



NÁRODNÁ BANKA SLOVENSKA  
EUROSYSTEM



# REPORT ON THE SLOVAK ECONOMY

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## 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
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

Symbols used in the tables

- . – Data are not yet available.
- – Data do not exist / data are not applicable.
- (p) – Preliminary data



# 1 SUMMARY

Slovakia's economic growth accelerated slightly in the first quarter of 2018, to 3.6% year on year, from 3.5% in the last quarter of 2017. The quarter-on-quarter rate of growth remained unchanged from the end of last year, at 0.9%. The main driver of economic growth was investment. Household consumption remained stable in the quarter under review, owing to the favourable labour market conditions.

Employment grew over the first quarter of this year at the same pace as in the previous quarter (2.2% year on year). The quarter-on-quarter rate of employment growth moderated to

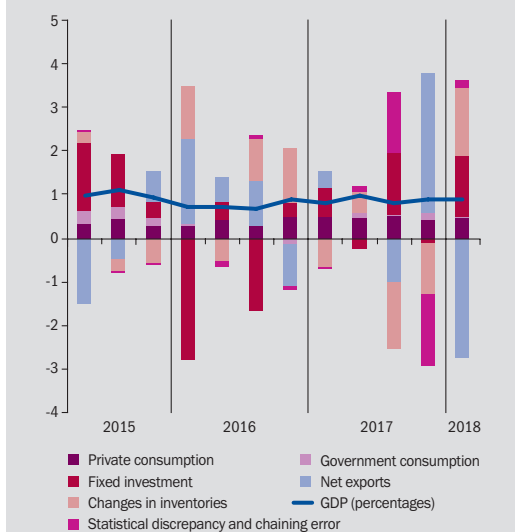
0.4%, from 0.5% in the last quarter of 2017. The strongest employment growth was observed in manufacturing, business activities, and in the public sector. The average wage in the economy increased, year on year, by 6.5% in the first quarter of this year, compared with 5.2% in the previous quarter. Dynamic wage growth was recorded in both the private and public sectors.

The annual HICP inflation rate continued to accelerate in the quarter under review, to 2.4%. The steepest increases were recorded in energy and services prices.

## 2 GROSS DOMESTIC PRODUCT

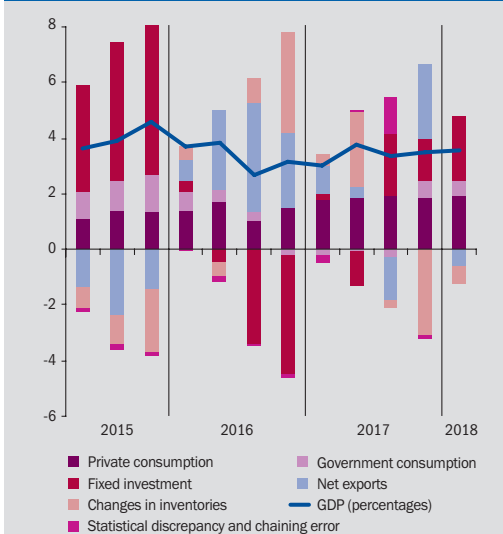
The Slovak economy expanded in the first quarter of 2018 by 0.9% quarter-on-quarter (as in the previous quarter), representing an annual growth rate of 3.6% (compared with 3.5% in the last quarter of 2017). The main driver of economic growth was investment. Fixed investment recorded an increase of 12.5% at constant prices (compared with 6.1% in the previous quarter), representing its largest increase since the EU funding programme (2015). Private consumption rose by 3.5% (compared with 3.6% in the previous quarter) and thus remained a relatively stable component of economic growth. Govern-

**Chart 1 GDP and its components**  
(quarter-on-quarter percentage changes; percentage point contributions; constant prices)



Sources: SO SR and NBS calculations.

