

## Economic Development of Slovakia in 2009<sup>1</sup>

Karol MORVAY – Ivan OKÁLI – Herta GABRIELOVÁ – Veronika HVOZDÍKOVÁ – Ivana ŠIKULOVÁ – Karol FRANK – Tomáš JECK\*

### Abstract

*After a rather long period of unprecedented economic growth, the Slovak Republic experienced an economic downturn in 2009. The small open economy, with an insufficient domestic market, responded sensitively to the slump in external demand. This was not the first serious destabilization of the Slovak economy, but the first one caused primarily by the external environment. Employment has been hit particularly hard by the recession, even though with a notable delay. The economy began to recover slowly in the first half of 2010; however the signs of recovery appear to differ considerably across sectors. We expect fragile recovery to continue further in 2010 (differentiated broadly by sectors), while the labour market development remains troubled. And with a certain time delay, the government's consolidation effort will probably enter this process.*

**Keywords:** *economic growth, economic policy, economic recession, country study – Slovakia, forecast, production, balance of payments, external trade, labour market, public finance, monetary policy*

**JEL Classification:** D11, E23, E37, E52, E62, F14, F32, J20, L60, O10, O52

### 1. Overall Economic Development<sup>2</sup>

The period of several years' exceptional economic growth expansion – in the break of 2008 and 2009 – ended up unexpectedly the anticipations of further prosperous development due to the global economic crisis. Analysis of its first symptoms in the fall 2008 and its full development over 2009, investigation of

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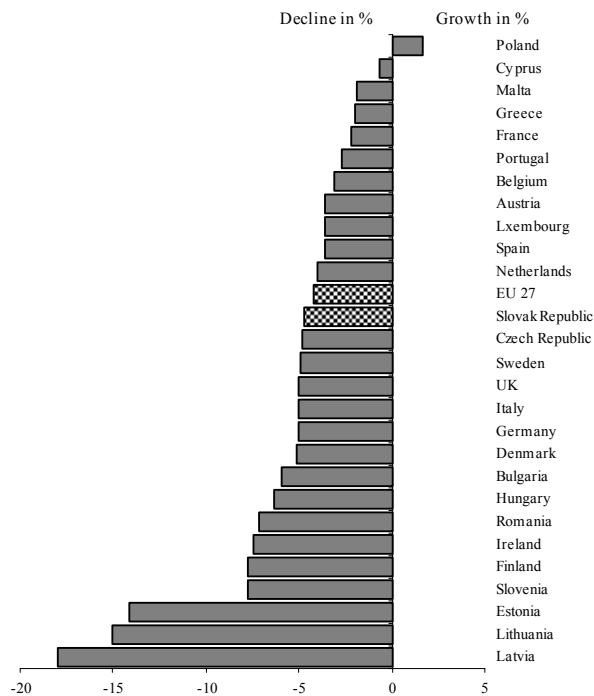
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its reasons, its course and consequences is the focus of our present study. We consider it, of course, as only one of the first and moreover temporarily limited attempts at the Slovak reflection of the crisis, being aware at the same time of the fact that a deeper recognizing its causes will be subject to a long-term research.

The crisis of the Slovak economy is a part of the global economic crisis which transferred from its original focus in the global financial crisis into the real economy and acquired here the form of worldwide recession. This means that the recession characterized by decline in economy performance (decline in the GDP formation, or – as for example in China and India, by slowing down the pace of its growth) hit all the world regions. Its impact on the economic growth of the countries of the European Union (EU) is shown in Graph 1.

Graph 1  
GDP Change in 2009 in %



Source: Eurostat data.

The graph illustrates clearly that the decline in real GDP in 2009 in the Slovak Republic (-4.7%) was only moderately larger (by 0.5 percentage point – p.p.) than the average decline in the EU-27 (-4.2%) and approximately equally as in the three from among the four largest European economies (England, Italy

and Germany). The value of the main indicator of the Slovak economy real convergence towards the EU-27 level (measured by the relation of GDP/capita in the SR to the EU-27 in PPP) diminished due to this only by 0.4 p.p. (it decreased from 72.2% in 2008 to 71.8% in 2009).

