast (Chart 24). It is in the context of supply chain disruptions that the assumptions for growth in foreign demand for Slovak exports, in particular demand from Germany, have been adjusted downwards for the whole of next year. In the medium term, however, foreign demand growth is expected to normalise more than gradually as production regains lost ground. After falling sharply in 2020, trading partners' demand for Slovak exports is assumed to increase by 9.5% in 2021 and by a slower 5% in 2022, before edging back up to 6% in 2023 and returning to a normal level of 3.3% in 2024.

Chart 24
Foreign demand (index: Q4 2019 = 100)



Source: NBS calculations.

Prices of intermediate inputs and other commodities have stopped rising in recent weeks, so the assumptions for these prices have been revised up only moderately. Rising inflation has had a slight upward impact on market interest rates, but monetary policy remains accommodative.

6 The technical assumptions of this Medium-Term Forecast are based on the December 2021 Eurosystem staff macroeconomic projections for the euro area.

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

	Actual data	MTF-2021Q4				Difference vis-à-vis MTF-2021Q3		
	2020	2021	2022	2023	2024	2021	2022	2023
Slovakia's foreign demand	-8.4	9.5	5.0	6.0	3.3	-0.6	-1.4	2.2
USD/EUR exchange rate [1), 2)] (level)	1.14	1.18	1.13	1.13	1.13	-0.6	-3.6	-3.6
Oil price in USD [1), 2)] (level)	41.5	71.8	77.5	72.3	69.4	6.3	17.2	14.8
Oil price in USD [1)]	-36.0	72.9	8.0	-6.7	-4.1	13.3	10.0	-2.0
Oil price in EUR [1)]	-37.2	66.8	12.9	-6.7	-4.1	13.8	13.6	-2.0
Non-energy commodity prices in USD	3.5	34.4	5.7	-2.2	-2.1	-3.5	1.4	-0.3
Three-month EURIBOR (percentage per annum)	-0.4	-0.5	-0.5	-0.2	0.0	0.0	0.0	0.3
Ten-year Slovak government bond yield (percentage)	0.0	-0.1	0.1	0.2	0.2	0.1	0.2	0.2

Sources: ECB, SO SR, and NBS calculations.

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.

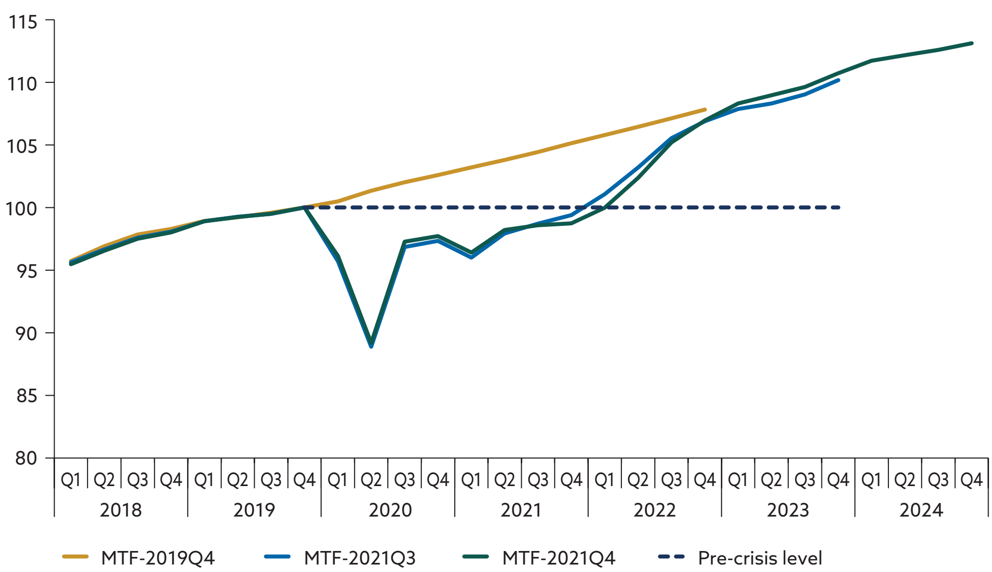
3.2 Macroeconomic forecast for Slovakia

3.2.1 Economic growth

The latest forecast further shifts out the economy's projected return to its pre-pandemic level (Chart 25). **This is largely due to the unfavourable pandemic situation and to ongoing component shortages in the car industry.** These factors are more pronounced in Slovakia than in other euro area countries. In subsequent years, however, we expect the economy to recoup losses and return to its pre-crisis trajectory.

Chart 25

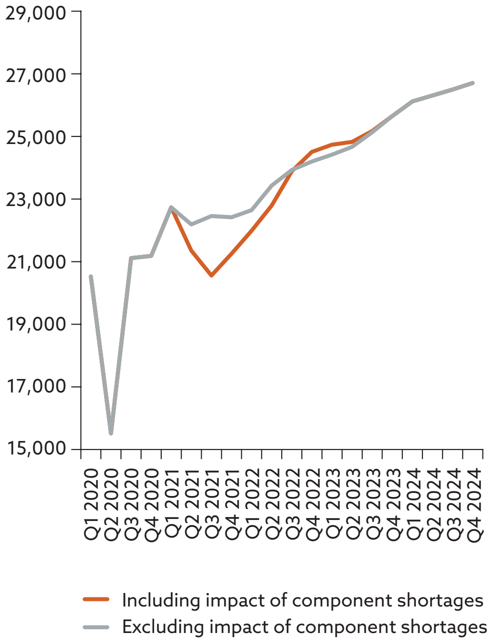
GDP projection (index: Q4 2019 = 100)



Source: NBS calculations.

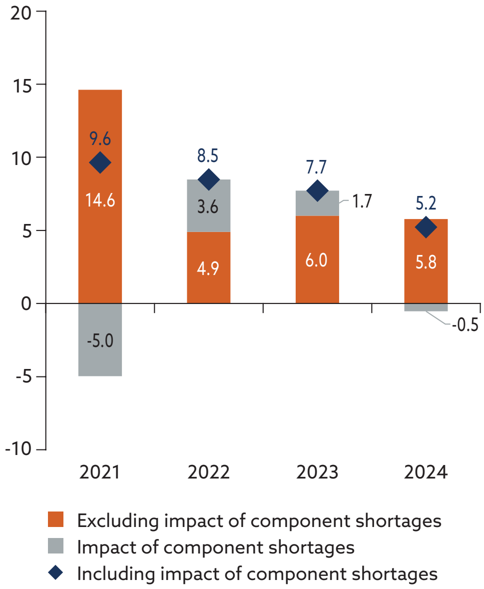
Because the car industry accounts for a large share of its GDP, Slovakia is more vulnerable than other countries to bottlenecks in the supply of key components. In subsequent years, however, automotive exports are expected to be a significant element of the economy's improving performance, with the industry envisaged to recoup part of its earlier production losses (Charts 26 and 27). According to the latest data on exports of Slovakia's car makers during the summer months, the losses appear to have been higher than projected in the autumn forecast; hence export growth projections for this year have been revised down. Production losses in the car industry are now estimated to be almost twice as high as was projected in September, and their negative impact on economic growth in 2021 is estimated to be around 1.8 percentage points. Component supply chains are expected to return to normal in the second half of next year. Once that happens, the Slovak economy could again count on a positive contribution from exports and regain market shares.

Chart 26
Exports (level in EUR millions)



Sources: SO SR, and NBS calculations.

Chart 27
Exports (constant prices; annual percentage changes; percentage point contributions)



Source: NBS calculations.

The deteriorating pandemic situation and introduction of more stringent containment measures dampened consumer demand towards the year-end. The impact, however, is expected to be smaller than that observed at the start of the year. The latest forecast takes into account an assumed worsening of the pandemic situation and the imposition of a lockdown that has a notable downward impact on consumer demand, particularly demand for services. The situation is expected to improve from next year.

Box 2
Forecast for the pandemic's third wave

In the autumn forecast made in late August, we estimated that the number of COVID-19 hospitalisations at the end of October would be around 1,500. This estimate held true. By the cut-off date for the winter forecast (21 November), we originally expected that the hospitalisations would number roughly over 2,000 and that the wave would be peaking. In fact, the number was more than 1,000 higher than envisaged and showed a rising trend. On that basis, for the winter forecast, we revised the assumptions of the pandemic projection.

