



NÁRODNÁ BANKA SLOVENSKA  
EUROSYSTEM



# REPORT ON THE SLOVAK ECONOMY

JUNE 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 20 June 2017.

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

ISSN 1339-9594 (online)



# CONTENTS

<b>1</b>	<b>SUMMARY</b>	<b>5</b>	Chart 7	Two views on household consumption growth	<b>8</b>
<b>2</b>	<b>GROSS DOMESTIC PRODUCT</b>	<b>6</b>	Chart 8	Structure of exports according to the ESA 10 methodology	<b>8</b>
<b>3</b>	<b>THE LABOUR MARKET</b>	<b>10</b>	Chart 9	Structure of imports according to the ESA 10 methodology	<b>9</b>
3.1	Wages and labour productivity	10	Chart 10	Annual changes in value added by contributions of sectors	<b>9</b>
3.2	Employment and unemployment	12	Chart 11	Wage developments by sector	<b>10</b>
<b>4</b>	<b>PRICE DEVELOPMENTS</b>	<b>15</b>	Chart 12	Wage developments in the Slovak economy	<b>10</b>
<b>LIST OF TABLES</b>			Chart 13	Wage components in organisations with 20 or more employees	<b>11</b>
Table 1	GDP by expenditure	<b>6</b>	Chart 14	Factors determining the rate of wage growth	<b>11</b>
Table 2	Wages and labour productivity	<b>11</b>	Chart 15	Changes in wages and labour productivity	<b>12</b>
Table 3	Annual percentage changes in inflation by component	<b>15</b>	Chart 16	Changes in labour costs in the economy	<b>12</b>
<b>LIST OF CHARTS</b>			Chart 17	Quarterly changes in employment by contributions of sectors	<b>12</b>
Chart 1	Quarterly GDP growth by component	<b>6</b>	Chart 18	Employment in trade and in small firms	<b>13</b>
Chart 2	Annual GDP growth by component	<b>6</b>	Chart 19	Employment and hours worked	<b>13</b>
Chart 3	Quarterly changes in real investment by contributions of assets	<b>7</b>	Chart 20	Part-time employment and the average length of a working week	<b>13</b>
Chart 4	Quarterly changes in fixed investment by contributions of sectors	<b>7</b>	Chart 21	Annual headline inflation rate by component	<b>15</b>
Chart 5	Annual changes in private consumption by contributions of segments	<b>7</b>	Chart 22	Annual percentage changes in inflation by component	<b>15</b>
Chart 6	Factors determining the annual rate of change in real disposable household income	<b>8</b>			



## 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

The Slovak economy maintained the same pace of growth in the first quarter of 2017 as in the fourth quarter of 2016 (0.8% quarter on quarter). The annual rate of growth reached 3.1%. The main driver of economic growth was domestic demand, supported by the improving labour market situation.

The quarterly rate of employment growth slowed to 0.3% in the first quarter of this year, from 0.5% in the previous quarter. The annual rate of growth slowed to 2.1%. The slowdown took place mostly in trade and services. Manufacturing and construction recorded a relatively

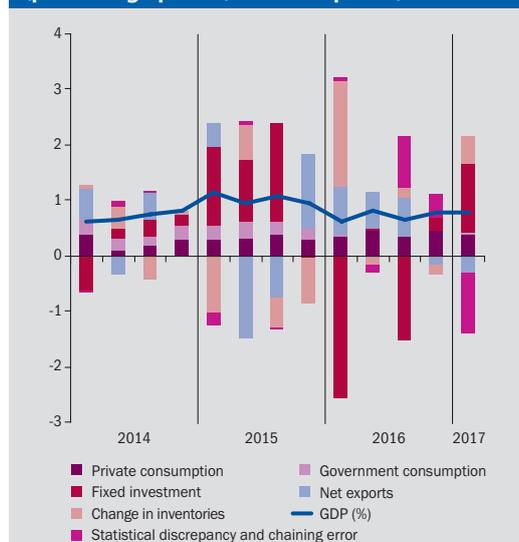
strong rise in employment. The average wage in the economy increased by 3.5% year on year, compared with 3.6% in the final quarter of last year. The moderate slowdown was caused largely by wage developments in the public sector. The private sector, by contrast, experienced accelerated wage growth in the period under review.

Price levels rose over the first quarter by 1.0% year on year (compared with 0.1% in the previous quarter). Looking at the components of HICP inflation, food prices contributed most to the accelerating annual inflation rate.

