



NÁRODNÁ BANKA SLOVENSKA  
EUROSYSTEM



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## ABBREVIATIONS

CPI	Consumer Price Index
EA	euro area
ECB	European Central Bank
EC	European Commission
EMEs	emerging market economies
EMU	Economic and Monetary Union
EONIA	euro overnight index average
ESA 2010	European System of Accounts 2010
EU	European Union
EUR	euro
EURIBOR	euro interbank offered rate
Eurostat	statistical office of the European Union
FDI	foreign direct investment
GDP	gross domestic product
GNDI	gross national disposable income
GNI	gross national income
HICP	Harmonised Index of Consumer Prices
IMF	International Monetary Fund
MFI	monetary financial institutions
MF SR	Ministry of Finance of the Slovak Republic
MMF	money market fund
MTF	NBS's Medium-Term Forecast (published on a quarterly basis)
NARKS	National Association of Real Estate Offices of Slovakia
NBS	Národná banka Slovenska
NEER	nominal effective exchange rate
NFC	non-financial corporation
NPISHs	Non-profit institutions serving households
OECD	Organisation for Economic Co-operation and Development
p.a.	per annum
p.p.	percentage point
PMI	Purchasing Managers' Index
PPI	Producer Price Index
REER	real effective exchange rate
SASS	Slovenská asociácia správcovských spoločností – Slovak Association of Asset Management Companies
SME	small and medium-sized enterprise
SO SR	Statistical Office of the Slovak Republic
ULC	unit labour costs
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<sup>1</sup>

After their significant volatility in the wake of the United Kingdom's vote to leave the European Union, financial indicators have returned to pre-referendum levels. Hard data are still to reflect the uncertain climate, although euro area industrial production fell in July. Expectations of further strong domestic demand are supported by recent growth in retail sales. Leading indicators are sending mixed signals, but overall it appears there will be a modest slowdown in euro area economic activity.

Slovakia also reported a decline in industrial production. As in other countries, this was partly explained by a change in the timing of factories' summer shutdowns, which this year were concentrated in July. The fall in production also had an impact on sales and exports. However, the ground lost by production in July is expected to be made up straightaway in August. According to domestic demand indicators, the retail trade sector has still not begun to pick up significantly. The GDP nowcast for the third quarter, incorporating monthly indicators and foreign demand estimates, shows moderate growth.

Labour market conditions remained favourable in the third quarter. Employment increased fur-

ther in July, reflecting mainly job growth in the services sector and a modestly positive contribution from industry. In the construction sector, however, employment declined amid weakening output, particularly in infrastructure construction. The unemployment rate remained unchanged in August, at 9.4%<sup>2</sup>, possibly indicating difficulties in placing job seekers into employment. Wage growth slowed, probably due to holidays and weaker industrial output. The next period is expected to see it return to the levels of previous months.

The negative annual inflation rate moderated slightly in August, to -0.8%. The headline rate continues to reflect falling food and energy prices, although the decline in energy inflation is gradually easing due to a base effect. The pass-through of low agricultural commodity prices to food prices is expected to continue, with a negative impact on the average inflation rate for this year. That rate is projected to be -0.5%, with imported prices accounting for most of the downward pressure. The inflation rate is expected to turn positive before the end of the year. Increasing domestic demand may accelerate goods and services inflation from the beginning of 2017, since repricing takes place mainly in January.

<sup>1</sup> All month-on-month and quarter-on-quarter changes mentioned in the text have been seasonally adjusted using NBS internal models.

<sup>2</sup> The registered unemployment rate (seasonally adjusted; source: ÚPVSR).

## 2 THE REAL ECONOMY

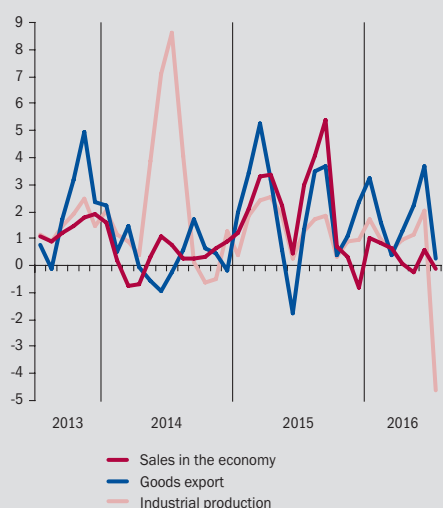
### 2.1 'HARD' INDICATORS OF ECONOMIC ACTIVITY

The monthly figures for July 2016 were affected mainly by summer holiday shutdowns in the car industry. Compared with the previous year, the shutdowns were more extensive and were more heavily concentrated in July. The slump in the monthly indicators may therefore be considered a blip. Indeed, the numbers of new vehicle registrations in Europe are also not pointing to any significant decline in demand for cars. A rebound can therefore be expected in August, particularly in the automotive industry.