It should be noted that the new MTF-2021Q4 pandemic projection does not consider the potential effects of the new coronavirus variant Omicron, since news about its spread appeared only after the cut-off date for the winter forecast. In addition, there was only limited information about it in the following days.

In the light of the latest evolution of the pandemic in Slovakia, the assumptions are modified to include the following: (1) an earlier appearance of pandemic fatigue, already in November; (2) the imposition of a lockdown in late November;[7] (3) a reduction in the hospitalisation rate; (4) a moderate increase in the vaccination rate; (5) an increase in the mortality rate.

The outcome of this baseline scenario serves as an input for projecting the evolution of short-term private consumption and fiscal measures.

Chart A shows the projected COVID-19 hospitalisations in the autumn forecast (MTF-2021Q3) and the revised projections in the winter forecast (MTF-2021Q4) vis-à-vis the actual data. The pandemic's simulated evolution in MTF-2021Q4 envisages a single peak in hospitalisations, in mid-December.

7 When MTF-2021Q4 was being finalised, the duration of the lockdown was not known. Its calculations are therefore based on a three-week lockdown for everyone.

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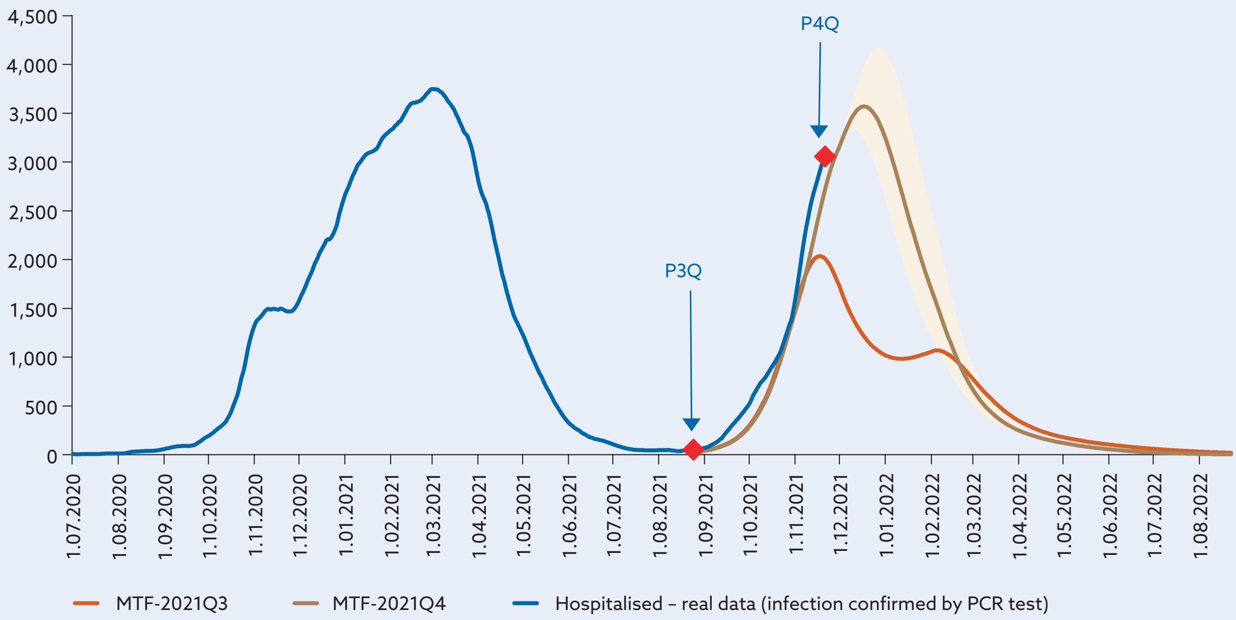
Chart A
Projected evolution of the pandemic in Slovakia until August 2022



Sources: data.korona.gov.sk, and NBS calculations.
Notes: The grey area represents the 95% confidence interval obtained from simulations with varying degrees of sensitivity to the pandemic's development. The distribution of projected hospitalisations takes into account uncertainty about the sensitivity of virus transmission to the pandemic's development modelled as transmission shock N~(60%; 10% standard deviation).

The projection uncertainty is expressed by the confidence interval for the projected number of COVID-19 hospitalisations. **The model simulation results show considerable asymmetry and indicate that the pandemic curve may be worse than projected.**

Revision of pandemic assumptions

The autumn forecast (MTF-2021Q3) already factored in the manifestation of **pandemic fatigue** through a lower degree of compliance with pandemic measures, and the winter forecast does the same.[8] If the MTF-2021Q3 forecast had envisaged pandemic fatigue appearing as early as November, the projected pandemic curve would have been higher, in line with actual developments. In other words, we reckoned that compliance with measures and societal sensitivity to the pandemic's evolution would be better and higher than it actually was.

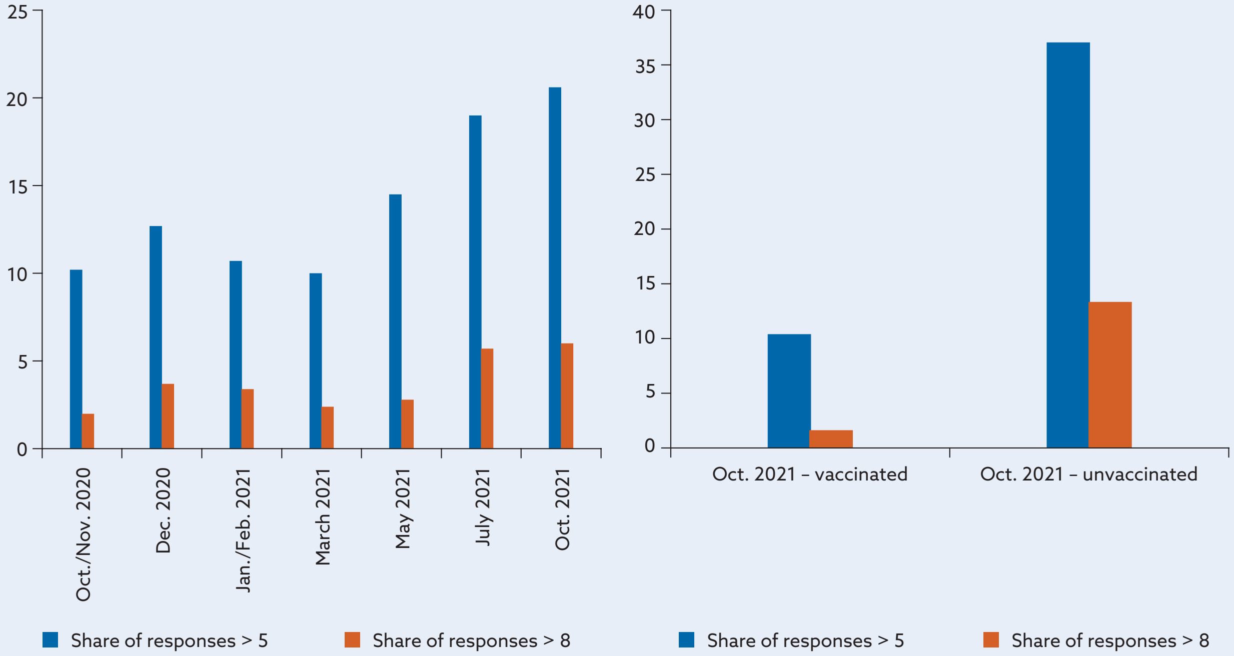
Following several rounds of the nationwide survey "Ako sa máte, Slovensko?" (How are you, Slovakia?), the survey results confirm the view that society is becoming less sensitive to the pandemic situation, as evinced by weaker compliance with pandemic measures. As the left panel of Chart B shows, the number of respondents who said they were not voluntarily complying with measures was higher in October 2021 than at any time since the pandemic start-

8 For more detailed information, see Annex 2 of the autumn forecast, entitled "A pandemic model for Slovakia – the BSIHR model".

ed.[9] This number is significantly higher among the unvaccinated (Chart B – right panel). The manifestation of fatigue in non-compliance with measures, particularly among the unvaccinated, may be interpreted as one of the factors behind the increasing virus transmission rate.

