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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 SUMMARY¹

Economic activity indicators for the euro area showed a slight acceleration at the beginning of the last quarter of 2016. Retail sales increased notably in October, and leading indicators suggest their upward trend will continue until the end of the year.

In Slovakia there was an improvement in 'hard' indicators early in the fourth quarter. Industrial production growth increased gradually after a weak third quarter, consequently supporting growth in exports and, in turn, sales in the economy.

The upward trend in employment came to a halt in October owing to falling employment in the

construction sector (where activity remains very weak) and, in certain sectors, to the downward impact of labour supply shortages on recruitment. Wage growth slowed slightly in October, the main cause being unfavourable developments in the construction sector and falling wages in the IT sector.

The negative annual inflation rate edged further towards positive territory in October, to stand at -0.2%. This trend is supported by a diminishing year-on-year rate of decline in food and energy prices. The headline inflation rate is expected to turn positive in December, and then accelerate up to 1% during the course of 2017.

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

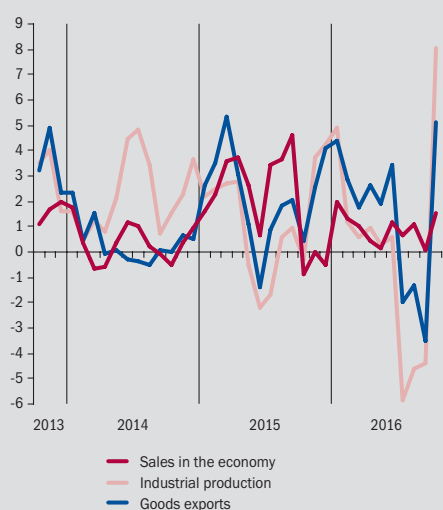
2 THE REAL ECONOMY

2.1 'HARD' INDICATORS OF ECONOMIC ACTIVITY

Monthly indicators picked up in October 2016 in comparison with their average for the third quarter. In the case of industrial production and exports, however, the improvement largely reflected the base effect of weaker results in the third quarter. The ground lost in that period is expected to have been partly recovered in the final quarter. Industrial production for October was 5.8% higher than the average for third quarter, while export growth was 3.4% stronger. These pick-ups were attributable not only to the car industry (the cause of recent fluctuating trends), but also to output and exports in the industries manufacturing rubber products and processing metal.

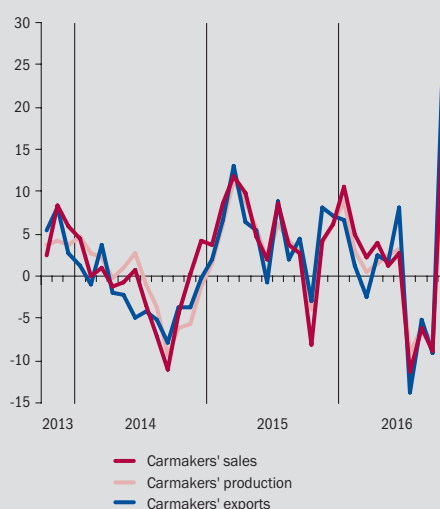
As regards sales in the economy, they were 0.3% higher in October compared with their average for the third quarter. The increase was driven by sales in industry and wholesale trade. Nevertheless, imports for domestic demand re-

Chart 1 Sales, industrial production and exports (three-month-on-three-month percentage changes in the three-month moving average; constant prices)



Sources: SO SR and NBS calculations.

Chart 2 Automotive industry indicators (three-month-on-three-month percentage changes in the three-month moving average; constant prices)



Sources: SO SR and NBS calculations.

mained below the third-quarter level. Not even consumption imports for retail chain inventories were yet showing the usual pre-Christmas spike.