As regards sales in the economy, they remained flat in terms of the difference between their average for the three months to end-July and the corresponding average three months earlier. The main downward pressure on total sales came from the industry sector.

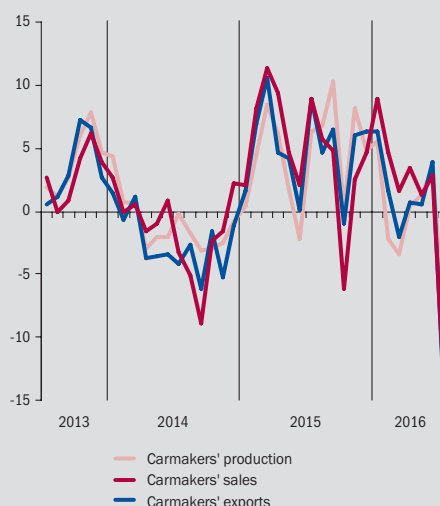
Turning to industrial production, its three month-on-three month rate of change was -4.6%. According to estimates (assuming production to be at last year's level and abstracting from other effects), the number of cars produced in July could be around 43,000 fewer in year-on-year terms.

**Chart 1 Sales, industrial production and exports (percentages, three month-on-three month; moving average; constant prices)**



Sources: SO SR and NBS calculations.

**Chart 2 Automotive industry indicators (percentages, three month-on-three month; moving average; constant prices)**



Sources: SO SR and NBS calculations.

Summer holiday shutdowns in the car industry are an opportunity to carry out technical adjustments, which this year included preparing the PSA Peugeot-Citroen plant for production of a new car model and preparing the Volkswagen plant for the production of updated models. Such changes are expected to be reflected in increased demand for the output of these plants in the period ahead.

The summer shutdowns of Slovakia's largest exporters also weighed on goods exports, which for the three months to end-July were only 0.2% higher than for the previous three months (if car exports are excluded, the growth rate rises to 4.2%). Exporters can look back on a relatively successful second quarter with strong market share growth, and it is therefore difficult to expect further significant acceleration of that growth. According to the nowcast estimate, export growth for the third quarter will moderate to 0.7% quarter on quarter. As for imports, they were 0.2% lower for the three months to end-July than for the previous three months. The share of imports destined for meeting domestic demand increased appreciably in July for the first time this year. This is consistent with the expected gradual pick-up in domestic investment demand, following its downturn in the first half of the year.

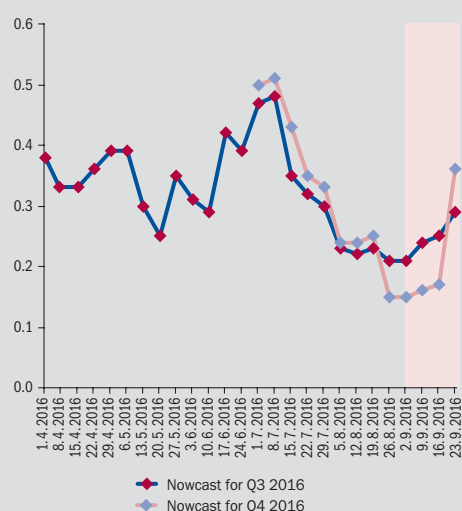


## 2.2 'SOFT' LEADING INDICATORS

The European Commission's **Economic Sentiment Indicator (ESI)** for the euro area deteriorated in August, as confidence ebbed in all sectors apart from services. The ESI for Germany

also fell, with the construction sector reporting the only increase in confidence. The **ZEW economic sentiment index** for Germany was unchanged in September from its level in August. The **Purchasing Managers' Indices (PMIs)** for the euro area and Germany both edged down

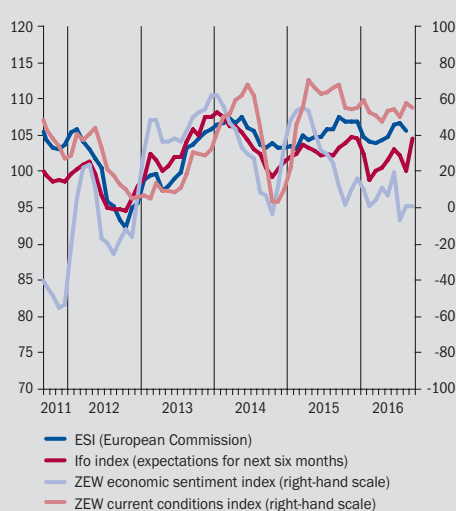
**Chart 3 GDP growth estimate for the euro area in Q3 and Q4 2016 (quarter-on-quarter percentage changes)**



Source: Now-Casting Economics Ltd.

