

# Medium-Term Forecast

Q4 2019

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# 1 Overview

The weakening of global trade by protectionist measures and by heightened uncertainty has weighed on Slovakia's economic growth this year. Annual GDP growth slowed in the third quarter of 2019 to 1.3% (non-seasonally adjusted), which was far lower than expected. Net exports had the largest dampening effect on overall growth, while domestic components still remained resilient. There were increases in consumer demand and, surprisingly, investment activity. Labour market indicators were affected by the difficulties of export-oriented sectors, where employment decreased and wage growth slowed significantly. In other sectors, including the public sector, however, this effect was more than offset and trends were in line with expectations.

The moderation of economic activity growth during 2019 and projections for weaker foreign demand growth have been reflected in revisions to the forecast for coming years. GDP growth is now expected to decelerate to 2.3% in 2019 and to 2.2% in 2020. In subsequent years, foreign demand is projected to pick up moderately, and the composition of GDP growth should be almost evenly balanced between the domestic side of the economy and export performance. Economic growth is therefore forecast to rise to 2.5% in 2021 and to 2.6% in 2022. The economy's cyclical position has been revised in response to the current softness of foreign demand as well as to a revision of national accounts. It is estimated that the economy will operate below potential over the projection period, resulting in an easing of demand-pull pressures on inflation.

Employment growth is envisaged to be no more than modest over the projection period, subdued by demographic factors and by economic activity being weaker than in previous years. Fewer new jobs will be created in the private sector, given the pressure to make efficiency gains. This trend, however, is expected to be partly offset by positive developments in sectors reliant on domestic demand and in the government sector. The slowdown in economic growth will result in the labour market becoming less tight and, consequently, in wage growth slowing from its recent high level.

The annual HICP inflation rate is expected to be 2.7% in 2019, reflecting the effect of both cost and demand factors. On the cost side are prices of labour and global commodity prices and their pass-through to food inflation and energy inflation. At present, these components are having the largest impact on headline inflation, and their contributions are expected to diminish in the years ahead. With the contribution of demand-pull inflation re-

maintaining stable, headline inflation is forecast to slow over the projection period.

The risks to the GDP growth outlook are tilted to the downside and include mainly the impact of protectionist measures and the uncertainty surrounding Brexit. The risks to the inflation outlook are balanced.

## 2 Recent developments in the external environment and in Slovakia

**Euro area GDP increased, quarter on quarter, by 0.2% in the third quarter of 2019** (1.2% year on year), just as it did in the previous three months. After contracting in the second quarter, Germany's economy returned to growth. Growth rates in other major euro area economies remained unchanged. Euro area growth continued to be restrained by falling industrial production, and the third quarter also saw a decline in construction production. Although retail trade increased, it was lower compared with the previous quarter. The latest leading indicator data imply subdued economic growth in the euro area in the fourth quarter. Annual HICP inflation edged down to 0.7% in October (from 0.8% in September), as the rate of decrease in energy prices became more pronounced and as food inflation moderated. Non-energy industrial goods inflation increased slightly, while services inflation was the same as in September.

**In Slovakia, economic growth has been slowing amid adverse trends in foreign demand.** In the third quarter, annual GDP growth fell to 1.3%.<sup>1</sup> Considering that it weakened in previous quarters, too, the economy's performance has fallen further below expectations. The main driver of GDP growth in the third quarter was still domestic demand, which has so far proved resilient to foreign demand headwinds. Domestic demand is benefiting from the buoyant labour market situation and from monetary policy accommodation. Foreign demand, by contrast, remains exposed to a less favourable external environment and to an idiosyncratic shock in global manufacturing industry.

**The labour market has continued to cool amid the slowdown in economic activity.** Employment growth moderated in the third quarter. The largest increase in employment occurred in the public sector. Employment stopped increasing across the private sector as a whole, while employment growth at the sectoral level was heterogeneous. In the industry and trade sectors, the number of employees declined in the third quarter. In services, however, job growth remained solid. Average wage growth decelerated notably, reflecting the ongoing economic slowdown and the gradual fading of the impact of the jump in labour costs that resulted from administrative measures in the second quarter (such as wage premia increases, and 13th salary payments that incentivised firms to shift part of their wage costs to the second quarter).

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<sup>1</sup> Non-seasonally adjusted year-on-year increase. In the event of significant economic cooling, the seasonal adjustment procedure will not be able to pre-emptively identify a significant change in trend. It is therefore more meaningful to look at the non-seasonally adjusted data.

**Increasing consumer demand and labour costs were reflected in the acceleration of annual HICP inflation in the third quarter, to 3.0% in September** (up from 2.6% in June). Increases in labour costs and, to some extent, input prices passed through to food prices, which accelerated in the third quarter and made the largest contribution to the headline inflation rate. Energy inflation has been gradually losing momentum, though it remains elevated. The factors supporting demand-pull inflation included, in addition to rising consumer demand, the impact of administrative measures and increases in prices of canteen meals, public transport, and school fees.

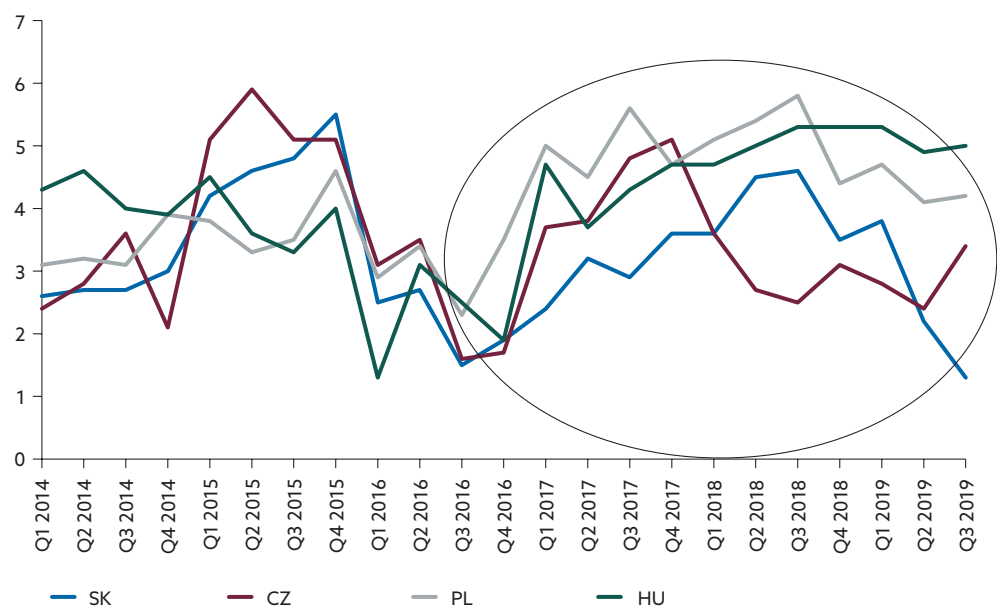
## Box 1

### Differences in economic growth between Slovakia and the other V4 countries

Since 2016 economic growth in Slovakia has been lagging behind that in the other V4 countries. In Czechia, GDP growth has been slowing since 2018, while the Polish and Hungarian economies have been growing quite strongly. Slovakia, moreover, is the only V4 country whose economy has slowed significantly for five successive quarters. The question therefore arises as to what factors have been weighing on Slovakia's economic growth. All the countries under review face approximately the same macroeconomic environment. Slovakia, however, has adopted the euro, while the other countries still have their own national currency. An explanation may therefore lie in deteriorating competitiveness, which Slovakia has not been able to mitigate via nominal exchange rate depreciation. Looking at real effective exchange rate (REER) trends, however, there is no indication that the appreciation of Slovakia's REER has been excessive in comparison with that of the other V4 countries. In fact, Czechia's REER has been appreciating sharply since 2017, whereas in the previous period its appreciation was contained by Czech central bank's monetary policy decisions.

**Chart A**

**GDP in the V4 countries (annual percentage changes; non-seasonally adjusted)**

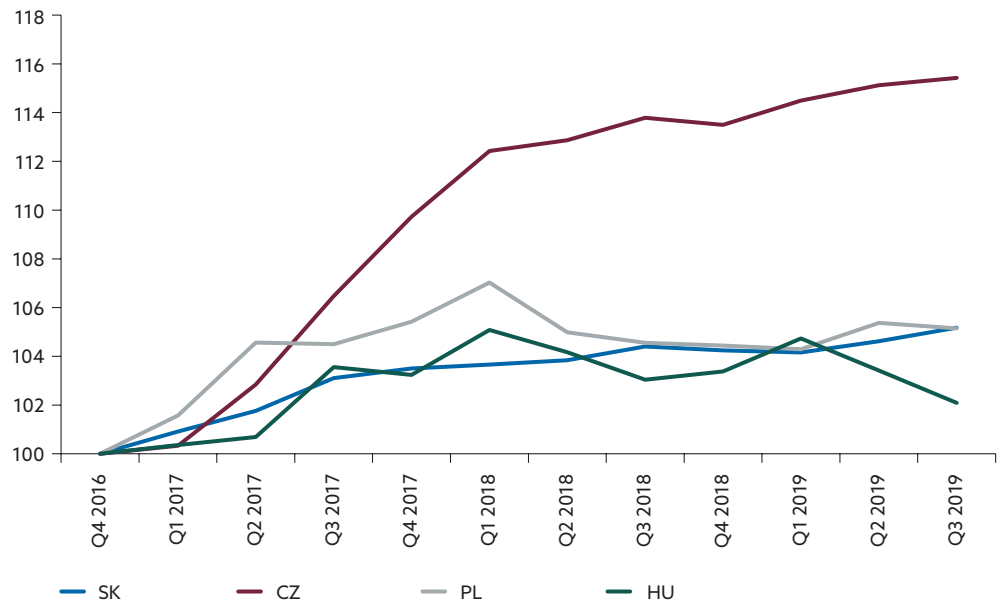


Sources: Eurostat, and NBS calculations.



Chart B

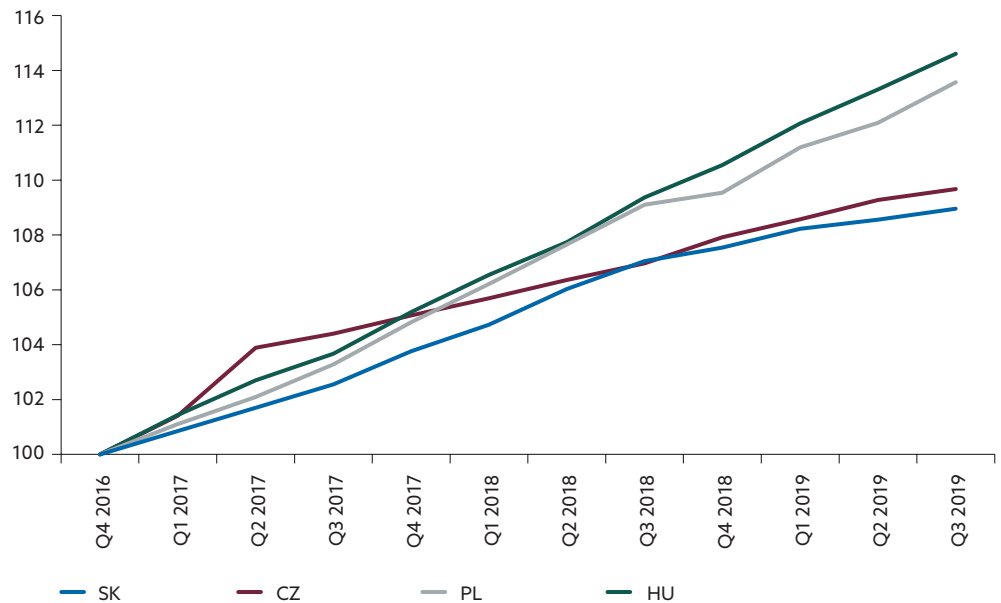
Unit-labour-cost-based REER (Q4 2016 = 100)



Sources: Eurostat, and NBS calculations.

Chart C

Comparison of GDP growth (cumulative; Q4 2016 = 100)



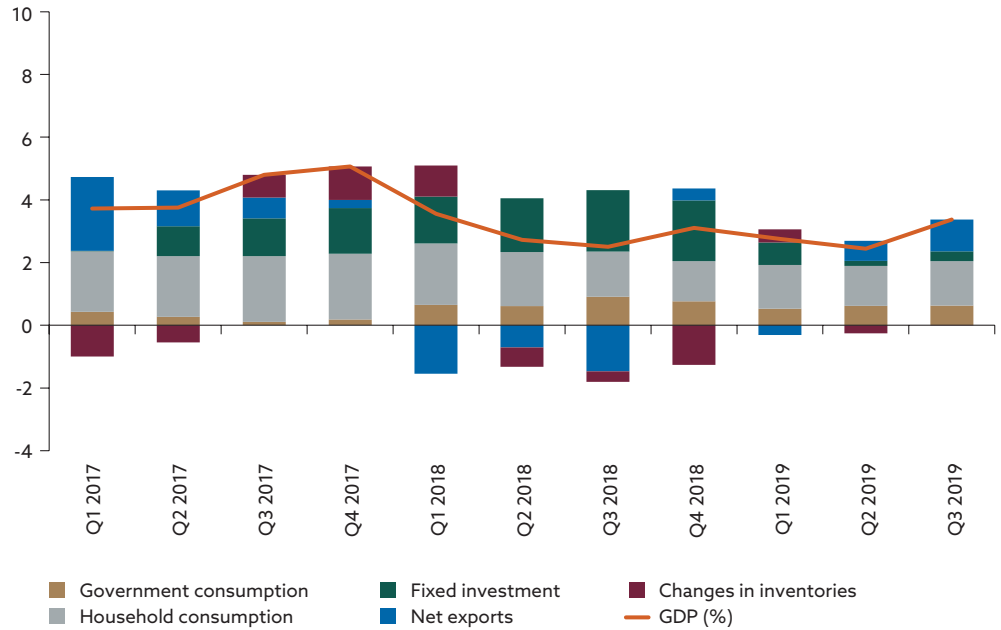
Sources: Eurostat, and NBS calculations.

