



# NBS Monthly Bulletin

**MARCH 2017** 

Published by: © Národná banka Slovenska

Address: Národná banka Slovenska Imricha Karvaša 1, 813 25 Bratislava Slovakia

Contact: +421/2/5787 2146

http://www.nbs.sk

Discussed by the NBS Bank Board on 28 March 2017

All rights reserved. Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

ISSN 1337-9526 (online)



# **C**ONTENTS

1	SUMMARY	5	Chart 4	GDP growth estimate for Germany	
				in Q1 and Q2 2017	7
2	THE REAL ECONOMY	6	Chart 5	Economic sentiment indicators for	
2.1	'Hard' indicators of economic			Germany	7
	activity	6	Chart 6	Germany – Ifo index and annual	
2.2	'Soft' leading indicators	7		GDP growth	7
			Chart 7	Employment – sectoral contributions	
3	THE LABOUR MARKET	9		to quarter-on-quarter employment	
				growth based on monthly figures	9
4	PRICES	12	Chart 8	Indicator contributions to the	
				nowcast for quarter-on-quarter	
5	INDICATIVE IMPACT			employment growth	9
	ON THE FORECAST	14	Chart 9	Unemployment	10
				Number of unemployed	10
OVERVIEW OF MAIN MACROECONOMIC			Chart 11	Wage growth by sector based on	
INDIC	ATORS FOR SLOVAKIA	16		monthly figures	10
			Chart 12	Wage trends in the economy	11
LIST (	OF TABLES		Chart 13	Annual HICP inflation and	
Table 1	HICP components – comparison			contributions of components	12
	of projected and actual rates of		Chart 14	HICP inflation	12
	change	12	Chart 15	Demand-pull inflation unadjusted	
Table 2	Selected economic and monetary			for methodological revisions	13
	indicators for Slovakia	16	Chart 16	HICP core inflation broken down	
				by price-change intervals	13
LIST OF CHARTS			Chart 17	Private consumption nowcast	14
Chart 1	Sales, industrial production and		Chart 18	Nowcast for goods and services	
	exports	6		exports	14
Chart 2	Automotive industry indicators	6	Chart 19	Employment nowcast	14
Chart 3	GDP growth estimate for the euro		Chart 20	Nowcast for GDP in Q1 2017	15
	area in Q1 and Q2 2017	7	Chart 21	GDP nowcast	15



#### **A**BBREVIATIONS

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



### 1 Summary<sup>1</sup>

The indications from the first two months of 2017 are that the **euro area** economy is maintaining its growth path. While a softening of retail sales in January suggested a slight slowdown in domestic demand, stronger growth in industrial production is expected to boost export performance. March saw a further improvement in leading indicators, possibly pointing to a modest acceleration in euro area economic growth in the first quarter and the continuation of its favourable trend going forward.

The most recent monthly data for the **Slovak economy** signals a favourable trend in the first quarter of 2017. Sales across the economy grew in January, with industry making the largest contribution to that growth. The improving situation in industry was further indicated by industrial production growth and its upward impact on export performance. Domestic demand indicators (sales in trade and services) also picked up and therefore private consumption is expected to continue on a growth trajectory.

The labour market situation continues to improve. Annual employment growth in January

stood at 3.1%, supported mainly by the sectors of industry, services and trade. While job growth is strong, labour market slack is declining. The growth is now largely being driven by small firms at which recruitment was probably deferred in previous periods. The tightening of the labour market is starting to have an impact on annual wage growth (5.5% in January for the sectors under review). Wage growth is stronger in the above-mentioned sectors that are creating most of the new jobs. The unemployment rate maintained its downward path in February (falling to 8.4%).