Chart B

The *How Are You, Slovakia?* survey. Question: *Are you complying with the current pandemic containment measures?* Responses range from 1 to 10, where 1 means that the respondent is fully complying and 10 that the respondent is not complying at all



Sources: How Are You, Slovakia? survey, MNFORCE, Seesame, Institute for Sociology of the Slovak Academy of Sciences, and NBS calculations.

Besides incorporating an earlier appearance of pandemic fatigue, in November, we also took into account a tightening of pandemic containment measures that included the imposition of a lockdown on 25 November 2021. The parameter of sensitivity to pandemic developments includes both mandatory measures and the voluntary slackening of activities that would contain the pandemic. Hence fatigue and the lockdown have opposing effects.

Another change from the autumn forecast is a reduction in the rate of hospitalisation for people infected with the virus. The actual rate has turned out to be far lower than that observed during the pandemic's second wave. At the same time, based on observational data, we have doubled the mortality rate.

9 *Willingness to comply with measures is at a low, and social distancing is practised to a lesser extent than at any time since the pandemic broke out*

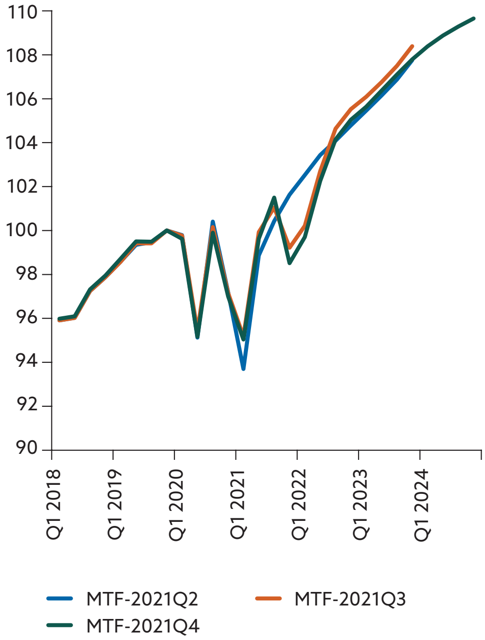
Following the introduction of more stringent containment measures for unvaccinated people from 22 November and the subsequent imposition of a lockdown on 25 November, the number of people getting vaccinated has accelerated. It appears, however, that this acceleration may be only of a short-term nature and that the vaccination rate will fall back to the level projected in MTF-2021Q3.

The deteriorating health situation and introduction of a lockdown will weigh on private consumption in the latter part of the year (Chart 28). Based on high-frequency data from the eKasa online cash register system and from the first two pandemic waves, we estimate a €400 million drop in private consumption. That is by how much private consumption is expected to be lower in the last quarter of 2021 than it would be without the third wave. The lockdown's contribution to that impact is put at just under 20%.

The notable pick-up in consumer demand during the summer months should have automatically translated into an improved projection for private consumption growth in 2021. However, the tightening of containment measures, including the imposition of a nationwide lockdown, means that private consumption growth in late 2021 will be significantly lower than projected in the previous forecast. We do not now expect this metric to improve until the second quarter of 2022.

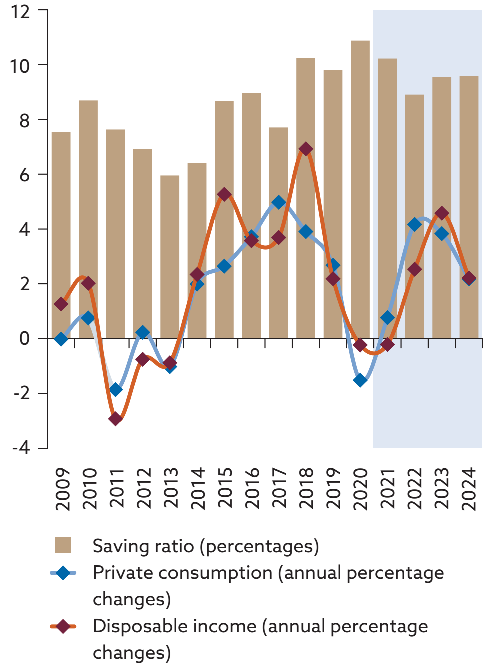
As happened after previous lockdowns, consumer demand is expected to recover quickly as the economy gradually reopens. Next year's recovery will be slightly slower, since elevated inflation will be reducing nominal incomes and households will be having to dip into their accumulated savings. Hence there will be a temporary decline in the saving rate (Chart 29). In subsequent years, private consumption is expected to be boosted by an improving labour market situation and strong income growth.

Chart 28
Level of private consumption (index: Q4 2019 = 100)



Source: NBS calculations.

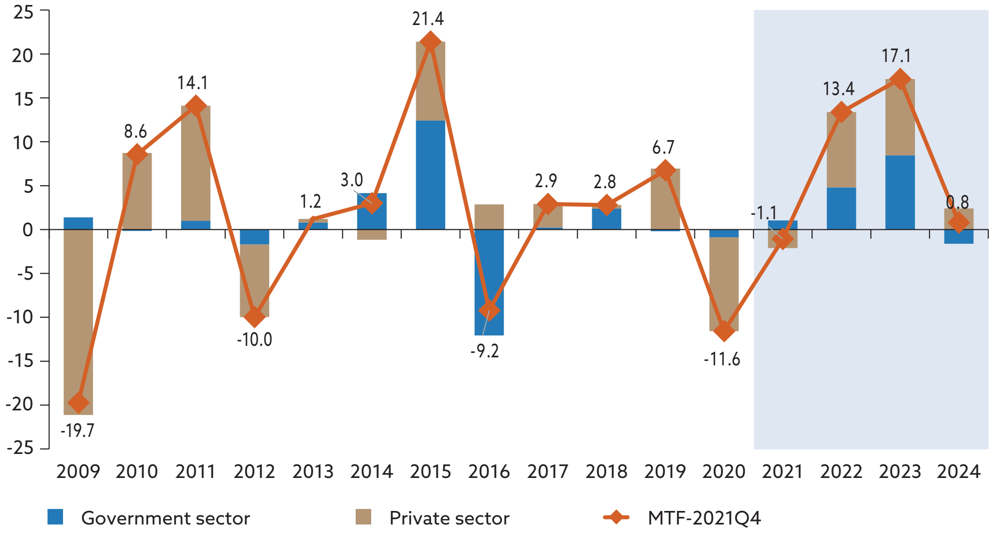
Chart 29
Household income, household consumption and the household saving ratio (annual percentage changes; constant prices)



Sources: SO SR, and NBS calculations.

Investment is lagging and is expected to start rebounding after the pandemic has faded. With the pandemic having caused a marked rise in uncertainty, firms have been temporarily halting investment activity, which therefore remains around 15% below its pre-pandemic level. In this forecast, however, we expect that investment will start to rally (Chart 30) on the back of improvements in the pandemic situation and in the supply of certain intermediate inputs. Firms will benefit from favourable financial conditions as real interest rates remain at very low levels. Coming years are also expected to see a significant rise in government investment, supported by standard EU funds and, through the implementation of Slovakia's recovery and resilience plan (RRP), by funding from the EU's Recovery and Resilience Facility (RRF).

Chart 30
Investment (annual percentage changes; percentage point contributions)



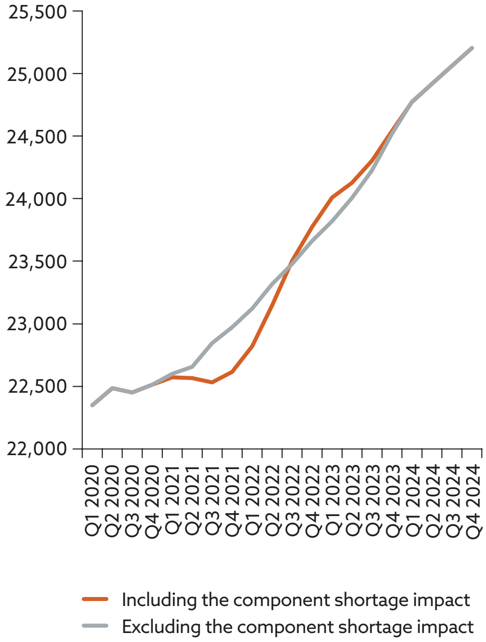
Sources: SO SR, and NBS calculations.