2.2 'SOFT' LEADING INDICATORS

The European Commission's **Economic Sentiment Indicator (ESI)** for the euro area remained largely unchanged in November, while the ESI for Germany, after improving appreciably in October, corrected slightly. In Germany, the **Ifo Business Climate Index** was moderately higher in December than in previous month and the **ZEW economic sentiment index** for December was unchanged. The **Purchasing Managers' Index (PMI)** for the euro area remained flat in December, while the PMI for Germany fell marginally.

Leading indicators for the euro area and Germany are sending quite favourable signals and, together with GDP nowcasts, imply a slight acceleration in economic growth in the fourth quarter.



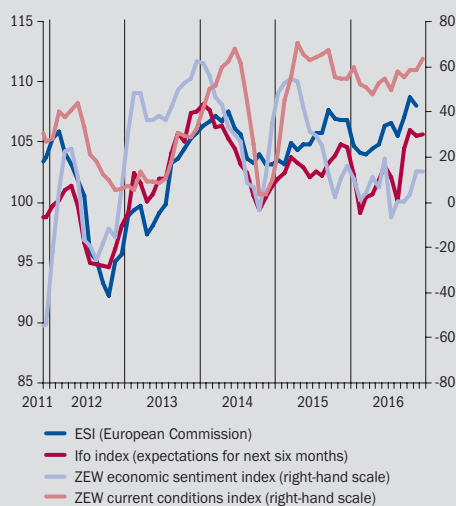
Chart 3 GDP growth estimate for the euro area in Q4 2016 and Q1 2017 (quarter-on-quarter percentage changes)



Source: Now-Casting Economics Ltd.

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

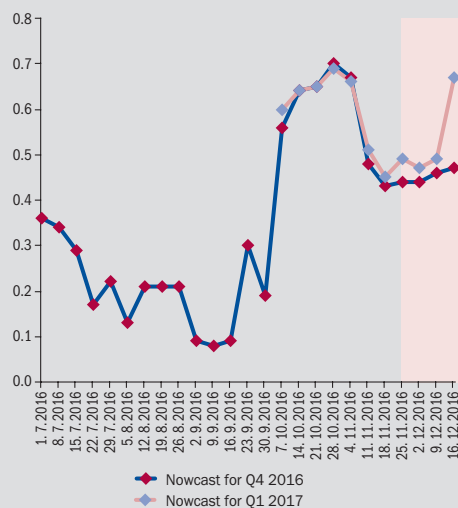
Chart 5 Economic sentiment indicators for Germany



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 Q4 2016 and Q1 2017 (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

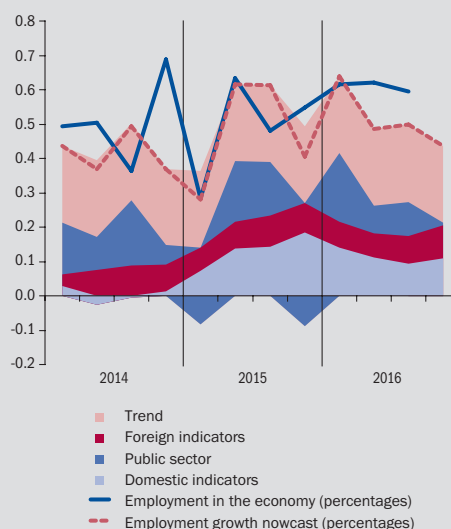


Sources: Eurostat, Markit, Ifo Institute and NBS calculations.

3 THE LABOUR MARKET

Annual employment growth in October stood at 2.6%, slightly down from the rate for the third quarter (2.7%). In month-on-month terms, employment increased by a marginal 0.03%. It appears that labour supply shortages are to some extent curbing recruitment. The sectors that have been driving overall job growth for the past three months are services – in particular IT and communication, and accommodation and food services (amid a pick-up in tourism) – transportation, and other market services (in particular administrative activities, advertising, consultancy activities, and similar areas). Industry is the principal generator of new jobs, with the strongest growth appearing in the industries manufacturing rubber and plastic products, processing metals, manufacturing machinery and equipment, and manufacturing cars. The construction sector is struggling by comparison, as firms have still not adequately made up for the slump in EU-funded investment. Despite weak month-on-month results in October, leading indicators