**Chart 2 GDP and its components** (annual percentage changes; percentage point contributions; constant prices; non-seasonally adjusted)



Sources: SO SR and NBS calculations.

ment consumption maintained its growth rate from the end of last year (3.1%). Foreign trade activities weakened on the side of exports, whose annual growth rate slowed from 5.7% at the end of last year to 2.4% at the end of the quarter under review. Import growth (3.3% year on year) remained at the level of the previous quarter (3.2%), mainly as a result of increased demand for imports for investment purposes.

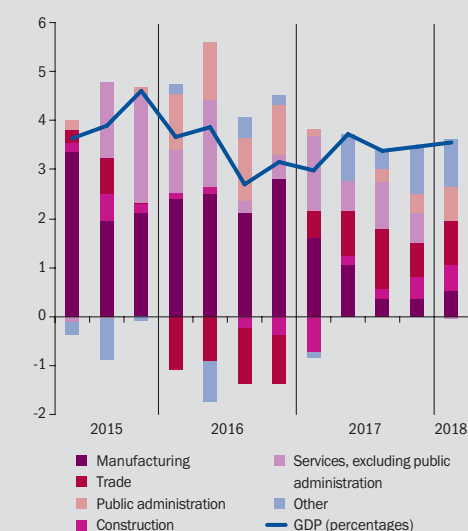
Increases were recorded in the contribution of public administration and construction, where

**Table 1 GDP by expenditure** (percentage changes compared with the previous period; constant prices)

	2017					2018
	Q1	Q2	Q3	Q4	Year	Q1
<b>Gross domestic product</b>	0.8	1.0	0.8	0.9	<b>3.4</b>	0.9
Final consumption of households and non-profit institutions serving households	1.0	0.9	0.9	0.8	<b>3.6</b>	0.8
Final consumption of general government	0.1	0.5	0.3	1.0	<b>0.2</b>	0.4
Gross fixed capital formation	3.1	-1.0	6.9	-0.5	<b>3.2</b>	6.2
Exports of goods and services	1.5	-2.5	2.1	4.4	<b>4.3</b>	-1.5
Imports of goods and services	1.3	-2.7	3.4	1.2	<b>3.9</b>	1.2

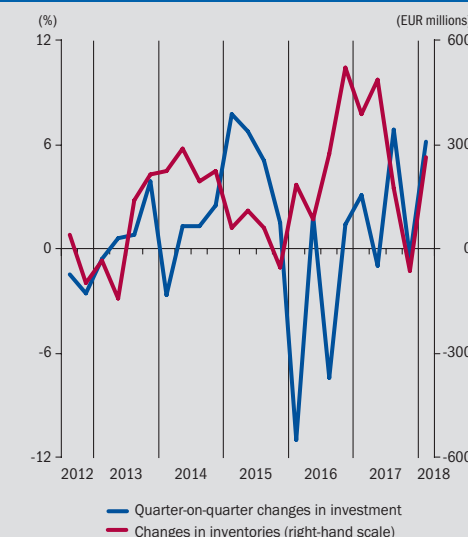
Source: SO SR.

**Chart 3 GDP – sectoral contributions to annual percentage changes (percentage points; constant prices; non-seasonally adjusted)**



Sources: SO SR and NBS calculations.

**Chart 4 Changes in investment and inventories (constant prices)**



Sources: SO SR and NBS calculations.

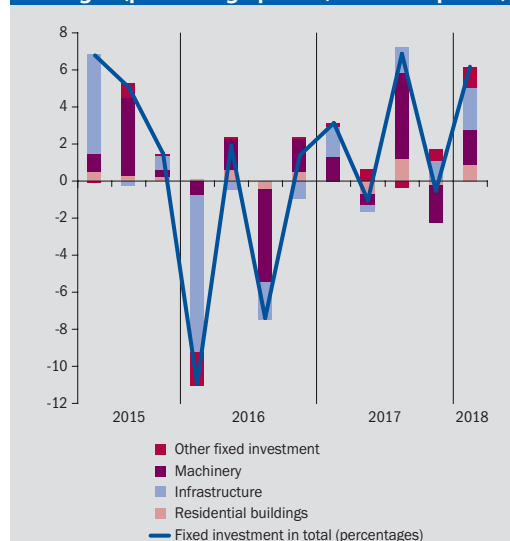
value added formation increased as a result of recovered sales growth. The item 'other', comprising mainly taxes, less subsidies, continued to strengthen in year-on-year terms. Value added in these sectors contributed slightly less than 80% to GDP growth for three quarters in a row; this contribution diminished to 76% in the first quarter of 2018.

