



NÁRODNÁ BANKA SLOVENSKA
EUROSYSTEM



NBS MONTHLY BULLETIN

APRIL 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 25 April 2017.

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

ISSN 1337-9526 (online)



CONTENTS

1	SUMMARY	5
2	THE REAL ECONOMY	6
2.1	'Hard' indicators of economic activity	6
2.2	'Soft' leading indicators	6
3	THE LABOUR MARKET	8
4	PRICES	11
5	INDICATIVE IMPACT ON THE FORECAST	13
OVERVIEW OF MAIN MACROECONOMIC INDICATORS FOR SLOVAKIA		15
LIST OF TABLES		
Table 1	HICP components – comparison of projected and actual rates of change	11
Table 2	Selected economic and monetary indicators for Slovakia	15
LIST OF CHARTS		
Chart 1	Sales, industrial production and exports	6
Chart 2	Automotive industry indicators	6
Chart 3	GDP growth estimate for the euro area in Q1, Q2 and Q3 2017	7
Chart 4	GDP growth estimate for Germany in Q1, Q2 and Q3 2017	7
Chart 5	Economic sentiment indicators for Germany	7
Chart 6	Germany – Ifo index and annual GDP growth	7
Chart 7	Employment – sectoral contributions to three-month-on-three-month percentage changes in the three-month moving average	8
Chart 8	Indicator contributions to the nowcast for quarter-on-quarter employment growth	8
Chart 9	Unemployment	9
Chart 10	Number of unemployed	9
Chart 11	Wage growth by sector based on monthly figures	9
Chart 12	Wage trends in the economy	10
Chart 13	Average wage growth adjusted for calendar effects	10
Chart 14	Annual HICP inflation and contributions of components	11
Chart 15	HICP inflation	11
Chart 16	Demand-pull inflation excluding used car prices	12
Chart 17	HICP core inflation broken down by price-change intervals	12
Chart 18	Employment nowcast	13
Chart 19	Nowcast for GDP in Q1 2017	13
Chart 20	GDP nowcast	13
Chart 21	Private consumption nowcast	14
Chart 22	Nowcast for goods and services exports	14



ABBREVIATIONS

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 annum
p.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 Family
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 SUMMARY¹

Hard indicators in the external environment have been moderating. This may, however, be only a temporary trend, given that leading indicators, including global trade indicators, remain benign and imply relatively strong euro area economic growth in the first quarter of 2016.

In Slovakia, monthly indicators have been improving, with industrial production, exports and sales all growing at a slightly faster pace. Car production has been sluggish so far this year, possibly owing to the retooling of production lines and the production launch of new car models.

The view that the slackening of car production will not last long is supported by labour market developments. The highest job creation is currently in industry, particularly in the core sectors of mechanical engineering, car production, metal manufacturing, and manufacture of rubber and plastic products. While employment remains on a strong growth path according to leading indicators, it is expected to moderate later on as labour supply and demand mis-

matches become more pronounced. The unemployment rate maintained its downward trend in March, falling to 8%. Wage growth slowed in February owing mainly to base effect of the leap day in 2016. Excluding that effect, the slowdown in wage growth was more moderate. The strongest wage growth was in the sectors of trade and industry.

The annual inflation rate fell to 1.0% in March, reflecting decelerating inflation rates for food and automotive fuel. Another cause of the slowdown was the revision of energy prices going back to January of this year. The March inflation rate was slightly lower than projected in NBS's March 2017 Medium-Term Forecast (MTF-2017Q1). Despite the March slowdown, the average inflation rate for the year as a whole is expected to exceed 1% on the basis of assumptions for food prices, services prices and import prices.

All other monthly data are consistent with the MTF-2017Q1 projections. The nowcast for Slovakia's GDP growth continues to indicate a favourable trend.