Note: The highlighted area denotes developments since the previous Monthly Bulletin.

**Chart 5 Economic sentiment indicators for Germany**



Sources: European Commission, Ifo Institute and ZEW Centre.  
Note: ESI (long-run average = 100); Ifo index (2005 = 100); ZEW (balance of responses).

**Chart 4 GDP growth estimate for Germany in Q3 and Q4 2016 (quarter-on-quarter percentage changes)**



Source: Now-Casting Economics Ltd.

Note: The highlighted area denotes developments since the previous Monthly Bulletin.

**Chart 6 Germany – Ifo index (2005 = 100) and annual GDP growth**



Sources: Eurostat, Markit, Ifo Institute and NBS calculations.



further in September, indicating a slowdown in economic activity growth. On the other hand, the **Ifo Business Climate Index** for Germany increased in August and showed an improvement in business expectations.

Leading indicators point to the euro area and German economies growing in the third quarter of 2016, albeit more slowly than in the previous quarter.

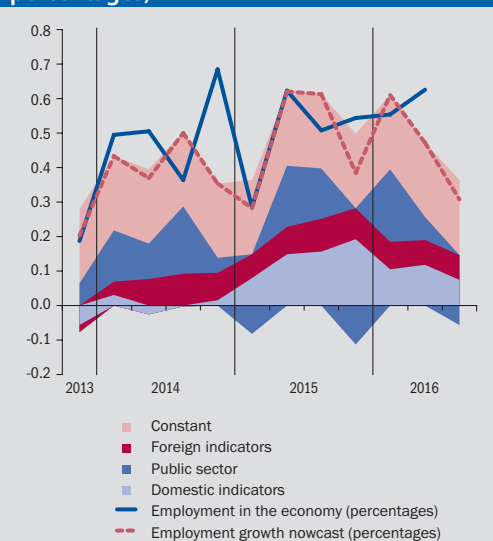


## 3 THE LABOUR MARKET

Employment across the private sector segments under review increased in July by 0.2% month on month and by 2.5% in year-on-year terms. Like in the second quarter, employment growth was driven mainly by job creation in the services and trade sectors. Industry reported slower job growth and construction sector employment remained flat in three-month-on-three-month terms (output in the sector has fallen from its high level earlier in the year, when it was boosted by the absorption of EU funds remaining from the previous programming period). Business surveys showed employment expectations for August to be relatively high in all the principal sectors, providing grounds to assume a favourable trend in the period ahead.

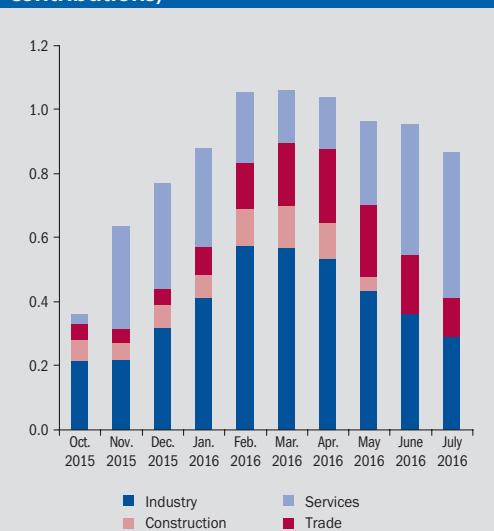
Unemployment, however, fell only slightly in August. The number of unemployed people decreased by around 1,100 in seasonally adjusted terms, and so the overall unemployment rate edged down by just 0.04 percentage point, to 11.04%<sup>3</sup>. The registered unemployment rate re-

**Chart 8 Indicator contributions to the nowcast of quarter-on-quarter employment growth (percentage point contributions; percentages)**



Sources: SO SR, ÚPSVR, OECD, European Commission, CPB Netherlands and NBS calculations.

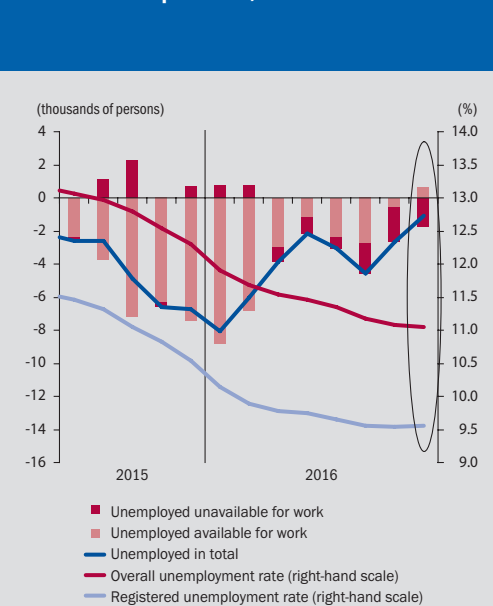
**Chart 7 Employment – sectoral contributions to the three month-on-three month rate of change (moving average; percentage point contributions)**



Sources: SO SR and NBS calculations.