Table 1  
Socio-economic Development of the SR over 1998 – 2009

	1998	1999	2000	2002	2004	2005	2006	2007	2008	2009
GDP index, previous year = 100 <sup>1</sup>	104.4	100.0	101.4	104.8	105.2	106.5	108.5	110.4	106.4	95.3
Labour productivity index, previous year = 100 <sup>2</sup>	104.9	102.6	103.4	104.7	105.4	105.1	106.1	108.1	103.5	98.1
Cost rentability in non-financial organizations in %	0.4	1.4	2.7	4.5	7.0	7.1	7.7	7.6	6.2	5.1
Inflation rate in % <sup>3</sup>	6.7	10.4	12.2	3.5	7.5	2.8	4.3	1.9	3.9	0.9
φ interest rate on household credits in % <sup>4</sup>	10.35	8.86	8.53	10.20	10.98	11.10	11.72	11.82	10.60	7.69
Balance of public finance/GDP in %	-3.7	-7.0	-12.3	-5.7	-3.3	-2.8	-3.4	-1.9	-2.2	-6.8
Share of general government consumption in GDP in %	22.3	20.2	20.2	20.5	19.3	18.5	19.2	17.3	17.6	19.6
Annual Δ in productivity <sup>2</sup> – annual Δ in real wages in national economy in perc. points	2.2	5.7	8.3	-1.1	2.9	-1.2	2.8	3.8	0.2	-3.3
Net export of goods and services/GDP in % <sup>1</sup>	-9.7	-2.8	-2.5	-6.5	-1.5	-3.5	-1.3	3.1	3.1	3.8
Year-on-year employment index, LFSS <sup>5</sup>	99.7	97.0	98.6	100.2	100.3	102.1	103.8	102.4	103.2	97.2
Year-on-year employment index, ESNU 95	99.5	97.5	98.0	100.1	99.8	101.4	102.3	102.1	102.8	97.6
φ unemployment rate in % <sup>5</sup>	12.5	16.2	18.6	18.5	18.1	16.2	13.3	11.0	9.6	12.1
Annual change in real wages in %	2.7	-3.1	-4.9	5.8	2.5	6.3	3.3	4.3	3.3	1.4
Index of real wages in national economy, 1989 = 100	93.6	91.0	86.9	92.8	93.6	99.5	102.8	107.2	110.7	112.2
Index of real household consumption/capita, 1989 = 100	99.5	102.1	101.1	112.3	115.4	122.1	129.8	138.8	147.3	146.0
Share of social benefits in household consumption in %	22.8	23.3	22.5	21.2	20.2	19.6	19.4	21.9	21.1	22.9
Share of expenditures on social protection in GDP in % <sup>6</sup>	14.5	14.9	14.2	14.9	12.1	13.2	12.4	10.6	9.8	.

<sup>1</sup> At constant prices (year 2000).

<sup>2</sup> According to GDP at constant prices per 1 worker.

<sup>3</sup> By harmonized index of consumer prices (HICP)

<sup>4</sup> From credits drawn from commercial banks, in average per annum.

<sup>5</sup> By Labour Force Sample Survey (LFSS) methodology

<sup>6</sup> Public finance expenditures. According to Eurostat.

Source: SO SR; NBS; Ministry of finance SR.

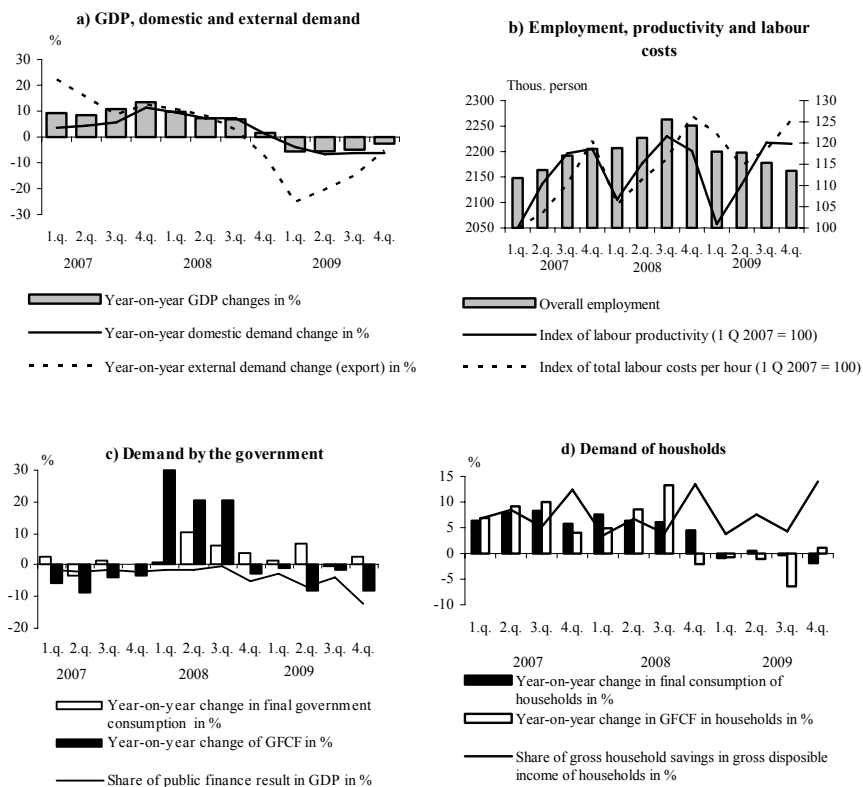
Unlike majority of the Western European economies, financial sectors of which were affected directly by the global financial crisis and which participated in expansion of their domestic recession, the financial sector in Slovakia felt direct effects of the global financial crisis only in the segments of collective investment and pension saving. Until the transfer of financial crisis into real economy, i.e. into the global economy recession, there was formed a mechanism that

