



# NBS Monthly Bulletin

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#### **A**BBREVIATIONS

CPI Consumer Price Index

EA euro area

ECB European Central Bank
EC European Commission
EMEs emerging market economies
EONIA euro overnight index average
ESA 2010 European System of Accounts 2010

ESI Economic Sentiment Indicator (European Commission)

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

Ifo Institute Leibniz Institute for Economic Research at the University of Munich

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)

NACE Statistical Classification of Economic Activities in the European Community (Rev. 2)

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 annump.p. percentage point

PMI Purchasing Managers' 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

amilv

ÚRSO Úrad pre reguláciu sieťových odvetví – Regulatory Office for Network Industries

USD US dollar VAT value-added tax

ZEW Das Zentrum für Europäische Wirtschaftsforschung – The Centre for European Economic

Research

#### 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>

Monthly economic data for the euro area showed a slight deterioration in early 2018. Both industrial production and sales fell in January, and leading indicators also declined.

In Slovakia, January's developments reflected mainly an increase in the number of days of leave taken at one car factory, which caused a softening of industrial production growth and also dips in sales and exports. These adverse effects were only partly offset by high production increases in other sectors, particularly in the metal and machinery manufacturing industries. Strengthening domestic demand had a positive impact on sales in the construction, tourism, services, and retail trade sectors. The decreases in monthly indicators were taken into account in the latest NBS Medium-Term Forecast. At the same time, both production and export growth are expected to accelerate in the months ahead.

The labour market situation remained favourable in January, with the unemployment rate

maintaining a downward trend. Employment recorded a notable increase, although that may have been affected by a methodological change. The prospect of net job creation continuing in the period ahead is supported by employers' expectations. Average annual wage growth accelerated in January to 7.3%, driven largely by wage increases in industry and services. The high wage growth stemmed not only from labour market tightening, but also from an increase in the minimum wage, and it is beginning to have an appreciable impact on inflation.

The annual inflation rate slowed to 2.2% in February owing mainly to what was an expected development, the fading of the impact from elevated food prices in the second half of 2017. The fall in inflation also reflected a decrease in the automotive fuel component, which mirrored global oil price trends. Services inflation remained robust, supported mainly by strong domestic demand.

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



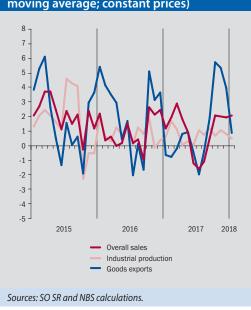
### **2** THE REAL ECONOMY

## 2.1 'HARD' INDICATORS OF ECONOMIC ACTIVITY

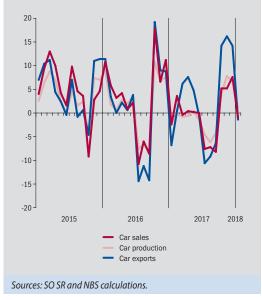
Growth in both industrial production and exports slowed in January 2018 in three-month-on-three-month terms. The main factor behind the fall in these growth rates was, as expected, one car factory that shut down its production lines at the turn of the year for a longer than usual period.

Average industrial production growth for the three months to January 2018 was 0.5% in three-month-on-three-month terms, which was lower compared with the corresponding rate for the previous period. This decline was attributable not only to the car industry, but also to the refined petroleum product industry. The main drivers of industrial production growth were the metal and machinery manufacturing industries. Going forward, production capacity utilisation is expected to gather pace and therefore industrial expansion should accelerate. This is also suggested by producers' expectations for future output, especially in the automotive industry.

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







As for sales, their three-month-on-three-month growth rate remained unchanged in January, at 2%. The impact of a drop in industry sales was offset by rising sales in other sectors, most of all in construction (where both sales and production increased by a fifth year on year), services, and retail trade. Sales in accommodation services also recorded relatively strong growth in January.

Slovakia's export growth slowed in January to 0.8% on a three-month-on-three-month basis. At the same time, imports accelerated, to the extent that the trade balance for the month registered an unusual negative level.