## 2 GROSS DOMESTIC PRODUCT

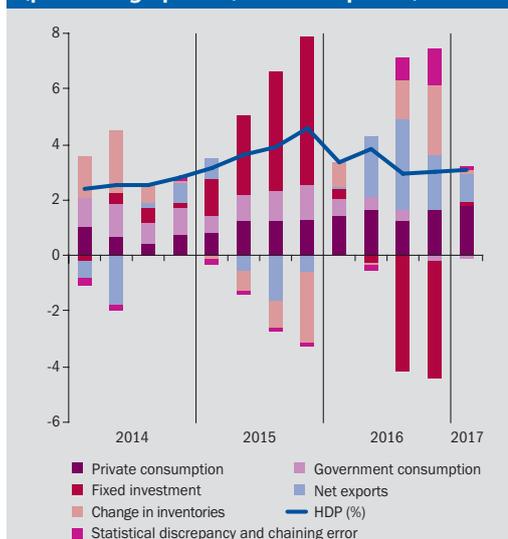
The Slovak economy continued to grow in the first quarter of 2017, for the second quarter in a row, by 0.8% quarter on quarter. In year-on-year terms, it expanded by 3.1% (compared with 3% in the previous quarter), owing to growth in domestic demand. The rising consumer and production prices were fully reflected in the economy. Hence, nominal GDP growth accelerated to 4.1%, from 2.9% in the last quarter of 2016. Rising consumer prices did not significantly dent consumer demand, while the pick-up in investment activity was a favourable sign.

**Chart 1 Quarterly GDP growth by component (percentage points; constant prices)**



Sources: SO SR and NBS calculations.

**Chart 2 Annual GDP growth by component (percentage points; constant prices)**



Sources: SO SR and NBS calculations.

The quarter-on-quarter economic growth was driven mainly by private consumption, supported by the steadily improving labour market situation. Another important stimulant to growth in the period under review was investment activity.

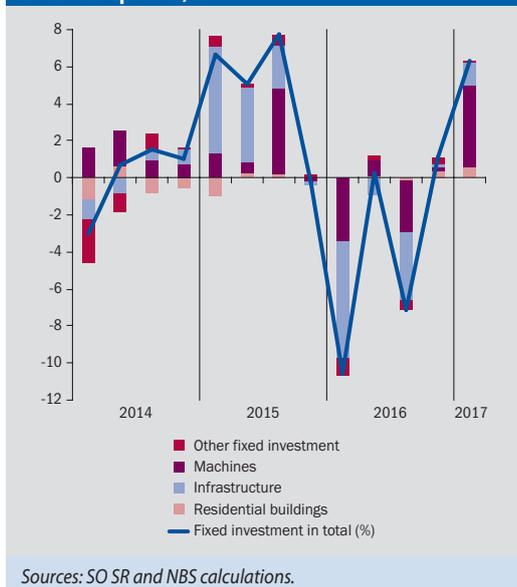
Investment ended its declining trend at the end of last year and then began to rebound in the first quarter of 2017, with fixed investment rising by 6.3% quarter on quarter. There were increases in residential investment, non-residential infrastructure investment, and, most of all, machinery

**Table 1 GDP by expenditure (percentage changes from previous period; constant prices)**

	2016				Q1-Q4	2017
	Q1	Q2	Q3	Q4		
<b>Gross domestic product</b>	0.6	0.8	0.6	0.8	<b>3.3</b>	0.8
Final consumption of households and non-profit institutions	0.7	0.8	0.7	0.9	<b>2.9</b>	0.7
Final consumption of general government	0.0	-0.2	0.0	-0.2	<b>1.6</b>	0.3
Gross fixed capital formation	-10.6	0.3	-7.1	1.1	<b>-9.3</b>	6.3
Exports of goods and services	-0.6	4.9	-1.6	3.6	<b>4.8</b>	1.6
Imports of goods and services	-1.5	4.5	-2.4	4.1	<b>2.9</b>	2.0

Source: SO SR.

**Chart 3 Quarterly changes in real investment by contributions of assets (percentage points; constant prices)**



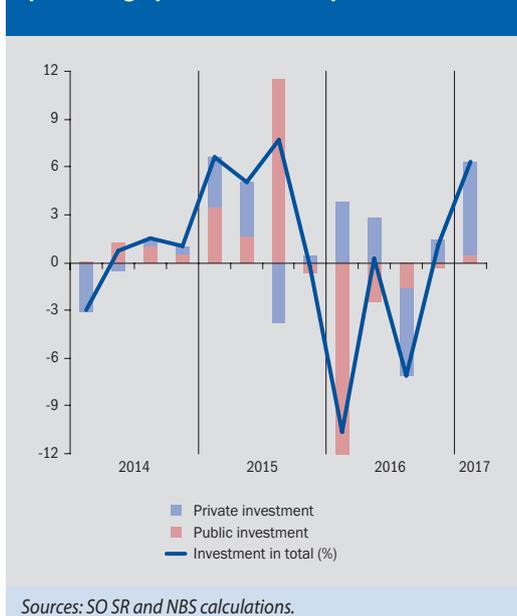
and equipment investment. The largest sources of investment were non-financial corporations and households. Public investment remained weak in the period under review, although, after five successive quarters, it contributed positively to fixed investment (+0.4 percentage point).