launched also recession in the SR and this deteriorated the situation also in the Slovak banking sector.<sup>3</sup>

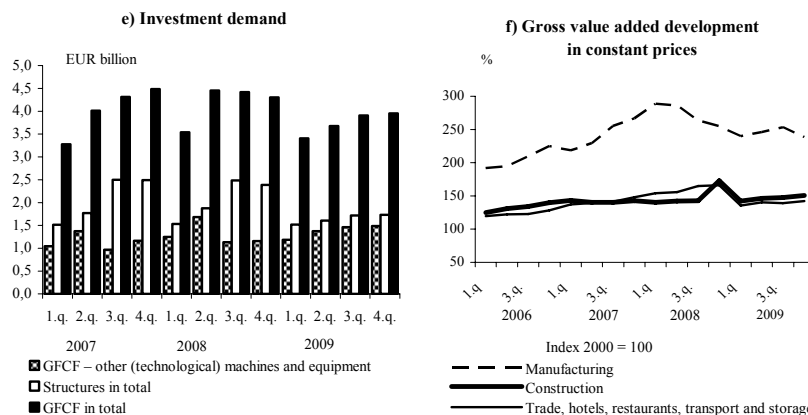
Looking at the mid-term development of the Slovak economy the changes of its macroeconomic parameters are characterized in the recession year 2009 according to the Table 1. This table is followed by the Graph 2 which converts the values mentioned in the table for years 2007 – 2009 into quarterly intervals so to enable to follow the course of recession.

Data in Table 1 as well as illustration of the processes in the Slovak economy in Graph 2 confirm that due to recession all its middle-term development trends in 2009 were disrupted (within the volumes of investment, employment, in public finance, in profitability of firms etc.) which were determined by a fluent even accelerating pace of the economic growth.

Graph 2



<sup>3</sup> Analysis of the Slovak financial sector for the first half of 2009. National Bank of Slovakia, Sept. 25, 2009.



Source: Parts a) – e) SO SR, part f) Eurostat (2010).

Apart from this – and this is their main recognition contribution – they measure the extent of changes which affected the Slovak economy in 2009, draw the attention to their mutual interconnection, to their various irregularities, but also to the differences in current recession from the recession conditions our economy underwent in the past.

The GDP decline noted in 2009, but mainly the absolute value of change in the growth pace in 2009 compared to 2008 (11.1 p.p.) is noteworthy. Even within the framework of this change the volume of the created GDP reached in 2009 merely the level of 2007. At the same time drop in performance did not proceed in individual economic segments equally – the extent of decrease and its course in time was rather distinct. Illustration of the value added (VA) development in part f) of the Graph 2 reveals that the recession (defined as a decline in year-on-year performance) appeared in the SR manufacturing as early as in the 3rd Q 2008, while construction and a segment of selected market services as late as in the 1st Q 2009. In the 4th Q 2009 compared to the quarter with best pre-recession results, the value added dropped in the manufacturing industry by 18%, in the segment of demonstrated services (NACE G + H + I) by 14% and in construction by 13%. In the 4th Q 2009 the VA decreased in the consumer industry to the level of the 2nd Q 2007 (it got back by ten quarters), the value added of in the graph demonstrated services to the level of 3rd Q 2007 (back by nine quarters) and VA in construction to the level of the 3rd Q 2008 (back by five quarters). The uneven penetration of recession into individual segments is rooted in that the recession performs with unequal power and in different time sequences.

The part a) of the Graph 2 suggests that the external demand started sinking earlier and faster than did domestic one. In the 1st Q 2009 the difference in the

year-on-year change between both types of demand reached its culmination (the year-on-year change in the external demand equalled to  $-25.2\%$ , and domestic to  $-3.9\%$ ). In the 2nd and 3rd Q 2009 the difference between the decline in external and domestic demands grew shorter and in the 4th Q 2009 the year-on-year decline in internal demand ( $-6.2\%$ ) was even smaller than the year-on-year decline in external demand ( $-5.0\%$ ).