An indicator of why Slovakia's economy is growing more slowly than neighbouring V4 economies may be found by looking at the composition of growth. **The main difference between Slovakia and its neighbours (in particular Poland and Hungary) is the extent to which domestic demand components (household consumption, government consumption and government investment) contribute to overall economic growth.**

Chart D

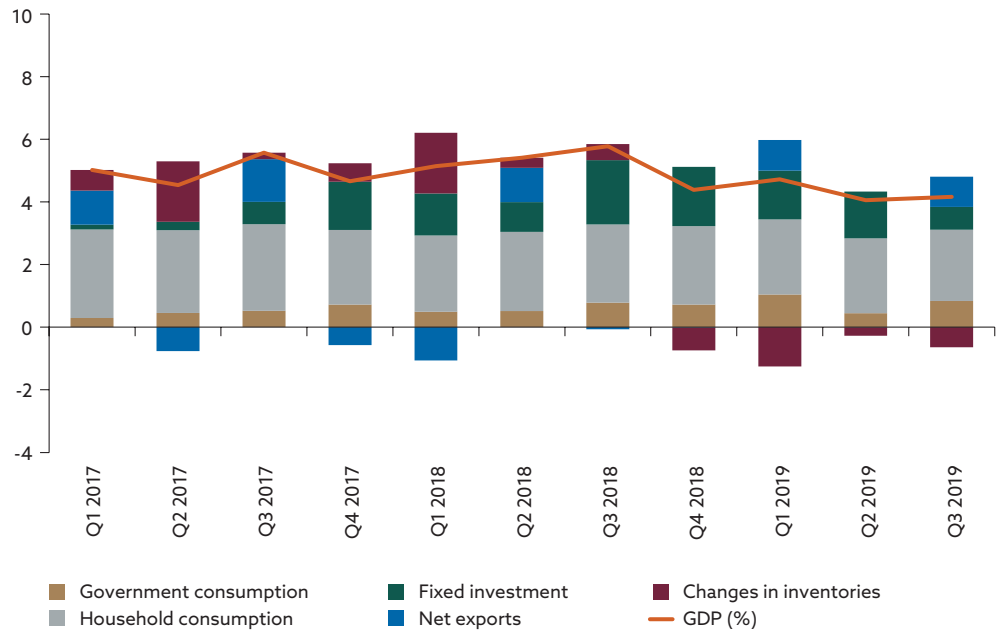
GDP and its components (annual percentage changes; percentage point contributions; non-seasonally adjusted)

Czechia



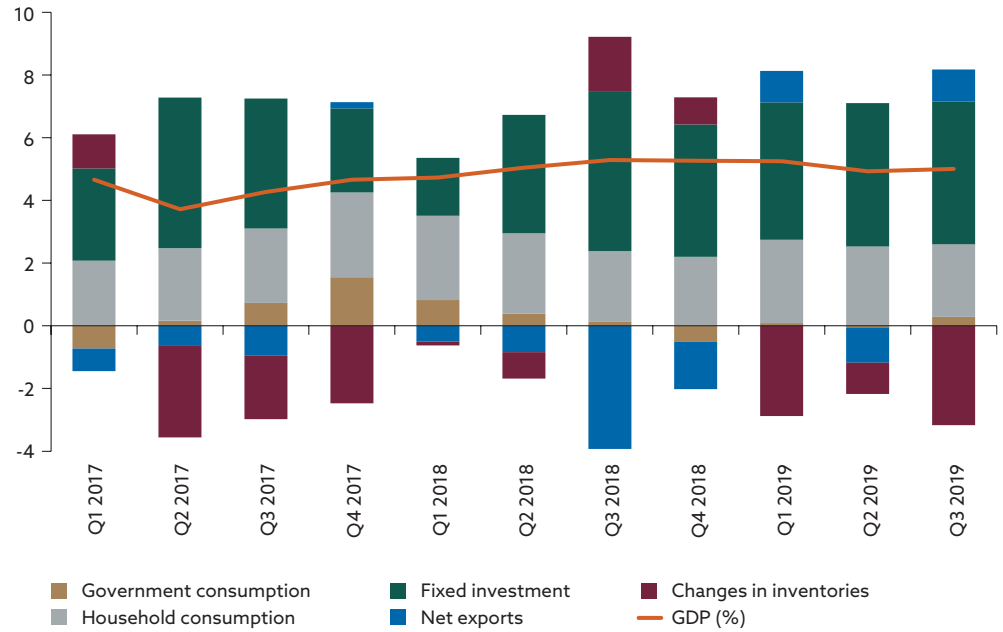
Sources: Eurostat, and NBS calculations.

Poland



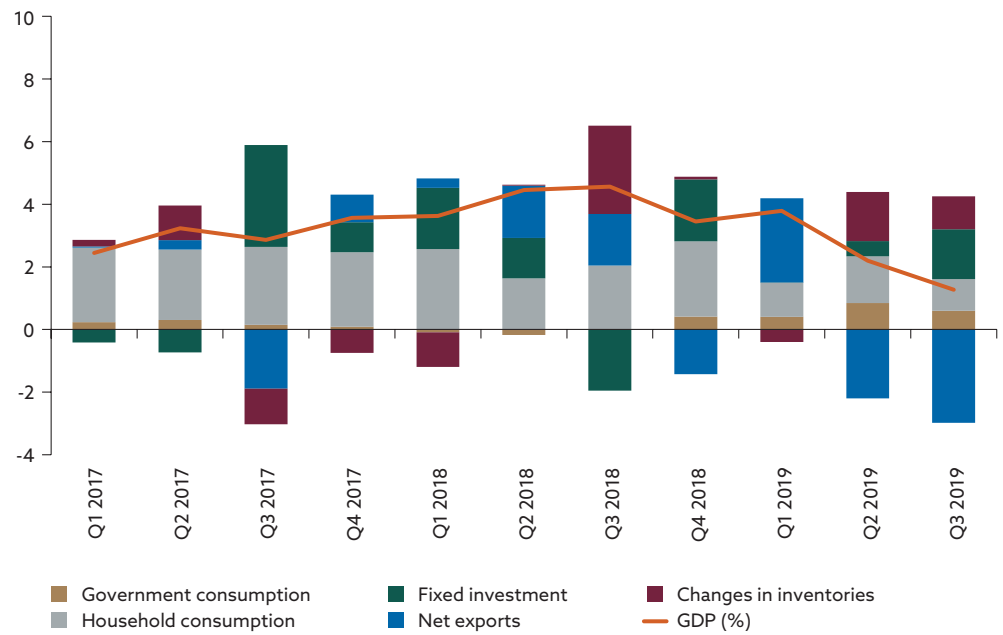
Sources: Eurostat, and NBS calculations.

### Hungary



Sources: Eurostat, and NBS calculations.

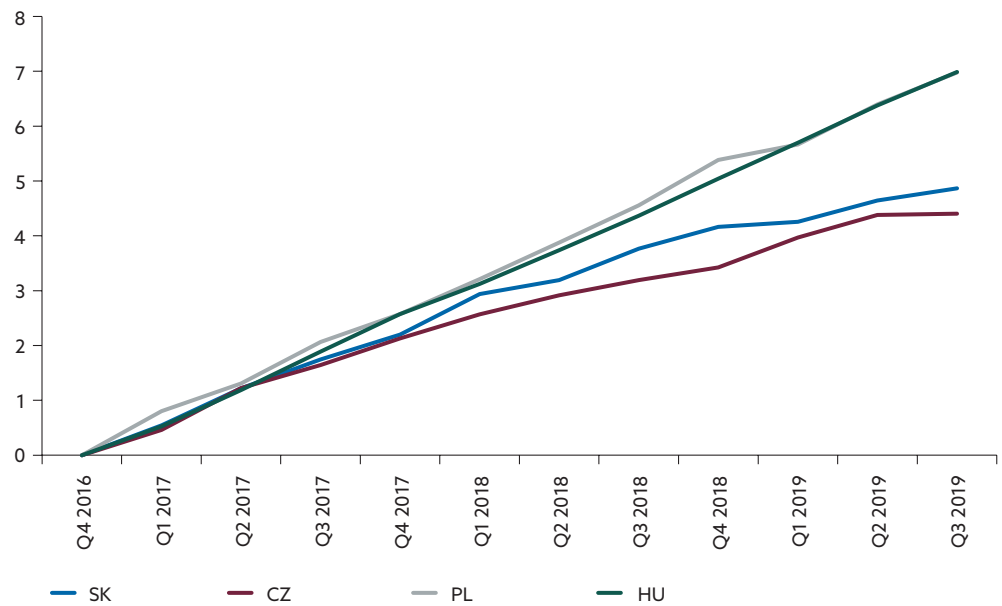
### Slovakia



Sources: Eurostat, and NBS calculations.

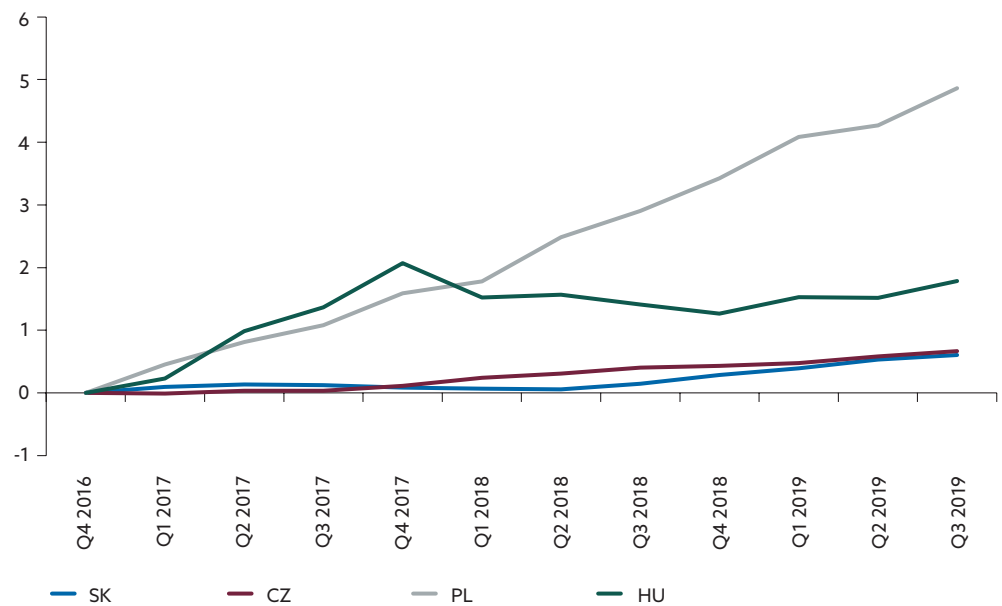
**Chart E**

**Contributions to GDP growth (percentage points; cumulative; Q4 2016 = 100)**  
**Household consumption**



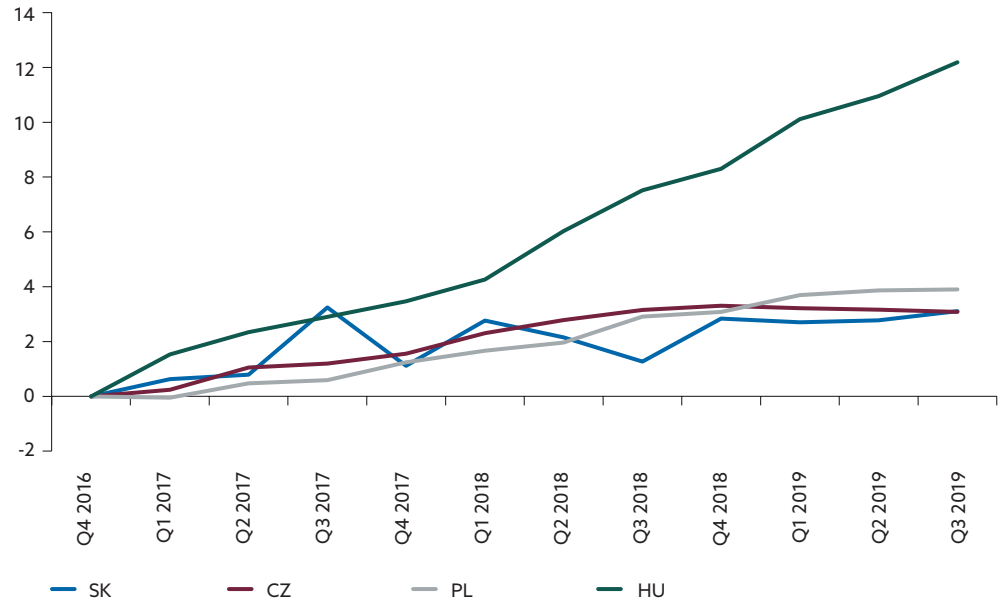
**Sources:** Eurostat, and NBS calculations.

