



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  |
| EIA      | Energy Information Administration  |
| EMU      | Economic and Monetary Union  |
| EONIA    | euro overnight index average   |
| ESA 95   | European System of National Accounts 1995  |
| EU       | European Union   |
| Eurostat | Statistical Office of the European Communities   |
| FDI      | foreign direct investment  |
| Fed      | Federal Reserve System   |
| EMU      | Economic and Monetary Union  |
| EURIBOR  | euro interbank offered rate  |
| FNM      | Fond národného majetku – National Property Fund  |
| GDP      | gross domestic product   |
| GNDI     | gross national disposable income   |
| GNI      | gross national income  |
| HICP     | Harmonised Index of Consumer Prices  |
| IMF      | International Monetary Fund  |
| IPI      | industrial production index  |
| IRF      | initial rate fixation  |
| MFI      | monetary financial institutions  |
| MF SR    | Ministry of Finance of the Slovak Republic   |
| MMF      | money market fund  |
| NARKS    | National Association of Real Estate Offices of Slovakia  |
| NBS      | Národná banka Slovenska  |
| NEER     | nominal effective exchange rate  |
| NPISHs   | Non-profit Institutions serving households   |
| OIF      | open-end investment fund   |
| p.a.     | per annum  |
| p.p.     | percentage points  |
| qoq      | quarter-on-quarter   |
| PPI      | Producer Price Index   |
| REER     | real effective exchange rate   |
| SASS     | Slovenská asociácia správcovských spoločností – Slovak Association of Asset Management Companies |
| SO SR    | Statistical Office of the Slovak Republic  |
| SR       | Slovenská republika – Slovak Republic  |
| ULC      | unit labour costs  |
| VAT      | value-added tax  |
| yoy      | year-on-year   |

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 continued to grow in the third quarter of 2016, by 0.7% quarter-on-quarter (compared with 0.9% in the previous quarter). The moderation of economic growth was due to a decline in investment and exports. The main driver of growth was private consumption, which continued to benefit from the favourable labour market developments, the low-inflation environment and the falling interest rates. In year-on-year terms, the rate of economic growth slowed to 3% in the third quarter, from 3.8% in the second quarter.

Employment continued to rise in the third quarter, by 0.6% quarter-on-quarter (as in the second

quarter). This rise took place mostly in services and trade. The favourable labour market developments led to a fall in the number of unemployed. The average wage in the economy increased by 3.3% in the third quarter compared with 2.7% in the second quarter. The accelerated wage growth was driven by developments in the private and public sectors.

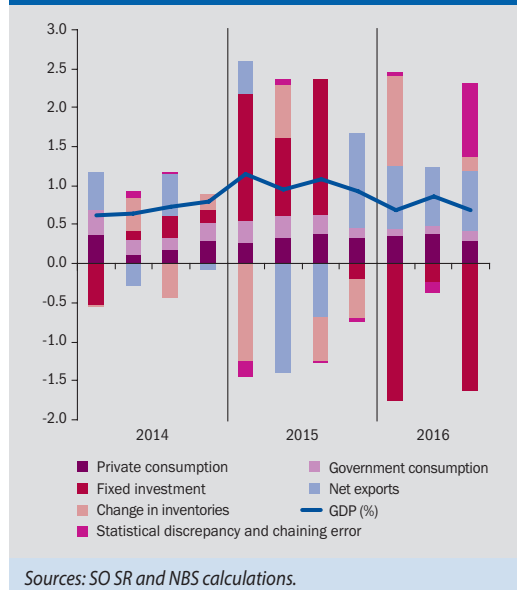
Price levels continued to fall in the third quarter, by 0.7% year-on-year (compared with -0.6% in the second quarter), mainly owing to a year-on-year decline in energy prices and a slowdown in non-energy industrial goods prices.

## 2 GROSS DOMESTIC PRODUCT

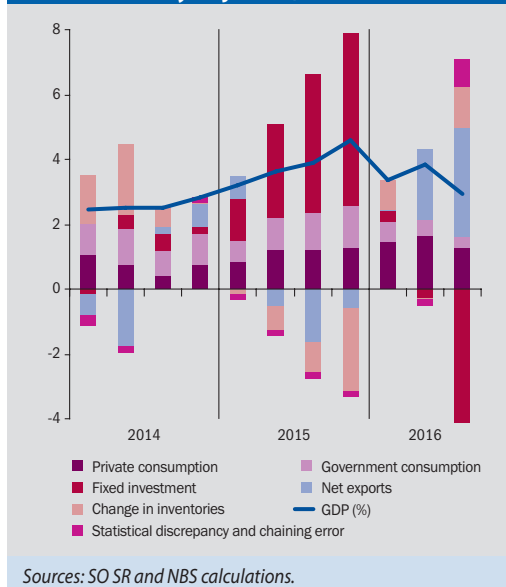
The Slovak economy grew in the third quarter by 0.7% quarter-on-quarter, compared with 0.9% in the second quarter. The moderation of economic growth was attributable to a fall in investment and exports. A sharper slowdown was hampered by an increase in inventories and, in particular, by the positive statistical discrepancy<sup>1</sup> between the two different methods of GDP calculation. The main driver of economic growth was consumer demand in the domestic economy.