#### 2.2 'SOFT' LEADING INDICATORS

The European Commission's **Economic Sentiment Indicator** (ESI) for the euro area fell slightly in February, with the consumer confidence component recording the largest drop. The ESI for Germany fell notably as a result of deterioration in all components other than the construction confidence indicator. The composite **Purcha**-



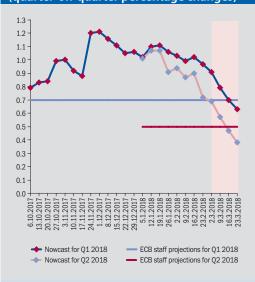
**sing Managers' Index** (PMI) for the euro area fell in March to its lowest level since January of the previous year, owing to the softening of production growth in industry and services. The fall in the German PMI also reflected a decline in economic activity growth in industry and services. The **ZEW Indicator of Economic Sentiment** for Germany fell sharply, and the ZEW assessment of

Chart 3 Economic sentiment indicators for Germany



Sources: European Commission, Ifo Institute and ZEW Centre. Note: ESI (long-run average = 100); Ifo Business Climate Index (index: 2005 = 100); ZEW (balances).

# Chart 5 GDP growth estimate for the euro area in Q1 2018 and Q2 2018 (quarter-on-quarter percentage changes)



Sources: Now-Casting Economics Ltd and ECB (March 2018 ECB staff macroeconomic projections for the euro area). Note: The highlighted area denotes developments since the previous Monthly Bulletin.

Chart 4 Germany – Ifo Business Climate Index (2005 = 100) and annual GDP growth

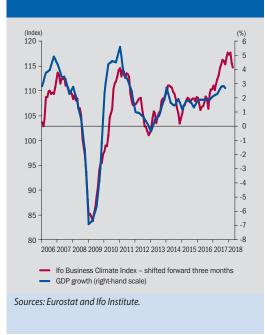
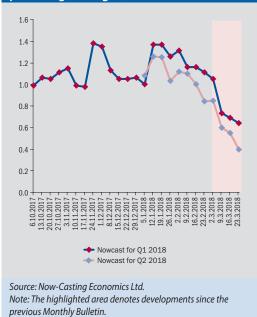


Chart 6 GDP growth estimate for Germany in Q1 2018 and Q2 2018 (quarter-on-quarter percentage changes)





### CHAPTER 2

the current economic situation also worsened. The **Ifo Business Climate Index** for Industry and Trade in Germany fell in March, as did its sub-index of business expectations.

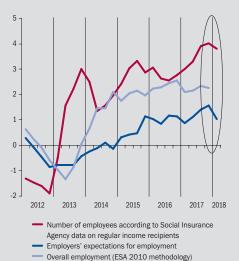
Leading indicators, as well as short-term forecasts, suggest that economic growth in both Germany and the euro area as a whole moderated in the first quarter of 2018.



### **3** THE LABOUR MARKET

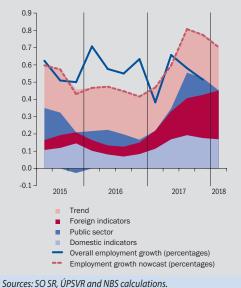
According to monthly data, employment growth in the reviewed sectors increased in January to a robust 5%, after fluctuating last year within a relatively stable band around 3%. The January growth rate translated into headcount employment growth of around 20,000, monthon-month. This, however, was at odds with the fact that the number of registered unemployed fell by around 2,000 and that the number of foreign workers remained almost unchanged. It is therefore inferred that much of the large rise in job growth was due to methodological effects. A notable outlier was the rate of increase in service sector employment, which soared from 2.4% in December 2017 to 7.9% in January 2018. Other relevant monthly indicators of employment (such as employers' expectation or figures from the Social Insurance Agency) suggest that job growth has not changed significantly in the first quarter as whole. These factors were taken into account in NBS's latest quarterly Medium-Term Forecast (MTF-2018Q1), in which employment growth is projected to be 2.2%, year on year, in

### Chart 8 Alternative indicators of employment trends (annual percentage changes; standardised balances)



Sources: SO SR, Social Insurance Agency and NBS calculations. Note: The expectations data for Q1 2018 represent the average for January and February. The headcount employment data from the Social Insurance Agency for the first quarter of 2018 is based on January's figures.

