NÁRODNÁ BANKA SLOVENSKA
EUROSYSTÉM

Medium-term forecast

Update Q4 2018

Published by:
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Discussed by the NBS Bank Board on
29 January 2019.

ISSN 1338-1474 (online)

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1 Update of the December 2018 Medium-Term Forecast (MTF-2018Q4)[1]

This update of the December 2018 Medium-Term Forecast[2] is based on detailed data on the composition of GDP growth in the third quarter of 2018. It also takes into account the latest monthly indicators from the fourth quarter of 2018 and the softening of leading indicators and of expectations (implying a gradual cooling of the global economy).

Comparing the technical assumptions used for this update and those used for the December forecast, the main difference is a sizeable downward revision of the oil price assumptions, following the sharp drop in oil prices at the end of 2018. The assumptions for foreign demand growth in the near term have also been revised down.

The detailed data on the composition of GDP growth in the third quarter showed a significant weakening of Slovakia's exports in that period, as well as lower-than-expected investment demand. On the other hand, consumer demand growth marginally exceeded projections. Overall, the GDP growth outlook has been revised down slightly. The forecast continues to envisage a gradual pick-up in production capacity in the domestic car industry. Therefore, despite the global slowdown, exports are expected to be the main driver of Slovakia's economic growth throughout the projection period. This supply shock is expected to keep GDP growth at around 4% in both this year and next year. After it fades, GDP growth is projected to slow to 3% in 2021.

Recent labour market developments have been in line with expectations. Employment growth is projected to slow moderately amid negative labour supply trends. Wage growth is expected to remain robust, underpinned mainly by labour market tightening and by expected increases in public sector contractual wages.

The annual HICP inflation rate is expected to be around 2.6% throughout the projection period. Compared with the December forecast, the projected headline inflation rate in 2019 has been revised down in response to lower than expected increases in motor fuel and food prices. The latest projection also takes into account the expected effects of administrative measures (such as the introduction of free school lunches) and a new levy on retail chains.

The risks to the outlook for the real economy still tilt to the downside. The main downward risks include a more pronounced global economic slowdown, political uncertainty, Brexit, and continuing sluggishness in Germany's industrial performance. The risks to the inflation outlook are also on the downside.

1 This update of Národná banka Slovenska's December 2018 Medium-Term Forecast (MTF-2018Q4) is abbreviated as MTF-2018Q4U throughout the text. The December Medium-Term Forecast is updated each January owing to NBS's membership of the Macroeconomic Forecasting Committee (MFC), which under the Fiscal Responsibility Act is required to produce a macroeconomic and tax forecast by 15 February of each year. The December forecasts have been updated every year since 2013.

2 The cut-off date for the data included in this update is 8 January 2019.

2 Technical assumptions

This update (MTF-2018Q4U) incorporates technical assumptions that are based on both external data (oil prices and the exchange rate), and expert projections for foreign demand.

In the new forecast (MTF-2017Q1), the assumption for the average exchange rate is USD 1.14 per euro, which compared with the December assumption is 0.6% stronger. The nominal effective exchange rate (NEER), calculated with respect to Slovakia's 15 most significant trading partners, remains unchanged.

Oil price assumptions have been revised down from their December levels in response to increased oil production in Russia and the United States. Based on the path implied by futures markets, the price of a barrel of Brent crude oil at the projection horizon is now assumed to be around USD 57. Compared with December, the assumed rate of change in the oil price in euro has been revised down by 16 percentage points in 2019 and revised up slightly in the subsequent two years of the forecast.

Outlook for the external environment

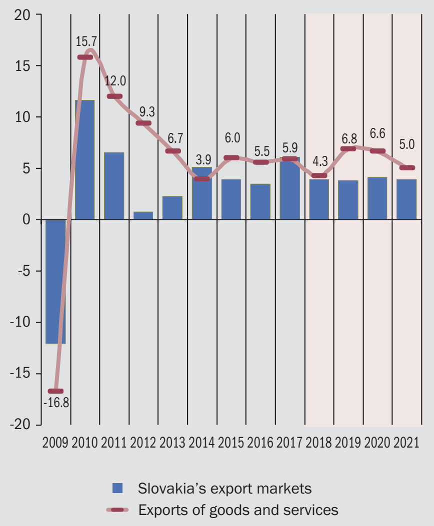
Leading indicators are pointing to a deterioration in the global economic outlook, as are forecasts by international institutions. Incoming data on industrial production in Germany did not meet expectations of a fourth-quarter recovery in car industry output, which has been reduced by the impact of new vehicle emission standards. With these factors taken into account, the assumed growth in Slovakia's foreign demand has been revised down to 3.9% in 2019 and 4.2% in 2020, by 0.3 and 0.1 percentage point. The assumption for 2021 remained unchanged, at 3.9%.