**Government consumption**



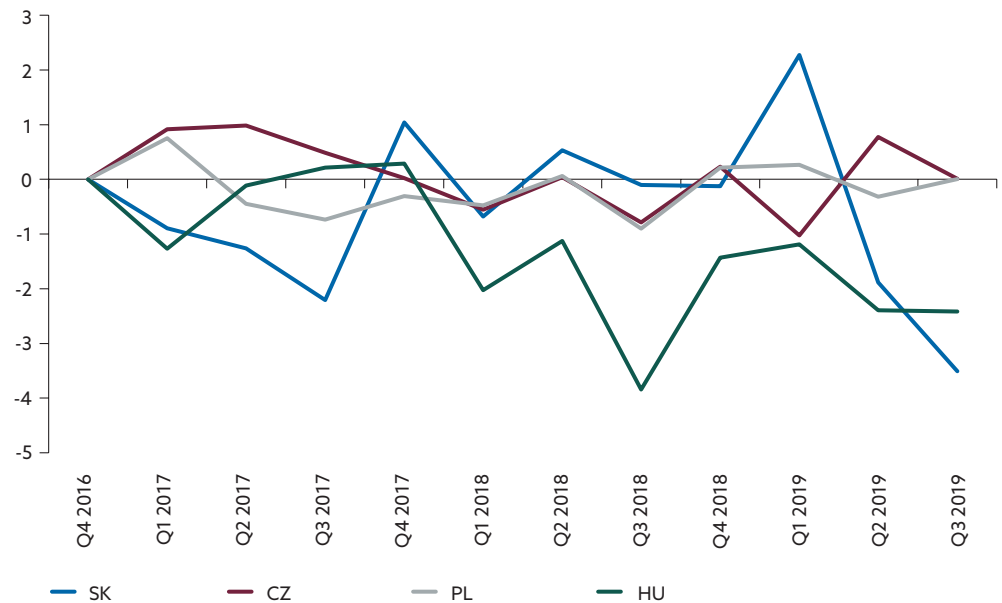
**Sources:** Eurostat, and NBS calculations.

### Fixed investment



Sources: Eurostat, and NBS calculations.

### Net exports

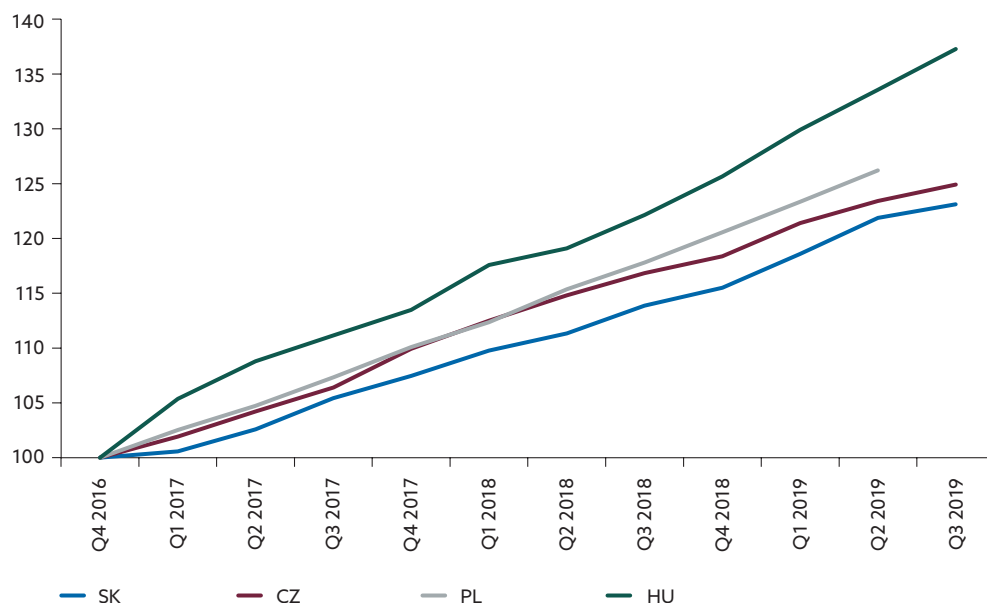


Sources: Eurostat, and NBS calculations.

The contribution of **household consumption** to GDP growth has been more pronounced in Poland and Hungary than in Slovakia (and, to a lesser extent, in Czechia). In Slovakia, household consumption moderated even further in the last two quarters and its contribution to GDP growth continued falling. These household consumption trends **reflect stronger real income growth in the neighbouring countries, as evidenced by retail trade figures.**

**Chart F**

**Comparison of cumulative wage growth (Q4 2016 = 100; amount of wages paid)**



**Sources:** Eurostat, and NBS calculations.

Another factor that may have contributed to the stronger growth in the other V4 countries is **government consumption expenditure** (public consumption). The charts clearly show that government consumption's growth and its impact on GDP growth have been greater in the other countries than in Slovakia. Poland has managed to maintain a low budget deficit despite strong expenditure growth, and its public debt has been falling. In Hungary, too, robust revenues are supporting higher expenditure and further fiscal stimulus.

A third factor on the domestic-demand side is **investment**. **By far the strongest investment growth (in terms of its contribution to GDP growth) has been seen in Hungary**, which in the recent period has been attracting many foreign investors. **The other three V4 countries, including Slovakia, have recorded similar levels of cumulative investment activity.** In Slovakia, however, unlike the other countries under review, the investment component has been volatile, making both positive and negative contributions to overall GDP growth. In the case of Slovakia and Czechia, the investment cycle has already this year been showing signs of turning, while in Hungary and Poland its upswing continues.

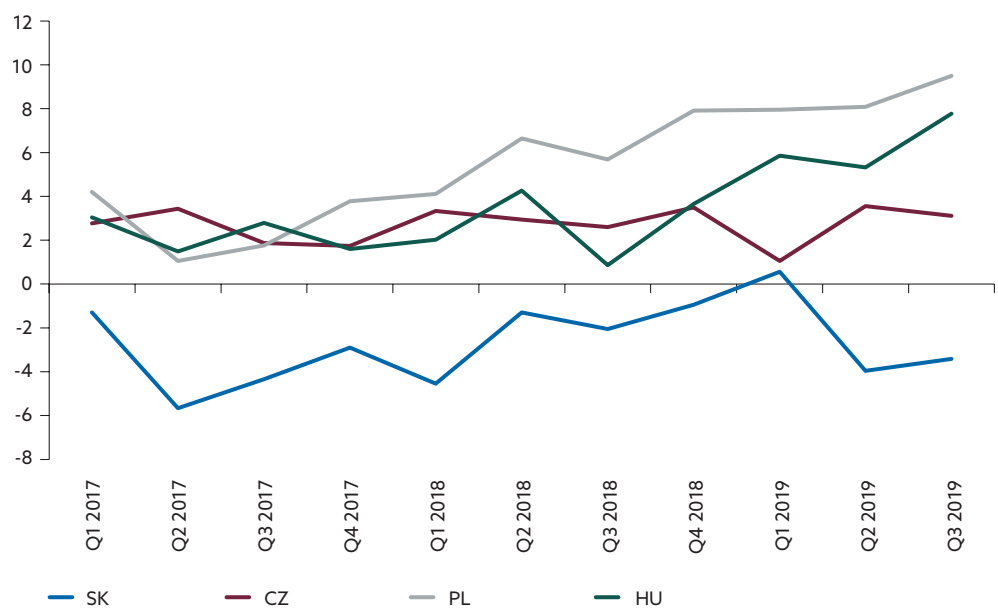
**Net exports** are not a component that has clearly contributed to Slovakia having lower economic growth vis-à-vis other V4 countries. From the fourth quarter of 2017, the cumulative contribution of net exports to GDP growth was broadly higher than, or on a par with, that of the other countries, while its sharp drop in the second quarter of 2019 was related mainly to the difficulties in the European car industry. Compared with the other V4 countries, Slovakia did not experience real exchange rate appreciation, nor, with the exception of Poland, did it perform significantly worse than them in terms of gaining market shares. Although Slovakia was losing market shares in 2017, this trend was to some extent caused by a temporary reduction in production owing to the retooling of production lines. Thereafter, however, except in the second

quarter of 2019, Slovakia was regaining market shares. Poland registered the best export performance of the four countries as its trading markets expanded, but, in general, its economy is the most closed.

It is evident that Slovakia's cumulative market share for the whole period from the fourth quarter of 2016 did not increase. If, however, its market share had not declined in the second quarter of 2019 (due to the specific situation in the car industry), its export performance compared with the other countries would have been broadly similar to that of Czechia and Hungary.

**Chart G**

**Market share gains (difference between export growth and foreign demand growth; cumulative percentage points from Q4 2016)**

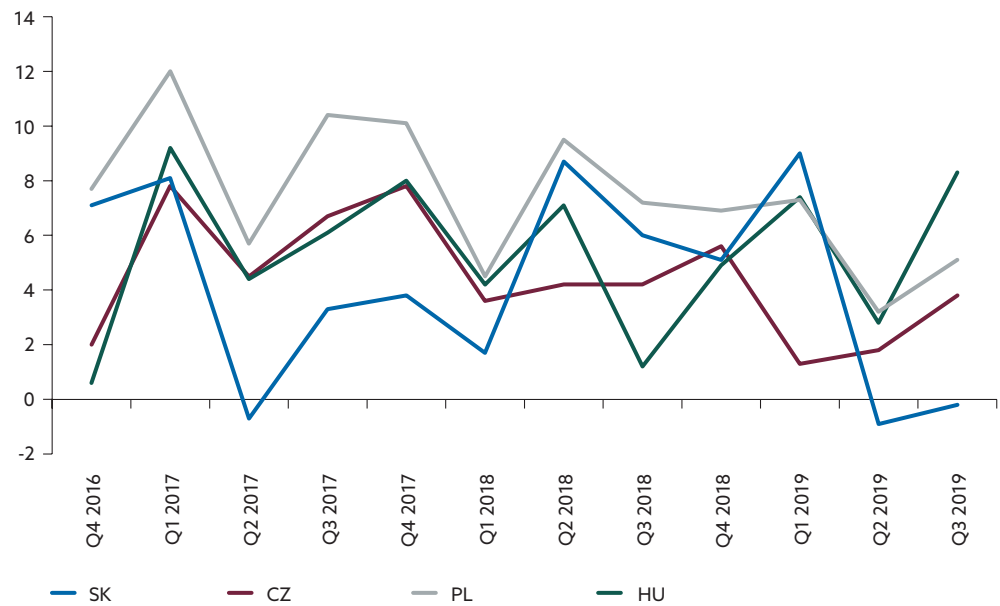


**Sources:** Eurostat, ECB, and NBS calculations.

The impact of net exports on economic growth has been relatively small. Recent developments (since the second quarter of 2019) have reflected the difficulties facing export-oriented industries, such as car manufacturing and metal manufacturing.

Chart H

Comparison of real growth in goods and services exports (annual percentage changes)



Sources: Eurostat, and NBS calculations.

In conclusion, Slovakia has for an extended period been lagging behind the other V4 countries in terms of GDP growth, and this has been due to low growth in private consumption and in investment.

## Box 2

### The risk of negative spillover from industry to the services sector

At the euro area level, economic activity in the manufacturing sector correlates **positively** with activity in the market services sector.<sup>2</sup> Over the last four quarters, however, services trends have been decoupling from manufacturing trends, with the former remaining resilient, and the latter being noticeably affected by the global trade slowdown as well as by domestic factors related mainly to the German car industry. In the light of historical experience, however, the long-term sustainability of such divergence is questionable at the least. There is now a great deal of discussion about the risk of negative spillover from manufacturing industry to the services sector.