In year-on-year terms, the rate of economic growth (based on non-seasonally adjusted data) slowed to 3%, from 3.8% in the second quarter.

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



**Chart 2 Annual GDP growth by component (percentage points; constant prices; non-seasonally adjusted)**



A modest slowdown was also recorded in the main driver of economic growth, i.e. private consumption. Private consumption growth weakened over the third quarter to 0.6%, from 0.7% in the previous quarter (public consumption growth, by contrast, accelerated from 0.6% to 0.7%).

In year-on-year terms, private consumption growth weakened over the period under review from 3.1% to 2.5% (according to non-seasonally adjusted data). Slovak households recorded a significant fall in their expenses on miscellaneous goods and services in particular. This category is

**Table 1 GDP by expenditure (annual percentage changes; constant prices; non-seasonally adjusted)**

|  | 2015 |      |      |      |             | 2016 |      |       |
|--|------|------|------|------|-------------|------|------|-------|
|  | Q1   | Q2   | Q3   | Q4   | Year        | Q1   | Q2   | Q3    |
| <b>Gross domestic product</b>          | 3.2  | 3.6  | 3.9  | 4.6  | <b>3.8</b>  | 3.4  | 3.8  | 3.0   |
| Final consumption                      |      |      |      |      |             |      |      |       |
| Households and non-profit institutions | 1.5  | 2.3  | 2.4  | 2.4  | <b>2.2</b>  | 2.6  | 3.1  | 2.5   |
| General government                     | 3.5  | 5.4  | 6.5  | 6.0  | <b>5.4</b>  | 3.6  | 2.5  | 2.1   |
| Gross fixed capital formation          | 7.2  | 14.2 | 20.7 | 21.9 | <b>16.9</b> | 1.8  | -1.1 | -17.0 |
| Exports of goods and services          | 5.4  | 6.1  | 7.2  | 9.2  | <b>7.0</b>  | 0.3  | 7.8  | 4.5   |
| Imports of good and services           | 5.1  | 7.2  | 9.8  | 10.4 | <b>8.1</b>  | 0.3  | 5.9  | 0.8   |

Source: SO SR.

<sup>1</sup> We assume that the value of discrepancy was calculated with respect to the effect of initial investments made for a new car assembly plant, which are not yet included in the fixed investment statistics.

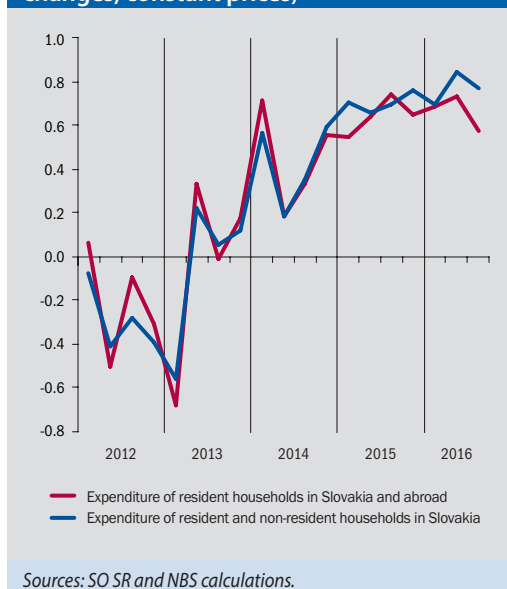
formed in large part by financial intermediation services (indirectly measured), the amount of which is determined indirectly by households (as creditors and debtors of banks). Hence, the lower consumption was not a direct result of a change in the attitude of households but a consequence of reduced implicit charges for banking services (not real bank charges but the indirectly calculated values of charges for financial intermediation).

The funds so saved were accumulated in savings. Thus the funds saved, increased by long-term savings from the stagnating consumer prices, contributed to the rise in the household saving ratio. During the first three quarters, the saving ratio of Slovak households rose to 6.8%, from 6.2% in the comparable period of 2015.