Fixed investment, marked by higher volatility since the beginning of 2016, increased in the first quarter of this year by 6.2% quarter on quarter. This increase was a correction of the impact of decline from the end of 2017 (0.5%), mainly in investment in machinery. This means that the decline in fixed investment seen at the end of last year was compensated for at the beginning of this year. Considerable investments were made in residential buildings, infrastructural projects, and in intellectual property.

Part of the gradual quarter-on-quarter changes in fixed investment can be ascribed to goods and material in process that are included in the inventories but have not been accounted for as investments. The remaining part of these changes can be explained by a change in inventories, but only until the middle of 2017. In the last few quarters, the changes in inventories have been in accordance with the changes in investment. Investment has remained volatile; the source of this volatility is transport vehicle production with a 10% share in overall investment in the economy. New investors in car production also contributed to investment growth, as well as to its volatility.

Besides firms, the heavily indebted household sector also made considerable investments in the quarter under review. Real investment

**Chart 5 Fixed investment – contributions of assets to quarter-on-quarter percentage changes (percentage points; constant prices)**



Sources: SO SR and NBS calculations.

**Chart 6 Fixed investment – sectoral contributions to quarter-on-quarter percentage changes (percentage points; current prices; non-seasonally adjusted)**



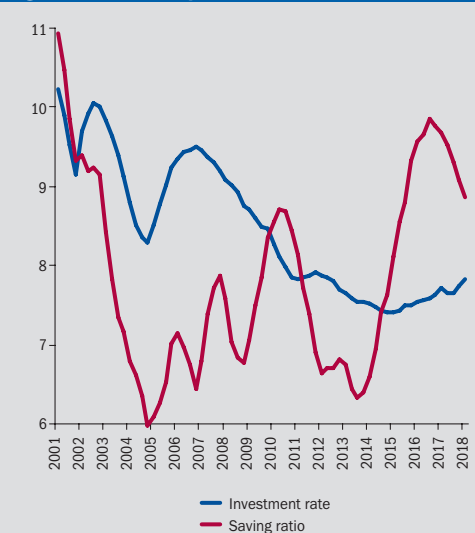
Sources: SO SR and NBS calculations.

**Chart 8 Investment in housing and issuance of building permits (2009 = 100; constant prices; non-seasonally adjusted; cumulative figures for four quarters)**



Sources: SO SR and NBS calculations.

**Chart 7 Households' saving ratio and investment rate (percentages, cumulative figures for four quarters)**



Sources: SO SR and NBS calculations.

under review, but remained below the level of households' saving ratio. According to data from the national accounts, households are still in the position of creditors to other sectors, because their savings exceed their investments in volume terms. Their creditor position, however, is weakening as a result of their diminishing savings.

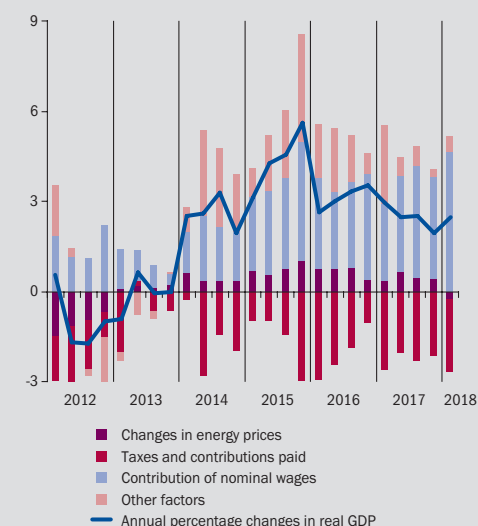
The household saving ratio continued falling in the first quarter of this year. The downward trend emerged at the beginning of 2017, when households – influenced probably by the favourable labour market conditions – decided to spend a larger part of their disposable income on consumption. Although households' wage and salary income started to rise, their taxes and social contributions increased, too. In the long term, households benefited from the falling energy prices. This trend was, however, reversed in the first quarter of 2018 by a year-on-year rise in energy prices (after five years of decline). This caused a slight decrease in households' real disposable income.