3.2.2 The economy's supply side and cyclical position

Compared with the autumn forecast, the projection for potential output growth in 2021 is far lower. Preliminary estimates of component shortages have been revised up significantly, and the rate of recovery of accumulated output losses is expected to be lower (Chart 31). The slower growth may be partly attributed to the worse pandemic situation and to the current tightening of containment measures. Potential output growth is forecast to be 0.5% in 2021 (Chart 32). The projected contribution of total factor productivity to output growth has been revised down. We assume that suspensions of production will not be accompanied by redundancies, but rather by a reduction in the number of hours worked. Supply-side disruptions are expected to remain short-term in nature. The supply-side situation should gradually return to normal, particularly in the first half of next year, and thereby have a positive impact on potential output growth. Subsequent years are expected to see potential output boosted by the uptake of EU funds from the RRF, the centrepiece of the Next Generation EU (NGEU) instrument, as well as by the launch of new production in the domestic car industry. The NGEU implementation is envisaged to have a positive impact via two channels: higher investment and a higher productivity contribution.

Chart 31

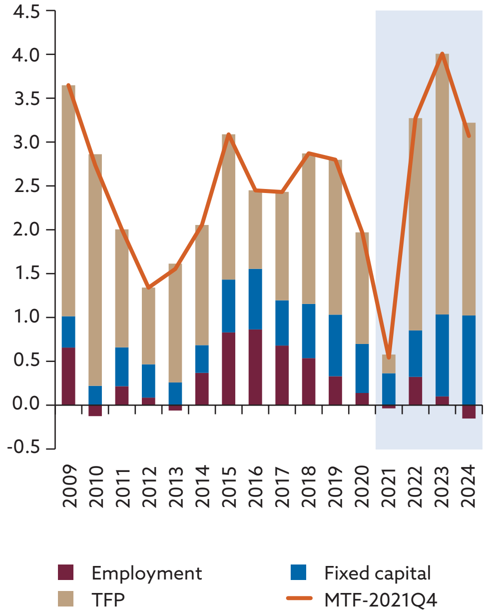
Potential output (level in EUR millions)



Sources: SO SR, and NBS calculations.

Chart 32

Decomposition of potential output growth (percentages; percentage points)

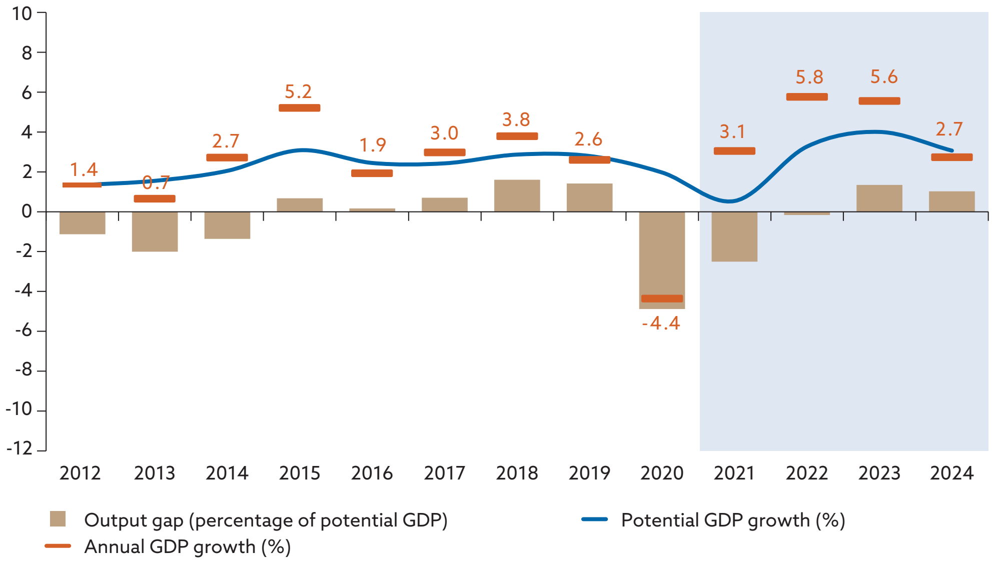


Source: NBS calculations.
Note: TFP – total factor productivity

Under the above assumptions, the economy's supply-side growth potential is expected to be 3% in 2022, 4% in 2023 and just over 3% in 2024 (Chart 33). As the situation gradually normalises, the satisfaction of persistent demand is foreseen to have a positive impact on the economy's cyclical position over the projection period.

Chart 33

GDP and the output gap (percentages)

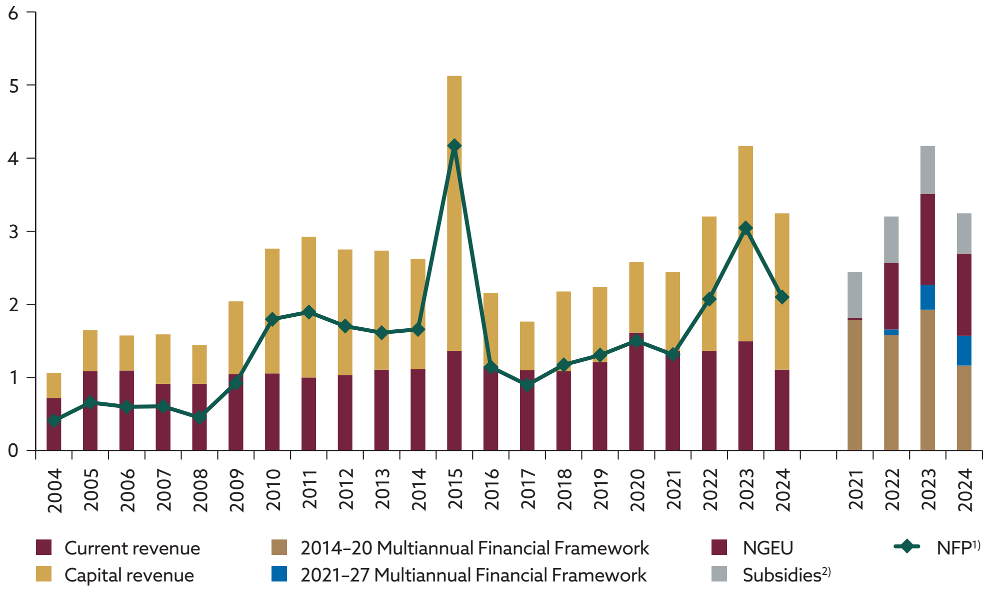


Sources: SO SR, and NBS calculations.

3.2.3 Funds from the EU budget

Slovakia's absorption of European Structural and Investment Funds (ESI-Fs) under the EU's 2014–2020 Multiannual Financial Framework (MMF) is expected to peak during the forecast period. Hence it is envisaged that the net financial position vis-à-vis the EU budget will become more favourable (Chart 34). Slovakia's net receipts from the EU budget over the period 2021–24 are expected to amount to 8.5% of GDP in total and to reach a peak in 2023. This period is expected to see inflows from multiple sources of financing, including the uptake of Slovakia's outstanding allocation under the 2014-20 budget and Slovakia's recovery and resilience plan. The latter part of the forecast period should also see moderate absorption under the EU's new 2021–2027 MMF.

Chart 34
Slovakia's absorption of EU funds and its net financial position (percentages of GDP)



Source: NBS.
1) Net financial position – net of own resources collection costs.
2) The subsidies comprise mainly agricultural funds under the 2014–20 and 2021–27 budgets.
Note: NFP – net financial position; 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) programme, and Just Transition Fund).