3 Macroeconomic forecast for Slovakia

In this update of the December forecast, the overall outlook for Slovakia's economic growth has been revised down on the assumption that growth in foreign demand and in investment activity will be lower than previously expected. This view is based on current trends that reflect a decline in investment activity in certain export-oriented sectors. The contribution of net exports to GDP growth in 2019 and 2020 is still expected to be significant, given the recent launch of new production capacities in the car industry. The economy is projected to expand at relatively strong pace, around 4%, in both 2019 and 2020. As the car industry's impact fades, GDP growth is expected to slow to 3% in 2021.

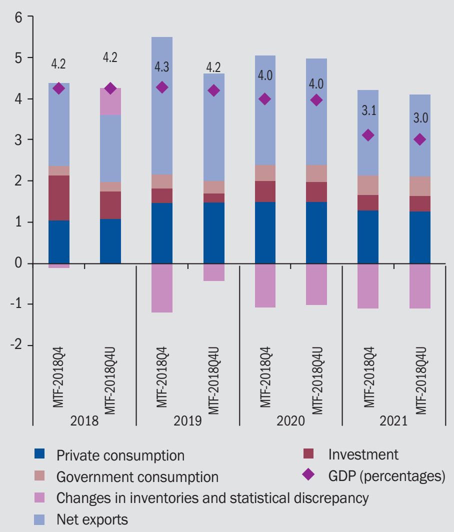
The third quarter of 2018 saw a drop in foreign demand for Slovak goods as well as a decline in export performance across a range of sectors, so the projection for export growth in 2019 has been revised down.

Chart 2 Slovakia's foreign demand and exports of goods and services – trend and forecast (annual percentage changes; constant prices)



Sources: SO SR, ECB and NBS calculations.

Chart 1 GDP and its components (annual percentage changes; percentage point contributions)



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

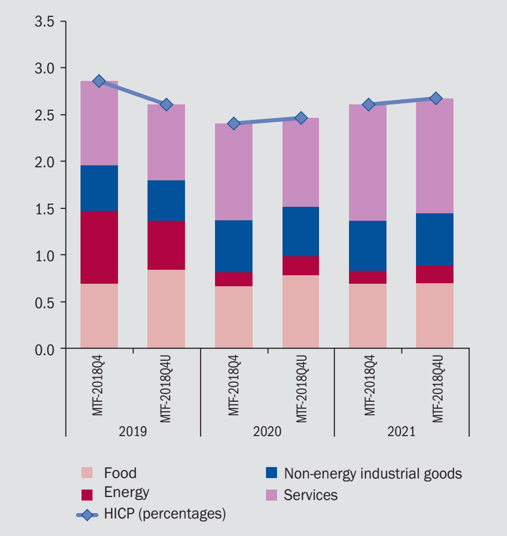
The investment demand figure in the detailed GDP growth data surprised on the downside by falling more sharply than expected. Its impact on overall GDP growth was partly offset by an increase in work-in-progress inventory. The recent softening of investment demand has resulted in a downward revision of the projection for overall investment in 2018 and, to a lesser extent, 2019. The impact of investment on GDP growth at the projection horizon has also been revised down.

Consumer demand in the third quarter of 2018 was slightly stronger than projected in the December forecast, and incoming monthly indicators imply the continuation of this trend. Given also that real income is increasing as result of lower inflation, the projection for private consumption growth in the short term has been revised up moderately. The next period should see private consumption accelerate in line with income growth.

The projections for underlying labour market indicators in the second half of the year were met. Both quarterly and monthly data showed a gradual slowdown in employment growth, so there has been no need to revise the outlook for job growth, which is expected to continue easing over the medium term. Wage developments have also been consistent with projections.