The annual inflation rate accelerated further in February, to 1.3%. Most of the increase was attributable to food inflation, which in February reflected not only the usual factors of rising agricultural commodity prices, but also the impact of bad weather on certain vegetable harvests in southern Europe. The increases in prices of industrial goods excluding automotive fuel was due in part to a change in the reporting methodology for prices of used cars, which is expected to add 0.15 percentage point to the headline inflation rate for the whole of 2017. Services inflation remained relatively subdued.

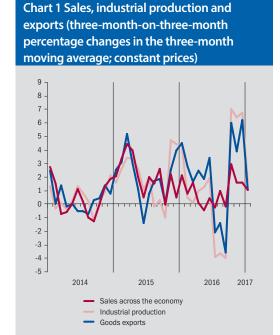


### **2** THE REAL ECONOMY

# 2.1 'HARD' INDICATORS OF ECONOMIC ACTIVITY

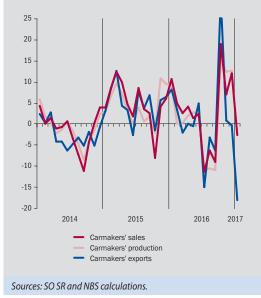
Monthly indicators continued to grow in January 2017, but at a more moderate pace owing to the base effect of particularly strong increases in December. The automotive industry's positive impact on the indicators faded, after making a disproportionate contribution to their growth at the end of the previous year. The weakening of that contribution was largely compensated for by the contribution of the metal processing industry.

The average industrial production index (IPI) for the three months to January 2017 was 1.7% higher than the corresponding average three months earlier. Besides the metal processing industry, both energy supply and manufacture of electrical equipment contributed positively to the increase. At the same time, the SO SR revised up the industrial production growth figures for previous months, with the result that the IPI's growth rate for the whole of 2016 increased to 4.7% (from 3.3%). The revisions concerned mainly manufacture of rubber and plastic products,



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)



manufacture of food products, and manufacture of machinery and equipment.

As for sales across the economy, they increased in January by 1.0% in three-month-on-three-month moving average terms. Industry made the largest contribution to overall sales growth. Other sectors that also had a positive impact included wholesale trade, retail trade, and market services. Sales trends are expected to remain favourable, particularly given the upward path of leading indicators and labour market indicators.

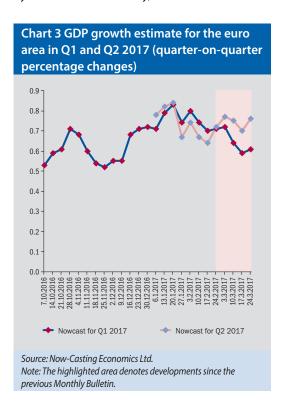
The three-month-on-three-month growth rate for exports was 1.1% in January. The car industry reported a drop in exports, alongside the decline in its production. High volatility in exports is typical for the car industry, and in view of the substantial (and rising) share of cars in Slovakia's total exports, this volatility has a major impact on Slovakia's foreign trade results. Current business sentiment in Slovakia implies the continuation of favourable trends in industry and foreign trade, as do a number of leading indicators in Slovakia's major trading partners.



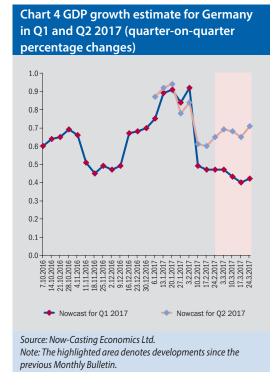
#### 2.2 'SOFT' LEADING INDICATORS

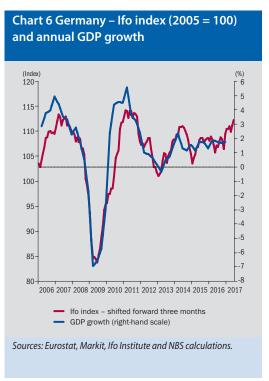
The European Commission's **Economic Sentiment Indicator** (ESI) for the euro area remained unchanged in February, while the ESI for Germany declined. In Germany, the **Ifo Business Cli** 

mate Index increased in March on the basis of firms' improved assessments of both the current business situation and business outlook for the next six months. As for the **ZEW** surveys of the Germany economy, both the economic sentiment index and current conditions index picked