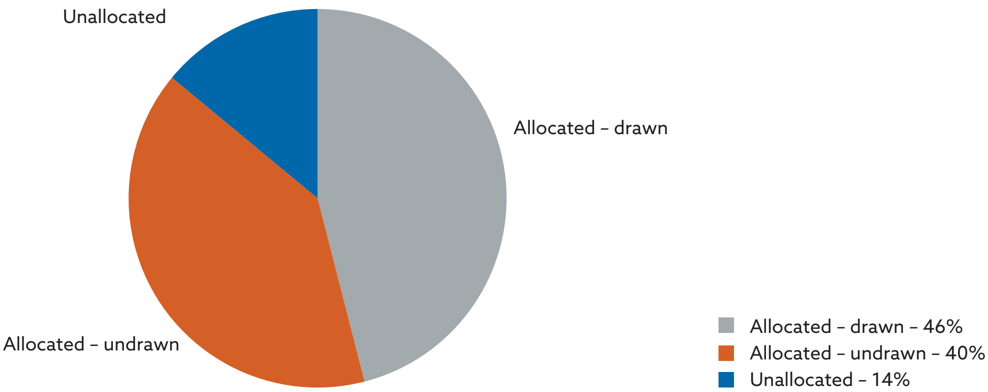
The uptake of Slovakia's outstanding allocation of EU funds under the 2014–20 budget is expected to peak in 2023. The country's absorption of EU funds has been relatively sluggish, including in comparison with other countries, so the uptake of the outstanding amount has been concentrated into a two-year window, with around €4 billion worth of funds to be drawn per year.[10] Of its overall budget allocation of €14.3 billion for

[10] The forecast also envisages some absorption in 2024, but that is expected to concern mostly the repayment of expenditures made in late 2023.

cohesion policy, Slovakia has so far absorbed only 46%[11] (Chart 35). The overlap of cohesion policy funding with NGEU funding will increase the burden on administrative capacities as well as pressure on the economy's productive capacity (increased demand). This may result in the inefficient allocation of funds and a minor impact on long-term potential output. Because of the capacity burden, the forecast envisages that Slovakia will not manage to absorb all of its outstanding allocation under the 2014–20 budget and will face a permanent loss of 4%.

Chart 35

Status of the allocation and absorption of EU funds under the 2014–20 budget (as at 31 October 2021)



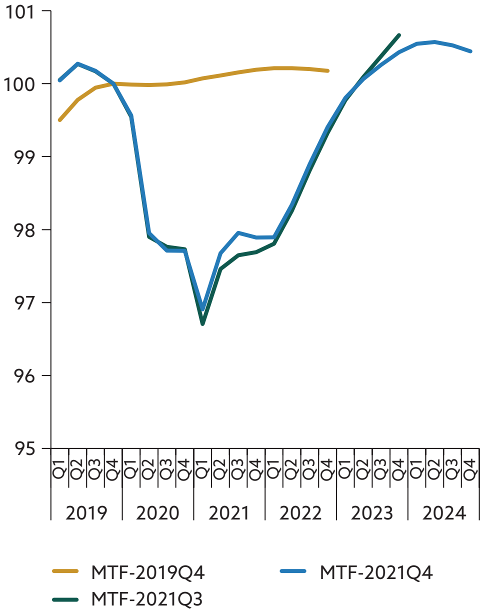
Sources: MF SR, and NBS calculations.

3.2.4 Labour market

The upward impact of the economy's reopening on employment was greater than expected. The subsequent third wave of the pandemic, however, will temporarily stop the situation from improving in the near term (Chart 36). The pandemic-induced economic damage and the losses resulting from component shortages will cause firms to halt recruitment temporarily. The situation is not expected to improve until spring 2022. At that time, firms are expected to start increasing the numbers of hours worked. Later on, as labour productivity rises, they will start stepping up recruitment. Given the current elevated demand for labour, plans are being made to bring more people into employment, and it is expected that recruitment of foreign workers will support that objective. Strong wage growth is expected to be a spur to employment growth (Chart 37).

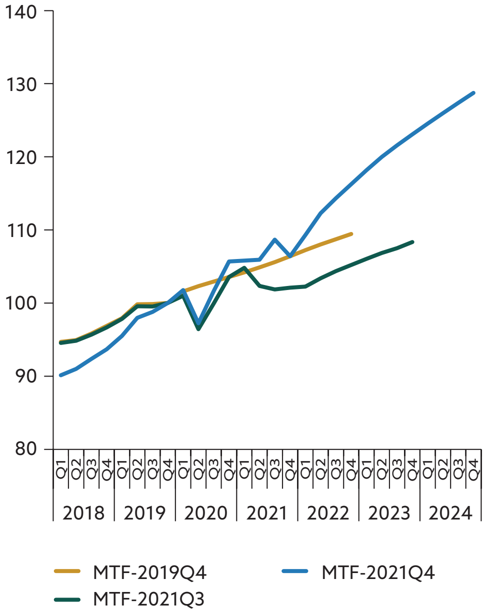
[11] Not including funding under the Rural Development Programme and under European territorial cooperation.

Chart 36
Employment (index: 2019 average = 100)



Source: NBS calculations.

Chart 37
Real compensation per employee (annual percentage changes)



Sources: SO SR, and NBS calculations.

3.2.5 Prices and labour costs

Nominal wage growth is expected to accelerate in coming years, driven up by labour productivity growth, skilled labour shortages and temporarily higher inflation. In the next months, we envisage that the pandemic and component shortages will have a temporary negative impact on wage growth. A higher number of people taking sick leave and carer's leave and a decline in the number of hours worked will statistically cause a temporary deceleration of wage growth. The longer term will see the economy return to a growth trajectory in conjunction with an increase in labour productivity growth. Relatively strong inflation will push up wage demands in wage bargaining processes. Hence the upward pressure on wage growth is expected to peak in 2023.

Table 3 Wages (annual percentage changes)

	2020	2021	2022	2023	2024
Nominal labour productivity	-0.2	6.0	9.6	7.1	4.7
Whole economy – nominal wages	3.8	5.0	6.2	6.7	4.8
Whole economy – real wages	1.8	1.9	0.5	4.0	2.6
Private sector – nominal wages	1.5	4.9	7.2	7.4	5.4
Private sector – real wages	-0.4	1.7	1.4	4.7	3.3
Public administration, education and health care – nominal wages	10.4	5.4	3.5	4.7	4.9
Public administration, education and health care – real wages	8.3	2.3	-2.0	2.0	2.7

Sources: SO SR, and NBS calculations.
Notes: Deflated by the CPI. Nominal labour productivity – GDP divided by persons in employment (ESA 2010).

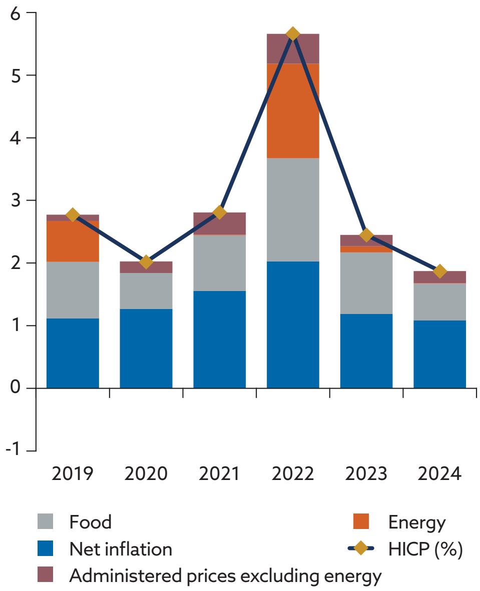
Headline inflation is not expected to peak until early 2022, when it will be approaching close to 7%. Most of that acceleration should be due to increases in administered energy prices. Current price level growth is broad-based across the consumption basket, observed in all but a few components. From the second half of 2022, projected movements in commodity prices and import prices are expected to support a gradual reduction in inflationary pressures.

In the next two quarters, net inflation is projected to remain relatively high (Chart 38). Increases in non-administered prices of services will continue to reflect high input prices, the secondary effects of food inflation, and the ongoing upward pressure on fixed costs. The impact of supply shocks on services prices is expected to fade in the second half of 2022 (Chart 39). The moderation of upward pressures from food prices is envisaged to pass through to the headline rate. The pandemic's evolution and related measures remain an upside risk to price movements, particularly in the case of high-contact services; they may put upward pressure on fixed costs and have a downward impact on service provider sales.

Multi-year high growth rates in import prices from the euro area and in domestic producer prices are accelerating non-energy industrial goods inflation. There is scope for these prices to remain elevated even until the end of 2022. Instability in supply chains for intermediate products used in the manufacture of semi-durable and durable goods continues to be an inflationary risk. Any sharper than expected increase in European demand in 2022 could further exacerbate the persisting imbalance.