However, in any case it holds true an often expressed saying that the recession penetrated into the Slovak economy from the outside through restricting its external demand (export).

The unfavourable development or recession in the global economy as the main factor of emerging and unfolding recession in the Slovak economy is naturally most active and powerful in the branches which are strongly linked to export. This accounts for that why during recession sales of manufacturing, which share total export of goods by approx. 90%, dropped by far much steeply than in services and construction, i.e. in branches focused predominantly on internal demand.

The intensity and progress of the recession in individual segments are influenced above all by the fact how is their production divided among the part for external and for domestic demand. At the same time, though in lesser extent, different impact of recession on segments is caused also by their internal factors. As an example for such a factor there can be mentioned the real estate „bubble“ which affected development in construction in the SR through decrease in demand for dwellings in as much that the number of started dwellings decreased in 2009 comparing to the previous year by 22% and thus got back roughly to the level of 2007.

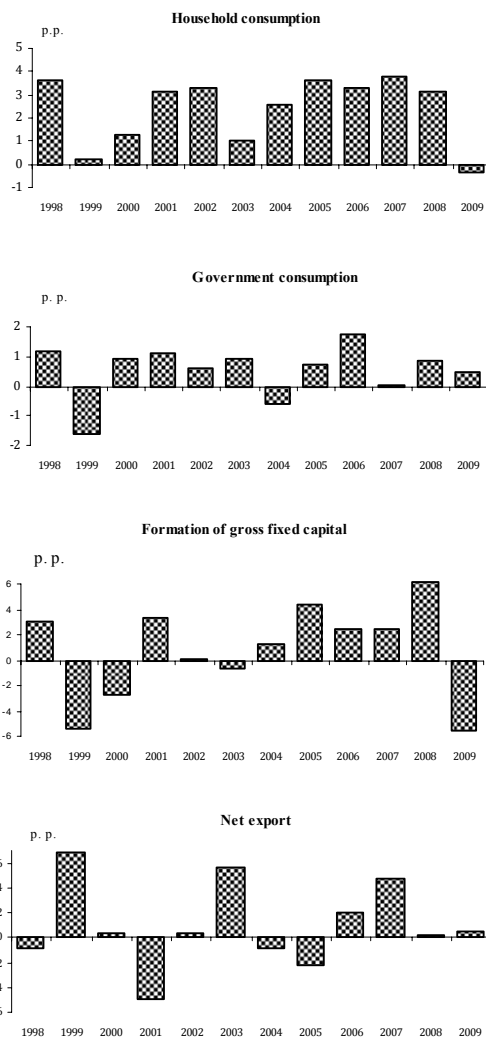
On basis of finding the crucial impact of external demand on emerging crisis in the Slovak economy (and very likely in the whole range of other economies as well) there comes up a hypothesis that also the extent of GDP decline depends in current recession on the extent of its linking to the external demand or on its openness towards the world economy. Some single facts for instance the relative low openness of the Polish economy and preserving its positive GDP growth in 2009 may affirm this hypothesis. However, the first approach to this hypothesis on basis of computing the coefficient of correlation though indicates this, but does not confirm it unambiguously.<sup>4</sup> Verification of the impact of foreign trade on depth of the recession decline will evidently require a more profound investigation into the branch and territorial structure of export.

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<sup>4</sup> The  $R^2$  value among the compared facts in groups of countries divided by the median of their openness was equal to 0,27194 in 2009 in countries above median, resp. to  $-0,200518$  in countries located beyond it.

Development of the economic performance measured by the GDP changes does not depend exclusively on the development of total domestic demand. It is given by the unequal trends of its structural parts – household consumption, government consumption, gross fixed capital formation (GFCF) and net export – illustrated in Graph 3. The Graph 3 testifies that the GDP decline caused by recession proved in the uneven development of its demand components.

**Graph 3**  
**Impact of the Year-by-year Changes in Demand Components on GDP in p.p.<sup>1</sup>**



<sup>1</sup> Presented on basis of data by SO SR in constant prices.

According to the knowledge on the investment accelerator the investment demand changed strikingly, which reflected in a strong negative impact of the GFCF in the GDP change. The deepest fall of GFCF (nearly by 40%) was noted in the sector of financial corporations. Only moderately (by 4% or 5%) decreased GFCF in household sector and in public sector. Close to the total decline in GFCF (by 11%) can be seen its value (13%) in the sector of non-financial corporations. From the view of its branch structure, the GFCF diminished in the construction. In machinery and equipment segment the GFCF was not diminishing, on the contrary, it grew moderately (considering the 17% decline in investment into transport equipment and their 6% growth into other machinery and equipment). This surprising positive information testifies to a continuing modernisation in at least several segments of Slovak economy even during the recession year 2009 and thereby to the selectively maintained anticipations of its future expansion.