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

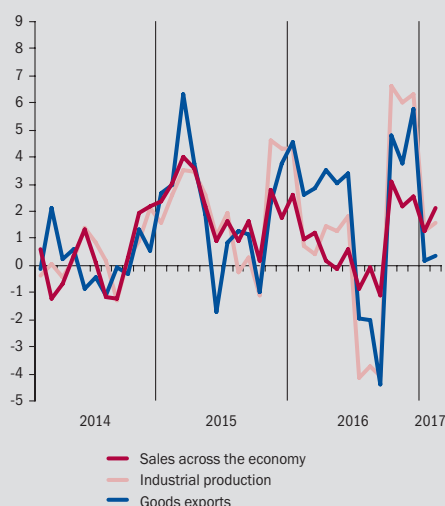
2.1 'HARD' INDICATORS OF ECONOMIC ACTIVITY

Real economy indicators continued their upward trend in February 2017 on a three-month-on-three-month basis.

The average industrial production index for the three months to February 2017 was 1.6% higher than the corresponding average three months earlier. The largest contributions to that growth came from metal manufacturing, electronics manufacturing, and energy supply. Car production fell again in February, but at a more moderate pace. Given the relative strength of business confidence indicators in the first quarter, car production is expected to pick up soon and have a positive impact on overall industrial production.

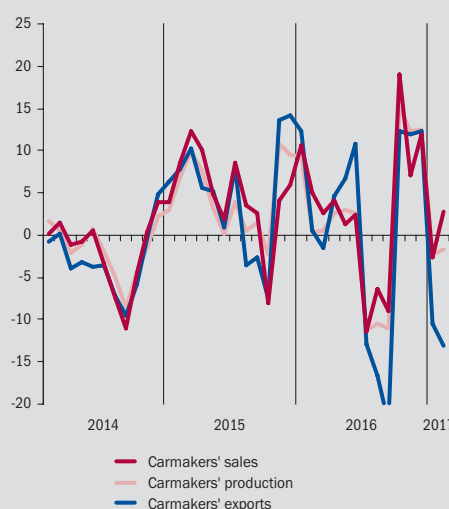
Overall sales growth accelerated in February to 2.1% in three-month-on-three-month moving average terms. Its increase was caused mainly by a base effect from the earlier three-month period. In month-on-month terms, sales remained flat.

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.

Export performance was dampened by the situation in the car industry. Although car exports in February partly rebounded from their decline in January, their average for the three months to February remained below the average for the previous three months. Imports were supported mainly by domestic demand, on both the investment and consumption sides. This data was in line with the MTF-2017Q1 forecast, which envisaged a strengthening of domestic demand in the first quarter of this year.

2.2 'SOFT' LEADING INDICATORS

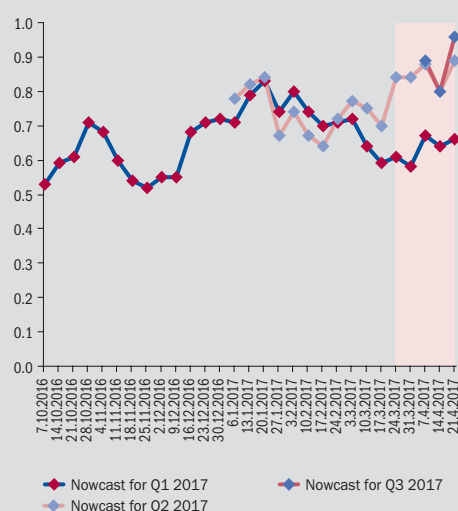
The European Commission's **Economic Sentiment Indicator** (ESI) for the euro area remained broadly unchanged in March (at 107.9), while the ESI for Germany increased by almost one point (to 109.2). Key leading indicators for the German economy – the **Ifo** Business Climate Index and the **ZEW** surveys – maintained their favourable trends in March. In April, the composite **Purchasing Managers' Index** (PMI) for the euro area rose to a six-year high of 56.7, while the PMI for Germany fell to 56.3, which



nevertheless is still an elevated level. Leading indicators, as well as nowcasts, suggest that both the euro area and German economies

maintained their growth trend in the first quarter of 2017 and are on course to post strong growth in the second quarter.