An overview of consumer spending by resident and non-resident households points to the rising level of consumption among non-residents who spend their income in Slovakia. This is reflected in GDP as exports of services and stems from the increased interest of tourists in Slovakia, the increased number of foreigners working temporarily in Slovakia, and of the Slovak presidency of the Council of the European Union.

The exports of services grew relatively dynamically for a second successive quarter. The second

**Chart 4 Final consumption in two different groups of households (quarterly percentage changes; constant prices)**

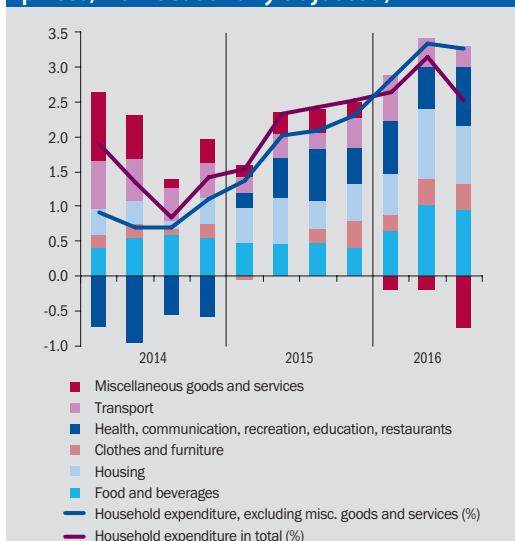


quarter saw a quarter-on-quarter rise of 9.3%, which was followed by an increase of 12.8% in the third quarter. Thus, the exports of services helped to moderate the rate of decline in the exports of goods, to -1.7% quarter-on-quarter. This decline partly offset the 4.7% increase recorded in the previous quarter. The fluctuation in exports was caused mainly by changes in the automotive industry's export performance, which, after being at its peak over the second quarter, weakened considerably during the summer holidays.

In the automotive industry, both exports and investment were dampened by the summer holidays. After being stronger than average in the previous quarter, the investment activity of car producers weakened in the third quarter. A marked decline in investment was also recorded in the power industry. Private sectors in which investment in the previous years had been partly financed from EU funds also restricted their investment activity in the third quarter, since they did not use their own funds or cheap borrowed funds as a substitute for EU funding. As a result, private investment in the third quarter fell by 4.4% quarter-on-quarter.

After an investment boom last year, the public sector restricted its investment activity by 22.1%