In accordance with decline in the rate and extent of employment (mentioned in Table 1 and in the part b) of the Graph 2) and with reciprocal increase in unemployment in 2009, the negative impact of the household consumption asserted itself on the GDP change. The part d) of the Graph 2 tells that over 2009 the negative impact of household consumption development on the GDP development grew stronger. However, the graphic information reveal also an interesting fact that during the hitherto progress of recession households propensity to save was not weakening but on the contrary strengthening moderately. The Slovak households obviously even during recession economize, they are tending to keep safe money reserves.

The use of purposeful anti-crisis measures in the fiscal policy became evident over 2009 in the growth of public consumption as a factor working against the GDP decline. On basis of international comparisons the year-on-year growth of public consumption in 2009 can be characterized as moderate.<sup>5</sup> Over majority of years, dealt with in the Graph 3, development of public consumption has much stronger impact on year-by-year GDP changes than in 2009. Particularly this holds true for the election years 1998 and 2006. The Graph 2c) points also to the fact that deterioration of result (growth in negative balance) of public finance was only partly caused by increase in government expenditure. Its majority was caused by decrease in government revenues due to GDP decline.

The positive impact of net export on GDP change can be seen first as a result of import decrease of gross capital formation components. This impact is coupled also with high import intensity of the Slovak export (Lábaj, Luptáčík and Rumpelová, 2008).

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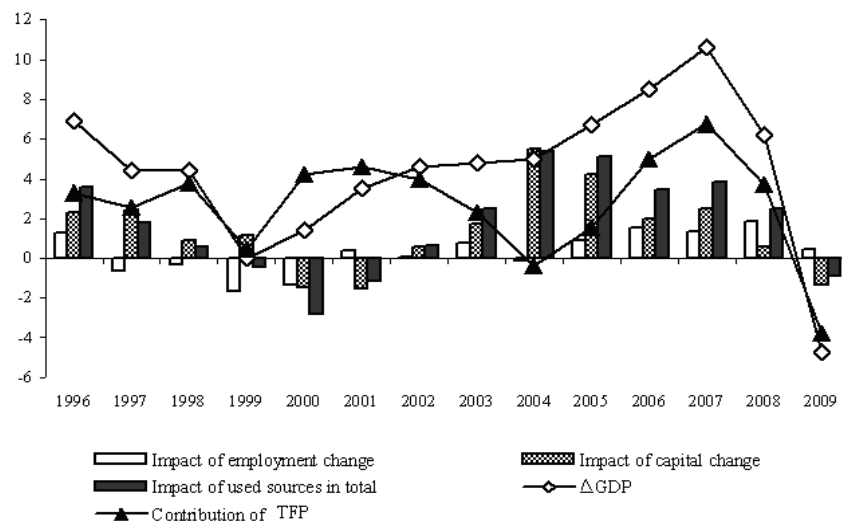
<sup>5</sup> In 2009 the share of public consumption in GDP increased year-by-year in Slovakia from 17.4% to 19.6%, on average for EU-27 from 20.8% to 22.3% and for the Euro zone from 20.4% to 21.9%. Majority (19) of the EU-27 countries had in 2009 higher quota of public consumption on GDP than Slovakia.



Certain parts of Graph 2 dealing also with important trends of economic development of SR are not mentioned here, since they are dealt with in the following parts of this study.

The break in the fundamental development line of the Slovak economy in the recession year 2009 can be illustrated by picturing the change which happened in relation between GDP development and its basic factors (see Graph 4).

Graph 4  
Share of Used Sources and Total Factor Productivity (TFP) Growth on GDP Development<sup>1</sup>



In calculations of quantities illustrated in the graph we proceeded from the CD function in such a way that the IPF is a residual quantity  $A$ , the factor  $K$  represents the residual value of the fixed assets defined according to the price development in GFCF, the factor  $L$  employment and coefficients  $\alpha$  or  $1 - \alpha$  shares of household consumption and GFCF of their sum total.

<sup>1</sup> Presented on basis of own calculations with data by SO SR.