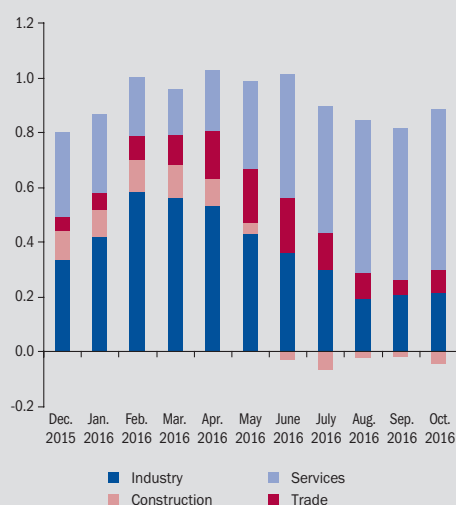
Chart 8 Indicator contributions to the nowcast for quarter-on-quarter employment growth (percentage points)



Sources: SO SR, ÚPSVR and NBS calculations.

Note: The public sector comprising public administration, education and human health as defined in the SK NACE statistical classification of economic activities.

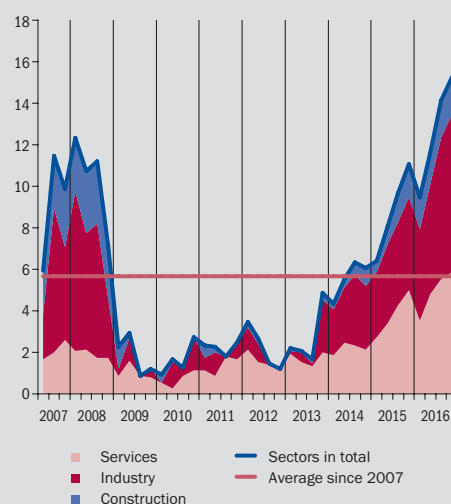
Chart 7 Employment – sectoral contributions to three-month-on-three-month percentage changes in the three-month moving average (percentage points)



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 Labour supply shortages in the Slovak economy (percentages of respondents)



Sources: European Commission and NBS calculations.

Note: The time series 'Sectors in total' represents an average of the number of respondents in each sector that reported a labour shortage, weighted by the number of people employed in the sectors.

now suggest that employment will continue to grow in the period ahead. Hence, job growth is expected to be stronger in the fourth quarter as a whole than in October, and to be approximately as projected in NBS's latest Medium-Term Forecast (MTF-2016Q4).

Average annual wage growth in the sectors under review was 2.3% in October, significantly lower than the average rate for the third quarter (3.7%). The construction sector is currently exerting the largest drag on overall wage growth, owing to, on the one hand, the base effect of high wage and bonus payments paid in the sector at the end of last year (related to EU-funded projects) and, on the other hand, the current period of falling output. Wage growth in industry and services also slowed, but it is expected that increasing production, and consequently sales, will support wage growth over the rest of the year. Looking ahead, some firms may also trim wage costs in response to the increase or abolition of social contribution ceilings, and this may

Chart 11 Wage trends in the economy (annual percentage changes)



Sources: SO SR and NBS calculations.

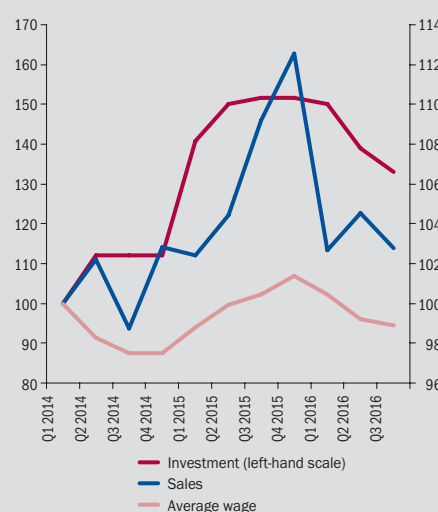
Note: The Q4 2016 figure for the average wage in the economy as a whole is the MTF-2016Q4 projection. Data on social contributions (accident insurance) for the fourth quarter are not yet available.