Note: The contribution of employment in trade and services does not include the impact of a methodological change in January 2016.

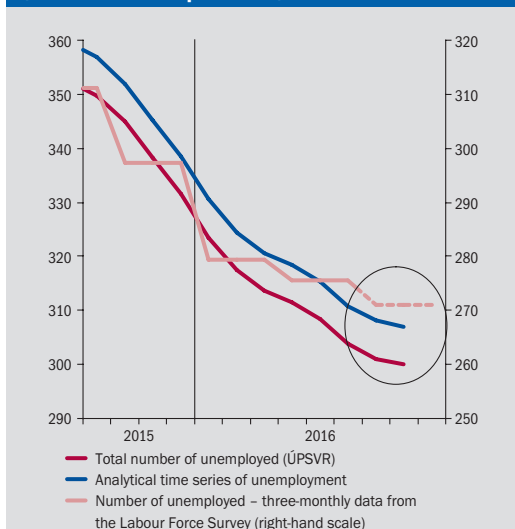
**Chart 9 Unemployment (percentages; thousands of persons)**



Sources: ÚPSVR and NBS calculations.

<sup>3</sup> In seasonally-unadjusted terms, the registered unemployment rate decreased month-on-month by 0.01 percentage point, to 9.43%, and the unemployment rate based on the total number of job seekers fell by 0.11 percentage point, to 10.85%.

**Chart 10 Number of unemployed (thousands of persons)**



Sources: ÚPSVR and NBS calculations.

Note: The Labour Force Survey unemployment figure for Q3 2016 is the MTF-2016Q3 projection. The analytical time series of unemployment is based on ÚPSVR figures and is defined in the MTF-2013Q3 forecast.

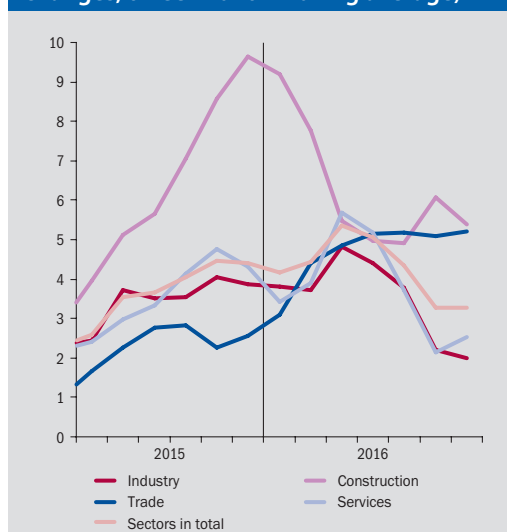
corded a marginal technical increase, probably because a proportion of unemployed ended their participation in small-scale community service and voluntary work schemes and were reclassified as available for work. The negligible fall in unemployment and subdued situation in the construction sector are the main factors weighing on the nowcast estimate of employment growth in the third quarter (as well as on the MTF-2016Q3 forecast for the same). A further downward factor is the expected scaling back of public sector recruitment programmes, although this may be reversed in subsequent quarters.

Employment growth in the sectors under review and the majority of leading indicators are generally favourable, as the MTF-2016Q3 forecast recognises in an upward revision of the employment growth projection for the third quarter. Considering also, however, the relatively subdued dynamics among the registered unemployed, employment growth is not expected to return to the high levels observed in the first half of 2016. The MTF-2016Q3 forecast projects

employment growth for the whole of 2016 to be 2%.

Average annual wage growth in the sectors under review was 2.6% in July, suggesting that wage growth will be slightly lower in the third quarter than in the second quarter. The slowdown was most pronounced in industry and construction. In industry in particular this may have been partly caused by the timing of summer holiday shutdowns, which compared with the previous year were more heavily concentrated in July than in August. It is clear from historical data that the fewer number of hours worked during holiday periods has a negative impact on wage payments. Hence industrial wage growth in July may have been distorted downwards, and the rate in August may be expected to rebound. For that reason, the weaker wage growth in July was not factored into the MTF-2016Q3 forecast, and the projection for average wage growth in 2016 remains unchanged at 3.4%. At the same time favourable trends continue to be observed in labour demand, economic performance and profitability, all of which are expected to support wage growth in the period ahead.