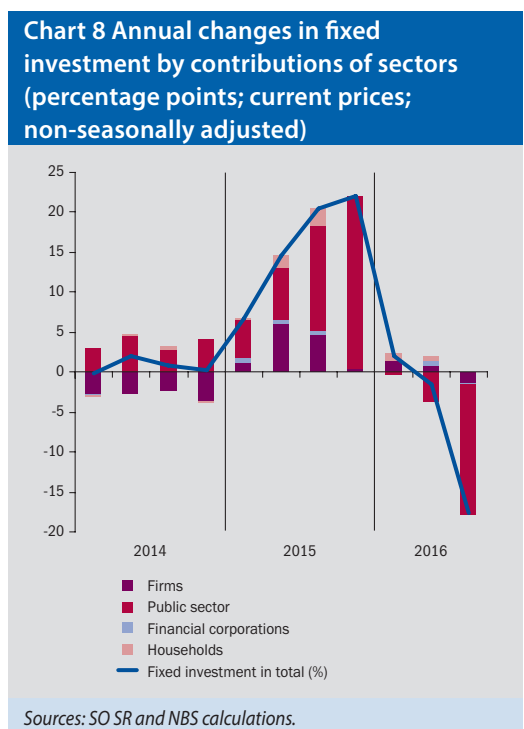
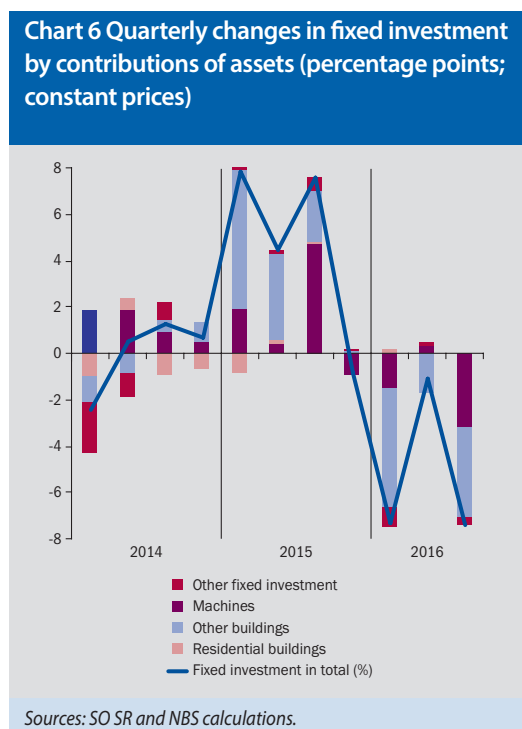
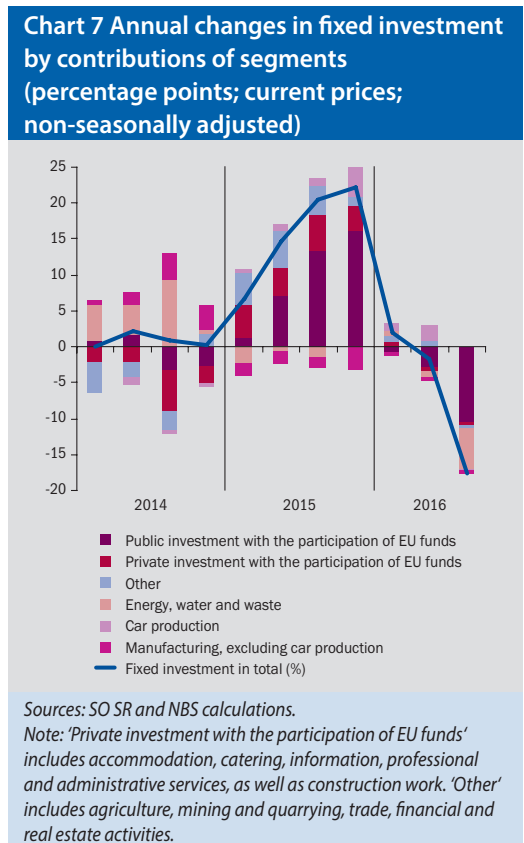
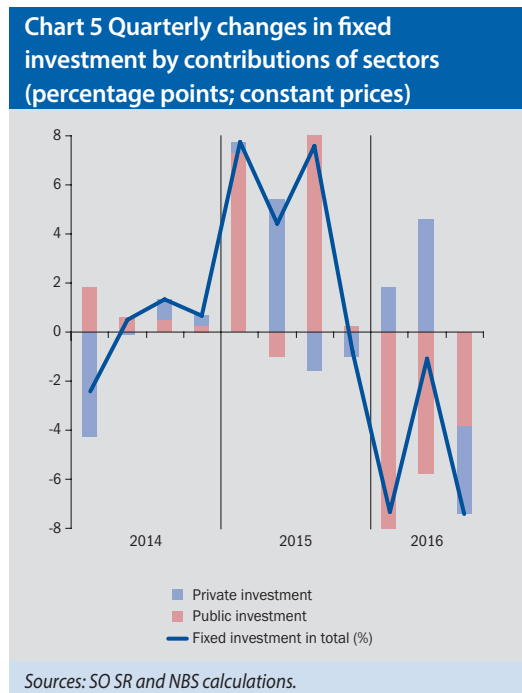
**Chart 3 Composition of household expenditure (contributions to annual growth in percentage points; constant prices; non-seasonally adjusted)**



quarter-on-quarter. With the ending absorption of EU funds, public investment in waste management declined, too.

As a result of developments in the public and private sectors, overall fixed investment dropped by 7.4% quarter-on-quarter (-1.1% in the second quarter).

The weakening export and investment activity led to a fall in the volume of imported goods and services (-2.6% quarter-on-quarter, compared with a rise of 4.2% in the second quarter).