In 2009 all quantities illustrated in Graph 4 are receiving negative values. By this differs their development in current recession from their development during relapse of the transformation recession within 2000 – 2001. That time diminishing of the volume of used sources was coupled with a wave of bankruptcies in the non-profitable part of firms in non-financial sector. Exclusion of the low productive production capacities due to waves of bankruptcies which followed afterwards, triggered a growth of TFP. In contrast to this TFP change evoked by processes inside the national economy, the decrease in the volume of used sources as well as of TFP in 2009 is a consequence of recession evoked by (from the view of Slovak economy) external influences.

We may assume that the negative change in the volume of used capital registered in 2009 is linked to the reduced use of capacities and to enlarging the gap between potential and real GDP.

## 2. Production Development<sup>6</sup>

In 2009 comparing to 2008 economic activity of Slovakia measured by the production development decreased in nominal terms by 18.4 billion Euro (in real terms by 10.8%).<sup>7</sup>

The production decline was shared by decline in intermediate consumption by four fifths and by decline in value added by one fifth. The expressive production decline caused by drop in intermediate consumption is the result of high rate of dependence of the Slovak industry not only on foreign demand, but also on the imported inputs entering the intermediate consumption. More moderate decline in intermediate consumption is obviously rooted in more slowly lay off of workers compared to the production development, but also in changes in production structure in favour of services, where the rate of value added is essentially higher than in industry.

An overall survey on real development of GDP formation by its segments is presented in Table 2.

Table 2

### Development of GDP Formation and its Components over 2007 – 2009

	2007	2008	2009	2008	2009			
	Year	Year	Year	4. Q	1. Q	2. Q	3. Q	4. Q
	Year-on-year changes in % (based on prices 2000)							
GDP	10.6	6.2	-4.7	1.6	-5.7	-5.5	-4.9	-2.6
Production	11.0	6.7	-10.8	2.0	-14.1	-13.2	-10.1	-6.1
Intermediate consumption	11.1	6.6	-14.8	1.6	-18.2	-18.4	-14.5	-8.5
Value added	10.7	6.9	-4.6	2.6	-7.0	-5.1	-4.2	-2.2
Net taxes on products	9.2	-0.5	-5.6	-6.2	8.8	-9.9	-12.0	-6.1

Source: Own calculations based on data by Slovstat.

The information contained in Table 2 explicitly confirms weakening in impacts of economic recession on development of individual indicators in the last quarter of 2009, of course, without achieving the required growth.

<sup>6</sup> Author of this part is Herta Gabrielová.

<sup>7</sup> In case we presume that within a stable economic development, production may have grown even in 2009 equally as in the previous years roughly by 15 billion Euro, then a total drop in production approx. amounting to 34 billion Euro is at stake.

The value added development in individual branches was influenced in 2009 not only by differentiated development of the production volume, but largely also by differentiated production prices development. The nominal and real value added development was therefore realized in a number of branches widely different. This refers mainly to the branches agriculture and fishing, where the value added in constant prices increased in 2009 by 10%, however, in nominal terms it decreased by 21% (prices of agricultural products decreased in 2009 in comparison to 2008 as much as by 25%). Equally in industry and particularly in manufacturing, slump in prices was modified by real fall in VA (-8.3%, resp. 10.6%) compared to its nominal fall (-19%, resp. -24%). In majority of branches value added decreased in 2009, as it is seen in Table 3. Basically the only exception is electricity, gas and water supply, real estate, renting and business activities and other services which include namely the non market services and already mentioned agriculture and fishing.

Table 3  
Development of GDP Formation by Branches

	2007	2008	2009	2008	2009			
	year	year	year	4. Q	1. Q	2. Q	3. Q	4. Q
Year-on-year changes in % (based on prices 2000)								
GDP	10.6	6.2	-4.7	1.6	-5.7	-5.5	-4.9	-2.6
Gross value added	10.7	6.9	-4.6	2.6	-7.0	-5.1	-4.2	-2.2
of which:								
Agriculture, fishing,	7.4	-2.6	10.2	4.3	14.5	10.5	27.3	-12.4
Industry total	12.1	7.0	-8.3	-9.1	-18.6	-13.1	0.0	0.1
manufacturing	18.1	12.8	-10.6	-4.5	-17.0	-14.0	-3.8	-6.6
electricity, gas and water supply	-12.7	-14.2	1.2	-24.7	-25.5	-5.3	17.4	31.5
Construction	7.0	5.6	-1.8	20.6	-12.1	8.1	5.0	-7.6
Trade	13.2	14.3	-9.1	24.2	-10.6	-4.7	-5.8	-15.4
Hotels, restaurants	2.1	5.7	-31.2	-18.9	-30.0	-35.8	-34.6	-18.2
Transport, storage	20.5	12.5	-18.5	3.1	-22.3	-8.2	-28.9	-11.5
Financial intermediation	-5.8	5.4	-11.1	30.3	-3.0	2.3	-13.4	-24.9
Real estate, renting and business activities	9.8	12.6	7.6	7.6	20.6	9.9	-7.7	11.4
Other services	9.4	-4.8	2.9	-11.3	6.8	-7.3	0.5	11.7
Net taxes on products	9.2	-0.5	-5.6	-6.2	8.8	-9.9	-12.0	-6.1

Source: Own calculations by Slovstat database.