NFCs took advantage of the low interest rate environment and borrowed more funds to boost their investment activity. Most investments were made in the chemical, food processing, automotive, and metals manufacture industries. Significant investments were also made in trade.

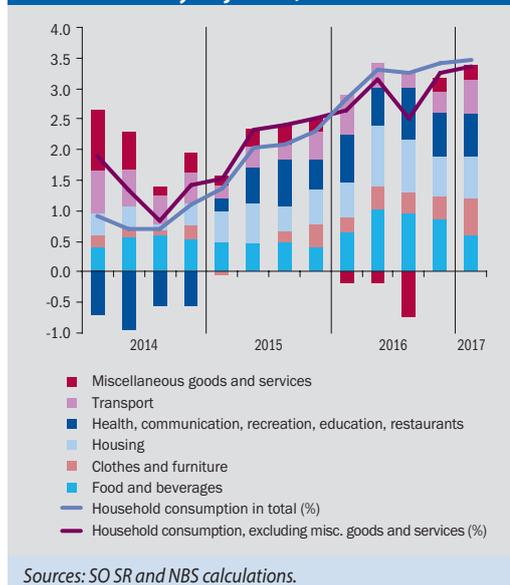
The labour market situation supported growth in household consumption (i.e. consumption by Slovak households at home and abroad) in the first quarter of 2017, which nevertheless was slightly slower compared with the last quarter of 2016. In year-on-year terms, private consumption went up by 3.3% as a result of steady growth in gross wages and salaries, despite the reversed trend in price levels that started to rise at the beginning of 2017.

The household sector has long been benefiting from the improving labour market conditions (i.e. rising wages and employment). Wage growth in the period under review, however, was dampened by the increased contribution payment burden of employees in higher-income occupations and was therefore reflected in disposable income growth to a limited extent only. More significant contributors were 'other factors' (e.g. social contributions and transfers or property income) and reduced energy prices. The posi-

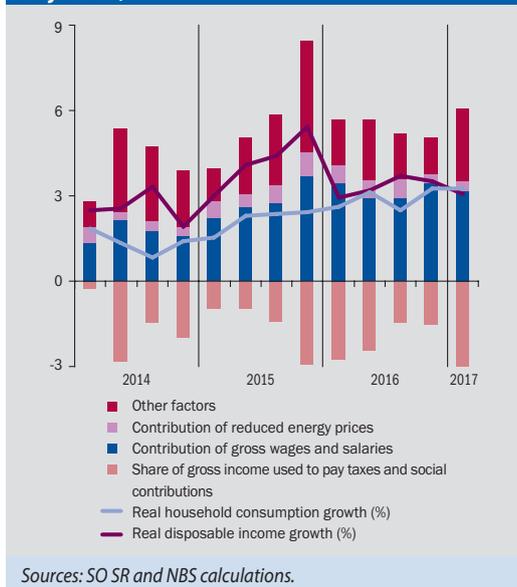
**Chart 4 Quarterly changes in fixed investment by contributions of sectors (percentage points; constant prices)**



**Chart 5 Annual changes in private consumption by contributions of segments (percentage points; constant prices; non-seasonally adjusted)**



**Chart 6 Factors determining the annual rate of change in real disposable household income (percentage points; non-seasonally adjusted)**



The reasons for this change were price reductions for clothing and furniture and people's determination to change their lifestyle and eating habits at the beginning of the new year. Households also spent more on transport in the period under review.

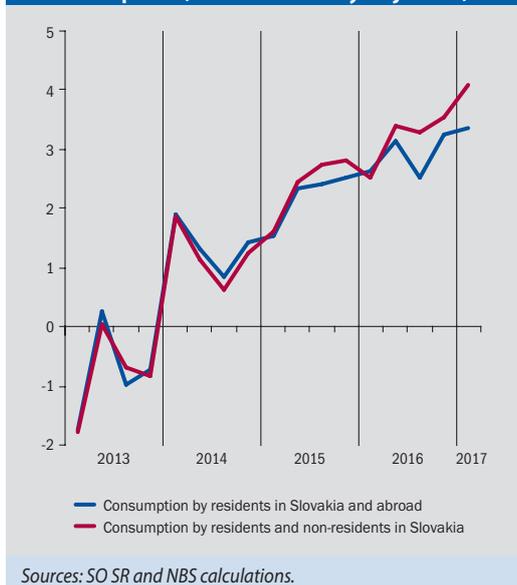
Since the number of non-residents in Slovakia has continued to grow this year, there is a widening gap between consumption by Slovak households (both at home and abroad) and consumer spending in Slovakia. The number of tourists visiting Slovakia increased over the first quarter by around 20,000, year on year. The number of non-residents working in Slovakia on a temporary basis increased by around 4,500, year on year. Both groups consume goods and services purchased in Slovakia. Consumer demand in Slovakia is growing more rapidly than national demand for goods and services and is thus responsible for the widening gap.

tive impact of falling energy prices is, however, gradually waning.