In Slovakia, the situation is different. It is difficult to speak of a decoupling as described above, given that a relationship between the two variables has not been documented historically. This is because the specific sectoral specialisation of the Slovak economy and one-off launches of new production by major firms have increased the variability of the data to such an extent that value added in the manufacturing sector is actually correlating **negatively** with value added in the market services sector.<sup>3</sup>

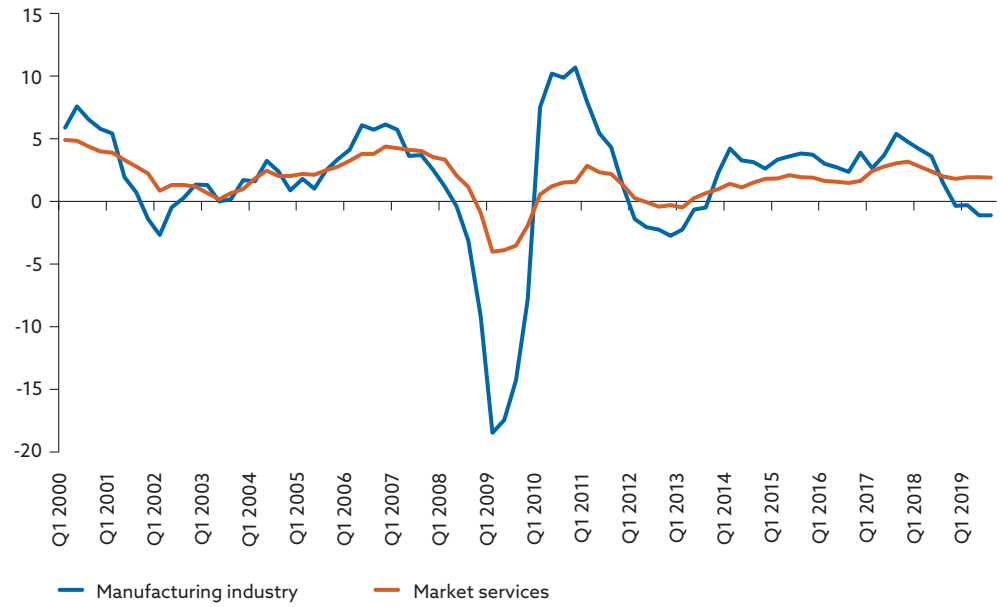
<sup>2</sup> In the euro area, the correlation coefficient between year-on-year growth in value added in the manufacturing sector and that in the market services sector for the post-crisis period Q1 2010–Q3 2019 is 0.59.

<sup>3</sup> In Slovakia, the correlation coefficient between year-on-year growth in value added in the manufacturing sector and that in the market services sector for the post-crisis period Q1 2010–Q3 2019 is -0.46.



**Chart A**

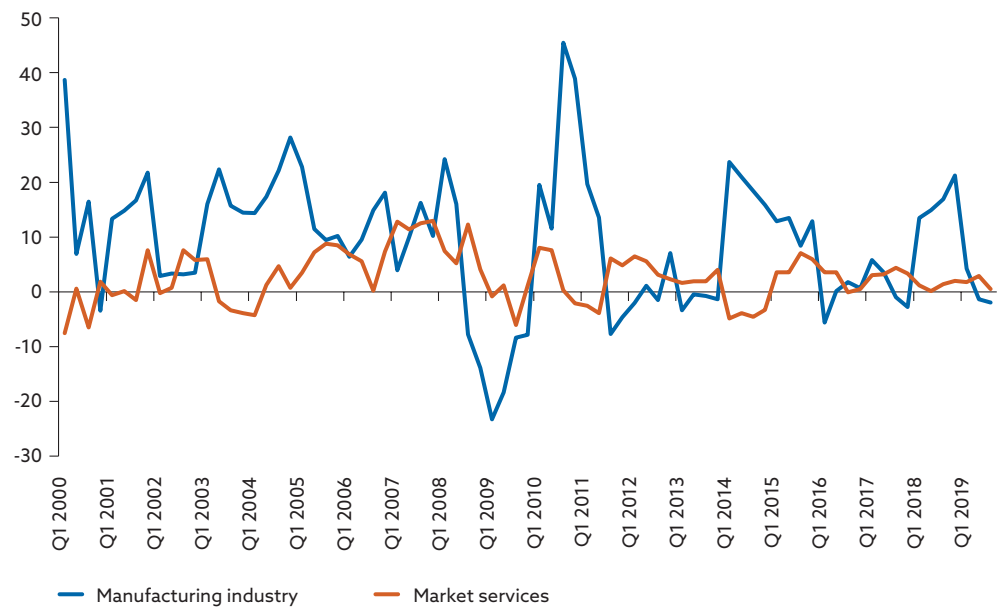
Value added in manufacturing and market services in the euro area (annual percentage changes)



Source: Eurostat.

**Chart B**

Value added in manufacturing and market services in Slovakia (annual percentage changes)



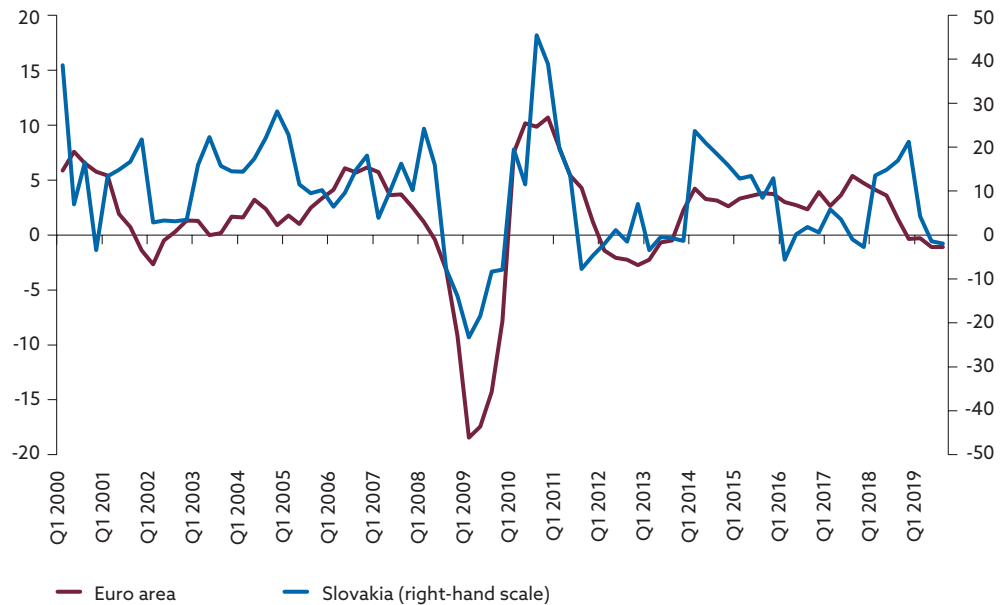
Source: SO SR.

But although Slovakia's data on economic activity in manufacturing and the market services sector do not correlate positively, the risk of negative spillover from industry to services cannot be ignored. In Slovakia, services sector activity has slowed immediately in response to the recent decline in manufacturing performance, whereas in the euro area, where manufacturing has already been subdued for several quarters, services still appeared to be resilient. The risk that the economy will not be able to rely on the services sector in the long term is therefore also present in Slovakia.

In the case of Slovakia, two factors in particular stand as warnings: the interlinkage between manufacturing industry in Slovakia and in the euro area,<sup>4</sup> and the strong positive correlation between the employment growth rates in the manufacturing and market services sectors in Slovakia.<sup>5</sup>

**Chart C**

**Value added in manufacturing in Slovakia and in the euro area (annual percentage changes)**



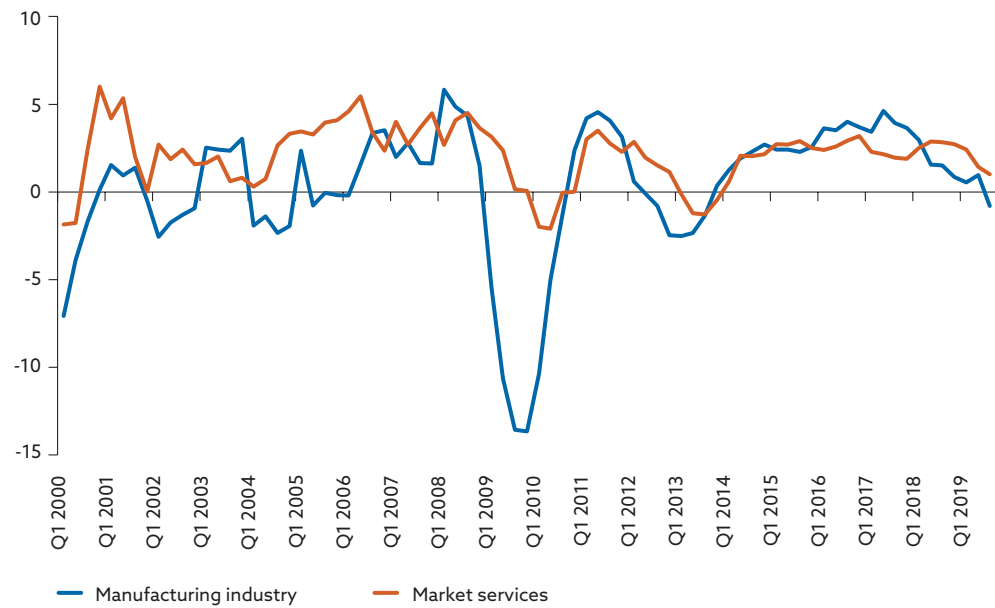
**Sources:** Eurostat, and SO SR.

<sup>4</sup> The correlation coefficient between year-on-year growth in value added in the manufacturing sector in Slovakia and that in the euro area for the post-crisis period Q1 2010–Q3 2019 is 0.61.

<sup>5</sup> In Slovakia, the correlation coefficient between year-on-year growth in employment (headcount) in the manufacturing sector and that in the market services sector for the post-crisis period Q1 2010–Q3 2019 is 0.80.

**Chart D**

**Employment in manufacturing and market services in Slovakia (headcount; annual percentage changes)**



Source: SO SR.

The persistence of the adverse situation in euro area manufacturing industry has the potential to weigh further on the situation in Slovak industry. In Slovakia there is an ambivalent relationship between value added growth rates in the industry and services sectors; nevertheless, a look at sectoral employment trends suggests that any continuation of the negative trends in industry (and their downward impact on employment) would probably spill over to the services sectors with a certain lag. If the economy could no longer rely on a strong labour market (at least in certain sectors), there would be consequences for aggregate domestic demand.

## 3 Technical assumptions of the forecast<sup>6</sup>

### 3.1 Commodities, the exchange rate, and interest rates

Between the cut-off dates for the September 2019 forecast and this forecast, the **exchange rate**<sup>7</sup> of the euro against the US dollar followed a relatively stable trend. The average exchange rate until the end of the projection period, in 2022, is therefore assumed to be the same as in the previous quarter, at USD 1.10 per euro. Compared with the previous forecast, the nominal effective exchange rate over the projection period (calculated with respect to Slovakia's 15 most significant trading partners) is weaker by 0.8%.

Between the cut-off dates for the September forecast and this forecast, the average **oil price** was affected by the drop in production that resulted from attacks on oil facilities in Saudi Arabia in mid-September. The price subsequently corrected, but then in October and November it rose again in response to indications that the OPEC oil producer cartel might adopt measures aimed at balancing oil markets. The assumptions for the price per barrel of Brent crude are therefore slightly higher in this forecast than in the September forecast, by 4% in 2020 and by 2% in 2021. The oil price is assumed to fall gradually from USD 60 per barrel in 2020 to USD 57 per barrel at the end of the projection period (in 2022).

**Market interest rates** are significantly higher in this forecast than in previous forecast. Short-term rates are assumed to remain negative over the projection period (at an average level of -0.4), while long-term rates are assumed to increase gradually, from their current average of 0.2% to 0.4% in late 2022.

### 3.2 Foreign demand

In the European Central Bank's December projection exercise, the estimate for euro area GDP growth in 2020 has been revised down slightly from its

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<sup>6</sup> The technical assumptions of this Medium-Term Forecast are based on the December 2019 Eurosystem staff macroeconomic projections for the euro area, whose cut-off date for technical assumptions was 19 November 2019.

<sup>7</sup> The bilateral EUR/USD exchange rate is assumed to remain unchanged over the projection period at the average level prevailing in the ten-working day period ending on the cut-off date.

level in the September exercise (by 0.1 percentage point). The revision was a response to a deterioration in the foreign demand outlook, which was only partly offset by the loosening of fiscal and monetary policies and by an effective depreciation of the euro. After being subdued in 2019 (1.2 %) and 2020 (1.1%), the pace of foreign demand growth is assumed to accelerate to 1.4% in 2021 and 2022.