# Chart 7 Indicator contributions to the nowcast for quarter-on-quarter employment growth (percentage points)



Note: The public sector comprising public administration, education and human health as defined in the sections O, P and Q of the NACE statistical classification of economic activities. Given the impact of a methodological change on January's employment data, these data were not included in the nowcast.

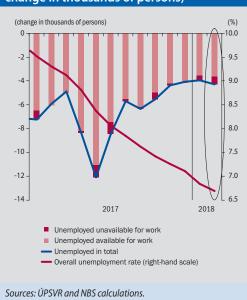
the first quarter of 2018 and to moderate thereafter owing to the mismatch between labour demand and supply. The nowcast for growth in overall employment in the first quarter shows a slight slowdown in quarter on quarter growth (in line with the stable year-on-year growth rate).

Continuing its downward trend of recent months, the number of unemployed fell in February by 4,300 month on month, after seasonal adjustment. Of that number, around 2,000 were removed from the unemployment register for reasons other than finding work. The unemployment rate based on the total number of job seekers fell in January by 0.15 percentage point, month on month, to 6.7%.2 Unemployment is expected to continue falling in the first quarter, as projected in the MTF-2018Q1 forecast. An increasing number of job seekers are enrolled in retraining schemes that may improve their chances of employment. It remains the case that the numbers of both short-term and long-term unemployed are falling.

<sup>2</sup> In non-seasonally adjusted terms, the registered unemployed rate decreased month on month by 0.16 percentage point, to 5.72%, and the registered unemployment rate based on the total number of job seekers fell by 0.15 percentage point, to 6.97%.

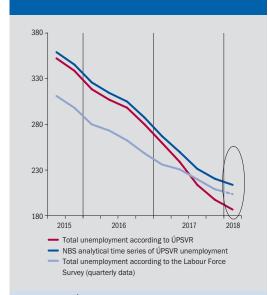


## Chart 9 Unemployment (percentages; change in thousands of persons)



Average annual wage growth in the reviewed sectors accelerated strongly in January 2018, to 7.3%, after recording 2.2% in December and 4% for the fourth quarter of 2017. The December rate was attributable to a decline in the number of hours worked in industry and construction, and probably also to a slight drop in sales growth in the services sector. The same sectors accounted for the surge in wage growth in January, as they recorded year-on-year increases in the region of 7-8%. Wage growth in the trade sector also increased (by 4.2%). Looking at wage determinants in January, the main changes compared with December were an increase in the number of hours worked in industry and construction and an increase in sales. Along with labour market tightening and the gradual improvement in productivity indicators, a rise in the minimum wage boosted wage growth in January (and is expected to add around 0.2 percentage point

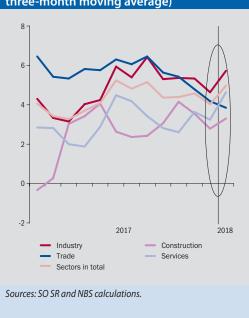
## Chart 10 Number of unemployed (thousands of persons)



Sources: SO SR, ÚPSVR and NBS calculations.

Note: The analytical time series adjusts the level of unemployment to take into account the removal of job seekers from the unemployment register for reasons other than finding work, as well as any methodological changes. The Labour Force Survey unemployment figure for Q1 2018 is the MTF-2018Q1 projection. Among the unemployment figures based on the ÚPSVR methodology, the figure for March 2018 is imputed using an ARIMA model.