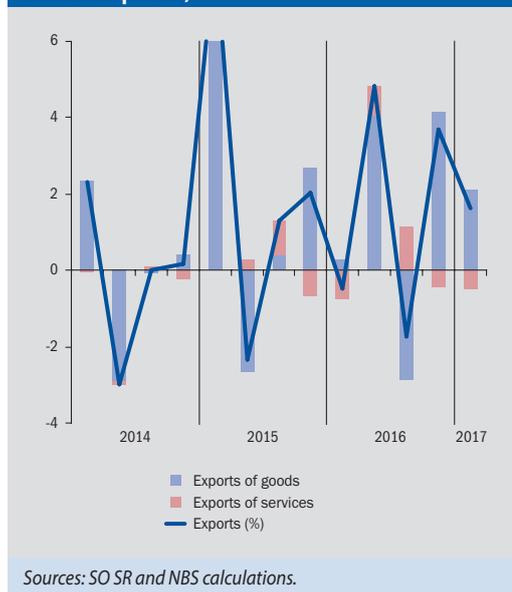
In the consumer basket for the first quarter of 2017, the weight of 'clothing and furniture' was increased at the expense of 'food and beverages'.

The upturn in investment activity and continuing consumer demand growth, stimulated import growth in the quarter under review. Imports of goods and services increased in that period by 2% quarter on quarter (compared with 4.1% in the final quarter of last year). Exports grew more slowly than imports, owing to breaks in production and investment during

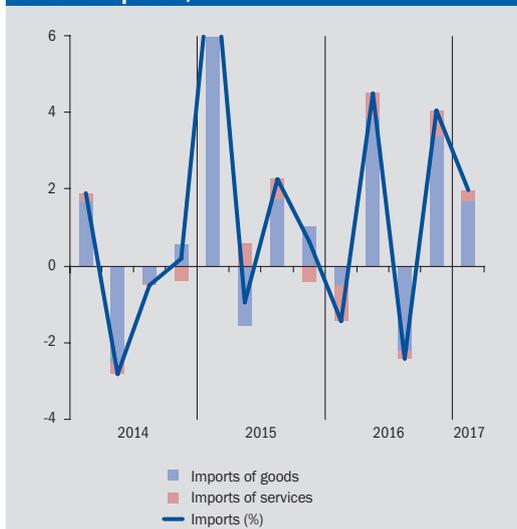
**Chart 7 Two views on household consumption growth (annual percentage changes; constant prices; non-seasonally adjusted)**



**Chart 8 Structure of exports according to the ESA 10 methodology (percentage points; constant prices)**

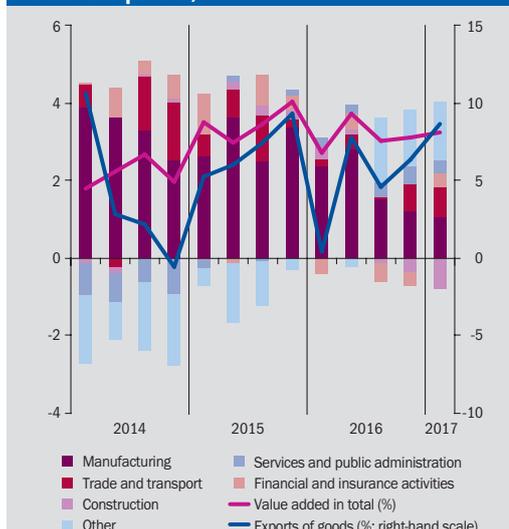


**Chart 9 Structure of imports according to the ESA 10 methodology (percentage points; constant prices)**



Sources: SO SR and NBS calculations.

**Chart 10 Annual changes in value added by contributions of sectors (percentage points; constant prices)**



Sources: SO SR and NBS calculations.

Note: 'Other' includes non-additivity of seasonal adjustment.

holidays. Exports increased by 1.6% (compared with 3.6% in the previous quarter). Thus, the external trade balance had a negative impact on GDP. Net exports made a negative contribution of 0.3 percentage point.

Export growth was stimulated by exports to euro area countries, which were dominated by goods exports. Exports of services contributed positively to total exports, mainly in the first two quarters of 2016. This was due to increased sales of services to non-residents (increased number of visi-

tors from abroad during the Slovak Presidency of the EU Council). This effect faded away after the Slovak Presidency had ended.