in housing exceeded its level seen during the financial crisis in 2009 by 11% in that period (compared with 2.7% at the end of last year). It reflected the growing number of building permits issued for the construction of new residential buildings. The investment rate, expressed as the ratio of household investment to gross disposable income, rose somewhat in the period

In seasonally adjusted terms, household consumption increased, quarter on quarter, by 0.9% in the first quarter of 2018 (compared with 0.8% in the last quarter of 2017). Private consumption, i.e. that of households and non-profit institutions serving households, rose to a lesser extent, by 0.8% quarter on quarter (as in the previous quarter).

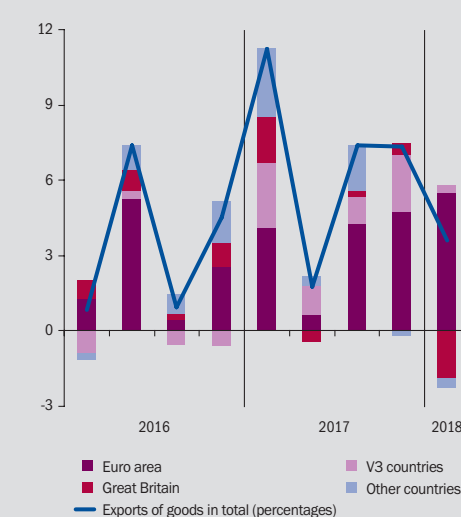


**Chart 9 Households' real disposable income (annual percentage changes; percentage point contributions; non-seasonally adjusted)**



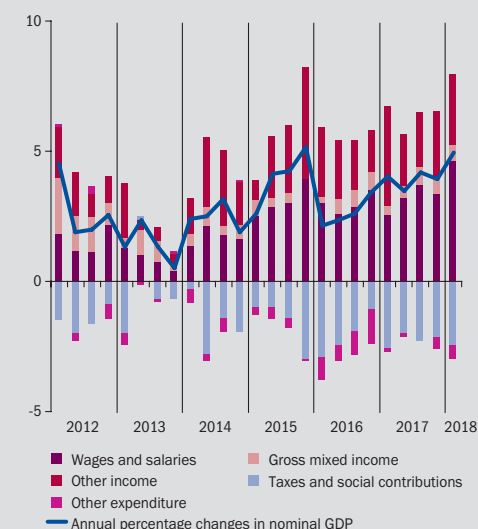
Sources: SO SR and NBS calculations.

**Chart 11 Exports of goods by destination (annual percentage changes; percentage point contributions; current prices; non-seasonally adjusted)**



Sources: SO SR and NBS calculations.

**Chart 10 Households' nominal disposable income (annual percentage changes; percentage point contributions; non-seasonally adjusted)**



Sources: SO SR and NBS calculations.

The exports of goods and services declined, quarter on quarter, by 1.5% in the period under review. This decline represented in part a downward correction of the 4.4% increase (i.e. the steepest increase in the past 1.5 years) from the previous quarter. The sharpest decline took place in exports to non-euro area countries, mainly to Great Britain. Although car exports (new cars) increased at the beginning of 2018, this increase was offset by other export components as a result of the cooling foreign demand. Instead of declining in line with exports, the imports of goods and services rose in the period under review by 1.2% quarter on quarter (as in the last quarter of 2017).