# Chart 11 Wage level by sector based on monthly figures (annual percentage changes; three-month moving average)



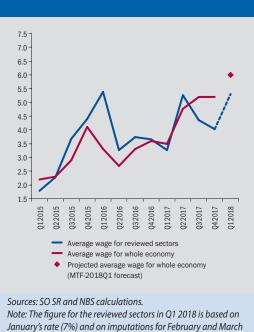




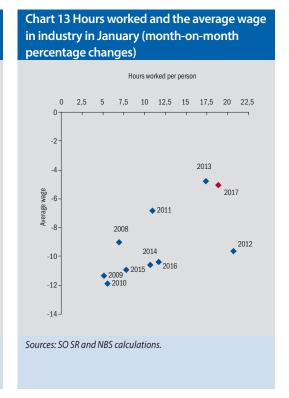
to annual wage growth in the first quarter). The MTF-2018Q1 forecast projects annual wage growth for the first quarter to be 6%, which may be a realistic estimate given the volatility of

monthly wage figures (strong growth is typically followed by weaker growth, and the high rate of 7% is unlikely to be sustained throughout the quarter).

Chart 12 Overall wage level in the economy (annual percentage changes)



made using an ARIMA model.



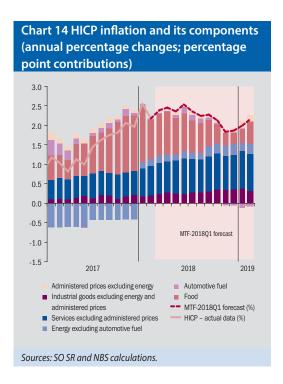


### 4 PRICES

The annual HICP inflation rate in Slovakia fell to 2.2% in February (from 2.6% in January), which was lower than projected. In month-on-month terms, the price level increased by 0.2%.

After peaking in January, the headline HICP inflation rate confirmed expectations by slowing in February. Its decline stemmed mainly from the continuing fading of the processed food price

shock, as well as from falling rates of inflation in unprocessed food prices and in petrol and diesel prices. Annual food price inflation eased to 3.9% in February (from 5.7% in January). On the other hand, services inflation maintained its upward trend, reflecting mainly developments in the domestic economy. With that trend expected to continue, services inflation is projected to be close to 3% by the year-end. The fall in the annu-



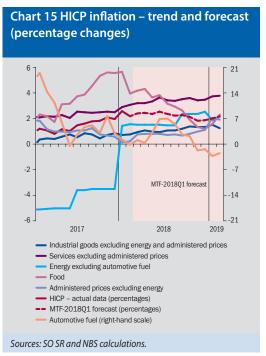


Table 1 HICP components – comparison of projected and actual rates of change (percentages; percentage point contributions)												
			Non-energy industrial goods	Energy	Food	Services	НІСР	Demand- -pull inflation excluding fuel	Admi- nistered prices excluding energy			
iges	А	February 2018 – MTF- 2017Q4U forecast	0.7	1.8	4.9	2.2	2.42	1.7	0.2			
ar chan	В	February 2018 – actual figure	0.6	1.2	3.9	2.6	2.19	1.9	0.2			
Year-on-year changes	B-A	February 2018 – actual figure minus forecast	-0.1	-0.6	-1.0	0.4	-0.2	0.2	0.0			
Year	(B-A) * weight	Contribution to overall forecast error <sup>1)</sup>	-0.03	-0.08	-0.26	0.12	-0.23	0.10	0.00			
Sources: SO SR and NBS calculations.  1) Projections taken from the January 2018 update of NBS's Medium-Term Forecast (MTF-2017Q4U).												



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al inflation rate for automotive fuel prices resulted from the decline in the Brent crude oil price in euro during February. Owing to the immediate pass-through of that decline, pump prices were lower in February than in January.

The slowdown in food price inflation was greater than projected at the beginning of the year,

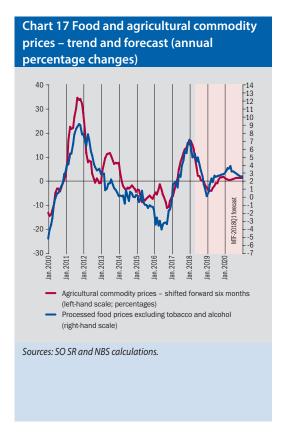
since the fading of the processed food price shock (relating to prices of milk products, butter and eggs) was faster and more pronounced. This development was taken into account in the MTF-2018Q1 forecast.