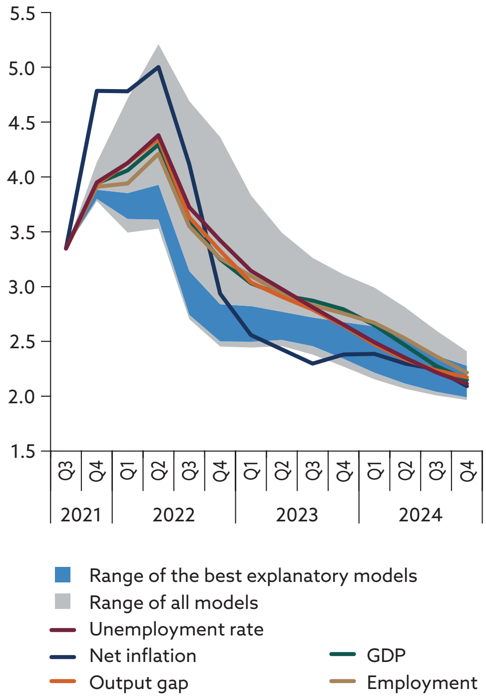
Rapidly increasing prices of energy and food will consume a significant portion of household income in 2022 given the 'fixed' nature of these expenditures. We now expect household electricity and gas prices to go up by 15% and 12%, respectively, in January 2022. The lagged pass-through of high energy commodity prices in Europe represents an upside risk to the inflation outlook in 2023. Food inflation is projected to peak at 7% in late 2021/early 2022. The stabilisation of market prices of agricultural commodities will have a moderating impact on food inflation during the course of 2022.

Chart 38
HICP inflation and its components (annual percentage changes; percentage point contributions)



Sources: SO SR, and NBS calculations.

Chart 39
Phillips curves (annual percentage changes)



Sources: SO SR, and NBS calculations.

Table 4 Components of HICP inflation (annual percentage changes)

	Average for 2004–08 (pre-crisis period)	Average for 2010–14 (post-crisis period with euro currency)	2020	2021	2022	2023	2024
HICP	**4.1**	**2.0**	**2.0**	**2.8**	**5.7**	**2.4**	**1.9**
Food	3.6	3.1	2.2	2.9	5.7	3.4	2.0
Non-energy industrial goods	0.2	0.3	1.7	2.4	4.0	2.3	2.0
Energy	8.3	2.3	0.0	0.1	10.9	0.7	0.0
Services	5.3	2.5	3.1	4.3	4.8	2.6	2.5
Net inflation	1.8	1.0	2.5	3.2	4.2	2.5	2.3

Sources: SO SR, and NBS calculations.

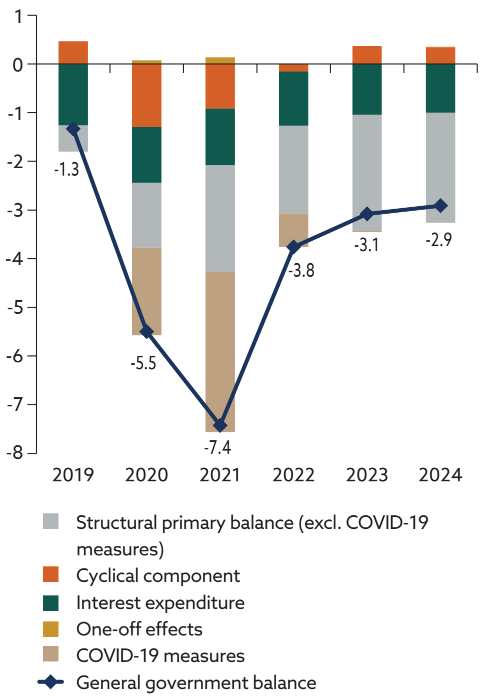
3.3 Public finance projections

Slovakia's general government deficit for 2021 is projected to be 7.4% of GDP, representing a year-on-year increase of 1.9 percentage points (Chart 40). The economy's recovery is expected to have a positive impact on fiscal performance. The pandemic's persisting impact is putting upward pressure on expenditure. For 2021, the total direct fiscal costs of the pandemic are estimated to be 3.3% of GDP.

Fiscal consolidation is not expected to occur until 2022 (Chart 41). With the unwinding of measures taken to contain the pandemic and with the further improvement of cyclical conditions, the fiscal deficit is projected to drop to 3.8% of GDP in 2022. Subsequent years are expected to see a relatively robust economic performance that will be the basis for ongoing consolidation, temporarily moderated by an import of military equipment. The deficit is therefore projected to be 3.1% of GDP in 2023 and 3% of GDP in 2024.

Chart 40

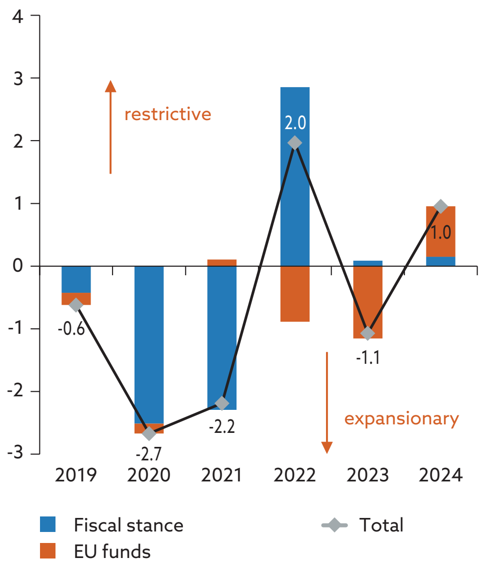
Breakdown of the general government balance (percentages of GDP)



Sources: SO SR, and NBS calculations.
Note: One-off factors include non-cyclical effects that have a temporary impact on the general government balance and should be eliminated in the future.

Chart 41

Fiscal stance (percentage points of GDP)



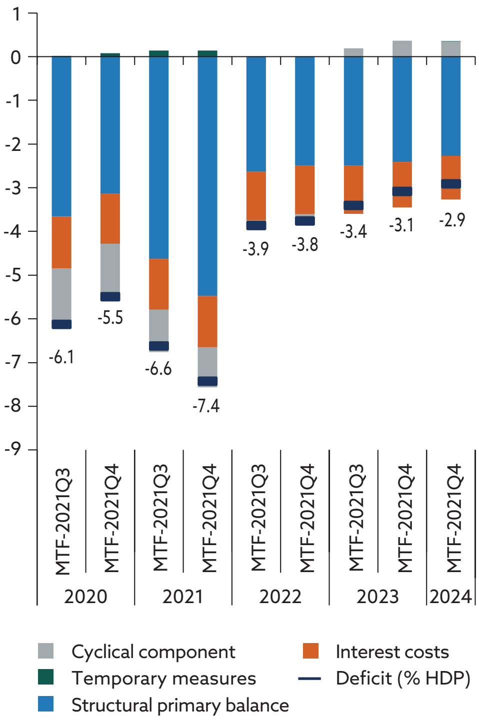
Sources: SO SR, and NBS calculations.
Note: Fiscal stance – annual rate of change in the cyclically adjusted primary balance.

Compared with the previous forecast, the fiscal deficit projection for 2021 has been revised up by 0.8 percentage points (Chart 42). The revision is largely a response to the deteriorating pandemic situation, as employment support measures (the 'Kurzarbeit' scheme) have been reintroduced and as the economic lockdown in the latter part of the year will reduce taxes and levies on the labour market as well as revenues. This impact is partly offset by an upward revision of VAT revenue, in which we are seeing strong year-on-year growth. It is envisaged that the 2021 deficit will also be adversely affected by an expected additional payment to the EU budget for undervalued tariffs on Chinese imports. This payment, including penalty interest, represents a total expenditure amounting to 0.5% of GDP.

Fiscal performance estimates for 2022 and thereafter are slightly more optimistic. On the expenditure side, compared with the previous forecast, the index-linked increase in pensions in 2023 has been revised up owing to the higher inflation projection. At the same time, in response to the pandemic situation, expectations for government relief schemes have been modified. The impact of the expenditure increases is, however, offset by an upward revision of tax revenue in 2021 and over the rest of the projection period; this, together with the gradual economic recovery, has a downward impact on the fiscal deficit projection.