Chart 10 Wage growth (annual percentage changes in the three-month moving average)



Sources: SO SR and NBS calculations.

Chart 12 Investment, wages and sales in the IT and communication sector (index: Q1 2014 = 100, at current prices)



Sources: SO SR, Eurostat and NBS calculations.

Note: Average wage based on monthly figures for selected sectors.



boost the amount of wages paid in December. A similar effect was observed in December 2012 under legislative amendments introduced at that time. Hence, wage growth over the remainder of the fourth quarter may be stronger than October's 2.3%.

In the trade sector, wage growth remained stable in October (at 4.8%) as employers sought to

attract and retain staff by offering wage increases. It is also worth noting developments in the IT and communication sector, where wage growth fell and wages are now 3% lower than a year earlier. This sector, too, may also have had to adjust to some extent to changes in the flow of EU funds. On the other hand, business surveys of the sector provide evidence of relatively positive expectations for the months ahead.

4 PRICES

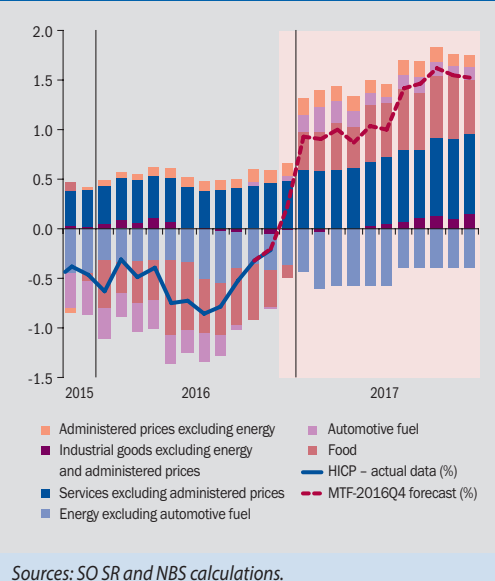
Annual HICP inflation in Slovakia was slightly less negative in November (-0.2%) than in October (-0.3%). The month-on-month inflation rate was 0.1%, reflecting a moderate increase in prices of food and services. The period of zero or negative inflation is coming to an end.

Price trends in November remained fully in line with projections. Food prices were largely responsible for the slower rate of decline in the annual inflation rate. Services inflation also accelerated moderately, but remained relatively low in the context of labour force developments. Services inflation excluding administered prices continued its gradual acceleration in October, reaching 1.8% year on year.

Considering current price trends in November and the latest available information, the inflation rate in 2017 is projected to exceed 1%. Inflation should then increase owing to the fading effect of VAT reductions, a strong labour market, domestic demand, a gradual acceleration in import price growth, an expected increase in agricultural commodity prices, and increasing year-on-year growth in oil prices.

The headline inflation rate is expected to turn positive in December, before accelerating to

Chart 13 Annual HICP inflation and contributions of components (annual percentage changes; percentage point contributions)



0.8% in the first quarter of 2017. The low inflation environment is expected to persist throughout the first half of the year.

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

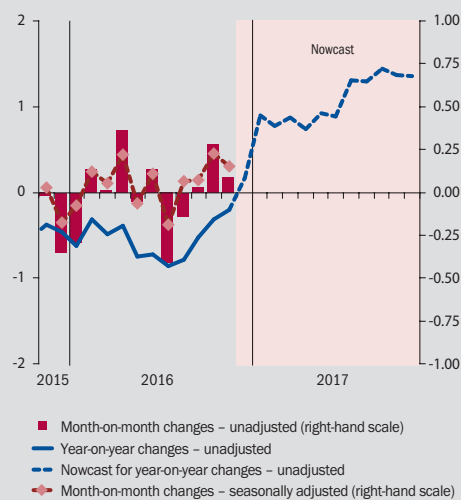
			Non-energy industrial goods	Energy	Food	Services	HICP	Net inflation excluding fuel
Year-on-year changes	A	October 2016 – actual figure	0.3	-2.1	-2.3	1.5	-0.3	0.8
		November 2016 – forecast	0.3	-2.2	-1.9	1.6	-0.2	0.9
	B	November 2016 – actual figure	0.1	-2.5	-1.6	1.6	-0.2	0.8
	B-A	November – actual figure minus forecast	-0.2	-0.3	0.4	0.0	0.00	-0.1
	(B-A) * weight	Contribution to overall forecast error¹	-0.07	-0.04	0.09	0.01	0.00	-0.06