Compared with the December forecast, the projections for price developments have changed more than any other projections. A significant factor behind this revision was the slump in oil prices, which put downward pressure on motor fuel prices towards the end of 2018. Unprocessed food inflation has also slowed. Such recent developments have therefore resulted in a downward revision of the inflation forecast for 2019. That projection also takes into account two new administrative measures which will have opposite effects on headline inflation. On the one hand, the "free school lunches" measure[3] is weighing on services inflation, and its cumulative impact on headline inflation in 2019 is projected to be -0.26 percentage point. On the other hand, the levy on retail chains should gradually be reflected in food prices from the second quarter of 2019, with an overall impact of 0.22 percentage point on the headline rate for the year. In the medium term, the positive impact of the energy component on overall inflation has been revised up slightly from the level projected in December. Annual inflation is envisaged to be around 2.6% throughout the projection period.

Chart 3 Comparison of projections for headline inflation and its components (annual percentage changes; percentage point contributions)



Sources: SO SR and NBS calculations.

Compared with December's forecast, the projected 2018 general government deficit is unchanged, at 0.7% of GDP, while the deficit projections for 2019, 2020 and 2021 have each been revised down by 0.1 percentage point, to 0.6%, 0.6% and 0.3% of GDP respectively. The adjustments are a response to increases in healthcare expenditure related to a suspended revision of medicinal product prices, to higher than expected rates of increase in employee compensation and in goods and services expenditure, and to higher than expected domestically sourced investment. The public debt estimate for 2018 remains unchanged, but the projections for 2019 have been revised up slightly to reflect higher fiscal deficits and lower nominal GDP. It is still assumed, however, that the public debt will gradually decrease. The debt is projected to be down to 44.8% of GDP in 2021.

The risks to the real economy outlook are more pronounced now than they were in December. The growth outlook for the Slovak economy faces substantial downside risks in the form of the current global economic slowdown, political uncertainty, Brexit, and subdued industrial output in Germany.

The risks to the inflation outlook tilt to the downside over the medium term, in line with the risks to the real economy outlook.

3 Free lunches were introduced in nursery schools from January 2019 and will be extended to primary schools from September 2019.

Box 1

ESTIMATED IMPACT OF A HARD BREXIT ON THE SLOVAK ECONOMY

The uncertainty over the future arrangement of economic relations between the United Kingdom and the European Union constitutes a significant risk to NBS's current Medium-Term Forecast. The UK's withdrawal from the EU (Brexit) will, unless postponed, occur on 29 March 2019; as that date gets closer and as the political fight continues over the terms of the agreement governing future UK-EU relations, the prospect of a 'hard' Brexit is increasing. In that event, it is assumed that the UK's trading relationship with the EU will revert to Word Trade Organization terms, putting the UK on the same footing as other countries vis-à-vis the EU.

This update of NBS's December forecast assumes the UK will duly ratify the Withdrawal Agreement before the Brexit date. Such withdrawal would be followed by a transition period during which the current trading arrangements between the UK and EU would continue unchanged and which would allow for adaptation to new arrangements from 2021; such arrangements would be based on an agreement similar to the Comprehensive Economic and Trade Agreement (CETA) between the EU and Canada, allowing free trade for most goods but with the application of non-tariff barriers.

In November 2018 the Bank of England (BoE) and the UK Treasury (finance ministry) each published a comprehensive assessment of the effects of the potential Brexit scenarios on the UK economy.[4,5] While the BoE study focused on quantifying the effects of Brexit up to 2023, the Treasury study examined the effects of Brexit over the next 15 years. Given that the NBS forecast has a medium-term horizon, the BoE quantifications were used in its estimations of the potential impact of a hard Brexit on the Slovak economy.

According to the BoE's calculations, the UK's cumulative GDP by end-2023 would be between 4% and 7% lower after a hard Brexit[6] (the UK leaving the EU with no deal and no transition period) than it would in the scenario[7] corresponding to the assumptions used in this NBS forecast. In that scenario, the UK's lower economic growth and the raising of trade barriers results in a decline of around 12% in UK imports from EU countries and has negative knock-on effects on the economic growth and imports of other trading partners of Slovakia. This impact on foreign demand for Slovak exports is the main channel through which Brexit will affect the Slovak economy. In the calculations, account is taken of both the direct impact on Slovakia, through exports to the UK, and the indirect impact, through exports to other trading partners in the context of global value chains. In terms of the size of the trade barriers which would, under the WTO regime, restrict trade between the UK and EU countries, Slovakia is among the most exposed countries[8] in international comparison.