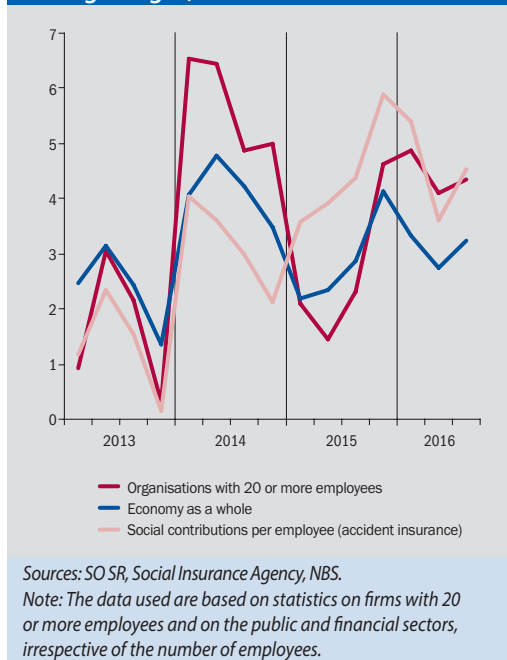


### 3 THE LABOUR MARKET

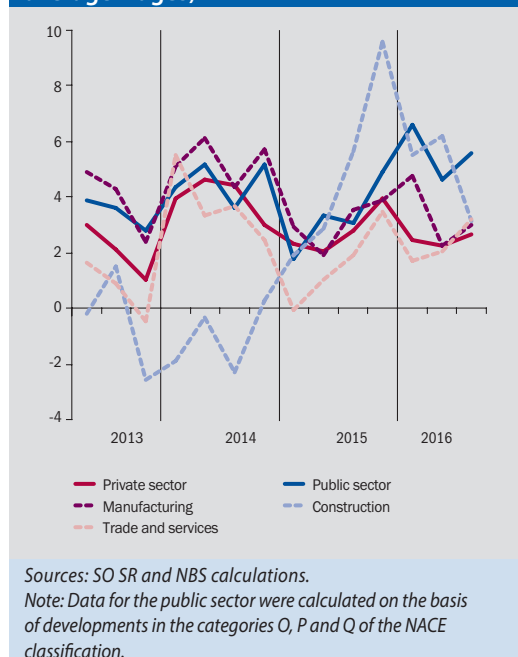
The average wage showed stronger growth dynamics in the third quarter, as a result of developments in the private and public sectors. Wages grew more rapidly than labour productivity, posing a risk to price stability. Employment grew dynamically in most sectors, except in construction. This was reflected in the falling rate of unemployment.

The average wage in the economy grew at an annual rate of 3.3% over the third quarter, compared with 2.7% in the previous quarter. The accelerated growth was driven by wage developments in the private and public sectors. The faster wage growth in the public sector, education and health care was caused by the wage increases agreed this year for the individual wage categories. Wage growth was also supported by wage developments in manufacturing. As for the major industries, wage growth accelerated in the automotive industry, machine industry and metal production. Wage growth also accelerated in services, mainly in transport, hotels and restaur-

**Chart 10 Wage developments in the Slovak economy (annual percentage changes in average wages)**



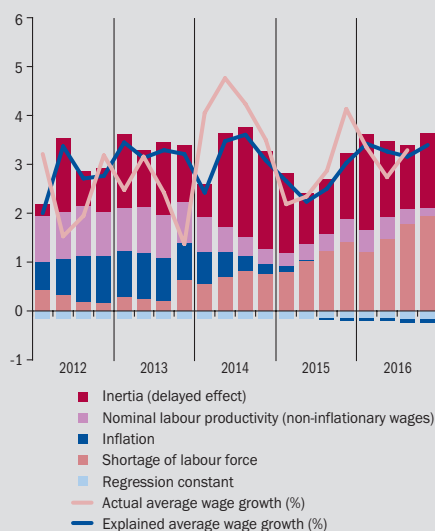
**Chart 9 Breakdown of wage developments by sector (annual percentage changes in average wages)**



rants, and administrative services. Wage dynamics in construction weakened in the third quarter as a result of the sector's strong base and weaker current output.

Wage growth in the private sector accelerated in spite of a sharp drop in the number of hours worked per employee (as a result of leaves and holidays), compared with the second quarter. The second quarter was weakened somewhat by the calendar effect of the early Easter (it fell in the first quarter) and by the fact that no compensation was paid for work during holidays. Wage growth was supported mostly by the dynamically growing demand for new employees, while there was a shortage of labour force in the market. By contrast, inflation had a dampening effect on the rate wage growth. Such effect was also exerted by nominal labour productivity and profitability, which remained virtually unchanged in the third quarter. Real wage growth was relatively strong (4%), as in the pre-crisis years (2006–2007).

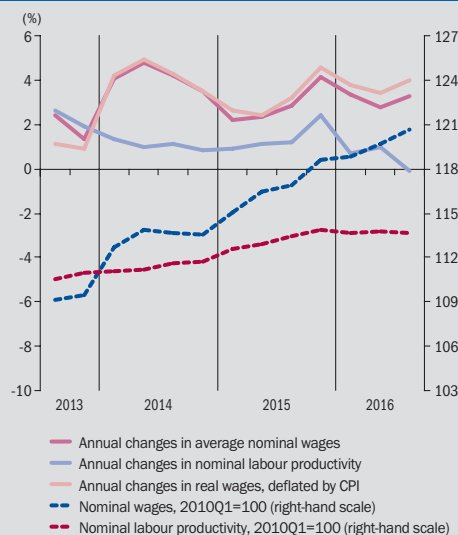
**Chart 11 Factors determining the rate of wage growth (annual percentage changes; contributions in percentage points)**



Sources: NBS calculations based on a regression analysis.