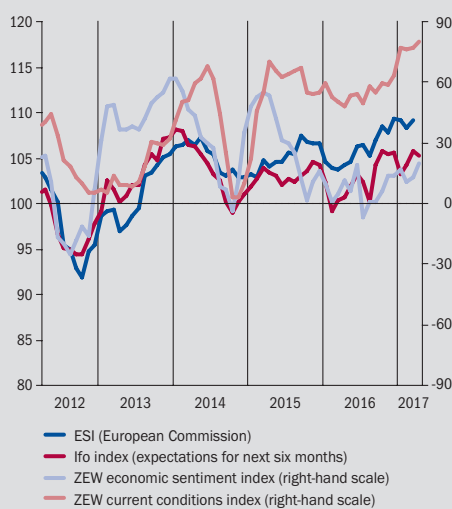
Chart 3 GDP growth estimate for the euro area in Q1, Q2 and Q3 2017 (quarter-on-quarter percentage changes)



Source: Now-Casting Economics Ltd.

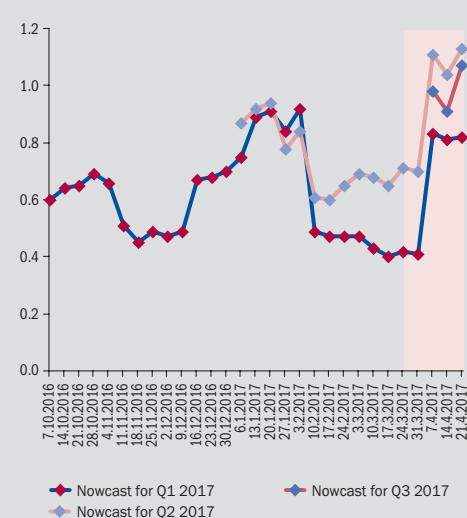
Note: The highlighted area denotes developments since the previous Monthly Bulletin.

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 Q1, Q2 and Q3 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

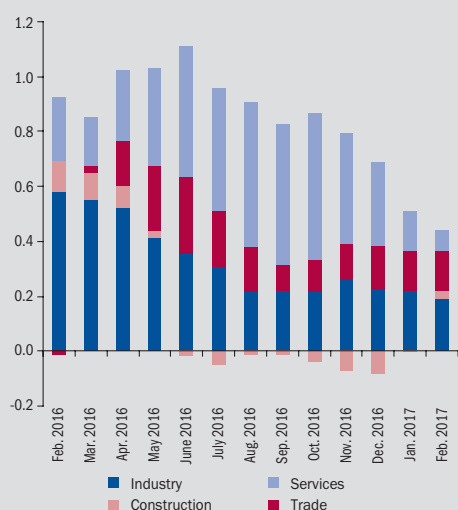


Sources: Eurostat, Markit, Ifo Institute and NBS calculations.

3 THE LABOUR MARKET

Annual employment growth in February 2016 was a relatively strong 3.1 % (the same as in January, with that rate adjusted for a methodological revision²). One of the main drivers of overall employment growth continued to be job growth in industry, particularly in core sectors such as car production, manufacture of rubber and plastic products, metal manufacturing, and mechanical engineering; it increased in February by 2.5% year on year, but at the same time slowed slightly in three-month-on-three-month terms. Employment in the services sector also maintained a high annual growth rate (5.1%), albeit more moderate than in previous months. In trade, too, job growth was quite robust, at 3.5%. Given the current perceived shortages of skilled labour, annual employment growth is not expected to reach the strong pace of last year. In the short term, however, monthly leading indicators are so far suggesting that employment growth will be close to the solid pace projected in the MTF-2017Q1 forecast.

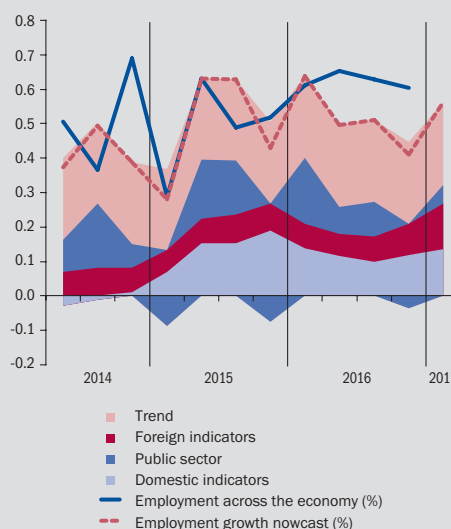
Chart 7 Employment – sectoral contributions to three-month-on-three-month percentage changes in the three-month moving average (percentage points)



Sources: SO SR and NBS calculations based on monthly data 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.