#### CHAPTER 2

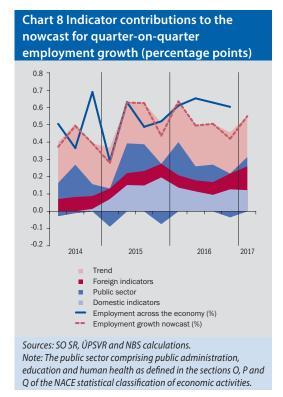
up moderately in March. The composite **Purchasing Managers' Index** (PMI) for Germany increased in March, as did the PMI for the euro area as a whole. In both Germany and the wider euro area, the PMI's improvement reflected accelerat-

ing economic activity in the services sectors and, to a lesser extent, in manufacturing. Leading indicators suggest that the favourable trajectories of euro area and German economies have been maintained in the first quarter of 2017.



## **3** THE LABOUR MARKET

Annual employment growth in January stood at 3.1%, after adjusting for a methodological revision<sup>2</sup> (without the adjustment, it would have been 4%). Job growth therefore remained strong and was supported mainly by the sectors of industry, services and trade. In the construction sector, by contrast, there was still no significant pick-up in recruitment. While overall job growth is strong, labour market slack is declining. The available workforce is insufficient to meet the demand for labour, despite the increasing labour force participation rate and inflow of foreign workers. Data for the fourth quarter of 2016 indicate a slight slowdown in annual job growth among firms employing 20 or more people. Employment growth is now largely being driven by small firms at which recruitment was probably deferred in previous periods. With the labour market tightening, employment growth for the whole of 2017 may be slightly lower than in the







Sources: SO SR and NBS calculations based on monthly figures for employment in the sectors under review.

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

2016.

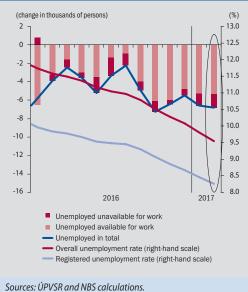
previous year if employers do not manage to fill new vacancies sufficiently quickly. On the other hand, this could put upward pressure on wage growth.

Unemployment maintained its favourable trend in February 2017. The number of unemployed was around 6,800<sup>3</sup> lower in February than in January, after seasonal adjustment. The decline in the number of jobless reflects the current growth in employment and the downward impact of demographic trends on the working-age population. A partial counterweight to these factors is the rising labour force participation rate; the increase in participation is reducing the need to recruit from the ranks of the unemployed. The number of people registering as unemployed after redundancy remains far lower than the number of job seekers finding work. Job vacancy numbers are still at high levels, indicating that employers will still be looking to increase their workforces in the near term.

- 2 Employment in the services and trade sectors in January 2016 was reported as having fallen sharply (by around 24,000 people after seasonal adjustment). In fact, this decline resulted from a revision to the data compilation method, specifically an adjustment to time series that removes volatility from the year-on-year figures.
- In seasonally-unadjusted terms, the registered unemployment rate decreased month on month by 0.25 percentage point, to 8.39%, and the unemployment rate based on the total number of job seekers fell by 0.25 percentage point, to 0.89%.



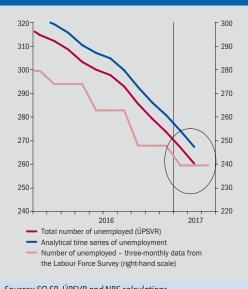




Monthly indicators for employment in the first and second quarters of 2017 suggest that employment across the economy will continue to increase. Hence, employment projections have been revised up in the MTF-2017Q1 forecast.