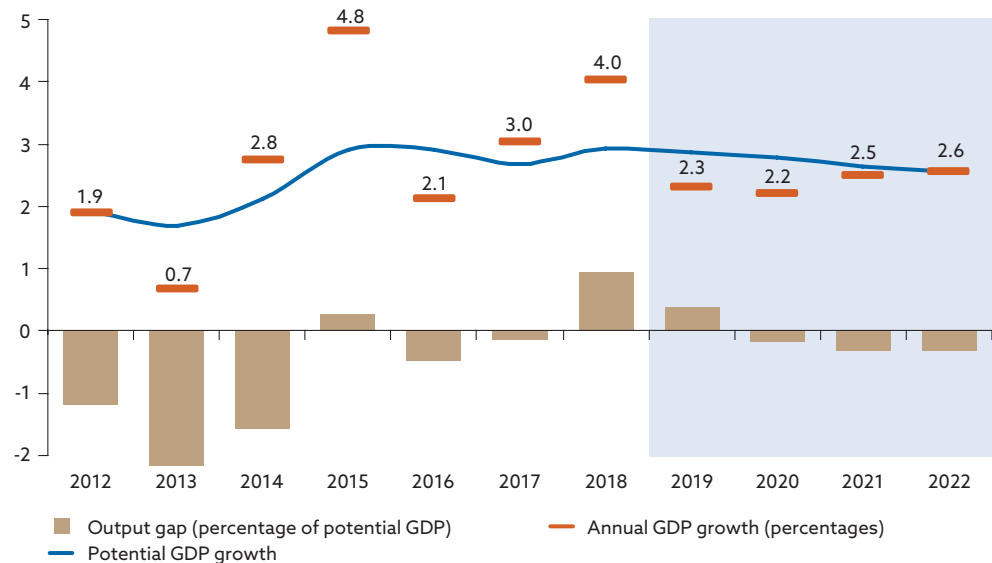
Global economic growth is assumed to return to recovery somewhat more slowly than was envisaged in the previous forecast. This stems partly from weaker growth in advanced economies and from the gradual deceleration of China's economic activity. Another reason for the assumptions is the uncertainty about the prospects of the United States and China reaching a trade deal. These factors resulted in a weakening of expectations for economic growth in Slovakia's main trading partners, in particular in 2020. As a result, assumptions about growth in foreign demand for Slovak exports have been revised down over the whole projection period. This growth is assumed to be 2.1% in 2020 (0.6 percentage point lower than in the previous forecast), 2.9% in 2021 (0.2 percentage point lower) and 3.0% in 2022.

# 4 Macroeconomic forecast for Slovakia

## 4.1 Economic growth

**Slovakia's economic growth is expected to remain subdued over the medium term.** Weak foreign demand will significantly dampen economic activity growth in both 2019 and 2020, resulting in economic cooling. It is expected that growth will be below potential and the output gap will return to negative territory. The continuing strength of domestic demand is expected to prevent the economic slowdown from being even more pronounced. This demand, together with a pick-up in global trade, is expected to give GDP growth a moderate boost in the medium term. Slovakia's GDP is projected to increase by 2.3% in 2019, 2.2% in 2020, 2.5% in 2021 and 2.6% in 2022.

**Chart 1**  
GDP and the output gap (percentages)



Sources: SO SR, and NBS calculations.

### Box 3

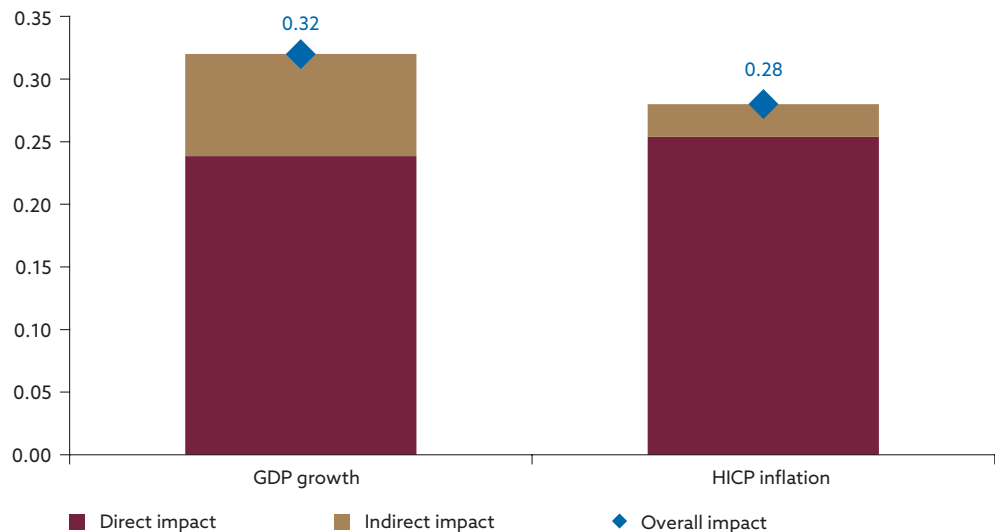
## Estimation of the impact of September's monetary policy measures on the Slovak economy

In the light of the worsened economic outlook, increasing trade tensions, and the relatively subdued and unfavourable inflation trends in the euro area, the ECB's Governing Council decided at its meeting in September to adopt further monetary policy measures,<sup>8</sup> including the following: to reduce the deposit facility rate by 10 basis points, to -0.5%; to restart net purchases under the Governing Council's asset purchase programme (APP) at a monthly pace of €20 billion as from 1 November 2019; to continue reinvesting, in full, the principal payments from maturing securities purchased under the APP; and to change the modalities of the new series of quarterly targeted longer-term refinancing operations (TLTRO III).

These measures are aimed at easing monetary policy conditions and, via the transmission channels, are expected to be focused on supporting economic activity and on achieving the inflation target. Non-standard monetary policy measures can affect the Slovak economy both directly, and indirectly through their impact on Slovakia's trading partners. The direct effects include the exchange rate channel, i.e. exchange rate depreciation, and the financial channel in the form of lower interest rates and the easing of lending conditions. Assuming the measures have a positive impact across euro area countries, they could support Slovakia's export markets and thus increase foreign demand for Slovak goods.

**Chart A**

Estimated impact of the September package of measures on GDP growth and HICP inflation, cumulative for the period 2019–2022 (percentage points)



Source: NBS calculations.

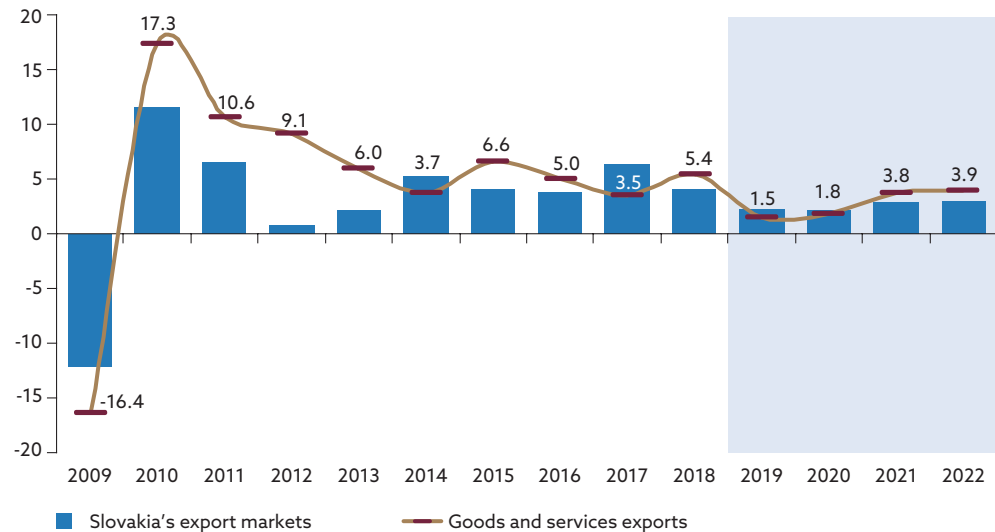
<sup>8</sup> [ECB Press Release](#) of 12 September 2019.

An estimation of the impact that the September package of measures will have on the Slovak economy was obtained from a model simulation that captured both direct and indirect effects. The estimated cumulative impacts of the measures on GDP growth and HICP inflation are, respectively, 0.32 percentage point and 0.28 percentage point. The estimated impacts have been incorporated into this December 2019 Medium-Term Forecast (MTF-2019Q4). The direct effects were already factored into the September 2019 forecast (MTF-2019Q3).

**Export growth is expected to be slower in 2019 and 2020 than at any time since the crisis.** The current major slowdown in world trade, together with the difficulties in manufacturing industry and uncertainty surrounding the United Kingdom’s withdrawal from the European Union, has been reflected in Slovakia’s export performance in 2019 and will continue to be in 2020. The explanation for the large impact on Slovak exports lies in the domestic economy’s strong dependence on car production. As a result, export growth is expected to be lower than foreign demand in the near term, thus causing market share losses. Once the current difficulties have faded away there should be a pick-up in export growth and gaining of market shares.

**Chart 2**

**Slovakia’s foreign demand and exports of goods and services (annual percentage changes; constant prices)**



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

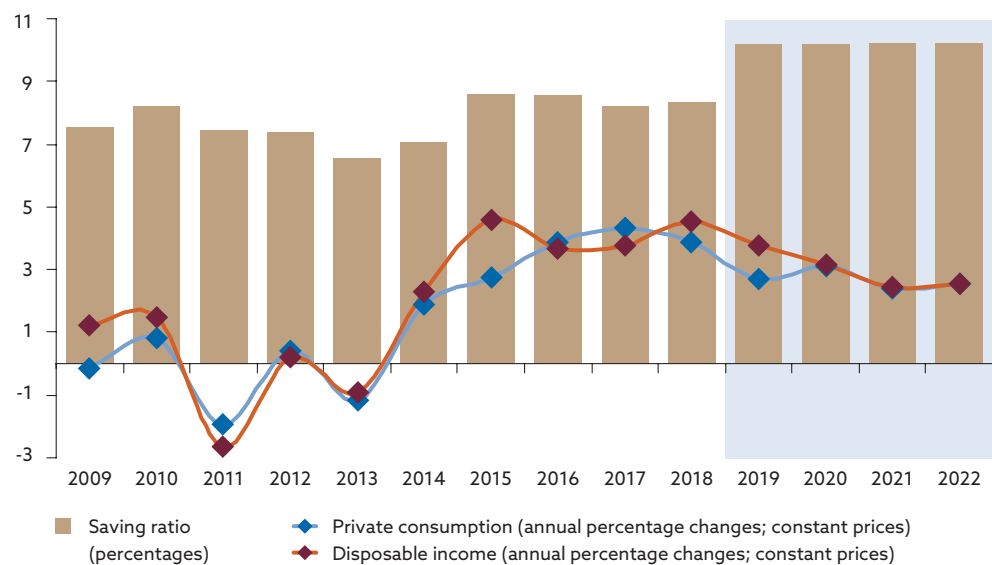
**Investment activity will remain weak amid a climate of heightened uncertainty.** Investment demand is expected to moderate in the near term on the back of decelerating public investment, whose impact should be partly offset by private investment. Thereafter, investment is projected to gain momentum, as the absorption of EU funds is expected to accelerate towards the end of the EU programming period and as certain large infrastructure projects are brought to completion.



**Consumer demand growth is forecast to slow slightly in the coming years**, given the downward impact of economic cooling on real household income growth. Although disposable income will reflect the fiscal impulse in 2020 (an increase in the parental allowance, an increase in the tax allowance, a reduction in the corporate tax rate for legal entities whose turnover does not exceed €100,000, a reduction in VAT on certain food products, an increase in the minimum pension, and a wage increase for the security forces), its growth rate will slow due to the significantly lower growth in income from work. A marginal upturn in consumer demand is not envisaged until towards the end of the projection period, on the basis of an improvement in the external environment.

**Chart 3**

**Household income, household consumption and the household saving ratio**



Sources: SO SR, and NBS.

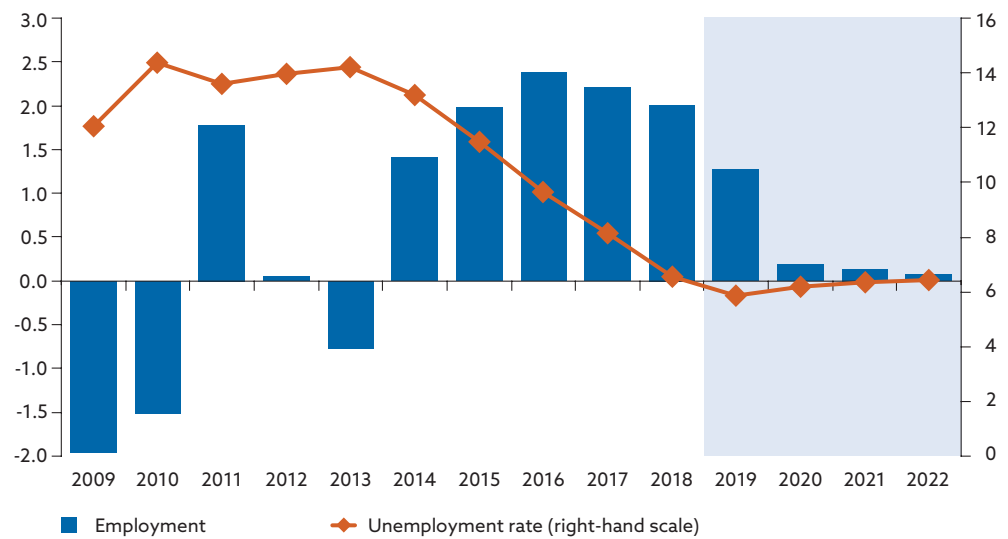
## 4.2 Labour market

**Lower economic growth will not be strong enough to support significant job creation.** Employment growth in 2019 has been driven largely by the fading expansion. In the private sector, the negative impact of adverse developments in certain sectors can already be observed; in the public sector, by contrast, the number of employees continues to increase. In sectors reliant on domestic demand, employment trends so far remain relatively favourable. The low overall job growth envisaged over the projection period is based partly on the economy's cooling and also on the reduced labour supply. In order to support their profitability, firms are seeking to improve their efficiency and to limit new recruitment amid a strong rise in labour costs. The impact of adverse demographic trends is expected to be partly offset by inflows of foreign workers, by more Slovaks returning from work

abroad, and by an increase in labour participation. The unemployment rate is projected to remain flat, at just above 6%.