The course of year-on-year changes in value added in particular branches by quarters was extraordinary heterogeneous in 2009. Explicitly positive development was mainly in branches which achieved growth in value added all the year round. Development in other branches in the second half of 2009 was rather dependent on the period when recession initiated impact on their development. In branches affected by recession as early as in the 4th Q 2008 we can observe basically better year-on-year changes over the last two quarters of 2009 than in the

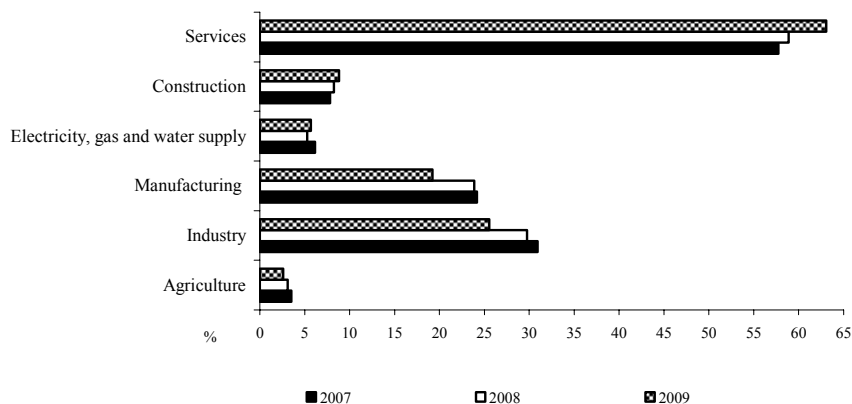
first half of 2009. It is the industry as a whole, which has reached the level of previous year mainly due to favourable development in manufacture of electricity, gas and water supply in the 3rd and 4th quarters, but also manufacturing industry with noticeable mild fall. Decline continued through the second half of 2009 in trade, transport and storage, in the branch hotels and restaurants (the branch with largest fall in value added all the year round) and deeper decline was in financial intermediation; in the 4th quarter it appeared again in construction.

Differentiated impact of crisis on individual branches led towards two changes in comparison with the previous period which could be considered under a common economic boom as a route to a more effective and modern economy. However, in the given situation it is paradoxical, when under the worsened economic conditions seemingly favourable phenomena emerge.

The first change of such type is the rate of value added increase in economy which in 2009 grew to 41.5%, i.e. by 2.7 p.p. in comparison to 2008. This can be attributed mainly to the fact that the focus of economic activity shifted in 2009 more into the services sector (its share in gross production increased from 42% to 47%) where the rate of VA is roughly double higher than in the industry (26% to 55%). Simultaneously the share of industry in gross production decreased (from 39% to 32%).

Another temporary phenomenon is change in structure of value added namely to the benefit of services and to the detriment of industry. The share of VA in industry in total VA decreased in 2009 in comparison with 2007 by 5.4 p.p. (to 25.5%), of which in manufacturing by 5 p.p. (to 19%). On the contrary, in services this share increased by 5.3 p.p. (to 63%). See Graph 5.

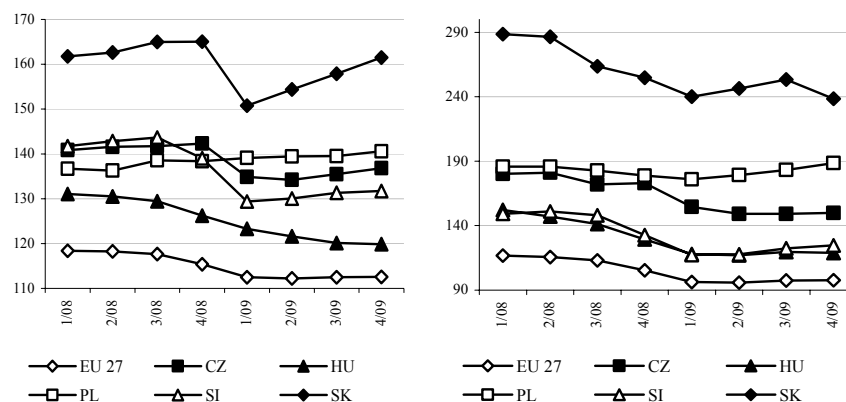
**Graph 5**  
**Share of Branches in Total Value Added in SR in %**



Source: Own calculations by Slovstat database.