Annual average wage growth across the sectors under review accelerated to 5.5% in January, from 3.7% for the fourth quarter. The acceleration was driven by wage growth in all the principal sectors: industry, services, trade and, to a lesser extent, construction. In each of these sectors apart from construction, wages increased by between 5% and 6%. Wage growth in February and March may be slightly slowed by the strong base effect of high wage growth a year earlier - probably caused by bonuses related to increased activity arising from the utilisation of EU funds, and by additional wage payments for the leap year day. The eventual wage growth for the first quarter

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



Sources: SO SR, ÚPSVR and NBS calculations. Note: The Labour Force Survey unemployment figure for Q1 2017 is the MTF-2017Q1 projection. The analytical time series of unemployment is based on ÚPSVR figures and is defined in the MTF-2013Q3 forecast.

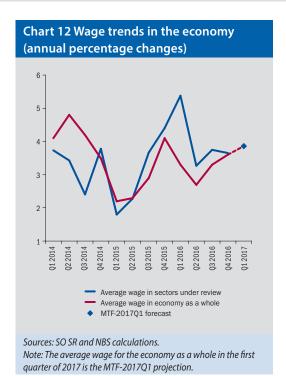
Chart 11 Wage growth by sector based on monthly figures (annual percentage changes in the three-month moving average)



Sources: SO SR and NBS calculations.



#### CHAPTER 3



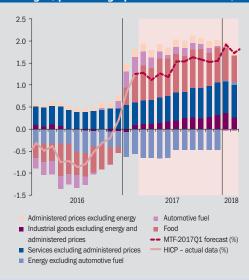
may be more moderate than the January figures indicate. Nevertheless, coming months may be expected to see the effect of higher negotiated wages at larger firms in the car industry, mechanical engineering industry, and trade sector. Current wage growth is supported by economic growth and perceptions of labour shortages. The wage growth projections for 2017 have been revised up in the MTF-2017Q1 forecast.



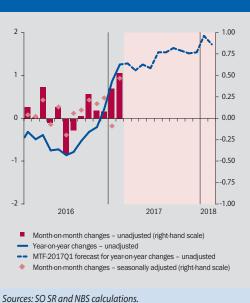
### 4 PRICES

Annual HICP inflation accelerated faster than expected in February, to 1.3% (up from 0.9% in January). The month-on-month inflation rate was 0.5%, reflecting mainly increases in prices of unprocessed food and non-fuel industrial goods. The stronger February inflation figure was factored into the MTF-2017Q1 forecast.









Unprocessed food prices, especially vegetables prices, increased sharply and probably reflected the impact of bad weather on harvests in southern Europe. That impact is expected to last only until the drop in produce from southern Europe is made up for by produce from central Europe. Non-fuel industrial goods inflation also contributed to the higher than expected increase in

Table 1 HICP components – comparison of projected and actual rates of change (percentages;

	percentage point contributions)												
				Non-energy industrial Energy goods		Food	Servi- ces	HICP <sup>2)</sup>	Net inflation excluding fuel <sup>2)</sup>				
Ī	Year-on-year changes		January 2016 – actual figure	0.2	-1.5	1.5	1.9	0.9	0.9				
		Α	February 2017 – MTF-2016Q4U forecast	0.2	-1.4	1.8	2.0	0.9	1.0				
		В	February 2017 – actual figure	0.8	-1.1	2.3	1.8	1.3	1.2				
		B-A	February – actual figure minus forecast	0.6	0.3	0.6	-0.2	0.36	0.2				
	Yea	(B-A) * weight	Contribution to overall forecast error <sup>1)</sup>	0.17	0.06	0.20	-0.08	0.36	0.09				

Sources: SO SR and NBS calculations.

Sources: SO SR and NBS calculations.

<sup>1)</sup> Projections taken from NBS's update of the December 2016 Medium-Term Forecast (MTF-2016Q4U).