There was a slight upturn in public investment, which, however, proved insufficient to offset the consequences of the construction sector's weak performance (the sector had produced practically no value added). On the other hand, the increased consumer demand stimulated profit growth and value added creation in services, trade and transport.

## 3 THE LABOUR MARKET

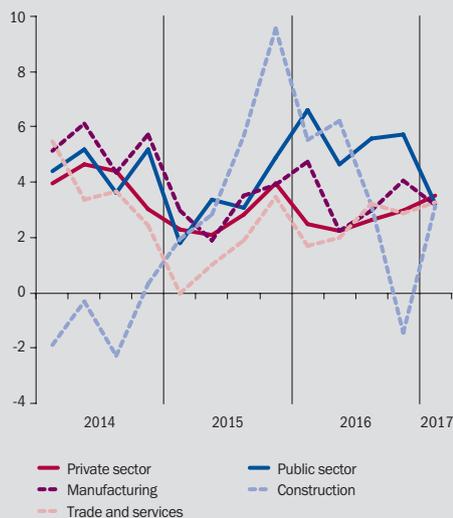
### 3.1 WAGES AND LABOUR PRODUCTIVITY

The average wage in the economy rose in the first quarter by 3.5% year on year, representing a slowdown of 0.1 percentage point compared with the previous quarter. Wage developments in the public and private sectors followed different trends. The pace of wage growth in the private sector accelerated, from 3% to 3.5%. By contrast, in the public sector (public administration, education and health care), it slowed from 5.7% to 3.2%. The slowdown took place mostly in the general government sector. Compared with last year, bonus payments were reduced to a significant extent, while basic wages increased by 4% on the basis of collective bargaining. The private sector also recorded a certain slowdown in one-off bonus payments compared to the relatively strong previous quarter, but the increase in basic wages had a pronounced positive impact and led to accelerated wage growth in the private sector. Basic wage growth was indicated in the first quarter by public information about significant wage increases in large corporations, for example in the machine and automotive industries, and in retail trade.

Wage growth in the private sector was stimulated by an almost four-percent wage increase in manufacturing and trade. Wage growth accelerated to over 3% in both services and construction, where wages had shown negative dynamics a year earlier. Wages increased most rapidly in organisations with 20 or more employees (by 4.1%), while wages in smaller firms rose more moderately (by 1.7%).

Compensation per employees (including gross wages and social contributions paid by employers) continued growing in the first quarter of this year by 3.5%, compared with 2.5% in the previous quarter. The acceleration was attributable to the increased contribution payment burden imposed on employees in higher-income occupations as from the beginning of this year (the health contribution ceiling has been cancelled and social contributions increased to a signifi-

**Chart 11 Wage developments by sector (annual percentage changes in average wages)**



Sources: SO SR and NBS calculations.

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

**Chart 12 Wage developments in the Slovak economy (annual percentage changes in average wages)**



Sources: SO SR and NBS calculations.

1) Public and financial sectors, irrespective of the number of employees.

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

	2016					2017
	Q1	Q2	Q3	Q4	Q1-Q4	Q1
Average wage (headline)	3.3	2.7	3.3	3.6	<b>3.3</b>	3.5
Consumer price inflation	-0.5	-0.7	-0.7	-0.1	<b>-0.5</b>	0.9
Average real wage (headline)	3.8	3.4	4.0	3.7	<b>3.8</b>	2.6
Average wage (ESA 2010)	2.7	1.8	2.0	3.3	<b>2.5</b>	2.6
Compensation per employee (ESA 2010)	2.2	1.4	0.8	2.5	<b>1.8</b>	3.5
Nominal labour productivity (ESA 2010)	0.7	1.1	-0.1	0.3	<b>0.5</b>	1.9
Real labour productivity (ESA 2010)	1.1	1.5	0.5	0.4	<b>0.9</b>	1.0

Sources: SO SR and NBS calculations.

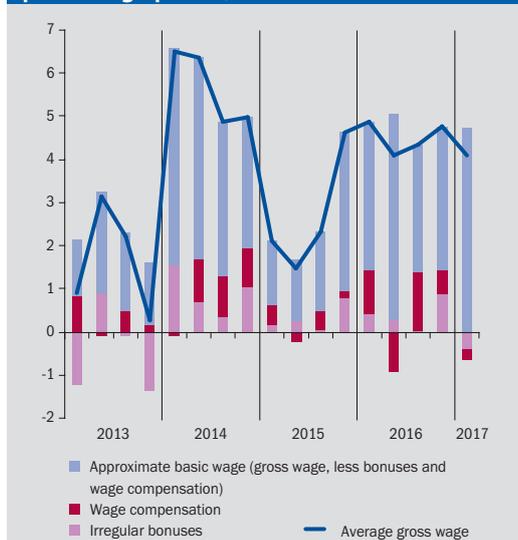
Note: Average wages (headline) are based on data from the statistical reports of SO SR. Average real wages were calculated on the basis of CPI inflation. Labour productivity (ESA 2010) was calculated as the ratio of nominal GDP to employment as defined in the ESA 2010 methodology.