Note: The following variables have been transformed: 4-quarter moving average of labour productivity growth, 4-quarter moving average of CPI inflation recorded three quarters ago. The shortage of labour force has been revealed by an economic trend research carried out by the European Commission; the sectors are weighted by developments in employment. The data for 2016Q4 are based on the MTF-2016Q4 forecast of NBS.

**Chart 12 Annual 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.

Wages continued to grow at a faster pace than labour productivity, creating conditions for an increase in price pressures in the production sector, which were low at that time. Labour costs as a share of GDP followed the upward trend that started in 2013; they had risen by approximately 2 percentage points since that

time. Wage growth was driven mainly by wages in firms and other organisations with 20 or more employees, which increased by 4.3% year-on-year. The overall wage dynamics, however, were dampened by wage developments in small firms, which recorded a year-on-year wage rise of 0.3%.

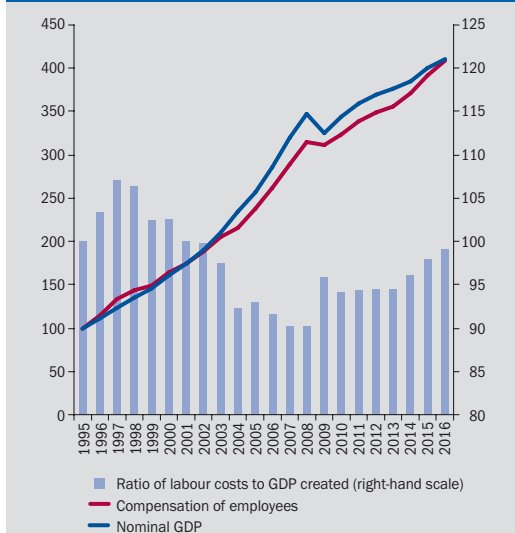
**Table 2 Wages and labour productivity (annual percentage changes)**

|  | 2015 |      |      |      |             | 2016 |      |      |
|--|------|------|------|------|-------------|------|------|------|
|  | Q1   | Q2   | Q3   | Q4   | Year        | Q1   | Q2   | Q3   |
| <b>Average wage (headline)</b>         | 2.2  | 2.3  | 2.9  | 4.1  | <b>2.9</b>  | 3.3  | 2.7  | 3.3  |
| Consumer price inflation               | -0.4 | -0.1 | -0.3 | -0.5 | <b>-0.3</b> | -0.5 | -0.7 | -0.7 |
| Average real wage (headline)           | 2.6  | 2.4  | 3.2  | 4.6  | <b>3.2</b>  | 3.9  | 3.4  | 4.0  |
| Average wage (ESA 2010)                | 1.7  | 2.1  | 2.2  | 4.0  | <b>2.6</b>  | 2.7  | 1.8  | 2.0  |
| Compensation per employee (ESA 2010)   | 2.6  | 2.2  | 2.8  | 4.6  | <b>3.1</b>  | 2.2  | 1.4  | 0.8  |
| Nominal labour productivity (ESA 2010) | 1.0  | 1.3  | 1.5  | 2.5  | <b>1.6</b>  | 0.7  | 1.1  | -0.1 |
| Real labour productivity (ESA 2010)    | 1.4  | 1.5  | 1.7  | 2.6  | <b>1.8</b>  | 1.1  | 1.5  | 0.5  |

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.

**Chart 13 Changes in labour costs in the economy (1995 = 100)**



Sources: SO SR and NBS calculations.

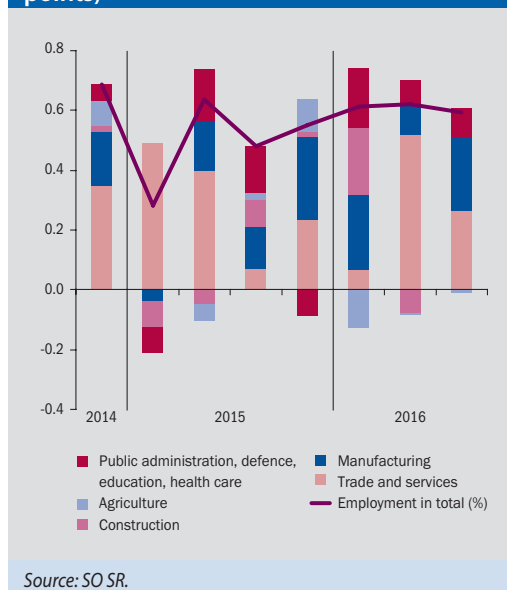
Note: GDP and compensation are based on revised data. Data for 2016Q4 are based on the MTF-2016Q4 forecast of NBS.