## 3 THE LABOUR MARKET

### 3.1 WAGES AND LABOUR PRODUCTIVITY

The average wage in the Slovak economy rose in the first quarter of 2018 by as much as 6.5%, compared with 5.2% in the fourth quarter of 2017. This rise was a result of strong wage growth in both the private and public sectors. The average wage in the private sector increased by 6.2%, compared with 4.9% in the previous quarter. Wages increased most rapidly in manufacturing, business activities, information and communication services, transportation and storage, and, after a long period of stagnation, in construction. The average rate of wage growth in the public sector accelerated, too, to 7.5% at the end of the quarter under review. In year-on-year terms, wages in the public sector rose more steeply than in the private sector. This was probably due to a rise of 4.8% in the contractual wages of employees in state and public services and to the payment of irregular bonuses. With inflation taken into account, real wages increased year on year by 4.1%, representing an acceleration of 0.8 percentage point quarter on quarter.

**Chart 13 Wage developments by component (annual percentage changes; percentage point contributions)**



Sources: SO SR and NBS calculations.

Note: The data for 'organisations with 20+ employees' include organisations in the public and financial sectors, irrespective of the number of employees.

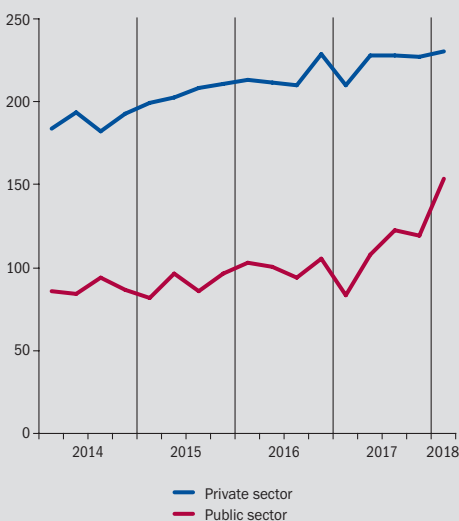
**Chart 12 Wage developments by sector (annual percentage changes in average wages)**



Sources: SO SR and NBS calculations.

Note: The data for the public sector were calculated on the basis of developments in the categories O, P and Q of the NACE classification.

**Chart 14 Irregular bonuses paid in the Slovak economy (EUR millions, seasonally adjusted)**



Sources: SO SR and NBS calculations.

**Table 2 Wages and labour productivity (annual percentage changes)**

	2017					2018
	Q1	Q2	Q3	Q4	Year	Q1
Average wage (headline)	3.5	4.8	5.2	5.2	<b>4.6</b>	6.5
Consumer-price inflation	0.9	1.0	1.5	1.8	<b>1.3</b>	2.3
Average real wage (headline)	2.6	3.8	3.6	3.3	<b>3.3</b>	4.1
Average wage (ESA 2010)	2.6	3.7	4.6	3.7	<b>3.7</b>	6.4
Compensation per employee (ESA 2010)	3.1	4.0	5.0	3.9	<b>4.1</b>	6.4
Nominal labour productivity (ESA 2010)	1.8	2.3	2.6	3.1	<b>2.5</b>	3.5
Real labour productivity (ESA 2010)	0.9	1.6	1.0	1.2	<b>1.2</b>	1.3

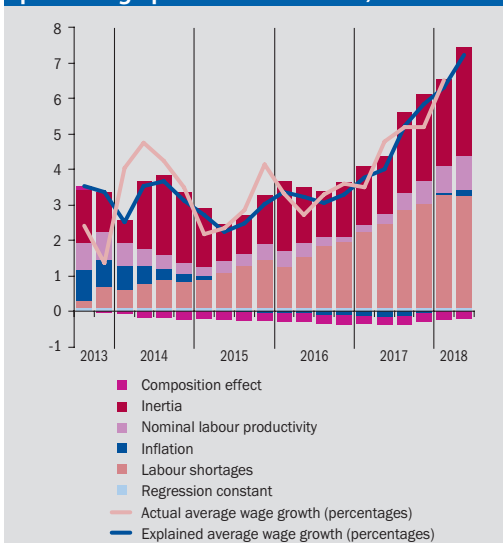
Sources: SO SR and NBS calculations.