cant extent). Since inflation rose somewhat at the beginning of the year, real wage growth slowed in comparison with the previous quarter (from 3.7% to 2.6%). Changes in inflation are usually taken into account in wage bargaining with a certain lag.

shortage of skilled labour. In the light of new investments planned in manufacturing and of the continuing growth in economic output, wage levels are expected to be influenced in the next quarters by labour productivity and profit growth, and later by inflation, too.

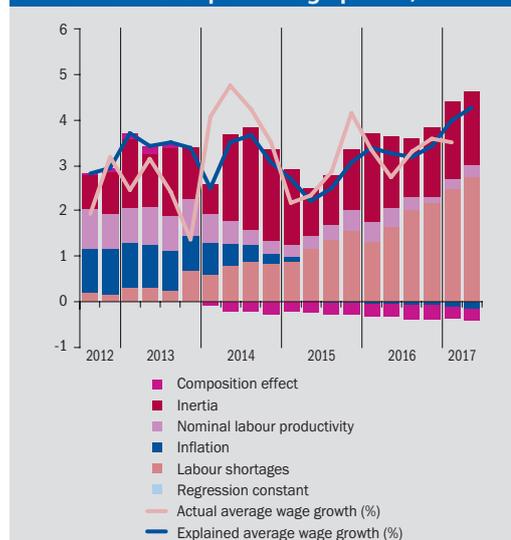
Wage growth is still affected by the growing demand for labour, which is reflected in the growing number of vacancies and in the perceived

**Chart 13 Wage components in organisations with 20 or more employees (annual percentage changes; contributions in percentage points)**



Sources: SO SR and NBS calculations.

**Chart 14 Factors determining the rate of wage growth (annual percentage changes; contributions in percentage points)**



Source: NBS calculations based on a regression analysis.

Note: The following variables have been transformed: four-quarter moving average of labour productivity; four-quarter moving average of CPI inflation recorded three quarters earlier. The figures for labour shortages are based on responses to European Commission 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 Q2 2017 are based on the MTF-2017Q2 forecast of NBS.

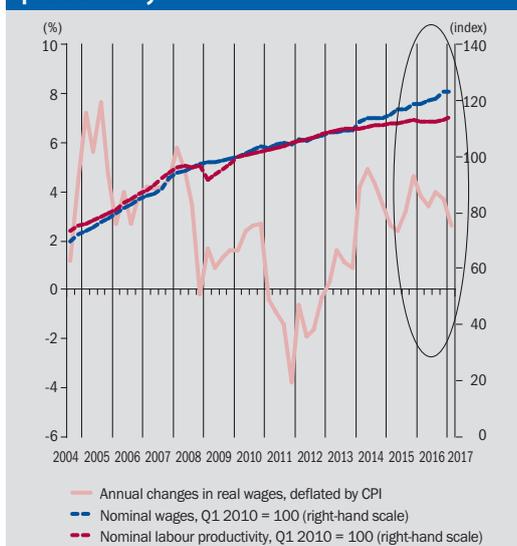
Although labour productivity growth accelerated, it still remained lower than wage growth in the first quarter of 2017. The resulting strong upward impact on unit labour costs supported increases in both consumer and producer prices.

### 3.2 EMPLOYMENT AND UNEMPLOYMENT

Annual employment growth slowed to 2.1% in first quarter of 2017 (from 2.6% in the previous quarter). The quarterly growth rate also decelerated, to 0.3%. Despite its slowdown, the pace of employment growth remained solid in the period under review, and was comparable with rates in the pre-crisis years of 2006 and 2007 (job growth in 2008 was stronger). Employment growth fell most markedly in the trade sector and in some trade-related sectors (hotels and restaurants, transportation and storage). The slowdown was more marked in smaller firms with up to 19 employees and among sole proprietors. Other sectors, specifically manufacturing and construction, recorded relatively strong quarter-on-quarter job gains. The public sector also reported a modest rise in employment.