<sup>2)</sup> Without a revision to the reporting methodology for used cars, the overall HICP rate would have been lower by 0.15 percentage point and the net inflation rate by 0.3 percentage point.





headline inflation, as a result of used car prices climbing by 16% month on month and 6% year on year (their previous annual rate of change was -9%). This turnaround resulted from a revision to the reporting methodology for these prices, which since it was not applied retrospectively across the time series is expected to add 0.15 percentage point to the HICP inflation rate for the whole of 2017. Annual fuel price inflation reached a peak in February and is expected to slow gradually over the course of 2017 owing to the current downward trend in Brent crude oil prices. The cumulative drop in heat prices in

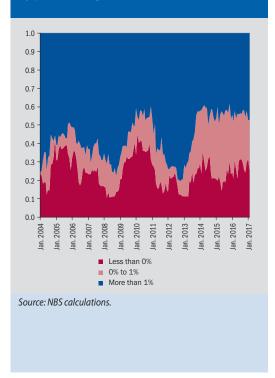
January and February was almost in line with projections. In response to new decisions of the Regulatory Office for Network Industries (ÚRSO) on water and sewerage prices, backdated to 1 January 2017, the SO SR has undertaken to revise the rate of change in these prices as from the beginning of 2017, and it is expected to do the same with electricity prices. In the light of ÚRSO's recently issued pricing decisions, the rate of decline in consumer energy prices in January 2017 is expected to be more pronounced than the published rate of -2.9% (the figure used in the most recent NBS forecast).

Chart 15 Demand-pull inflation unadjusted for methodological revisions (annual percentage changes; seasonally adjusted)



Sources: SO SR and NBS calculations.
Note: Demand-pull 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.

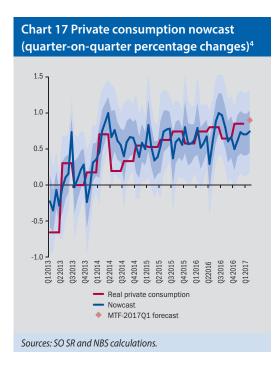
Chart 16 HICP core inflation broken down by price-change intervals

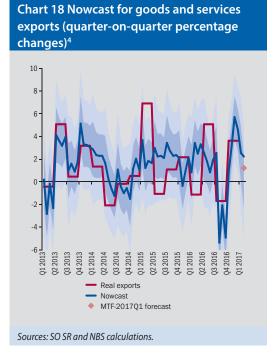


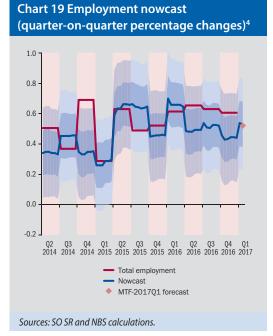


# **5** Indicative impact on the forecast

Nowcast movements and all the most recent monthly data have been incorporated into NBS's March 2017 Medium-Term Forecast (MTF-2017Q1).

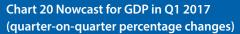


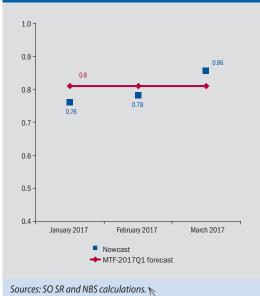




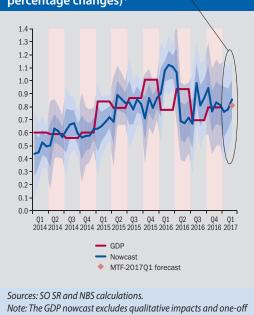
4 The band around the point estimate denotes +/- 1 and 2 times the root mean square error. Nowcasts are calculated using OLS time series models based on selected sets of monthly indicators (for employment, a factor model is used). Nowcasts provide a current estimate of future developments using available 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.

#### CHAPTER 5





# Chart 21 GDP nowcast (quarter-on-quarter percentage changes)<sup>4</sup>



effects (e.g. EU funds).