Sources: SO SR and NBS calculations.

1) Projections taken from NBS's Medium-Term Forecast (MTF-2016Q4).

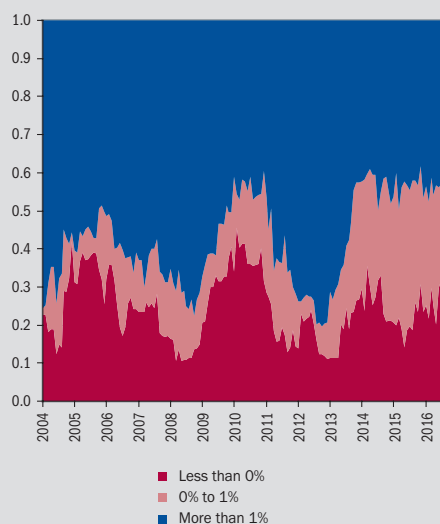


Chart 14 HICP inflation (percentage changes)



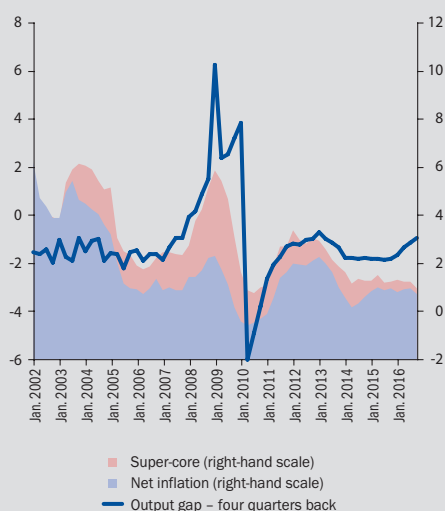
Sources: SO SR and NBS calculations.

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



Source: NBS calculations.

Chart 15 Demand-pull inflation (annual percentage changes; 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.

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-2016Q4.

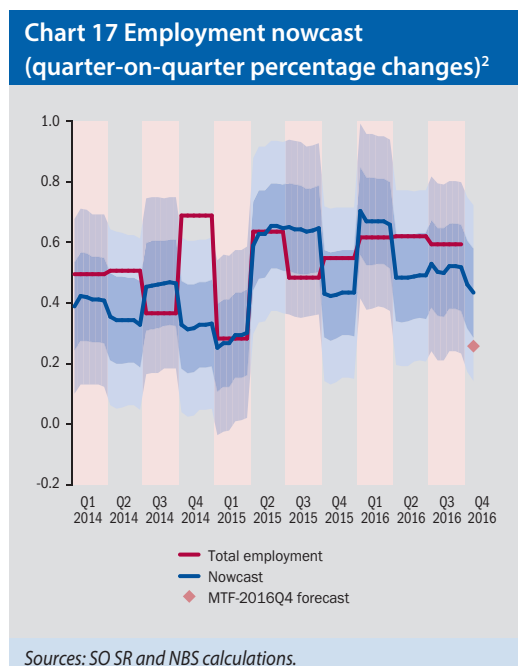


Chart 18 Nowcast for GDP in Q4 2016 (quarter-on-quarter percentage changes)