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



Sources: SO SR, ÚPSVR and NBS calculations.

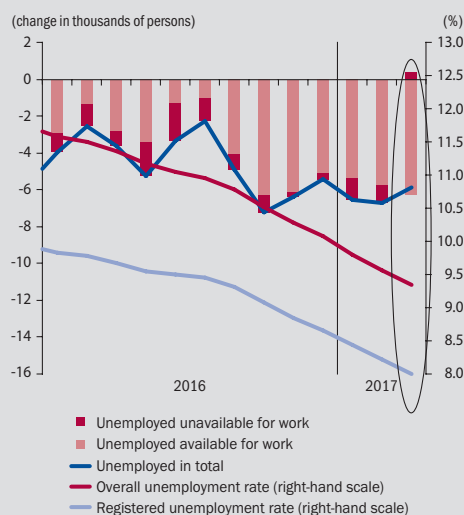
Note: The public sector comprising public administration, education and human health as defined in the sections O, P and Q of the NACE statistical classification of economic activities.

The number of unemployed registered with labour offices (ÚPSVR) maintained its downward trend in March, falling by 2.3% (or around 5,900 people), which was similar to the decreases in previous months. The overall unemployment rate therefore fell to 9.3% (by 0.22 percentage point), and the registered unemployment decreased at a similar pace, to 8%.³ The unemployment rate is thus approaching its historical low recorded in 2008. In addition to ongoing job creation, the decline in the working-age population is also putting downward pressure on unemployment (the number of people retiring is greater than the number entering the workforce). The favourable unemployment trends support the bright outlook for employment growth in first quarter of 2017, as projected in the MTF-2017Q1 forecast.

² Further information is provided in NBS's *March 2017 Monthly Bulletin*, page eight.

³ In non-seasonally adjusted terms, the registered unemployment rate decreased month on month by 0.35 percentage point, to 8.04%, and the unemployment rate based on the total number of job seekers fell by 0.35 percentage point, to 9.45%.

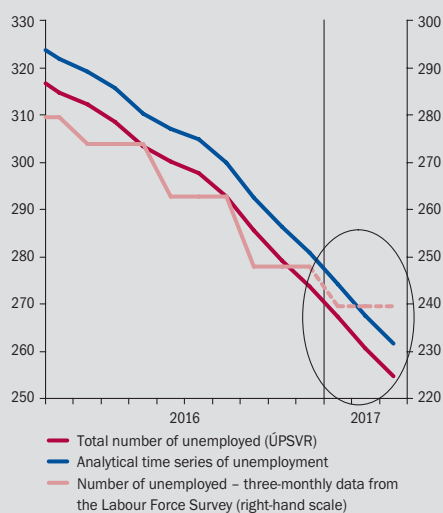
Chart 9 Unemployment (percentages; change in thousands of persons)



Sources: ÚPSVR and NBS calculations.

Annual average wage growth across the sectors under review slowed in February, to 3.6% (from 5.5% in January). This result stemmed mainly from the temporary base effect of the leap day in February 2016 (as the additional day caused a significant increase in the amount of wages paid). With the time series adjusted for this effect, the average wage in February was higher, year on year, by 4.6%. The principal drivers of that growth were wage growth in the sectors of trade (5.5%) and industry (4.3%). Year-on-year wage growth was moderate in services, and also in construction despite the current wage acceleration in that sector. In the services sector, particularly in information technology activities and accommodation services, the average wage growth is assumed to have been dampened by increased staff recruitment. A base effect similar to that observed in February (related to the leap day of the previous year) is ex-