The average inflation rate in 2018 is expected to be more than 2.0%.

### Chart 16 Demand-pull inflation (annual percentage changes; seasonally adjusted) 10 5 -1 -6 Jan. 2019 Jan. 2010 Jan. 2011 Jan. 2012 Jan. 2013 Jan. 2016 Jan. 2017 Jan. 2018 Jan. 2008 2015 2014 Output gap Super-core (right-hand scale) Demand-pull inflation (right-hand scale) Sources: SO SR and NBS calculations. Note: Demand-pull inflation comprises the following: industrial

goods excluding energy and administered prices; and services excluding administered prices. The super-core index comprises sub-items in the HICP for which the output gap has predictive

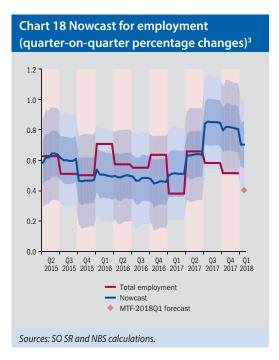
power with statistical significance.

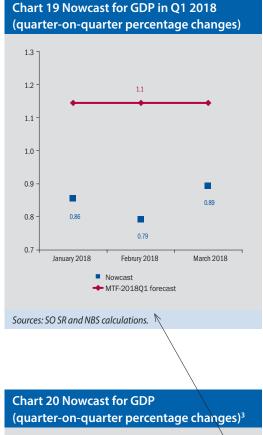


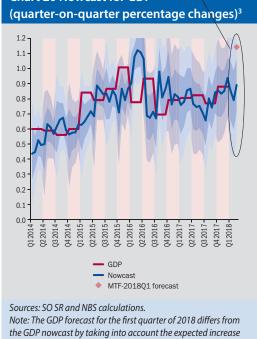


## **5** INDICATIVE IMPACT ON THE FORECAST

Nowcast movements and all the most recent monthly data have been incorporated into NBS's March 2018 Medium-Term Forecast (MTF-2018Q1).







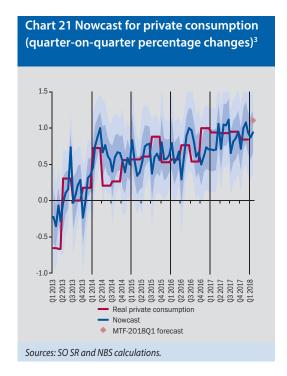
in production capacities in the automotive industry, which

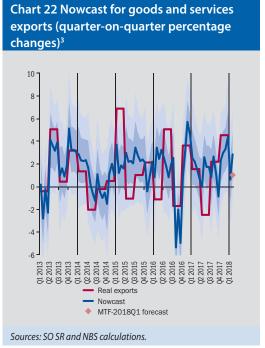
constitutes a one-off factor in the economy.

3 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 auarter, 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







## Overview of main macroeconomic indicators for Slovakia

### Table 2 Selected economic and monetary indicators for Slovakia

(annual percentage changes, unless otherwise indicated)