Compensation per employee, which is an indicator of the wage costs of employers, including social security contributions, increased in the third quarter by only 0.8% year-on-year. This represents a slowdown in comparison with the previous quarter, as well as in comparison with 2015, when this indicator rose by 3.1%. An important factor in this slowdown was probably revision, which assigned a larger amount of compensation to 2015, while compensation in 2016 remained more or less unchanged in comparison with its level before revision. Revisions were made mostly in the area of social security contributions, the growth rate of which slowed according to this methodology to zero in the third quarter. Another reason behind the weaker growth in compensation was the decreasing profit-sharing with employees (e.g. dividends, bonuses to board and supervisory board members, etc.), which was in line with the decline in profitability in the quarter under review. There are some other items that are also weakened from the viewpoint of overall compensation. These items, however, are not available in the quarterly statistics (e.g. voluntary social security contributions above the statutory limit and non-monetary income).

### 3.1 EMPLOYMENT AND UNEMPLOYMENT

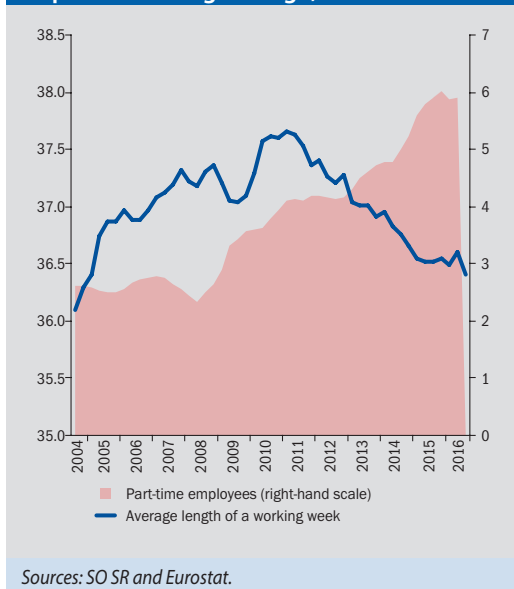
Employment continued to grow in the third quarter at the same pace as in the previous quarter (0.6% quarter-on-quarter), while accelerating somewhat in year-on-year terms (to 2.4%, from 2.3% in the second quarter). Employment growth in public administration, education and health care (mostly in private health care) again accounted for roughly 0.1 percentage point of the overall quarterly increase. The overall increase in employment was mainly supported by services and trade positively influenced by trading activities, transport, hotels and catering, information technology and communication, professional and administrative services. The expansion of these services, compared with the less capital-intensive services, may be responsible for the relatively strong growth in employment in relation to the current rate of GDP growth. Manufacturing, especially its key segments, also contributed significantly to employment growth. By contrast, the level of employment could not be raised in the construction sector, which recorded a fall in output after the absorption of EU funds. The monthly forward-looking indicators remained relatively favourable: they implied a rise in employment for the last quarter of this year,

**Chart 14 Quarterly changes in employment by contributions of sectors (percentage points)**



Source: SO SR.

**Chart 15 Part-time employment and the average length of a working week (% of employment; hours per person per week; 4-quarter moving average)**



too. Employment growth was again expressed in terms of the number of employees. At the same time, the number of self-employed persons continued to decline.

The number of hours worked in the third quarter decreased, and thus almost fully offset the increase from the previous quarter. In the second quarter, firms made use of the timing of Easter (it fell in the first quarter) to increase the level of production; relatively few employees took a leave of absence in that period. By contrast, the volume of wage compensation (paid for hours not worked) recorded a steep increase in the

third quarter, which was a consequence of leaves and holidays. The fall in the number of hours worked was reflected in the shortened average length of a working week. This development was characteristic of all the key sectors of the economy. A smaller role in this development was also played by the growing trend in the number of part-time employees (data were available only up to the end of 2016Q2).