Chart 42

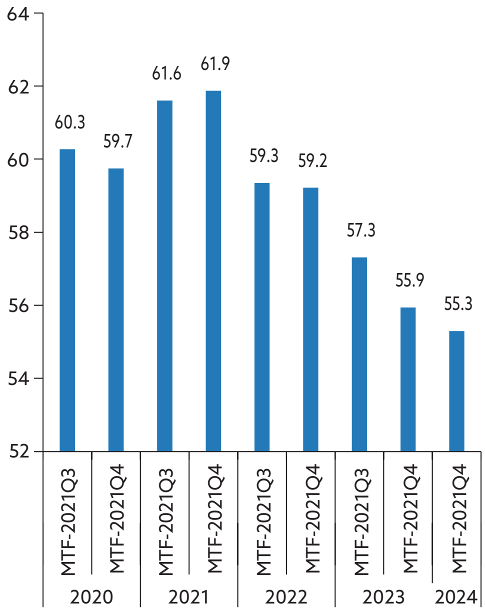
The fiscal deficit and its decomposition (percentages of GDP; percentage point contributions)



Source: NBS calculations.

Chart 43

Public debt (percentages of GDP)



Source: NBS calculations.

In 2021 public debt is projected to rise above the 60%[12] level and approach 62% of GDP (Chart 43). The main component of the debt growth is expected to be a primary deficit that is higher than at any time since the global financial crisis. It is not envisaged that the financial requirements stemming from the impact of pandemic-related measures will fully pass through to

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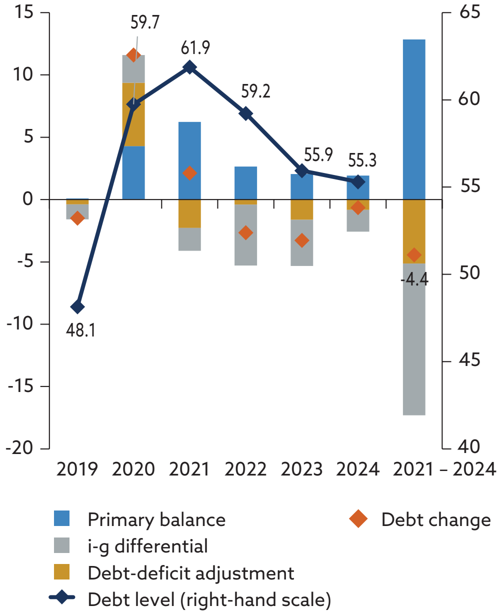
12 Following the autumn notification of its level and a revision of GDP, the general government debt for 2020 was revised down from 60.3% of GDP to 59.7% of GDP.

public debt, as there is expected to be some government refinancing using reserves accumulated from borrowings in the previous year. Another factor that is expected to have an upward impact on the debt ratio is an increase in liabilities on deposits held with the State Treasure by entities outside general government.

Given the anticipated fiscal consolidation and the unwinding of one-off measures, public debt is projected to drop back below 60% in subsequent years of the forecast period, all the way down to 55.3% of GDP in 2024 (Chart 44). Amid a decreasing fiscal deficit and partial refinancing out of reserves, the decrease in the debt ratio is expected to be supported by economic recovery in 2022 and 2023. The fading of the 'EU funds effect' in 2024 is expected to translate into slower economic growth and into a somewhat more moderate decrease in public debt.

Chart 44

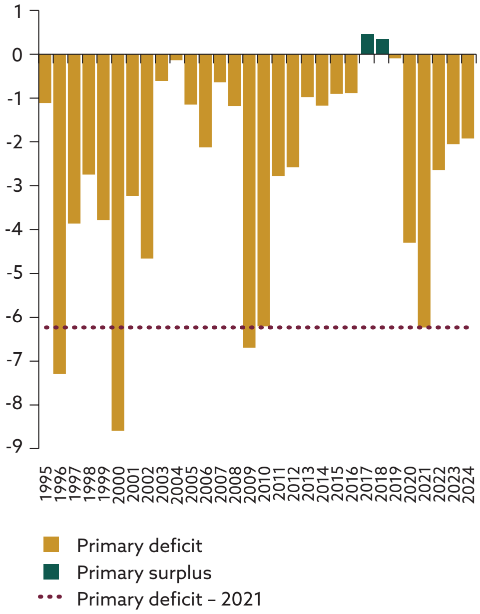
Public debt (percentages of GDP; percentage points of GDP)



Sources: SO SR, and NBS calculations.
Notes: Debt-deficit 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.

Chart 45

Primary balance of the general government budget (percentages of GDP)



Sources: SO SR, and NBS calculations.

3.4 Risks to the forecast

Risks to the real GDP and inflation outlooks remain tilted to the downside and upside respectively. The pandemic-related uncertainty, particularly in regard to the new and, according to available information, far more infectious variant of the virus, and uncertainty about when component supplies will return to normal represent a significant downward risk to the economic growth outlook for the period ahead. Meanwhile, the impact on consumer prices of input shortages and rising costs could be greater and longer-lasting than expected. At the same time, if energy commodity prices were to remain at their current level for a longer term, our projection for administered energy prices in 2023 would be an underestimate. In the case of price developments there is a risk that higher inflation will last for an extended time, particularly if the pass-through of higher inflation to bargained wages and sellers' expectations has been even higher than projected. The expected productivity growth is an important curb on the impact of wage-driven price pressures. Hence a risk to the inflation outlook is that expectations about the expansion of the economy's productive capacity do not materialise. In this regard, it is important that the absorption of EU funds has an impact not only on the economy's demand side, but also on its productive capacity.

As regards risks to the outlook for fiscal performance, they tilt slightly towards higher deficits. Uncertainty about the pandemic's evolution and about containment measures remains elevated. When this forecast was being produced, plans were announced to incentivise people aged 60 and over to get vaccinated against COVID-19. Since the specifics of this measure had not been sufficiently elaborated by the forecast cut-off date, the costs related to its implementation constitute a downside risk to the deficit projection for 2022.

A downside risk to the fiscal outlook for 2023 and 2024, amounting to around €500 million, concerns a planned measure that will enable working children to assign part of their social security contributions to their parents through a parental pension bonus.

Regarding an additional payment to the EU budget for undervalued tariffs on Chinese exports, there is uncertainty about when it will be recorded as well as about its overall amount. The forecast envisages the whole of this payment being made in 2021 with a risk that it will be postponed until 2022.

3.5 Comparison with forecasts of other institutions

Compared with forecasts produced by other institutions, this forecast envisages a slightly different profile of future economic developments. Because our forecast had a later cut-off date, we took into account the tightening of pandemic containment measures. It is also likely that expectations about the duration and extent of component shortages could explain the differences between institutions' estimations of future economic developments. So whereas our projections for this year are slightly more pessimistic, our projections for subsequent years are slightly more optimistic. Our projections for inflation in 2022 are far higher, since we took account of November's flash estimate for inflation. In November inflation increased more sharply than expected. All the institutions envisage a fading of price shocks in subsequent years and a return to more moderate inflation.

Table 5 Comparison with forecasts of other institutions (annual percentage changes, unless otherwise indicated; constant prices)