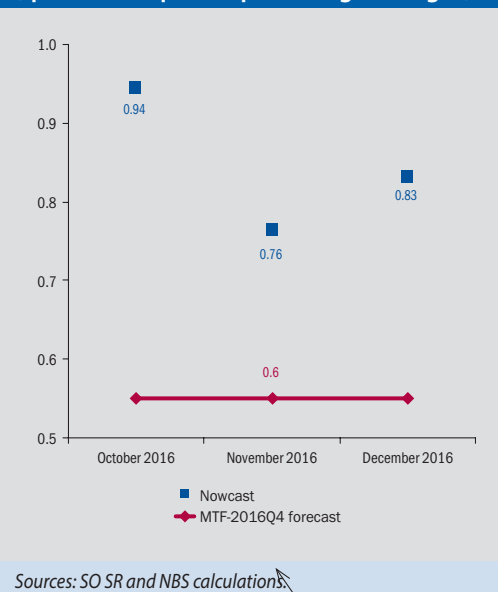
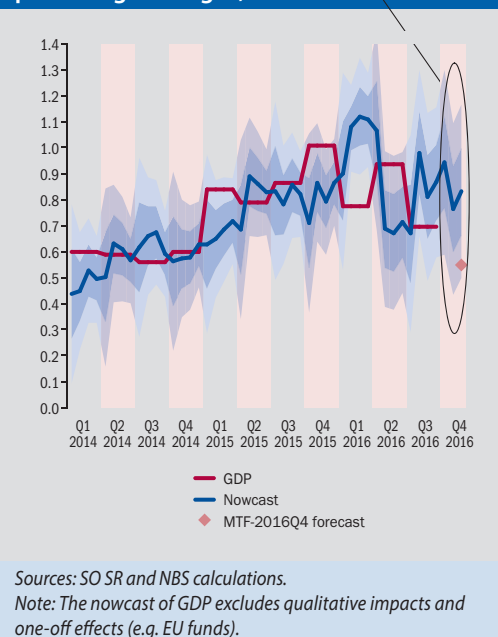


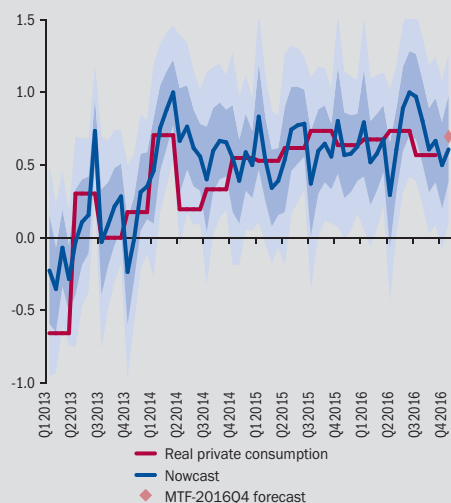
Chart 19 GDP nowcast (quarter-on-quarter percentage changes)²



2 The band around the point estimate denotes +/- 1 and 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 a 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](#).

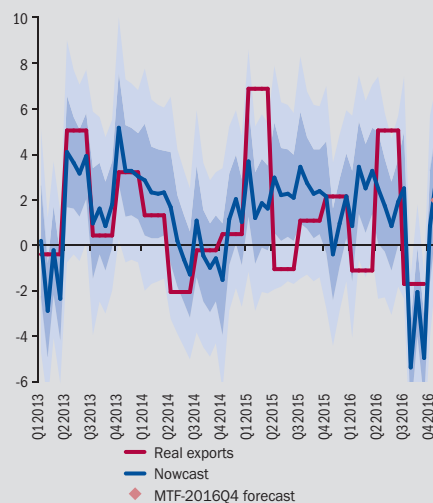


**Chart 20 Private consumption nowcast
(quarter-on-quarter percentage changes)²**



Sources: SO SR and NBS calculations.