The developments observed in trade at the turn of 2016/17 were, in all probability, seasonal fluctuations that had not been smoothed out by the seasonal adjustment procedure. The acceleration in the seasonally adjusted rate of employment growth in the fourth quarter of last year and the following slowdown in the first quarter of this year were largely of a technical nature. As regards the outlook for the second quarter, the current monthly indicators suggest that employment will grow markedly in quarter-on-quarter

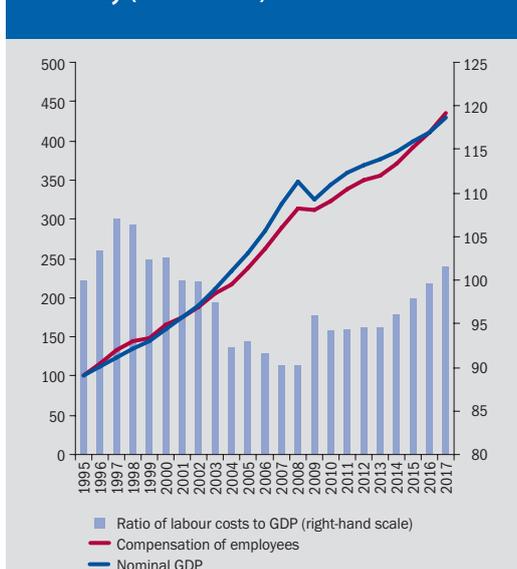
**Chart 15 Changes in wages and labour productivity**



Sources: SO SR and NBS calculations.

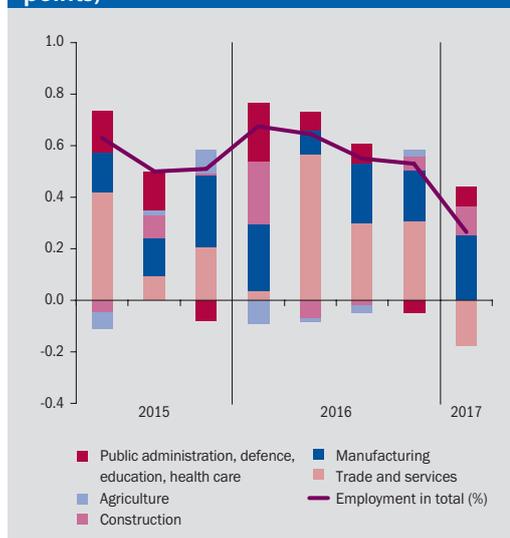
Note: Wages are based on data from the statistical reports of SO SR. Nominal labour productivity was calculated from employment according to the statistical reports of SO SR. Base indices are based on seasonally adjusted data.

**Chart 16 Changes in labour costs in the economy (1995 = 100)**



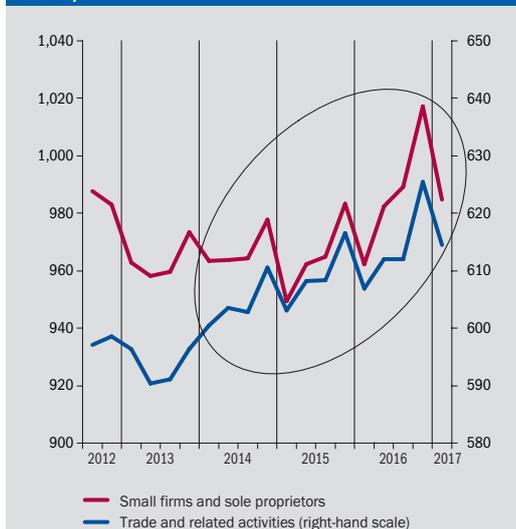
Sources: SO SR and NBS calculations.

**Chart 17 Quarterly changes in employment by contributions of sectors (percentage points)**



Source: SO SR.

**Chart 18 Employment in trade and in small firms (thousands of persons; unadjusted data)**



Sources: SO SR and NBS calculations.

Note: Data adjusted for trade and related activities are identical to the unadjusted data.

**Chart 19 Employment and hours worked (annual percentage changes)**



Sources: SO SR and NBS calculations.

terms. If, however, skilled labour shortages persist after pool of available unemployed has been exhausted, employment growth may decrease in the period ahead. Such a slowdown may be averted if employers manage to recruit more foreign workers.

After increasing at a slower pace in previous quarters, the number of hours worked accelerated in the first quarter of 2017. After surging towards the end of 2015 (when EU-funded projects were completed), the rate of increase in the number of hours worked fell back somewhat at the beginning of last year. Data on hours worked confirm that economic growth generates a need for additional labour force. In the period under review, the number of hours worked rapidly increased in all the key sectors of the economy. With the revival of strong growth in the number of hours worked, the average working week increased, too.

The number of unemployed (according to the Labour Force Survey) continued to decrease in the first quarter, at a rapid pace. The seasonally adjusted number of unemployed fell by 12,300 quarter on quarter. As a result, the seasonally adjusted unemployment rate dropped by 0.44 percentage point, to 8.5%, representing a historical

**Chart 20 Part-time employment and the average length of a working week (percentages of employment; hours per person per week; four-quarter moving average)**



Sources: SO SR and Eurostat.

low. The fall in unemployment in the first quarter was due to employment growth (employment according to the LFS grew more rapidly than that according to the ESA methodology, by 10,000 persons or 0.4% quarter on quarter) and,



to a lesser extent, to a modest decrease in the size of the active population (by roughly 2,000 persons quarter on quarter).