Note: Average wages (headline) are based on data from SO SR statistical reports. Average real wages were calculated on the basis of CPI inflation. Labour productivity (ESA 2010) was calculated as the ratio of nominal GDP to employment as defined in the ESA 2010 methodology.

Wage growth across the economy in the first quarter of 2018 was driven by accelerated growth in both basic wages and bonus payments. Given the continuing strong demand for labour, employers compete for new employees by offering higher wages. Thus, the rising trend in wage levels is expected to continue in the period ahead.

Compensation per employee (including gross wages and social contributions paid by employers) increased, year on year, by 6.4% in the first quarter of 2018, compared with 3.9% in the last quarter of 2017. This was probably due to the cancellation of a tax-deductible item from health insurance (since social contributions paid by employers rose by 9.5% year on year) and to bonuses paid from profits. The item in question (including bonuses paid to Board of Directors and Supervisory Board members, royalties and dividends) increased by more than 75% year on year. Its value, however, was very volatile within the individual quarters.

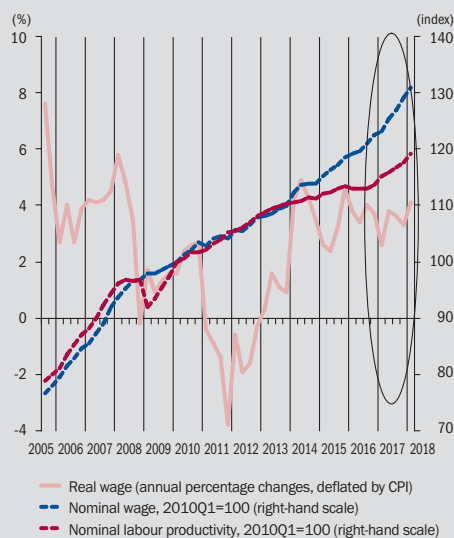
Despite its acceleration, nominal labour productivity growth lagged behind wage growth throughout the first quarter of 2018. Thus, the gap between these indicators widened still further as a result of rapid wage growth. One of the factors supporting the rise in production and consumer prices is accelerated labour cost growth.

**Chart 15 Factors determining wage developments (annual percentage changes; percentage point contributions)**


Source: NBS calculations based on a regression analysis.

Note: The following variables have been transformed: four-quarter moving average of labour productivity growth; four-quarter moving average of CPI inflation recorded three quarters earlier. The figures for labour shortages are based on responses to the European Commission's business sentiment surveys, with the sectors weighted by employment trends. The composition effect is given by the impact of annual growth in employment. The data for the second quarter of 2018 are based on the MTF-2018Q2 forecast of NBS.

Chart 16 Wages and labour productivity



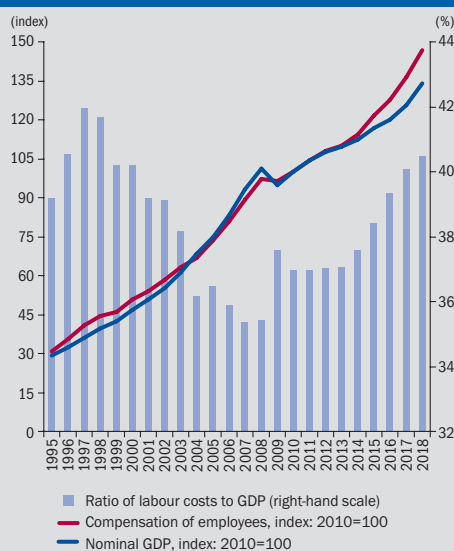
Sources: SO SR and NBS calculations.

Notes: Wages are based on data from SO SR statistical reports. Nominal labour productivity was calculated from employment according to SO SR statistical reports. Base indices are based on seasonally adjusted data.