	Gross do- mestic prod- uct	HICP	Industrial producer prices	Employ- ment ESA 2010	Unem- ployment rate (%)	Industrial produc- tion index	Total sales of sectors <sup>1)</sup>	Economic Sentiment Indicator (long-term average=100)	M3 (for analyti- cal use) <sup>2)</sup>	Loans to private sector <sup>3)</sup>	Loans to non-fi- nancial corpora- tions <sup>3)</sup>	Loans to house- holds <sup>3)</sup>	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	18
2010	5.0	0.7	-2.7	-1.5	14.4	12.5	8.1	98.6	7.8	5.3	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	3.5	6.2	98.7	2.9	9.3	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	4.4	4.4	93.8	8.8	3.8	-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	2.1	1.9	90.0	6.4	6.4	1.7	10.3	-2,023.3	-2.7	54.7	1.9	3.9	1.3281
2014	2.8	-0.1	-3.5	1.4	13.2	3.0	2.6	100.2	2.5	7.7	1.9	13.2	-2,923.4	-2.7	53.5	1.1	3.6	1.3285
2015	3.9	-0.3	-4.2	2.0	11.5	6.0	7.3	99.6	11.5	10.7	7.3	13.1	-1,932.6	-2.7	52.3	-1.7	1.3	1.1095
2016	3.3	-0.5	-4.3	2.4	9.7	3.8	4.1	101.5	6.1	10.2	4.2	13.4	-980.3	-2.2	51.8	-1.5	2.0	1.1069
2017	3.4	1.4	1.9	2.2	8.1	3.0	4.5	103.3	7.8	10.5	7.8	12.3	-1,220.1			-1.8	1.0	1.1297
2017 Q1	3.0	1.0	2.0	2.1	8.7	5.3	6.0	104.1	5.7	11.1	8.0	12.6	-	-1.1	52.1	0.2	2.3	1.0648
2017 Q2	3.7	1.0	1.9	2.1	8.1	0.3	3.2	101.5	5.9	12.6	10.5	13.3	-	-0.5	51.0	-1.7	2.0	1.1021
2017 Q3	3.4	1.6	1.6	2.3	8.0	2.8	4.7	104.5	6.4	11.2	9.8	12.0	-	-1.4	51.3	-3.1	-0.7	1.1746
2017 Q4	3.5	2.0	1.9	2.2	7.7	3.6	4.1	103.3	7.8				-			-2.2	0.6	1.1774
2017 Mar.	-	1.0	3.0	-	8.0	10.1	8.3	101.4	5.7	12.0	8.5	13.8	70.7	-	-	-	-	1.0685
2017 Apr.	-	0.8	2.5	-	7.7	-3.4	4.1	101.4	6.1	12.3	9.6	13.6	-298.2	-	-	-	-	1.0723
2017 May	-	1.1	1.9	-	7.4	2.6	4.3	102.4	5.7	13.0	11.7	13.6	-256.4	-	-	-	-	1.1058
2017 June	-	1.0	1.4	-	6.9	1.8	1.2	100.6	5.9	12.6	10.5	13.3	72.6	-	-	-	-	1.1229
2017 July	-	1.5	0.6	-	6.7	6.3	6.9	101.9	5.6	11.9	9.6	13.3	53.2	-	-	-	-	1.1511
2017 Aug.	-	1.6	2.1	-	6.5	0.1	3.9	103.9	6.7	12.1	10.4	13.3	-227.2	-	-	-	-	1.1807
2017 Sep.	-	1.8	2.1	-	6.4	2.3	3.4	107.6	6.4	12.0	10.3	13.0	-94.8	-	-	-	-	1.1915
2017 Oct.	-	1.8	2.0	-	6.1	5.8	3.1	106.2	6.8	11.3	8.3	13.1	336.2	-	-	-	-	1.1756
2017 Nov.	-	2.1	1.7	-	6.0	4.7	4.9	101.8	7.9	10.9	7.7	12.8	-229.7	-	-	-	-	1.1738
2017 Dec.	-	2.0	2.0	-	5.9	-0.1	4.4	101.8	7.8	10.5	7.8	12.3	-238.7	-	-	-	-	1.1836
2018 Jan.	-	2.6	2.5	-	5.9	2.1	3.9	99.2	8.4				146.9	-	-	-	-	1.2200
2018 Feb.	-	2.2		-	5.7			105.7					-488.6	-	-	-	-	1.2348

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

More detailed time series for selected macroeconomic indicators http://www.nbs.sk/\_img/Documents/\_MonthlyBulletin/2018/StatisticsMB0318.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).

<sup>3)</sup> Adjusted for sales and securitisation.