**Chart 4**

**Employment and the unemployment rate (annual percentage changes)**



Sources: SO SR, and NBS.

**Wage growth is projected to slow, but to remain higher than labour productivity growth.** In the private sector, labour market tightening has had an upward impact on wage growth in 2019, as have increases in the minimum wage and wage premia. In the public sector, wage growth is expected to remain robust, supported by an announced indexation of wages and by a further increase in the wages of security forces. After the impact of the administrative measures taken in the first half of the year has faded, wage growth is expected to decelerate. In the private sector, this slowdown will be due also to the cooling of economic growth. In the public sector, the annual raising of non-variable wage components will be gradually moderated.

**Table 1 Wages (annual percentage changes)**

	2019	2020	2021	2022
Nominal labour productivity	3.5	4.0	4.4	4.6
Whole economy - nominal wages	7.7	5.7	5.0	4.6
Whole economy - real wages	4.9	3.2	2.8	2.9
Private sector - nominal wages	6.4	4.8	4.7	4.5
Private sector - real wages	3.7	2.3	2.5	2.7
Public administration, education and health care - nominal wages	12.2	9.1	5.9	5.1
Public administration, education and health care - real wages	9.3	6.5	3.7	3.4

Sources: SO SR, and NBS calculations.

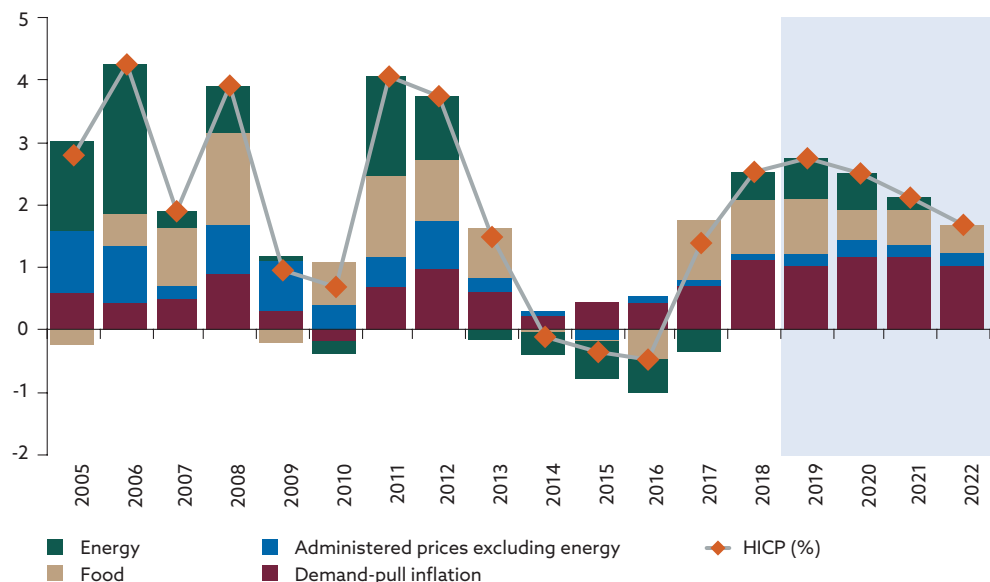
Notes: Deflated by the CPI. The sector 'Public administration, education and health care' corresponds to sections O, P and Q of the SK NACE Rev. 2 statistical classification of economic activities. Average nominal wage growth in the general government sector (ESA S.13) is projected to be 10.9% in 2019, 9.3% in 2020, 5.8% in 2021, and 5.1% in 2022. Nominal labour productivity - GDP divided by persons in employment according to statistical reporting methodology.

### 4.3 Price developments

Annual HICP inflation is expected to ease over the projection period, to below 2%. After rising sharply in 2019, food inflation and energy inflation are now expected to slow. While costs in food production and manufacturing have increased significantly in 2019 owing to the effect of administrative measures, the upward impact of food prices on headline inflation is expected to diminish in coming years. The current high rate of demand-pull inflation is expected to be maintained throughout the projection period. Increasing consumer demand should keep the contribution of demand-pull inflation at elevated levels.

Chart 5

Contributions of components of HICP inflation (annual percentage changes; percentage point contributions)



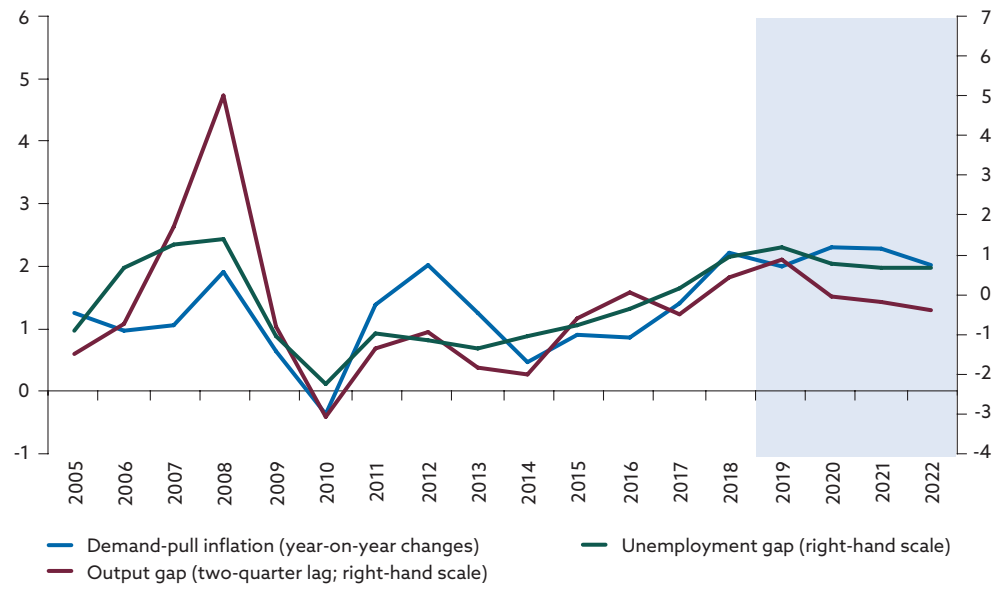
Sources: SO SR, and NBS calculations.

Table 2 Components of HICP inflation (annual percentage changes)

	Average 2004-2008 (pre-crisis period)	Average 2010-2014 (post-crisis period with euro currency)	2018	2019	2020	2021	2022
HICP	4.1	2.0	2.5	2.7	2.5	2.1	1.7
Food	3.6	3.1	3.4	3.6	2.0	2.3	1.8
Non-energy industrial goods	0.2	0.3	1.1	1.1	1.5	1.5	1.3
Energy	8.3	2.3	3.0	4.2	3.7	1.2	0.1
Services	5.3	2.5	2.8	2.8	3.2	2.9	2.7
Demand-pull inflation	1.8	1.0	2.2	2.0	2.3	2.3	2.0

Sources: SO SR, and NBS calculations.

**Chart 6**  
**Demand-pull inflation and the output gap (percentages)**



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

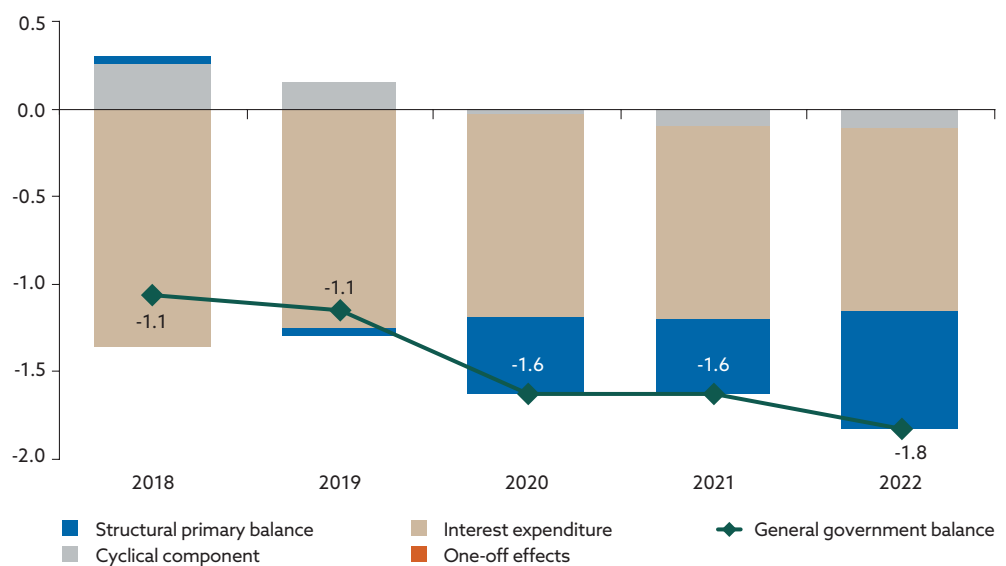
**Note:** Demand-pull inflation comprises the following: services inflation excluding administered prices; and non-energy industrial goods inflation excluding administered prices.

## 5 Fiscal outlook

Slovakia's general government deficit is forecast to be 1.1% of GDP in 2019, the same as its level in 2018, with the still favourable trend in tax and social security contribution revenues being offset by strong growth in social spending, in health insurance payments and in compensation of public sector employees. Given the gradual turning of the business cycle and the expansionary fiscal stance related to legislative measures,<sup>9</sup> the fiscal deficit as a share of GDP is expected to increase to 1.6% in 2020. The deficit projections for 2021 and 2022 are, respectively, 1.6% and 1.8% of GDP.

Chart 7

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.

Compared with the September 2019 forecast, the fiscal deficit projections for 2019 and 2020 have been revised up by, respectively, 0.3 and 0.1 percentage point of GDP, while the 2021 deficit forecast remains approximately unchanged. The main downward pressure on budget balance forecasts over the projection period is from methodological changes (related to a benchmark revision under October's EDP notification),<sup>10</sup> from the incorporation of a measure to increase the minimum pension, and from increases in

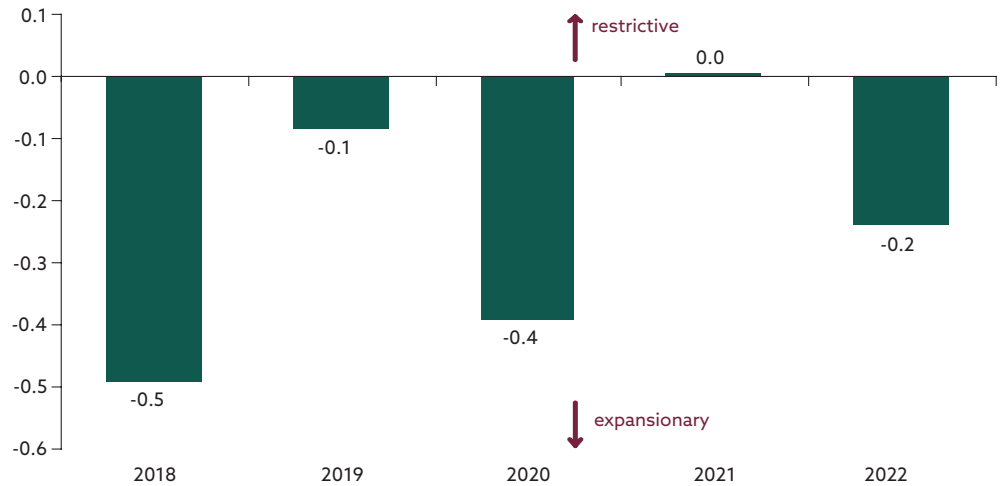
<sup>9</sup> Fiscal performance is expected to be negatively affected mainly by an increase in the parental allowance, an increase in the tax allowance for natural persons, a reduction in VAT on certain food products, a reduction in the corporate tax rate for small businesses, and an increase in the minimum pension. Their impact is partly offset by an increase in the bank levy.

<sup>10</sup> This principally concerns the recording of a support scheme for renewables and the exclusion of income of the National Nuclear Fund.

spending on healthcare and employee compensation. On the other hand, slower investment activity growth has a positive impact on the deficit, as does the increase in the bank levy from 2020 and its retention from 2021.

**Chart 8**

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



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

**Note:** Annual rate of change in the cyclically adjusted primary balance, excluding the impact of EU funds.

Public debt as a share of GDP is expected to fall by 1.1 percentage point in 2019, to 47.9%. In the context of low interest rates and continuing economic growth, the debt is forecast to keep edging down over the projection period, reaching 47% of GDP in 2022. Compared with the fiscal projections in the September forecast, the public debt forecasts have been revised up throughout the projection period, reflecting the impact of a benchmark revision, a downward revision of nominal GDP, and a deterioration in the primary balance outlook. There is, on the other hand, a positive impact from an assumed higher utilisation of liquid assets for the state's financial needs.