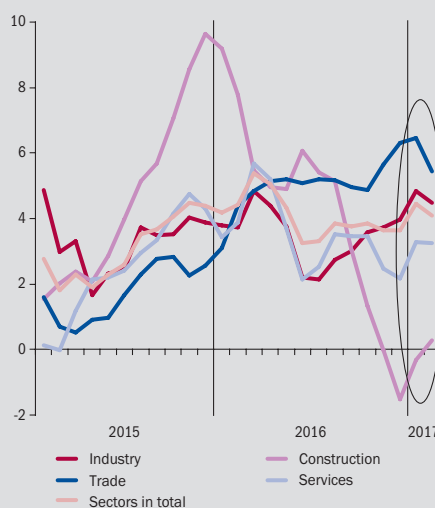
Chart 10 Number of unemployed (thousands of persons)



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.

pected in March 2017, since Easter fell in March last year and in April this year and therefore the overtime payments paid for Easter work in 2016 were not repeated in March 2017. Thus wage growth in March, like that in February, may be more moderate compared with January. There is, however, an upside risk to the wage growth outlook in the fact that, since March, some large

firms have been increasing wages (by around 4% to 7%) in order to retain and attract workers.

The current wage trends in the sectors under review imply that the MTF-2017Q1 projection for wage growth across the whole economy in the first quarter (3.9%) is realistic.

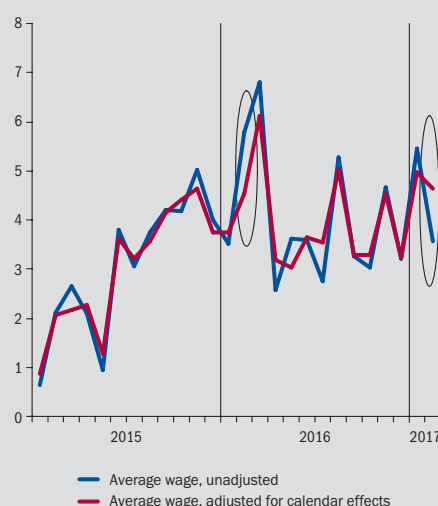
**Chart 12 Wage trends in the economy
(annual percentage changes)**



Sources: SO SR and NBS calculations.

Note: The average wage for the economy as a whole in the first quarter of 2017 is the MTF-2017Q1 projection. The dashed line denotes an estimate (nowcast) of average wage growth based on current monthly wage indicators (social contributions, wages in selected sectors).

**Chart 13 Average wage growth adjusted for
calendar effects (annual percentage changes)**



Sources: SO SR and NBS calculations.

Note: Adjusted to take account of differences in the number of working days (including the leap day in 2016) and public holidays in Slovakia.

4 PRICES

Annual HICP inflation slowed to 1.0% in March 2017, down from 1.2% in February (after revision; 1.3% before revision). In month-on-month terms, the price level fell by 0.2%, reflecting declines in prices of food, automotive fuel and pharmaceutical goods.

Chart 14 Annual HICP inflation and contributions of components (annual percentage changes; percentage point contributions)

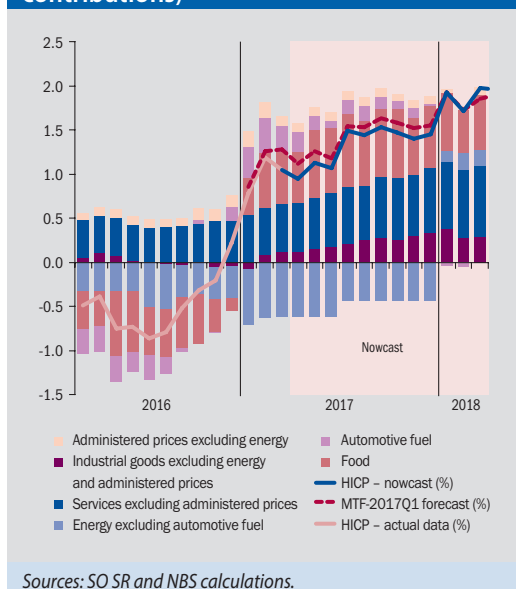


Chart 15 HICP inflation (percentage changes)



The lower annual headline rate in March reflected mainly price movements in unprocessed food and processed food components. Unprocessed food prices rose sharply in February, probably owing to the impact of bad weather on harvests in southern Europe. It is likely that this effect is increasingly fading away in line with expectations.