**Chart 11 Wage growth (annual percentage changes; three-month moving average)**



Sources: SO SR and NBS calculations.



**Chart 12 Hours worked and the average wage during holiday periods**



Sources: SO SR and NBS calculations.

## 4 PRICES

The annual HICP inflation rate for Slovakia was slightly less negative in August (-0.8%) than in July (-0.9%). In month-on-month terms, the price level fell by 0.1%, reflecting mainly a seasonal drop in food prices and in non-energy industrial goods prices, but also an increase in services prices.

The negative annual inflation rate moderated in August, owing mainly to automotive fuel prices. The annual rate of change in energy prices excluding automotive fuel is expected to be less negative in September than in August, due to the base effect of the gas price reduction in September 2015. This, together with projected pump prices, is expected to further ease the negative headline inflation rate.

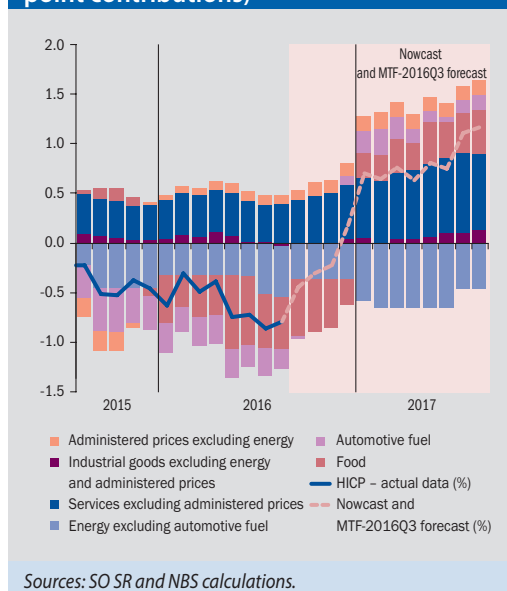
Based on latest estimates for this year's harvests and global stocks, the environment of low prices in basic food commodities is expected to continue. Hence food inflation should remain negative until the end of 2016.

At odds with the strengthening labour market, net inflation excluding automotive fuel has been at a very low level (0.7%) for a prolonged period<sup>4</sup>. On the other hand, demand-pull inflation may be showing tentative signs of picking up.

Services inflation excluding administered prices increased to 0.3% month on month.

Average annual inflation in 2016 is expected to be -0.5%, its negative level caused mainly by imported prices. The negative headline rate is ex-

**Chart 13 Annual HICP inflation and its composition (percentages; percentage point contributions)**



**Table 1 HICP components – comparison of projected and actual rates of change (annual percentage changes; percentage point contributions)**

			Non-energy industrial goods	Energy	Food	Services	HICP	Net inflation excluding fuel
Year-on-year changes	A	July 2016 – actual figure	0.2	-5.2	-2.2	1.3	-0.9	0.7
	B	August 2016 – forecast	0.3	-4.6	-1.7	1.4	-0.6	0.9
	B	<b>August 2016 – actual figure</b>	<b>0.1</b>	<b>-4.7</b>	<b>-2.2</b>	<b>1.4</b>	<b>-0.8</b>	<b>0.7</b>
	B-A	August – actual figure minus forecast	-0.2	-0.2	-0.5	0.0	-0.21	-0.2
	(B-A) * weight	Contribution to overall forecast error (percentage point) <sup>1</sup>	-0.07	-0.02	-0.11	-0.01	-0.21	-0.08

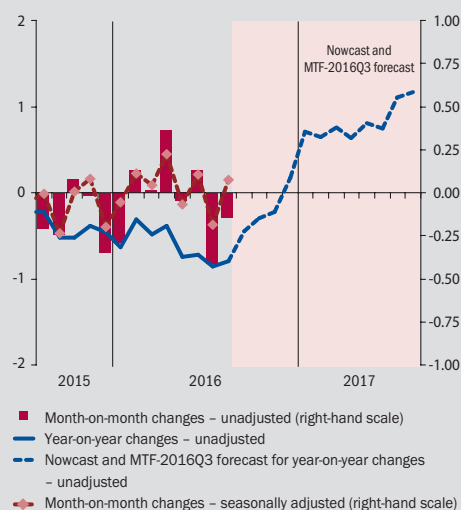
Sources: SO SR and NBS calculations.

1) Projections taken from NBS's Medium-Term Forecast (MTF-2016Q2).