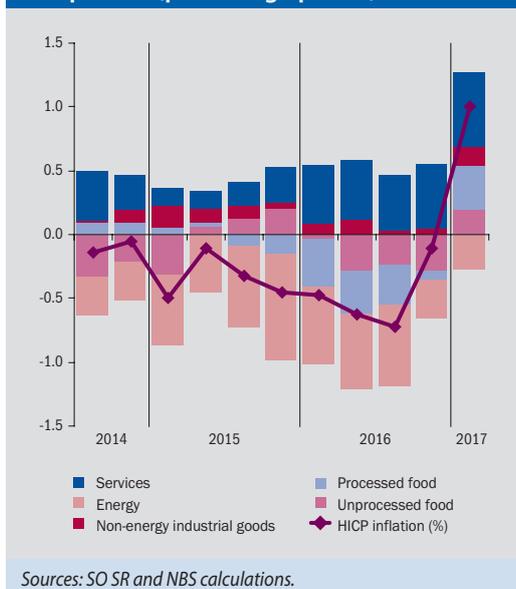
The unemployment rate calculated from the total number of job applicants registered with the Central Office of Labour, Social Affairs and

Family (ÚPSVR) dropped in the first quarter by 0.7 percentage point, to 9.6%. The non-seasonally adjusted average rate of registered unemployment reached 8.36% (the adjusted rate reached 8.25%), representing a year-on-year fall of 1.8 percentage points.

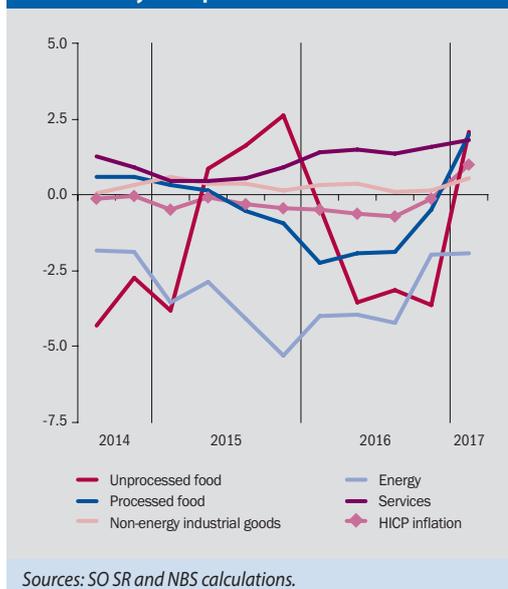
## 4 PRICE DEVELOPMENTS

In line with projections of its gradual acceleration, annual HICP inflation increased to 1.0% in the first quarter of 2017, from -0.1% in the previous quarter. Its increase was driven mainly by food prices. Another significant factor was the fading of the negative impact of VAT reductions on certain foodstuffs (their impact on the inflation rate for 2016 was -0.34 percentage point). The increase in food inflation probably also reflected the short-term impact of bad weather in southern Europe at the beginning of the year, which led to a faster rise in

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



**Chart 22 Annual percentage changes in inflation by component**



unprocessed food prices. Demand-pull inflation also contributed to the accelerating headline rate in the first quarter, as did increases in non-energy industrial goods inflation and services inflation (excluding administrative prices). The rise in industrial goods prices was stimulated by the rising import prices supported by domestic household demand. The rise in services prices was probably determined, on the supply side, by wage growth and, on the demand side, by continuing growth in real household consumption. Among energy prices,

**Table 3 Annual percentage changes in inflation by component**

	2016					2017
	Q1	Q2	Q3	Q4	Q1-Q4	Q1
<b>HICP inflation</b>	-0.5	-0.6	-0.7	-0.1	<b>-0.5</b>	1.0
Unprocessed food	-0.4	-3.5	-3.1	-3.6	<b>-2.7</b>	2.1
Processed food	-2.2	-1.9	-1.9	-0.5	<b>-1.6</b>	2.0
Non-energy industrial goods	0.3	0.4	0.1	0.2	<b>0.2</b>	0.5
Energy	-4.0	-3.9	-4.2	-2.0	<b>-3.5</b>	-1.9
Services	1.4	1.5	1.4	1.6	<b>1.5</b>	1.8

Sources: SO SR and NBS calculations.



es, the steepest increase was observed in fuel prices, reflecting the revival in Brent crude oil prices. Their impact, however, was fully offset by heat and electricity prices, which fell more markedly compared with the previous quarter. The reduction in heat and electricity prices in January 2017 was more pronounced than that in January 2016.