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

			Non-energy industrial goods	Energy	Food	Services	HICP	Net inflation excluding fuel
Year-on-year changes	A	February 2017 – actual figure	0.8	-1.6	2.3	1.8	1.2	1.2
		March 2017 – MTF-2017Q1 forecast	0.9	-2.3	3.0	1.8	1.3	1.3
	B	March 2017 – actual figure	0.6	-2.2	2.2	1.9	1.0	1.3
	B-A	March – actual figure minus forecast	-0.3	0.1	-0.8	0.1	-0.24	0.0
	(B-A) * weight	Contribution to overall forecast error ¹⁾	-0.07	0.02	-0.21	0.02	-0.24	0.01

Sources: SO SR and NBS calculations.

1) Projections taken from NBS's March 2017 Medium-Term Forecast (MTF-2017Q1).



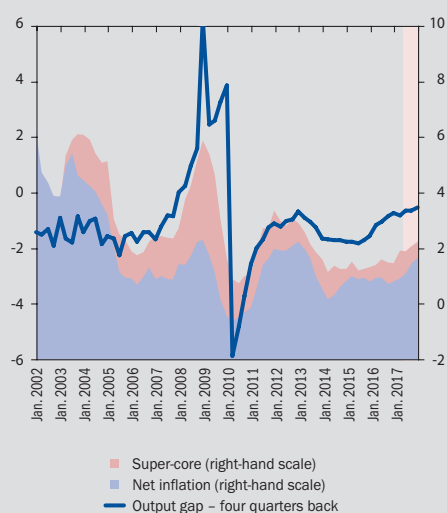
Automotive fuel inflation softened in March, under downward pressure from several weeks of falling oil prices. Average fuel price inflation is still expected to slow gradually over the year as a whole. In response to recent decisions of the Regulatory Office for Network Industries (ÚRSO) on household electricity prices, the Statistical Office of the Slovak Republic (SO SR) revised the rate of change in these prices going back to January of this year. Based on current data, the rate of change in household electricity prices for January 2017 was revised down to -4.6% (from -3%). The negative impact of that revision on the headline HICP inflation rate for January and Feb-

ruary amounted to 0.07 percentage point. This was consistent with MTF-2017Q1 projections of more pronounced decreases in electricity prices than those published at the beginning of the year.

Services inflation accelerated moderately, year on year, to 1.9%. Its rate is projected to increase up to 2.9% by the year-end, owing to the impact of labour market buoyancy.

Despite the March slowdown, the average headline inflation rate for the whole of 2017 is expected to be higher than 1%.

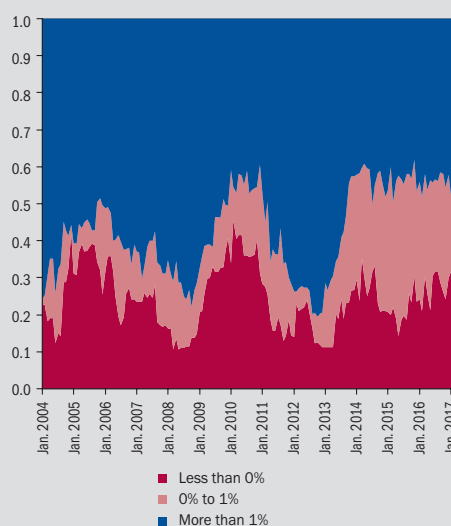
Chart 16 Demand-pull inflation excluding used car prices (annual percentage changes; seasonally adjusted)



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 17 HICP core inflation broken down by price-change intervals



Source: NBS calculations.

5 INDICATIVE IMPACT ON THE FORECAST

The GDP, employment and export nowcasts are in line with the projections in NBS's March 2017 Medium-Term Forecast (MTF-2017Q1). The nowcast for private consumption growth is slightly lower than the MTF-2017Q1 projection.