The estimation of the impact of a hard Brexit on the Slovak economy assumed, in addition to the major impact of the trade channel, depreciation of the pound sterling and a return to Slovakia of many Slovaks currently employed in the UK on a short-term basis. Compared with the current NBS forecast, the model calculation indicates that a **hard Brexit would cause a cumulative reduction in Slovakia's GDP growth of between 0.7 and 1.1 percentage points by end-2023**. The impact of a hard Brexit on inflation in Slovakia is not expected to be significant, since the inflationary impact of tariff measures should be largely offset by depreciation of the pound sterling as well as by reduced consumer demand.

4 *https://www.bankofengland.co.uk/-/media/boe/files/report/2018/eu-withdrawal-scenarios-and-monetary-and-financial-stability.pdf?la=en&hash=B5F6EDCDF90DCC10286FC0BC599D94CAB8735DFB*
5 *https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760484/28_November_EU_Exit_-_Long-term_economic_analysis__1_.pdf*
6 *Hard Brexit corresponds to the scenarios "no transition, no deal (disruptive)" and "no transition, no deal (disorderly)" in the BoE document.*
7 *The Brexit assumption applied in this NBS forecast corresponds to the "economic partnership (less close)" in the BoE document.*
8 *Bank of Italy: Brexit: estimating tariff costs for EU countries in a new trade regime with the UK, June 2017.*

Table 1 Update of the December 2018 Medium-Term Forecast (MTF-2018Q4) for key macroeconomic indicators

Indicator	Unit	Actual data	MTF-2018Q4U				Difference vis-à-vis MTF2018Q4			
		2017	2018	2019	2020	2021	2018	2019	2020	2021
Prices										
HICP inflation	annual percentage change	1.4	2.5	2.6	2.5	2.7	-0.1	-0.3	0.1	0.1
CPI inflation	annual percentage change	1.3	2.5	2.7	2.4	2.7	-0.1	-0.2	0.0	0.0
GDP deflator	annual percentage change	1.2	2.3	2.9	3.0	3.0	0.0	0.0	0.1	0.0
Economic activity										
Gross domestic product	annual percentage change, constant prices	3.2	4.2	4.2	4.0	3.0	0.0	-0.1	0.0	-0.1
Private consumption	annual percentage change, constant prices	3.5	3.0	4.1	4.2	3.5	0.2	0.0	0.0	0.0
Final consumption of general government	annual percentage change, constant prices	1.7	1.4	1.9	2.5	2.9	0.0	-0.1	0.2	0.0
Gross fixed capital formation	annual percentage change, constant prices	3.4	6.0	1.8	4.6	3.4	-4.0	-1.4	0.0	0.0
Exports of goods and services	annual percentage change, constant prices	5.9	4.3	6.8	6.6	5.0	-1.0	-1.8	0.0	0.0
Imports of goods and services	annual percentage change, constant prices	5.3	4.5	6.7	6.7	5.4	-0.4	-1.6	-0.1	0.0
Net exports	EUR millions at constant prices	5,903	5,991	6,518	6,875	6,840	-518.7	-865.5	-870.8	-902.9
Output gap	percentage of potential output	-0.2	0.5	1.0	1.7	1.8	0.0	0.0	0.0	0.1
Gross domestic product	EUR millions at current prices	84,851	90,473	96,977	103,788	110,118	-20.8	-152.5	-163.1	-215.7
Labour market										
Employment	thousands of persons ESA 2010	2,372	2,421	2,454	2,478	2,495	-0.1	-1.1	-1.4	-1.3
Employment (dynamics)	annual percentage change ESA 2010	2.2	2.0	1.4	1.0	0.7	0.0	0.0	0.0	0.0
Number of unemployed	thousands of persons[1)]	224	182	165	154	151	-0.6	0.0	-0.1	-0.2
Unemployment rate	percentage	8.1	6.6	6.0	5.6	5.5	0.0	0.0	0.0	0.0
NAIRU estimation[2)]	percentage points	8.2	7.6	7.3	7.2	7.1	0.0	0.0	0.0	0.0
Labour productivity[3)]	annual percentage change	1.0	2.2	2.8	2.9	2.3	0.0	0.0	-0.1	-0.1
Nominal labour productivity[4)]	annual percentage change	2.6	4.7	5.8	6.0	5.4	0.1	0.0	0.0	0.0
Nominal compensation per employee	annual percentage change ESA 2010	5.2	5.5	7.1	6.5	5.7	-0.1	0.0	0.0	0.0
Nominal wages[5)]	annual percentage change	4.6	6.3	6.9	6.5	5.9	0.0	-0.1	0.0	0.0
Real wages[6)]	annual percentage change	3.3	3.7	4.2	3.9	3.1	0.1	0.3	0.0	0.0
Households and non-profit institutions serving households										
Disposable income	constant prices	2.5	3.3	4.5	4.0	3.5	0.0	-0.1	0.0	-0.1
Saving ratio[7)]	percentage of disposable income	8.5	9.1	9.4	9.3	9.3	-0.1	-0.2	-0.2	-0.3
General government sector[8)]										
Total revenue	percentage of GDP	39.4	39.8	39.4	39.1	38.8	0.3	0.3	0.2	0.2
Total expenditure	percentage of GDP	40.2	40.5	40.0	39.7	39.2	0.3	0.3	0.4	0.4
General government balance[9)]	percentage of GDP	-0.8	-0.7	-0.6	-0.6	-0.3	0.0	-0.1	-0.1	-0.1
Cyclical component	percentage of trend GDP	0.0	0.1	0.3	0.4	0.4	0.0	0.0	0.0	0.0
Structural balance	percentage of trend GDP	-0.7	-0.7	-0.9	-1.0	-0.8	0.0	-0.1	-0.2	-0.2
Cyclically adjusted primary balance	percentage of trend GDP	0.6	0.5	0.2	0.1	0.3	0.1	-0.1	-0.1	-0.1
Fiscal stance[10)]	year-on-year change in p. p.	0.9	-0.2	-0.2	-0.1	0.2	0.0	-0.1	0.0	0.0
General government gross debt	percentage of GDP	50.9	48.6	47.1	45.5	44.8	0.1	0.1	0.2	0.3