4 Sometimes termed 'lowflation'.

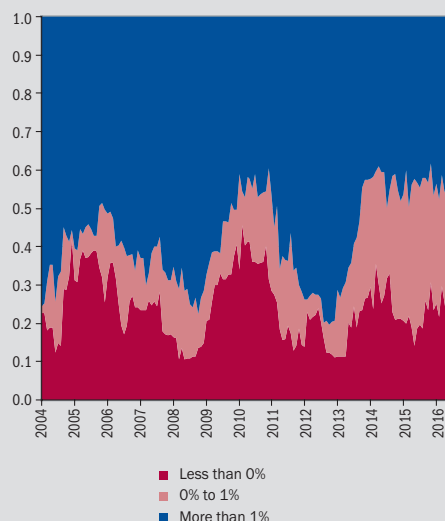


Chart 14 HICP inflation (percentages)



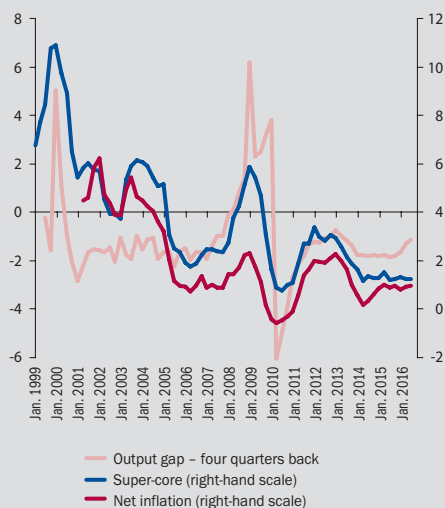
Sources: SO SR and NBS calculations.

Chart 16 HICP core inflation broken down by price-change intervals



Source: NBS calculations.

Chart 15 Demand-pull inflation (percentages; seasonally adjusted)



Sources: SO SR and NBS calculations.

Note: Net inflation comprises non-administered prices of services and non-administered prices of non-energy industrial goods. The super-core index comprises sub-items in the HICP for which the output gap has predictive power with statistical significance.

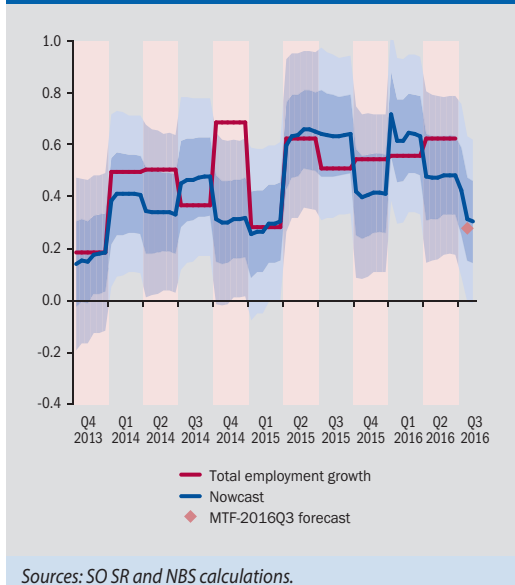
pected to moderate to -0.4% in September and to turn positive at the end of the year. Even abstracting from external effects, the low inflation environment is still expected to persist.



## 5 INDICATIVE IMPACT ON THE FORECAST

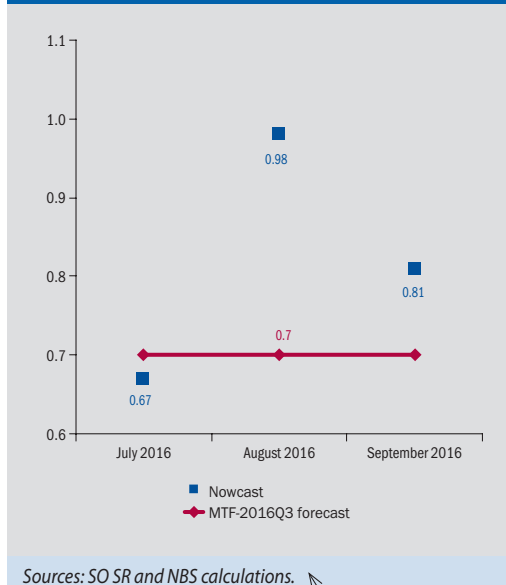
Nowcast movements and all the most recent monthly figures have been incorporated into NBS's latest Medium-Term Forecast (MTF-2016Q3).