Chart 18 Employment nowcast
(quarter-on-quarter percentage changes)⁴

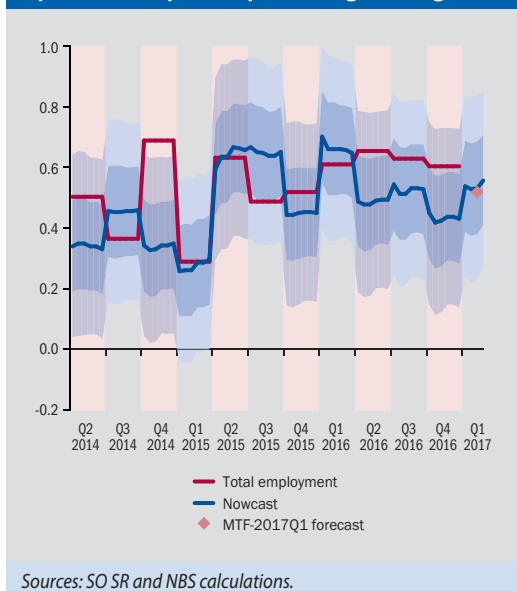


Chart 19 Nowcast for GDP in Q1 2017
(quarter-on-quarter percentage changes)

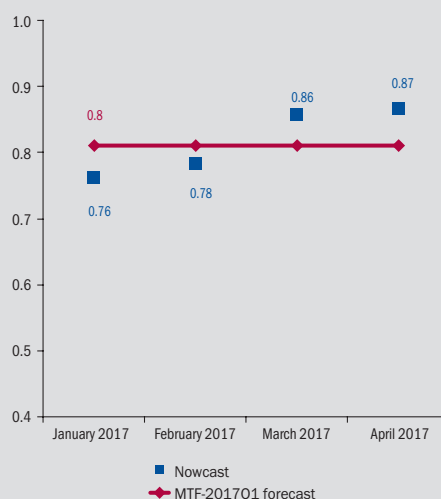
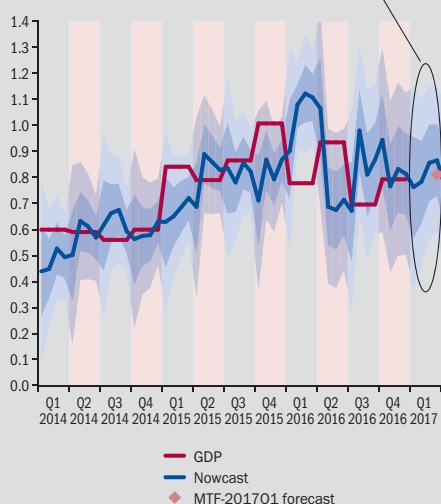


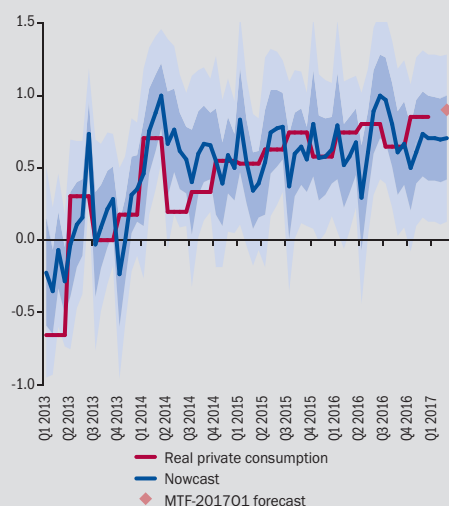
Chart 20 GDP nowcast (quarter-on-quarter percentage changes)⁴



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](#).

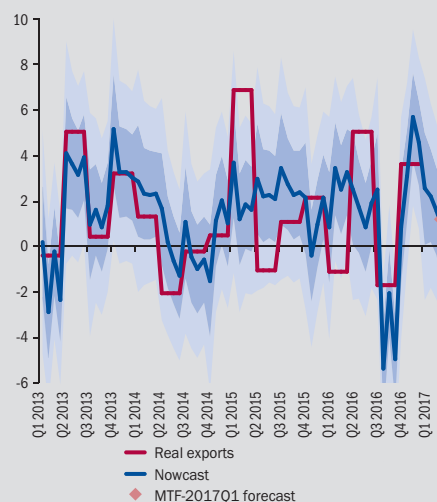


**Chart 21 Private consumption nowcast
(quarter-on-quarter percentage changes)⁴**



Sources: SO SR and NBS calculations.