### 3.2 EMPLOYMENT AND UNEMPLOYMENT

The annual rate of employment growth in the first quarter of 2018 maintained its rising trend from the previous quarter, and reached 2.2%. In seasonally adjusted terms, the quarter-on-quarter rate of employment growth slowed to 0.4%, from 0.5% in the fourth quarter of 2017. Overall employment was determined mainly by the level of employment in manufacturing, business activities, and in the public sector. In the public sector, dynamic employment growth was observed in health services (accelerating from a modest decline seen in the previous quarter to 2.1% year on year), and in public administration and defence. The number of self-employed persons decreased, but this decrease was counterbalanced by a marked increase in the number of employees. The number of vacancies and employers' perceptions of labour shortages continued growing in the period under review; this may slacken the pace of employment growth in the future.

Chart 17 Labour costs in the economy



Sources: SO SR and NBS calculations.

Chart 18 Employment – sectoral contributions to quarter-on-quarter percentage changes (percentage points)



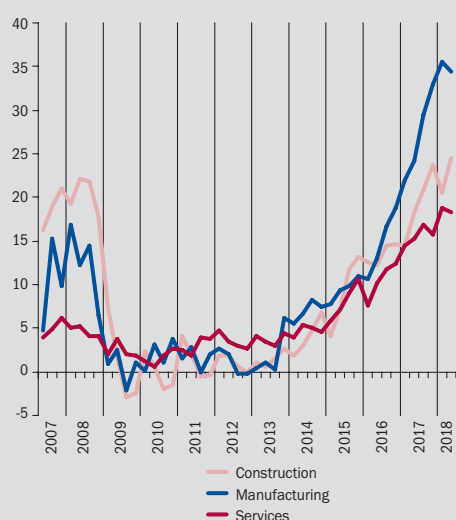
Source: SO SR.

The number of hours worked increased broadly in line with employment during the first quarter of this year, by 0.4% quarter on quarter. With the revival of growth in the number of hours worked, the average length of a working week increased, too. The growth in the number of hours worked was also stimulated by the moderately growing number of full-time employees.

According to the Labour Force Survey (LFS), the number of unemployed continued to decrease in the quarter under review, at a rapid pace. The seasonally adjusted number of unemployed fell by almost 16,000 persons quarter on quarter. The unemployment rate dropped by 0.6 percentage

point, to 7%. Unemployment was influenced by employment growth, coupled with a decline in the size of the population aged 15-64 (approximately by 8,000 persons). Employment growth was also supported by a slight rise in the labour market participation rate. A characteristic phenomenon in the labour market was the growing number of foreigners working in Slovakia, accompanied by the falling number of Slovak citizens working abroad. The seasonally adjusted unemployment rate, based on the total number of job seekers registered with the Central Office of Labour, Social Affairs and Family (ÚPSVR) declined in the first quarter of 2018 by 0.5 percentage point, to 6.8%.

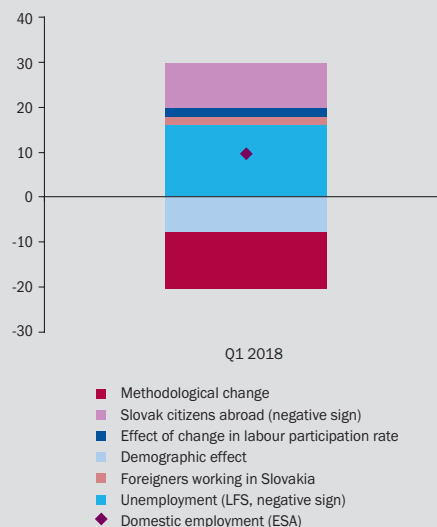
**Chart 19 Perceived labour shortages broken down by sector (percentage of respondents)**



Sources: European Commission and NBS calculations.

Note: The data on construction for 2018Q2 are average figures for April and May 2018.

**Chart 20 Employment – contributions of principal labour market variables to quarter-on-quarter changes (thousands of persons)**



Sources: SO SR and NBS calculations.