**Chart 17 Employment nowcast (quarter-on-quarter percentage changes)<sup>5</sup>**



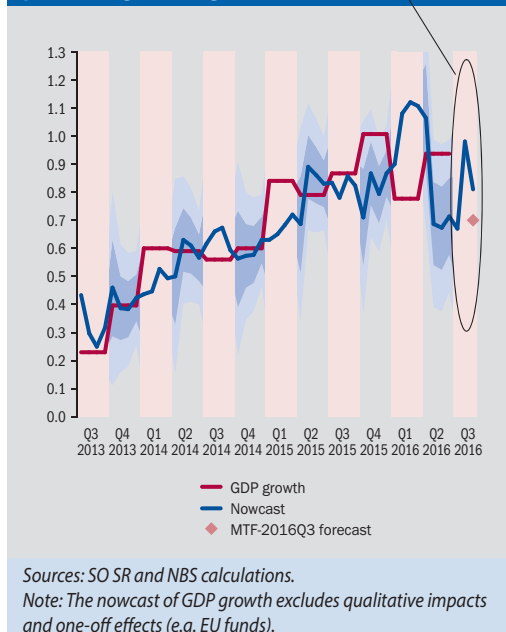
Sources: SO SR and NBS calculations.

**Chart 18 Nowcast for GDP growth in Q3 2016 (quarter-on-quarter percentage changes)**



Sources: SO SR and NBS calculations.

**Chart 19 GDP nowcast (quarter-on-quarter percentage changes)<sup>5</sup>**



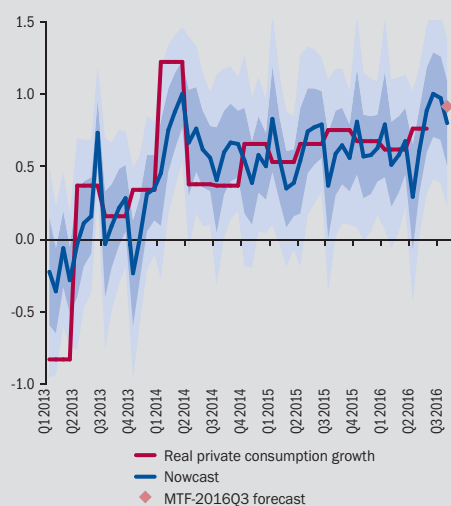
Sources: SO SR and NBS calculations.

Note: The nowcast of GDP growth excludes qualitative impacts and one-off effects (e.g. EU funds).

5 The band around the point estimate denotes  $\pm 1$  and  $\pm 2$  times the root mean square error. Nowcasts are calculated using OLS time series models based on selected sets of monthly indicators (for employment, a factor model is used). Nowcasts provide a current estimate of future developments using available monthly figures from the current quarter, their future values forecast with ARIMA models, and their lagged values. The individual model projections are independent of each other and therefore forecasting error in a past quarter cannot affect current projections. Further details are available in the commentaries on the [GDP nowcasts](#), [private consumption nowcasts](#), [export nowcasts](#) and [employment nowcasts](#).

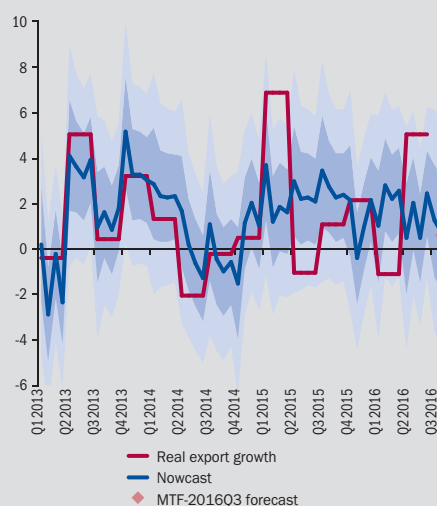


**Chart 20 Private consumption nowcast  
(quarter-on-quarter percentage changes)<sup>5</sup>**



Sources: SO SR and NBS calculations.

**Chart 21 Nowcast for goods and services  
exports (quarter-on-quarter percentage changes)<sup>5</sup>**



Sources: SO SR and NBS calculations.



# OVERVIEW OF MAIN MACROECONOMIC INDICATORS FOR SLOVAKIA

**Table 2 Selected economic and monetary indicators for Slovakia**
*(annual percentage changes, unless otherwise indicated)*