	2021					2022					2023					2024				
	NBS	IFP	EC	IMF	OECD	NBS	IFP	EC	IMF	OECD	NBS	IFP	EC	IMF	OECD	NBS	IFP	EC	IMF	OECD
Gross domestic product	3.1	3.7	3.8	4.4	3.2	5.8	4.2	5.3	5.2	5.0	5.6	5.0	4.3	4.3	4.8	2.7	0.7	-	3.4	-
Private consumption	0.8	0.2	1.7	-	1.1	4.2	2.4	4.3	-	3.6	3.8	3.6	3.2	-	2.9	2.2	3.9	-	-	-
Government consumption	2.5	4.9	4.1	-	3.3	-1.2	4.1	2.7	-	2.8	1.9	1.8	1.4	-	0.7	2.4	-0.4	-	-	-
Gross fixed capital formation	-1.1	-0.3	2.8	-	-0.7	13.4	16.7	15.7	-	15.0	17.1	15.2	12.1	-	14.5	0.8	-12.2	-	-	-
Exports of goods and services	9.6	10.5	11.7	13.8	10.7	8.5	3.1	6.5	5.8	2.6	7.7	6.0	5.9	4.6	5.6	5.2	4.0	-	5.1	-
Imports of goods and services	10.5	10.9	11.3	13.6	11.5	6.2	3.9	7.4	6.1	3.2	8.8	6.5	6.3	4.9	5.4	4.5	2.4	-	4.7	-
Harmonised Index of Consumer Prices [1)]	2.8	2.3	2.8	2.4	2.6	5.7	4.0	4.3	3.0	4.1	2.4	3.1	2.2	2.1	2.5	1.9	1.5	-	2.0	-
Employment (ESA 2010)	-0.6	-0.8	0.3	-	-	1.1	0.8	1.2	-	-	1.5	1.0	1.0	-	-	0.4	0.4	-	-	-
Unemployment rate (percentage)	6.9	7.0	6.8	6.8	7.0	6.4	6.7	6.4	6.1	6.4	5.6	5.7	5.6	5.8	5.8	5.4	5.2	-	5.7	-
Average nominal wage	5.6	5.4	-	-	-	6.3	5.5	-	-	-	6.7	5.1	-	-	-	4.9	4.8	-	-	-
Nominal compensation per employee	5.0	4.9	5.0	-	4.9	6.0	5.2	5.9	-	4.9	6.8	5.5	5.4	-	5.7	4.9	5.0	-	-	-
General government deficit (percentage of GDP)	-7.4	-7.9	-7.3	-7.5	-6.7	-3.8	-4.9	-4.2	-4.0	-4.4	-3.1	-3.4	-3.2	-3.2	-2.5	-2.9	-3.3	-	-2.2	-
General government debt (percentage of GDP)	61.9	61.5	61.8	61.4	60.5	59.2	61.5	60.0	62.0	58.2	55.9	58.6	59.1	60.1	56.7	55.3	58.7	-	58.3	-
Balance of payments current account (percentage of GDP)	-2.6	0.3	-1.7	-0.9	-1.1	0.4	0.2	-1.0	-1.3	-2.2	0.5	0.1	-1.1	-1.8	-1.9	0.0	0.4	-	-1.4	-

Sources: NBS, Institute for Financial Policy (IFP), European Commission (EC), International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD).
IFP – Macroeconomic Forecast (September 2021); the debt and deficit projections are from the Stability Programme of the Slovak Republic for 2021 to 2024;
EC – European Economic Forecast, Autumn 2021 (November)
IMF – World Economic Outlook, October 2021
OECD – Economic Outlook No 110 (December 2021)
1) In the IMF forecast, the consumer price index (CPI).

Table 6 Medium-Term Forecast (MTF-2021Q4) for key macroeconomic indicators

Indicator	Unit	Actual data	MTF-2021Q4				Difference vis-à-vis MTF-2021Q3		
		2020	2021	2022	2023	2024	2021	2022	2023
Prices									
HICP inflation	annual percentage change	2.0	2.8	5.7	2.4	1.9	0.4	1.8	0.2
CPI inflation	annual percentage change	1.9	3.1	5.8	2.5	1.8	0.4	1.8	0.2
GDP deflator	annual percentage change	2.4	2.2	4.7	3.0	2.3	0.2	0.8	0.5
Economic activity									
Gross domestic product	annual percentage change, constant prices	-4.4	3.1	5.8	5.6	2.7	-0.4	-0.5	1.1
Private consumption	annual percentage change, constant prices	-1.5	0.8	4.2	3.8	2.2	0.1	-0.3	0.0
General government final consumption	annual percentage change, constant prices	0.9	2.5	-1.2	1.9	2.4	0.5	-1.6	-0.4
Gross fixed capital formation	annual percentage change, constant prices	-11.6	-1.1	13.4	17.1	0.8	-2.5	-2.4	4.6
Exports of goods and services	annual percentage change, constant prices	-7.4	9.6	8.5	7.7	5.2	-2.7	-0.3	2.2
Imports of goods and services	annual percentage change, constant prices	-8.4	10.5	6.2	8.8	4.5	-2.3	-1.9	2.4
Net exports	EUR millions at constant prices	2,614	2,213	4,332	3,689	4,627	-216.0	1,046.4	1,054.3
Output gap	percentage of potential output	-4.9	-2.5	-0.2	1.3	1.0	0.2	-0.2	0.6
Gross domestic product	EUR millions at current prices	92,079	96,999	107,419	116,772	122,744	332.0	678.8	2,504.7
Labour market									
Employment	thousands of persons, ESA 2010	2,399	2,384	2,409	2,446	2,455	5.6	2.0	-2.1
Employment (rate of change)	annual percentage change, ESA 2010	-1.9	-0.6	1.1	1.5	0.4	0.3	-0.1	-0.2
Number of unemployed	thousands of persons[1)]	181	188	175	154	149	-2.7	-2.6	0.4
Unemployment rate	percentage	6.7	6.9	6.4	5.6	5.4	-0.1	-0.1	0.0
NAIRU estimate [2)]	percentage	6.4	6.5	6.4	6.3	6.3	0.0	0.0	0.0
Labour productivity [3)]	annual percentage change	-2.5	3.7	4.7	4.0	2.3	-0.7	-0.3	1.3
Nominal productivity [4)]	annual percentage change	-0.2	6.0	9.6	7.1	4.7	-0.5	0.5	1.8
Nominal compensation per employee	annual percentage change, ESA 2010	3.6	5.0	6.0	6.8	4.9	0.1	1.0	1.4
Nominal wages [5)]	annual percentage change	3.8	5.0	6.2	6.7	4.8	0.0	0.9	1.3
Real wages [6)]	annual percentage change	1.8	1.9	0.5	4.0	2.6	-0.4	-0.8	1.0
Households and non-profit institutions serving households									
Disposable income	annual percentage change, constant prices	-0.2	-0.2	2.5	4.6	2.2	-2.1	0.7	0.7
Saving ratio [7)]	percentage of disposable income	10.9	10.2	8.9	9.6	9.6	-1.5	-0.6	-0.1
General government sector [8)]									
Total revenue	percentage of GDP	40.1	40.4	39.5	39.9	38.9	-2.2	-2.1	-2.0
Total expenditure	percentage of GDP	45.6	47.8	43.2	42.9	41.8	-1.4	-2.2	-2.3
General government balance [9)]	percentage of GDP	-5.5	-7.4	-3.8	-3.1	-2.9	-0.8	0.1	0.3
Cyclical component	percentage of trend GDP	-1.3	-0.9	-0.2	0.4	0.3	0.0	0.0	0.2
Structural balance	percentage of trend GDP	-4.3	-6.6	-3.6	-3.5	-3.3	-0.9	0.1	0.1
Cyclically adjusted primary balance	percentage of trend GDP	-3.1	-5.3	-2.5	-2.4	-2.3	-0.9	0.1	0.1
Fiscal stance [10)]	annual percentage point change	-2.5	-2.3	2.9	0.1	0.1	-1.4	1.0	0.0
General government gross debt	percentage of GDP	59.7	61.9	59.2	55.9	55.3	0.3	-0.1	-1.4

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Table 6 Medium-Term Forecast (MTF-2021Q4) for key macroeconomic indicators (continued)

Indicator	Unit	Actual data	MTF-2021Q4				Difference vis-à-vis MTF-2021Q3		
		2020	2021	2022	2023	2024	2021	2022	2023
Balance of Payments									
Goods balance	percentage of GDP	1.1	-1.4	1.8	1.5	2.6	0.0	1.4	1.6
Current account	percentage of GDP	0.1	-2.6	0.4	0.5	1.5	-0.4	1.1	1.4
External environment and technical assumptions									
Slovakia's foreign demand	annual percentage change	-8.4	9.5	5.0	6.0	3.3	-0.6	-1.4	2.2
USD/EUR exchange [11), 12)]	level	1.14	1.18	1.13	1.13	1.13	-0.6	-3.6	-3.6
Oil price in USD [11), 12)]	level	41.5	71.8	77.5	72.3	69.4	6.3	17.2	14.8
Oil price in USD [11)]	annual percentage change	-36.0	72.9	8.0	-6.7	-4.1	13.3	10.0	-2.0
Oil price in EUR [11)]	annual percentage change	-37.2	66.8	12.9	-6.7	-4.1	13.8	13.6	-2.0
Non-energy commodity prices in USD	annual percentage change	3.5	34.4	5.7	-2.2	-2.1	-3.5	1.4	-0.3
Three-month EURIBOR	percentage per annum	-0.4	-0.5	-0.5	-0.2	0.0	0.0	0.0	0.3
Ten-year Slovak government bond yield	percentage	0.0	-0.1	0.1	0.2	0.2	0.1	0.2	0.2

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