**Chart 21 Nowcast for goods and services
exports (quarter-on-quarter percentage changes)²**



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 ¹⁾	Economic Sentiment Indicator (long-term average=100)	M3 (for analytical use) ²⁾	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	5.6	3.9	6.1	3.2	9.6	2.9	-	99.3	4.9	15.3	25.3	-704.0	-2.4	28.5	-6.2	-1.8	1.4708
2009	-5.4	0.9	-2.6	-2.0	12.1	-15.5	-16.6	77.3	-2.8	-3.3	11.0	-2,791.3	-7.8	36.3	-3.4	0.4	1.3948
2010	5.0	0.7	-2.7	-1.5	14.4	8.1	8.3	98.7	7.8	1.6	12.5	-4,436.1	-7.5	41.2	-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	-4.3	43.7	-5.0	-0.1	1.3920
2012	1.7	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	52.2	0.9	3.4	1.2848
2013	1.5	1.5	-0.1	-0.8	14.2	3.8	1.8	90.4	6.4	1.7	10.2	-2,023.3	-2.7	54.7	1.8	4.1	1.3281
2014	2.6	-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	53.6	1.2	3.8	1.3285
2015	3.8	-0.3	-4.2	2.0	11.5	7.0	7.3	99.7	11.5	6.8	13.0	-1,932.6	-2.7	52.5	0.2	2.7	1.1095
2015 Q4	4.6	-0.5	-4.8	2.0	11.0	5.1	8.4	99.0	11.5	6.8	13.0	-	-4.4	52.5	0.7	1.5	1.0953
2016 Q1	3.4	-0.5	-5.3	2.2	10.4	2.3	5.8	102.6	10.1	3.1	12.8	-	-2.0	52.2	-0.6	3.4	1.1020
2016 Q2	3.8	-0.6	-5.2	2.3	9.6	6.2	6.3	98.7	9.7	0.7	13.4	-	-1.7	53.3	1.3	4.6	1.1292
2016 Q3	3.0	-0.7	-4.2	2.4	9.5	2.0	1.7	102.4	9.3	3.8	12.9	-	.	.	-1.6	2.0	1.1166
2015 Dec.	-	-0.5	-4.5	-	10.6	5.7	8.5	96.3	11.5	6.8	13.0	-751.2	-	-	-	-	1.0877
2016 Jan.	-	-0.6	-5.2	-	10.4	2.0	8.2	102.5	11.3	4.4	12.9	8.6	-	-	-	-	1.0860
2016 Feb.	-	-0.3	-4.7	-	10.1	7.1	6.6	102.6	10.5	2.8	12.6	-842.7	-	-	-	-	1.1093
2016 Mar.	-	-0.5	-5.9	-	9.9	-1.9	2.7	102.8	10.1	3.1	12.8	-44.8	-	-	-	-	1.1100
2016 Apr.	-	-0.4	-5.6	-	9.6	7.5	6.0	99.6	10.9	3.3	12.9	232.8	-	-	-	-	1.1339
2016 May	-	-0.7	-5.6	-	9.5	9.0	6.9	98.0	10.8	1.5	13.3	-465.4	-	-	-	-	1.1311
2016 June	-	-0.7	-4.5	-	9.5	2.4	6.0	98.6	9.7	0.7	13.4	375.1	-	-	-	-	1.1229
2016 July	-	-0.9	-4.6	-	9.4	-13.8	-5.6	103.9	8.9	4.6	13.7	112.2	-	-	-	-	1.1069
2016 Aug.	-	-0.8	-4.8	-	9.4	17.2	8.0	99.9	9.0	4.7	13.0	13.1	-	-	-	-	1.1212
2016 Sep.	-	-0.5	-3.2	-	9.4	4.1	3.4	103.4	9.3	3.8	12.9	-33.2	-	-	-	-	1.1212
2016 Oct.	-	-0.3	-2.8	-	9.1	3.4	2.8	102.8	8.7	4.7	12.9	223.7	-	-	-	-	1.1026
2016 Nov.	-	-0.2	.	-	.	.	.	101.3	.	.	.	-201.6	-	-	-	-	1.0799

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/StatisticsMB1216.xls