Table 1 Update of the December 2018 Medium-Term Forecast (MTF-2018Q4) for key macroeconomic indicators (continued)

Indicator	Unit	Actual data	MTF-2018Q4U				Difference vis-à-vis MTF2018Q4			
		2017	2018	2019	2020	2021	2018	2019	2020	2021
Balance of Payments										
Trade balance (goods)	percentage of GDP	0.8	0.8	1.5	1.5	1.1	-0.3	-0.1	-0.1	-0.2
Current acount	percentage of GDP	-2.0	-2.0	-1.1	-1.0	-1.3	-0.4	-0.1	-0.1	-0.2
External environment and technical assumptions										
Slovakia's foreign demand	annual percentage change	6.1	3.9	3.9	4.2	3.9	0.0	-0.3	-0.1	0.0
Exchange rate (EUR/USD)[11),12)]	level	1.13	1.18	1.14	1.14	1.14	0.1	0.6	0.6	0.6
Oil price in USD[11), 12)]	level	54.4	71.3	56.0	57.0	57.9	-0.7	-17.0	-14.6	-12.1
Oil price in USD[11)]	annual percentage change	23.5	31.1	-21.4	1.7	1.6	-1.0	-15.4	2.8	2.9
Oil price in EUR[11)]	annual percentage change	21.0	25.4	-18.7	1.7	1.6	-1.0	-16.4	2.8	2.9
Non-energy commodity prices in USD	annual percentage change	7.9	3.0	-1.4	4.4	4.3	0.0	0.0	0.0	0.0
Three-month EURIBOR	percentage per annum	-0.3	-0.3	-0.3	0.0	0.3	0.0	0.0	0.0	0.0
Ten-year Slovak government bond yields	percentage	0.9	0.9	1.1	1.4	1.5	0.0	0.0	0.0	0.0

Sources: NBS, ECB and SO SR.
1) Labour Force Survey.
2) Difference between the non-accelerating inflation rate of unemployment (NAIRU) and the unemployment rate. A positive value indicates that the NAIRU is higher than the unemployment rate.
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 wage (according to SO SR statistical reporting).
6) Average wage 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) S.13; fiscal outlook.
9) B9n – Net lending (+) / 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-á-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/2018/MTF-2018Q4_a.xls