**Final consumption expenditure and the recovery of investment activity are expected to remain robust over the projection period.** Given high increases in public sector wages and in healthcare spending, general government final consumption expenditure is forecast to accelerate in 2019, as has been evidenced by developments in the first three quarters of the year. This expenditure growth is projected to continue increasing in subsequent years, the reasons being higher current expenditure in the defence sector, the introduction of free school meals and compulsory pre-school education, and, starting in 2021, the impact of new availability payments under public-private partnership (PPP) projects.

Investment activity growth is expected to moderate in 2019, due to a slow-down in own investment and weaker growth in the absorption of EU funds. In 2020, however, as both these components pick up, government investment is projected to accelerate. Its growth rates in 2021 and 2022 are expected to be more moderate, but still relatively elevated.

Table 3 Fiscal developments (annual percentage changes at constant prices, unless otherwise stated)					
	2018	2019	2020	2021	2022
General government final consumption expenditure	0.2	3.0	3.1	3.5	3.4
Government investment	14.9	2.0	11.0	6.3	10.1
<i>Contribution of EU funds to rate of change (percentage points)</i>	<i>11.4</i>	<i>3.4</i>	<i>6.5</i>	<i>2.7</i>	<i>1.2</i>
General government balance (percentage of GDP)	-1.1	-1.1	-1.6	-1.6	-1.8
Fiscal stance (year-on-year change in percentage points of GDP)	-0.5	-0.1	-0.4	0.0	-0.2
Gross debt (percentage of GDP)	49.4	47.9	47.5	47.2	47.3

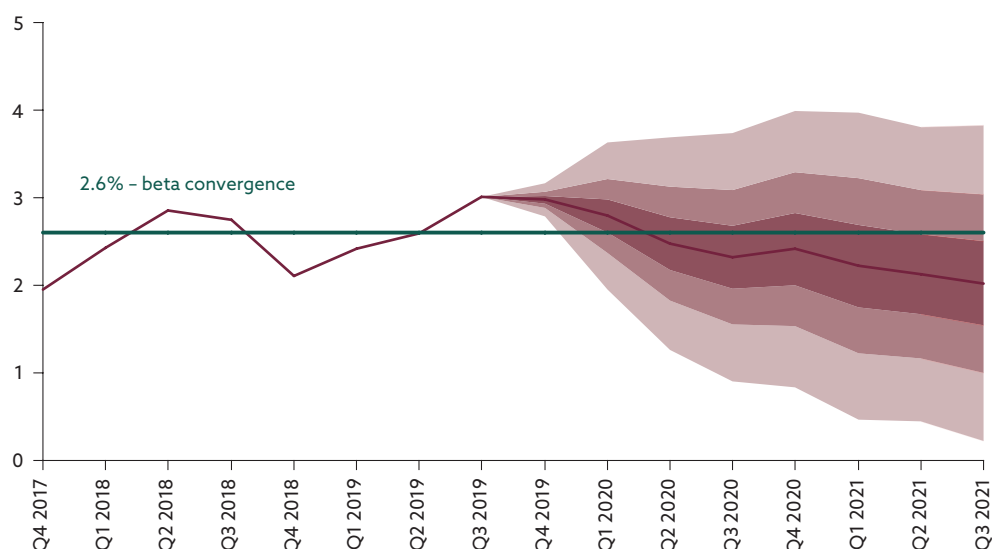
Sources: SO SR, and NBS calculations.

## 6 Risks to the forecast

**The risks to the GDP growth outlook remain tilted to the downside.** As has been the case now for several quarters, the greatest risk factor is world trade, whose growth could decline if protectionist measures are maintained. In addition, the United Kingdom's withdrawal from the European Union continues to represent a risk.

The risks to the inflation outlook are balanced. While economic cooling could have a dampening effect on headline inflation, increases in administered prices and local charges could have an inflationary impact.

**Chart 9**  
HICP inflation forecast (percentages)



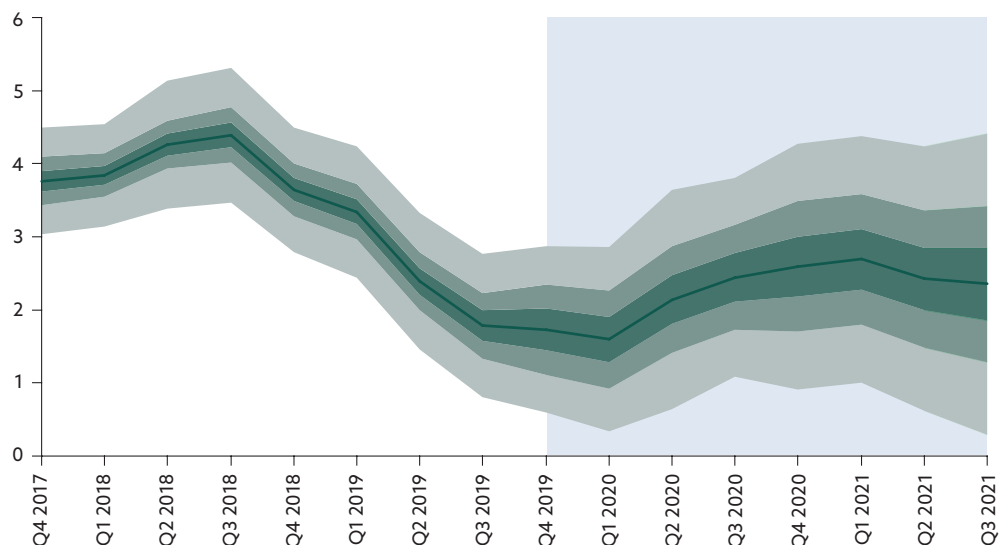
**Notes:** The NBS forecast provides probabilistic best-estimate projections. The projection intervals in the chart (representing coverage probabilities of 30%, 60% and 90%) are calculated using expected quantiles of historical inflation forecast errors (using sieve bootstrap methods). For further details on the construction of the charts, see the Analytical Commentary entitled "[Putting new fan-charts into use](#)".

*Beta convergence* - the situation where countries with lower GDP (per capita) tend to have stronger economic growth than do countries with higher GDP, thereby enabling catch-up with advanced economies. The same applies to price level catch-up. Further information is available, in Slovak, in the following Analytical Commentary:

"[Perspektívy dlhodobejšieho vývoja slovenskej ekonomiky \(do roku 2020\)](#)" (Longer-term outlooks for the Slovak economy - up to 2020).



**Chart 10**  
**GDP growth forecast (percentages)**



**Notes:** The NBS forecast provides probabilistic best-estimate projections. The projection intervals in the chart (representing coverage probabilities of 30%, 60% and 90%) are calculated using expected quantiles of historical inflation forecast errors (using sieve bootstrap methods). For further details on the construction of the charts, see the Analytical Commentary entitled [“Putting new fan-charts into use”](#).

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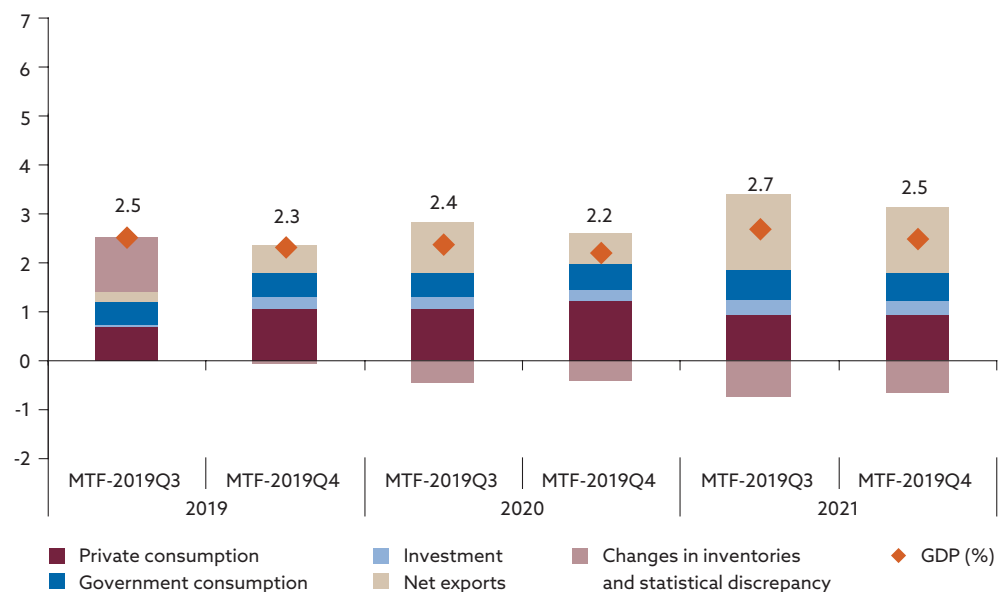
## 7 Comparison with the previous forecast

Compared with the September 2019 forecast (MTF-2019Q3), the assumptions for growth in foreign demand have been further reduced, by a cumulative 1.0 percentage point over the projection period. In addition, a revision of the national accounts has been incorporated into the projections, and the projection period has been extended.

**The economic growth forecast has been revised down again.** The main cause of the revision was a decline in foreign demand growth. This had a significant dampening effect on export growth projections over the forecast period, together with a negative impact on domestic components, particularly in 2021. At the same time, the national accounts revision resulted in an improvement in domestic side of the economy, which was reflected in the projected developments of individual domestic demand components over the projection period, most notably in the upward revision of private consumption growth.

**Chart 11**

**GDP and its components<sup>11</sup> (annual percentage changes; percentage point contributions)**



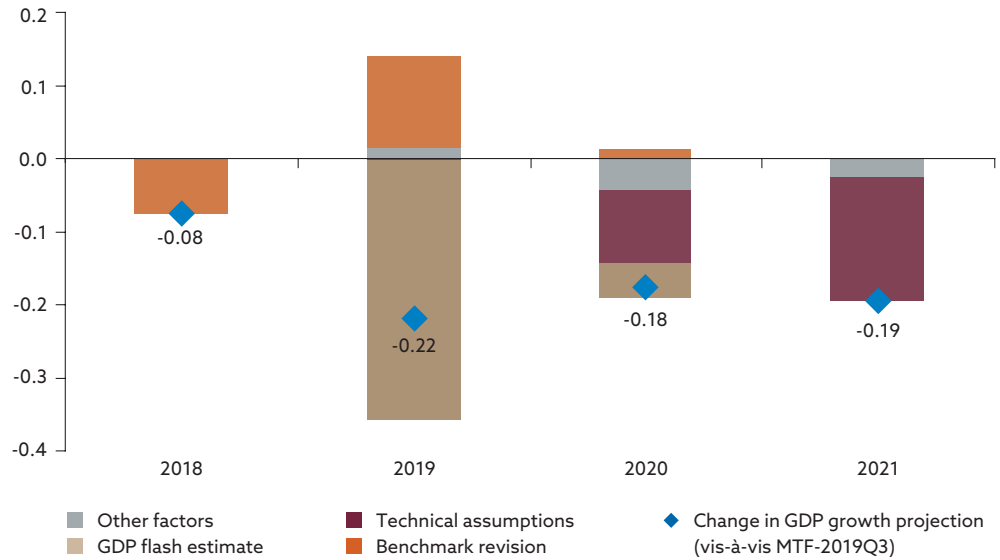
**Sources:** SO SR, and NBS calculations.

**Note:** The item 'Changes in inventories and statistical discrepancy' includes uncategorised imports that remained after the calculation of import intensity.

<sup>11</sup> The composition of GDP growth is calculated as the contributions of components to GDP growth after deducting their import intensity. In this case the calculation uses the constant import intensity of the different GDP components (household final consumption – 30%, government consumption – 7%, investment – 50%, and exports – 62.5%). Remaining imports were included under changes in inventories and the statistical discrepancy.

Chart 12

Factors behind changes in GDP growth projections (difference between MTF-2019Q4 and MTF-2019Q3; percentage points)



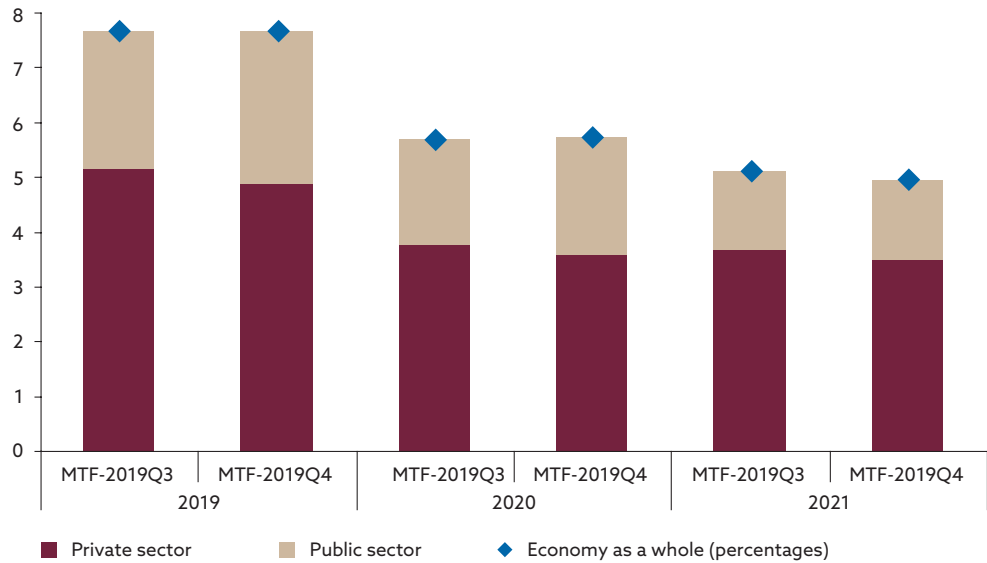
Sources: SO SR, and NBS calculations.