	Gross domestic product	HICP	Industrial producer prices	Employment ESA 2010	Unemployment rate	Industrial production index	Total sales of sectors <sup>1)</sup>	Economic Sentiment Indicator (long-term average=100)	M3 (for analytical use) <sup>2)</sup>	Loans to non-financial corporations	Loans to households	State budget balance (EUR mil.)	General government balance (% of GDP)	General government gross debt (% of GDP)	Current account (% of GDP)	Balance of trade (% of GDP)	USD/EUR exchange rate (average for the period)
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2008	5.7	3.9	6.1	3.2	9.6	2.9	-	99.3	4.9	15.3	25.3	-704.0	-2.3	28.2	-6.2	-1.8	1.4708
2009	-5.5	0.9	-2.6	-2.0	12.1	-15.5	-16.6	77.3	-2.8	-3.3	11.0	-2,791.3	-7.9	36.0	-3.5	0.4	1.3948
2010	5.1	0.7	-2.7	-1.5	14.4	8.2	8.3	98.7	7.8	1.6	12.5	-4,436.1	-7.5	40.8	-4.7	-0.1	1.3257
2011	2.8	4.1	2.7	1.8	13.6	5.2	6.1	98.8	2.9	7.6	11.1	-3,275.7	-4.1	43.3	-5.0	-0.1	1.3920
2012	1.5	3.7	3.9	0.1	14.0	8.0	4.4	94.0	8.8	-2.3	10.3	-3,810.7	-4.3	52.4	0.9	3.5	1.2848
2013	1.4	1.5	-0.1	-0.8	14.2	3.9	1.8	90.4	6.4	1.7	10.2	-2,023.3	-2.7	55.0	2.0	4.1	1.3281
2014	2.5	-0.1	-3.5	1.4	13.2	8.6	2.6	100.4	2.5	1.2	13.1	-2,923.4	-2.7	53.9	0.1	3.8	1.3285
2015	3.6	-0.3	-4.2	2.0	11.5	7.0	7.3	99.7	11.5	6.8	13.0	-1,932.6	-3.0	52.9	-1.3	2.4	1.1095
2015 Q3	3.7	-0.3	-4.5	2.2	11.3	6.0	10.3	98.0	10.4	2.6	13.5	-	-1.6	53.9	-3.8	0.8	1.1117
2015 Q4	4.3	-0.5	-4.8	2.0	11.0	5.0	8.5	99.0	11.5	6.8	13.0	-	-5.2	52.9	-1.1	0.8	1.0953
2016 Q1	3.4	-0.5	-5.3	2.2	10.4	2.2	5.7	102.6	10.1	3.1	12.8	-	-1.9	52.2	-0.8	4.2	1.1020
2016 Q2	3.7	-0.6	-5.2	2.3	9.6	6.4	5.9	98.7	9.7	0.7	13.4	-	.	.	-0.3	3.9	1.1292
2015 Sep.	-	-0.5	-5.2	-	11.4	7.1	10.8	98.3	10.4	2.6	13.5	-96.0	-	-	-	-	1.1221
2015 Oct.	-	-0.5	-5.0	-	11.0	1.2	4.8	104.0	10.2	2.9	13.3	-29.1	-	-	-	-	1.1235
2015 Nov.	-	-0.4	-5.0	-	10.8	8.3	11.3	96.8	10.4	5.1	13.5	24.1	-	-	-	-	1.0736
2015 Dec.	-	-0.5	-4.5	-	10.6	5.9	9.0	96.3	11.5	6.8	13.0	-751.2	-	-	-	-	1.0877
2016 Jan.	-	-0.6	-5.2	-	10.4	1.9	2.2	102.5	11.3	4.4	12.9	8.6	-	-	-	-	1.0860
2016 Feb.	-	-0.3	-4.7	-	10.1	7.1	3.8	102.6	10.5	2.8	12.6	-842.7	-	-	-	-	1.1093
2016 Mar.	-	-0.5	-5.9	-	9.9	-2.0	5.0	102.8	10.1	3.1	12.8	-44.8	-	-	-	-	1.1100
2016 Apr.	-	-0.4	-5.6	-	9.6	7.6	12.2	99.6	10.9	3.3	12.9	232.8	-	-	-	-	1.1339
2016 May	-	-0.7	-5.6	-	9.5	9.6	8.5	98.0	10.8	1.5	13.3	-465.4	-	-	-	-	1.1311
2016 June	-	-0.7	-4.5	-	9.5	2.3	4.3	98.6	9.7	0.7	13.4	375.1	-	-	-	-	1.1229
2016 July	-	-0.9	-4.6	-	9.4	-14.3	-23.7	103.9	8.9	4.6	13.7	112.2	-	-	-	-	1.1069
2016 Aug.	-	-0.8	.	-	9.4	.	.	99.9	.	.	.	13.1	-	-	-	-	1.1212

Sources: Statistical Office of the Slovak Republic, MF SR, the European Commission and NBS.

1) Constant prices (seasonally adjusted).

2) Currency in circulation in M3 refers to money held by the public (according to methodology in place prior to 2008).

More detailed time series for selected macroeconomic indicators

[http://www.nbs.sk/\\_img/Documents/\\_MonthlyBulletin/2016/StatisticsMB0916.xls](http://www.nbs.sk/_img/Documents/_MonthlyBulletin/2016/StatisticsMB0916.xls)