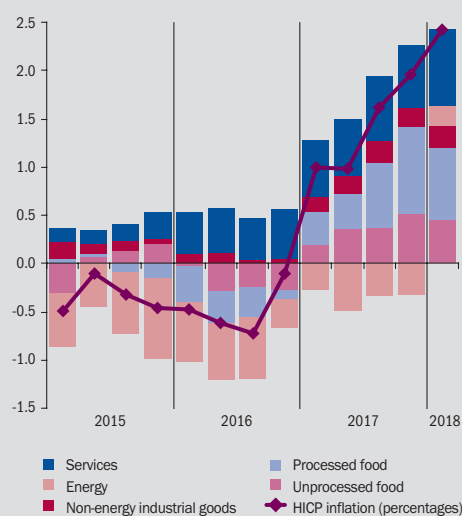
Note: The 'foreigners working in Slovakia' time series has not been seasonally adjusted owing to its short history. The seasonality observed in this time series, however, appears to be insignificant. The 'methodological difference' item includes the effect of residual differences between the LFS and ESA methodologies.

## 4 PRICE DEVELOPMENTS

Annual consumer price inflation accelerated during the first quarter of 2018, to 2.4%. Apart from food prices, all the core components of inflation contributed to the elevated inflation rate. The steepest year-on-year increases were recorded in energy and services prices. The accelerated rise in energy prices was caused by regulated energy prices (electricity, heat), which increased in January 2018. Gas prices remained unchanged for consumers. The base effect of gas price reduction from January 2017 also contributed to the steep rise in energy

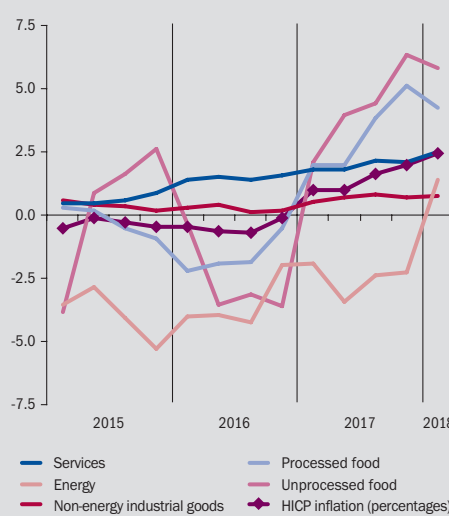
prices in comparison with the previous quarter. Brent oil prices continued to rise in the world market. This rise was also reflected in fuel prices, with a minimal time delay. Thus, energy prices were the main factor behind the accelerating rise in inflation in the quarter under review. The continuing year-on-year rise in services prices was driven, through cost-push and demand-pull impulses, by wage developments and household final consumption. The increase in air ticket prices was also reflected in the rising level of services prices in the first quarter of

**Chart 21 Annual headline inflation rate by component (percentage point contributions)**



Sources: SO SR and NBS calculations.

**Chart 22 Components of HICP inflation (annual percentage changes)**



Sources: SO SR and NBS calculations.

**Table 3 Annual percentage changes in consumer-price inflation by component**

	2017					2018
	Q1	Q2	Q3	Q4	Year	Q1
<b>HICP inflation</b>	1.0	1.0	1.6	2.0	<b>1.4</b>	2.4
Unprocessed food	2.1	4.0	4.4	6.3	<b>4.2</b>	5.8
Processed food	2.0	2.0	3.8	5.1	<b>3.2</b>	4.2
Non-energy industrial goods	0.5	0.7	0.8	0.7	<b>0.7</b>	0.8
Energy	-1.9	-3.4	-2.4	-2.2	<b>-2.5</b>	1.4
Services	1.8	1.8	2.1	2.1	<b>2.0</b>	2.5

Sources: SO SR and NBS calculations.



this year. Owing to their increasing weight in the consumer basket, air ticket prices are likely to contribute substantially to the volatility of inflation throughout 2018. In the first quarter, air ticket prices contributed 0.12 percentage point to the annual inflation rate. As a result of labour

market developments, annual services price inflation is expected to accelerate still further. The fading of a supply-side shock was reflected in food price inflation, and that fading is expected to continue having a downward impact on food inflation in subsequent quarters.