**Chart 22 Nowcast for goods and services
exports (quarter-on-quarter percentage changes)⁴**



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 private sector ³⁾	Loans to non-financial corporations ³⁾	Loans to households ³⁾	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	18
2009	-5.4	0.9	-2.6	-2.0	12.1	-15.5	-16.3	76.9	-2.8	1.1	-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	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	5.2	6.4	98.8	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	8.0	4.3	93.9	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	3.9	1.9	90.2	6.4	6.4	1.7	10.3	-2,023.3	-2.7	54.7	1.9	3.9	1.3281
2014	2.6	-0.1	-3.5	1.4	13.2	3.6	2.6	100.4	2.5	7.7	1.9	13.2	-2,923.4	-2.7	53.6	1.1	3.6	1.3285
2015	3.8	-0.3	-4.2	2.0	11.5	7.3	7.5	99.7	11.5	10.7	7.3	13.1	-1,932.6	-2.7	52.5	0.2	2.6	1.1095
2016	3.3	-0.5	-4.3	2.4	9.7	4.7	4.1	101.6	6.1	10.2	4.2	13.4	-980.3	.	.	-0.7	2.8	1.1069
2016 Q2	3.8	-0.6	-5.2	2.3	9.6	7.3	5.3	98.7	9.7	8.5	1.3	13.4	-	-1.9	52.2	0.6	4.0	1.1292
2016 Q3	3.0	-0.7	-4.2	2.4	9.5	2.9	2.4	102.4	9.3	9.9	4.4	13.1	-	-0.7	52.4	-1.0	2.2	1.1166
2016 Q4	3.0	-0.1	-2.4	2.6	9.1	4.1	3.3	102.7	6.1	10.2	4.2	13.4	-	.	.	-1.8	1.8	1.0789
2017 Q1	.	1.0	.	.	.	.	.	104.3	.	.	.	.	-	.	.	.	.	1.0648
2016 Apr.	-	-0.4	-5.6	-	9.6	8.3	5.0	99.6	10.9	9.4	3.9	13.0	232.8	-	-	-	-	1.1339
2016 May	-	-0.7	-5.6	-	9.5	7.8	5.1	98.0	10.8	8.9	2.1	13.4	-465.4	-	-	-	-	1.1311
2016 June	-	-0.7	-4.5	-	9.5	5.8	5.8	98.6	9.7	8.5	1.3	13.4	375.1	-	-	-	-	1.1229
2016 July	-	-0.9	-4.6	-	9.4	-11.6	-4.5	104.0	8.9	10.3	5.3	13.1	112.2	-	-	-	-	1.1069
2016 Aug.	-	-0.8	-4.8	-	9.4	17.8	9.7	99.9	9.0	10.4	5.4	13.1	13.1	-	-	-	-	1.1212
2016 Sep.	-	-0.5	-3.2	-	9.4	4.2	2.4	103.4	9.3	9.9	4.4	13.1	-33.2	-	-	-	-	1.1212
2016 Oct.	-	-0.3	-2.8	-	9.1	3.5	3.1	102.8	8.7	10.1	5.4	13.0	223.7	-	-	-	-	1.1026
2016 Nov.	-	-0.2	-2.6	-	8.8	3.3	3.1	101.3	8.1	9.4	3.5	13.1	-201.6	-	-	-	-	1.0799
2016 Dec.	-	0.2	-1.8	-	8.8	5.6	3.5	103.9	6.1	10.2	4.2	13.4	-358.1	-	-	-	-	1.0543
2017 Jan.	-	0.8	0.4	-	8.6	7.4	4.2	104.6	6.2	11.4	7.3	13.5	92.3	-	-	-	-	1.0614
2017 Feb.	-	1.2	2.6	-	8.4	2.6	4.6	106.6	6.6	11.9	9.4	13.5	-500.0	-	-	-	-	1.0643
2017 Mar.	-	1.0	.	-	8.0	.	.	101.6	.	.	.	.	70.7	-	-	-	-	1.0685

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).

3) Adjusted for sales and securitisation.

More detailed time series for selected macroeconomic indicators

http://www.nbs.sk/_img/Documents/_MonthlyBulletin/2017/StatisticsMB0417.xls