# 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	Employ- ment ESA 2010	Unem- ployment rate (%)	Industrial production index	Total sales of sec- tors <sup>1)</sup>	Economic Sentiment Indicator (long-term average=100)	M3 (for analyti- cal use) <sup>2)</sup>	Loans to non-fi- nancial corpora- tions	Loans to house- holds	State budget balance (EUR mil.)	General govern- ment balance (% of GDP)	General govern- ment 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
2009	-5.4	0.9	-2.6	-2.0	12.1	-15.5	-16.4	76.9	-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	7.9	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	6.2	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	4.5	93.9	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	90.2	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	3.5	2.7	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	7.4	7.4	99.7	11.5	6.8	13.0	-1,932.6	-2.7	52.5	0.2	2.7	1.1095
2016	3.3	-0.5	-4.3	2.4	9.7	4.7	4.0	101.6	6.1	3.9	13.2	-980.3			-0.7	2.9	1.1069
2016 Q1	3.4	-0.5	-5.3	2.2	10.4	4.5	5.2	102.7	10.1	3.1	12.8	-	-2.2	50.7	-0.5	3.4	1.1020
2016 Q2	3.8	-0.6	-5.2	2.3	9.6	7.3	5.2	98.7	9.7	0.7	13.4	-	-1.9	52.2	0.7	4.2	1.1292
2016 Q3	3.0	-0.7	-4.2	2.4	9.5	2.8	2.3	102.4	9.3	3.8	12.9	-	-0.7	52.4	-1.1	2.3	1.1166
2016 Q4	3.0	-0.1	-2.4	2.6	9.1	4.0	3.4	102.7	6.1	3.9	13.2	-			-1.9	1.9	1.0789
2016 Mar.	-	-0.5	-5.9	-	9.9	1.1	2.8	102.9	10.1	3.1	12.8	-44.8	-	-	-	-	1.1100
2016 Apr.	-	-0.4	-5.6	-	9.6	8.3	5.0	99.6	10.9	3.3	12.9	232.8	-	-	-	-	1.1339
2016 May	-	-0.7	-5.6	-	9.5	8.0	4.5	98.0	10.8	1.5	13.3	-465.4	-	-	-	-	1.1311
2016 June	-	-0.7	-4.5	-	9.5	5.7	6.0	98.6	9.7	0.7	13.4	375.1	-	-	-	-	1.1229
2016 July	-	-0.9	-4.6	-	9.4	-11.8	-4.4	104.0	8.9	4.6	13.7	112.2	-	-	-	-	1.1069
2016 Aug.	-	-0.8	-4.8	-	9.4	17.8	9.5	99.9	9.0	4.7	13.0	13.1	-	-	-	-	1.1212
2016 Sep.	-	-0.5	-3.2	-	9.4	4.1	2.4	103.4	9.3	3.8	12.9	-33.2	-	-	-	-	1.1212
2016 Oct.	-	-0.3	-2.8	-	9.1	3.4	3.2	102.8	8.7	4.7	12.9	223.7	-	-	-	-	1.1026
2016 Nov.	-	-0.2	-2.6	-	8.8	3.1	3.2	101.3	8.1	3.0	13.0	-201.6	-	-	-	-	1.0799
2016 Dec.	-	0.2	-1.8	-	8.8	5.8	3.9	103.9	6.1	3.9	13.2	-358.1	-	-	-	-	1.0543
2017 Jan.	-	0.9	0.4	-	8.6	7.6	1.4	104.6	6.2	7.0	13.4	92.3	-	-	-	-	1.0614
2017 Feb.	-	1.3		-	8.4			106.6				-500.0	-	-	-	-	1.0643

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

More detailed time series for selected macroeconomic indicators http://www.nbs.sk/\_img/Documents/\_MonthlyBulletin/2017/StatisticsMB0317.xls

<sup>1)</sup> Constant prices (seasonally adjusted).

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