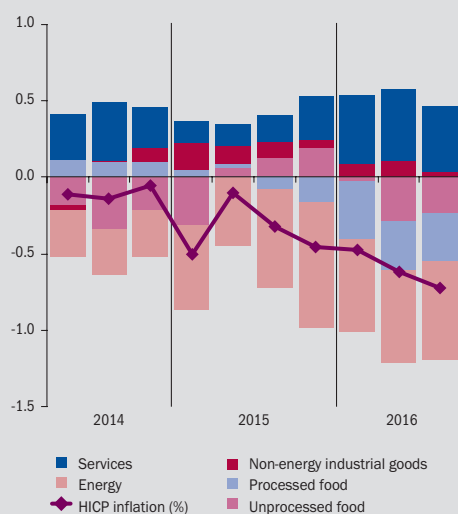
The number of unemployed in the third quarter responded to the favourable labour market conditions and dropped by 10,400 persons (according to seasonally adjusted data). This led to a fall of 0.38 percentage point in the unemployment rate, to 9.5%. The fall in the unemployment rate indicated an improvement in employment and a decline in the working-age population. At the same time, these factors were to some extent counterbalanced by the rising labour force participation rate, when a large number of economically inactive persons entered the labour market. The third quarter saw a decrease in the number of Slovak citizens working abroad, which indicated that the growing trend had come to a halt. As a result, employment according to the national concept (Labour Force Survey) rose to a lesser extent than according to the ESA methodology. The unemployment rate calculated from the total number of job applicants registered with the Central Office of Labour, Social Affairs and Family (ÚPSVR) decreased in the third quarter by 0.41 percentage point quarter-on-quarter, to 10.92% (including seasonal adjustment). The non-seasonally adjusted average rate of registered unemployment reached 9.43%, representing a year-on-year fall of 2.0 percentage points.

## 4 PRICE DEVELOPMENTS

Price levels dropped in the third quarter by 0.7% year-on-year, compared with 0.6% in the second quarter. Within the structure of HICP inflation, the inflation rate slowed as a result of a further decline in energy prices (gas prices started to fall in July 2016) and a slowdown in the dynamics of non-energy industrial goods prices. It is, however, possible to assume that the price decline has come to an end and inflation will accelerate gradually.

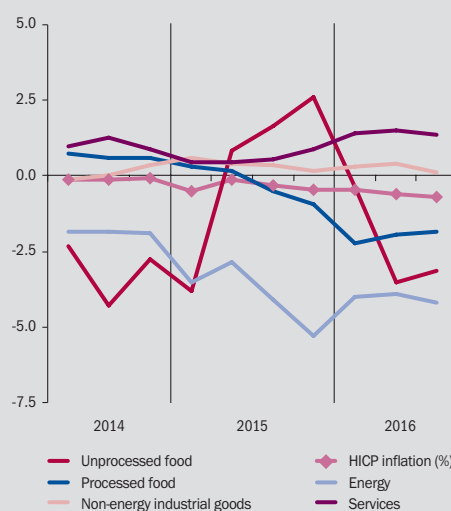
The negative rate of change in the general price level persisted for an eleventh successive quar-

**Chart 16 Annual headline inflation rate by component (percentage points)**



Sources: SO SR and NBS calculations.

**Chart 17 Annual percentage changes in inflation by component**



Sources: SO SR and NBS calculations.

ter. The negative inflation rate was still attributable to external factors, which caused a year-on-year fall in energy and food prices. These factors thus suppressed the potential inflationary effects of the strong labour market and strong domestic demand. The low energy and food commodity prices are expected to rise gradually and to create conditions for the return of price dynamics to positive territory.

The negative rate of change in import prices from euro area countries and from outside the euro area slowed somewhat in the period

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

|                             | 2015 |      |      |      |             | 2016 |      |      |
|-----------------------------|------|------|------|------|-------------|------|------|------|
|                             | Q1   | Q2   | Q3   | Q4   | Year        | Q1   | Q2   | Q3   |
| <b>HICP inflation</b>       | -0.5 | -0.1 | -0.3 | -0.5 | <b>-0.3</b> | -0.5 | -0.6 | -0.7 |
| Unprocessed food            | -3.8 | 0.9  | 1.6  | 2.6  | <b>0.3</b>  | -0.4 | -3.5 | -3.1 |
| Processed food              | 0.3  | 0.2  | -0.5 | -0.9 | <b>-0.2</b> | -2.2 | -1.9 | -1.9 |
| Non-energy industrial goods | 0.6  | 0.4  | 0.4  | 0.2  | <b>0.4</b>  | 0.3  | 0.4  | 0.1  |
| Energy                      | -3.5 | -2.9 | -4.1 | -5.3 | <b>-3.9</b> | -4.0 | -3.9 | -4.2 |
| Services                    | 0.5  | 0.5  | 0.6  | 0.9  | <b>0.6</b>  | 1.4  | 1.5  | 1.4  |

Sources: SO SR and NBS calculations.



under review. This is likely to cause a gradual acceleration in the annual rate of increase in industrial goods prices in Slovakia with a certain time delay. The rate of change in these prices is currently fluctuating slightly above

zero. The technical assumptions and the expected trends in the basic macroeconomic fundamentals indicate that inflation will, in all probability, reach a positive value in the first quarter of 2017.