The national accounts revision has been incorporated in the estimation of potential output. Its growth is now expected to be slightly lower, owing to a reduced contribution from capital (the level of investment being lower than envisaged in the September projection exercise). Compared with the previous forecast, the revision of foreign demand has resulted in a change in the cyclical position: the economy is expected to operate below potential throughout the projection period.

**In the medium term, economic cooling will also have an impact on labour market indicators.** Current labour market trends are in line with expectations, so projections for employment growth and wage growth in the near term have not been revised. Looking further ahead, however, lower economic growth is also expected to be reflected in employment and wages. In the private sector, employment is projected to be almost stagnant and wage growth has been revised down. Public sector employment growth and wage growth have been revised up significantly, based on the new assumption of wage increases for security forces.

**Chart 13**

**Average wage broken down by public sector and private sector contributions to its rate of change (annual percentage changes; percentage points)**

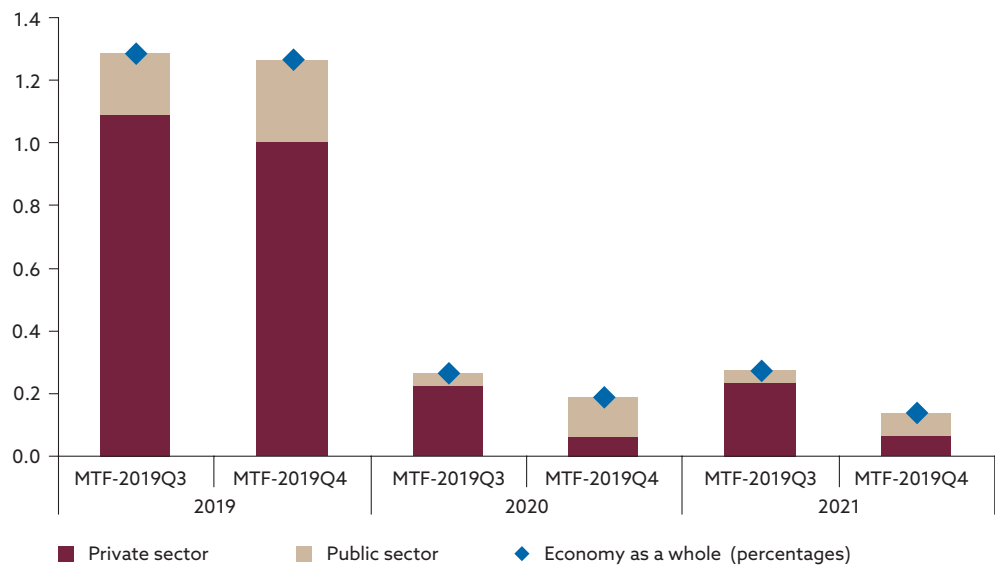


**Sources:** SO SR, and NBS.

**Note:** The public sector comprises sections O, P and Q of the SK NACE Rev. 2 statistical classification of economic activities.

**Chart 14**

**Employment broken down by public sector and private sector contributions to its rate of change (annual percentage changes; percentage points)**



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

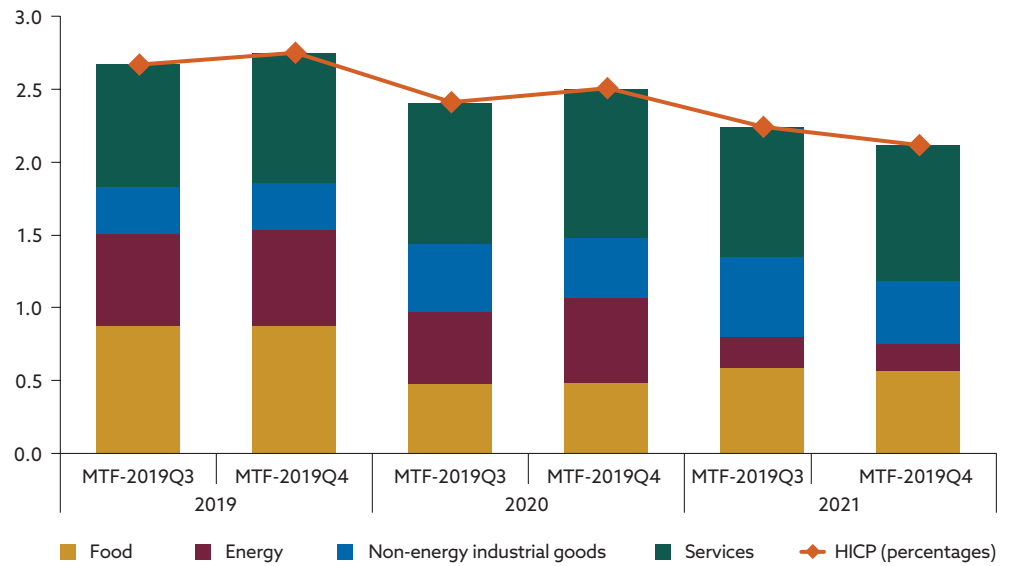
**Note:** The public sector comprises sections O, P and Q of the SK NACE Rev. 2 statistical classification of economic activities.

**Inflation will be weaker due to economic cooling.** Compared with the September forecast, the annual HICP inflation rate projection for 2020 has been revised up marginally, to reflect a slightly higher contribution from

the energy component. In subsequent years, demand pressures are expected to prevail, and the inflation projections for that period have therefore been revised down slightly.

**Chart 15**

**Comparison of projections for headline inflation and its components (annual percentage changes; percentage point contributions)**



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

**Table 4 Medium-Term Forecast (MTF-2019Q4) for key macroeconomic indicators**

Indicator	Unit	Actual data	MTF-2019Q4					Difference vis-à-vis MTF-2019Q3		
		2018	2019	2020	2021	2022	2019	2020	2021	
<b>Prices</b>										
HICP inflation	annual percentage change	2.5	2.7	2.5	2.1	1.7	0.0	0.1	-0.1	
CPI inflation	annual percentage change	2.5	2.7	2.4	2.1	1.7	0.1	0.0	-0.1	
GDP deflator	annual percentage change	2.0	2.3	1.9	2.0	2.1	-0.3	-0.3	-0.1	
<b>Economic activity</b>										
Gross domestic product	annual percentage change, constant prices	4.0	2.3	2.2	2.5	2.6	-0.2	-0.2	-0.2	
Private consumption	annual percentage change, constant prices	3.9	2.7	3.1	2.4	2.6	0.8	0.1	-0.2	
Final consumption of general government	annual percentage change, constant prices	0.2	3.0	3.1	3.5	3.4	0.3	0.2	0.0	
Gross fixed capital formation	annual percentage change, constant prices	3.7	2.6	2.2	2.6	4.4	2.0	-0.2	-0.4	
Exports of goods and services	annual percentage change, constant prices	5.4	1.5	1.8	3.8	3.9	1.0	-1.0	-0.3	
Imports of goods and services	annual percentage change, constant prices	5.0	3.0	3.3	3.8	4.4	1.3	-0.3	-0.5	
Net exports	EUR millions at constant prices	3,026	1,895	650	610	197	-2,989.3	-3,695.6	-3,788.7	
Output gap	percentage of potential output	0.9	0.4	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	
Gross domestic product	EUR millions at current prices	89,721	93,939	97,874	102,351	107,157	-945.6	-1,417.9	-1,778.2	
<b>Labour market</b>										
Employment	thousands of persons ESA 2010	2,420	2,451	2,455	2,459	2,460	-0.5	-2.4	-5.7	
Employment (dynamics)	annual percentage change ESA 2010	2.0	1.3	0.2	0.1	0.1	0.0	-0.1	-0.2	
Number of unemployed	thousands of persons <sup>1)</sup>	180	160	169	173	175	-0.4	0.8	0.1	
Unemployment rate	percentage	6.5	5.9	6.2	6.3	6.4	0.0	0.0	0.0	
NAIRU estimate <sup>2)</sup>	percentage	7.5	7.0	7.0	7.0	7.1	-0.1	0.0	-0.1	
Labour productivity <sup>3)</sup>	annual percentage change	2.0	1.0	2.0	2.3	2.5	-0.2	-0.1	-0.1	
Nominal labour productivity <sup>4)</sup>	annual percentage change	4.2	3.5	4.0	4.4	4.6	-0.6	-0.4	-0.2	
Nominal compensation per employee	annual percentage change ESA 2010	5.6	6.7	5.7	4.8	4.7	-0.4	0.1	-0.1	
Nominal wages <sup>5)</sup>	annual percentage change	6.2	7.7	5.7	5.0	4.6	0.0	0.0	-0.1	
Real wages <sup>6)</sup>	annual percentage change	3.6	4.9	3.2	2.8	2.9	-0.1	0.0	0.0	
<b>Households and non-profit institutions serving households</b>										
Disposable income	annual percentage change, constant prices	4.5	3.8	3.2	2.5	2.6	0.7	0.0	-0.1	
Saving ratio <sup>7)</sup>	percentage of disposable income	8.4	10.2	10.2	10.2	10.2	0.5	0.5	0.5	
<b>General government sector<sup>8)</sup></b>										
Total revenue	percentage of GDP	40.8	41.4	42.0	42.0	42.0	1.2	1.6	1.8	
Total expenditure	percentage of GDP	41.8	42.6	43.6	43.7	43.8	1.5	1.7	1.9	
General government balance <sup>9)</sup>	percentage of GDP	-1.1	-1.1	-1.6	-1.6	-1.8	-0.2	-0.1	0.0	
Cyclical component	percentage of trend GDP	0.3	0.1	0.0	-0.1	-0.1	-0.2	-0.1	-0.2	
Structural balance	percentage of trend GDP	-1.3	-1.3	-1.6	-1.5	-1.7	-0.1	0.0	0.2	
Cyclically adjusted primary balance	percentage of trend GDP	0.0	0.0	-0.4	-0.4	-0.7	-0.1	0.1	0.3	
Fiscal stance <sup>10)</sup>	year-on-year change in p. p.	-0.5	-0.1	-0.4	0.0	-0.2	0.1	0.1	0.2	
General government gross debt	percentage of GDP	49.4	47.9	47.5	47.2	47.3	0.1	0.2	0.2	

**Table 4 Medium-Term Forecast (MTF-2019Q4) for key macroeconomic indicators (continued)**

Indicator	Unit	Actual data	MTF-2019Q4					Difference vis-à-vis MTF-2019Q3		
		2018	2019	2020	2021	2022	2019	2020	2021	
<b>Balance of Payments</b>										
Goods balance	percentage of GDP	-0.2	-1.6	-3.2	-3.3	-3.8	-0.8	-1.8	-1.7	
Current account	percentage of GDP	-2.6	-3.9	-5.1	-5.3	-5.8	-0.9	-1.5	-1.6	
<b>External environment and technical assumptions</b>										
Slovakia's foreign demand	annual percentage change	4.1	2.2	2.1	2.9	3.0	-0.4	-0.7	-0.4	
Exchange rate (EUR/USD) <sup>11), 12)</sup>	level	1.18	1.12	1.10	1.10	1.10	0.0	0.0	0.0	
Oil price in USD <sup>11), 12)</sup>	level	71.1	63.8	59.6	57.4	56.8	1.2	3.9	2.1	
Oil price in USD <sup>11)</sup>	annual percentage change	30.7	-10.2	-6.6	-3.6	-1.1	1.1	2.4	-1.7	
Oil price in EUR <sup>11)</sup>	annual percentage change	25.0	-5.2	-5.4	-3.6	-1.1	1.2	2.5	-1.7	
Non-energy commodity prices in USD	annual percentage change	4.1	-3.8	3.8	2.6	2.4	-0.5	0.4	-1.1	
Three-month EURIBOR	percentage per annum	-0.3	-0.4	-0.4	-0.4	-0.3	0.0	0.2	0.2	
Ten-year Slovak government bond yields	percentage	0.9	0.2	0.2	0.3	0.4	0.1	0.5	0.5	

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 according to SO SR statistical reporting.
- 6) Wages according to SO SR statistical reporting, 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; fiscal outlook.
- 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:

[http://www.nbs.sk/\\_img/Documents/\\_Publikacie/PREDIK/2019/MTF-2019Q4.xls](http://www.nbs.sk/_img/Documents/_Publikacie/PREDIK/2019/MTF-2019Q4.xls)