Based on comparison of development over several years (to the year 2000) in SR, the EU-27 and neighbouring countries it can be said that Slovak economy reacted relatively sharply (more sharply than neighbouring economies) on the start of crisis and then relatively quickly returned to an ascending track. This refers especially to the VA development for the whole economy (see Graph 6, left-hand part). Similar VA development but with softer reaction on crisis can be observed in the Czech and Slovenian economies, while in Hungary recession is constantly deepening. Among other examined economies only Poland preserved its continuing development.

Graph 6  
International Comparison of Value Added Development (index 2000 = 100)<sup>1</sup>



<sup>1</sup> Based on constant prices calculated by chain-linked volumes, reference year 2000; seasonally adjusted and adjusted data by working days.

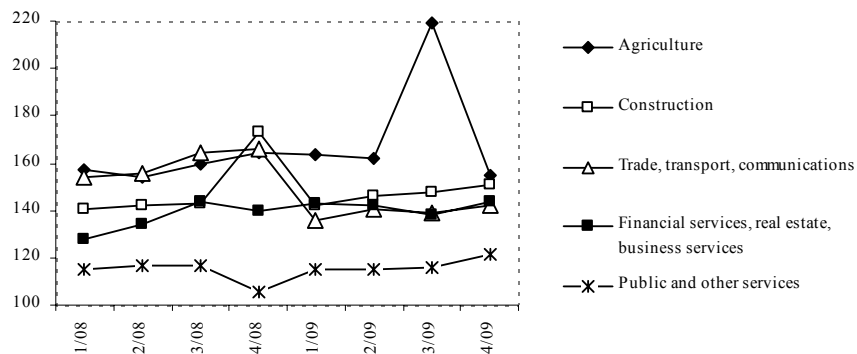
Source: Eurostat (2010).

Value added development in manufacturing was moving essentially less favourably (see Graph 6, right-hand part). Except for Poland which evidently tends to return to the original value added level in this segment at the beginning of 2008, in other surveyed economies this was not yet successful while development in Slovakia does not seem as yet to be starting on upward track.

The stagnating value added development in EU raises certain concern, especially in its manufacturing (between the average in EU-27 and average in EU-15 there are unimportant differences), when the value of examined index for manufacturing dropped as much as beyond the level of 2000. Any growth impulses of the recovery in EU are at the moment questionable.

In contrast to manufacturing in SR where the crisis effects showed up strongly as early as in the second half of 2008, in other branches they affected as late as in the break of 2008/2009. Graph 7 shows that majority of demonstrated aggregates of branches tackled the problems well and by the end of 2009 they achieved at least the level of 2008. In this respect exception is the aggregate of branches trade, transport and communications, where the value added formation after fall in the 1st Q 2009 remained unchanged till the end of 2009. In this segment of services apparently the strong coupling with economic activities in manufacturing showed up.

Graph 7  
Development of Value Added in other Branches of SR (index 2000 = 100)<sup>1</sup>



<sup>1</sup> Based on constant prices calculated by chain-linked volumes, reference year 2000; seasonally adjusted and adjusted data by working days.

Source: Eurostat (2010).

Consequences of deep economic recession markedly influenced financial outputs of *non-financial corporations*. Their profit/loss in 2009 dropped nearly by 3 billion Euro (by 30.9%), of which in manufacturing by 1.3 billion Euro (by 56%) and in trade by 1.1 billion Euro (by 41.5%). Rise of profit was reached only exceptionally: in delivery of electricity and gas (9.9%) and in real estate, in professional, scientific and technological activities (14.1%). Several branches as a whole suffered loss. Under this group come agriculture, boarding and lodging services and education. The share of loss-making non-financial corporations increased by 40%, total loss in these corporations made 1.6 billion Euro.

The effects of economic recession as well as its impact on development of particular branches are analysed in detail on basis of business statistics. As follows from the previous analysis, most severe effects performed in the Slovak industry, particularly in manufacturing. They affected all its indicators not only in 2009, but to certain extent as early as in 2008 as well. Detailed data are contained in Table 4.

**Table 4**  
**Selected Business Indicators in Industry of SR**

	Industry Total			Manufacturing		
	2007	2008	2009	2007	2008	2009
	Year-on-year changes in %					
Turnover <sup>1</sup>	13.0	3.8	-18.0	15.3	2.9	-19.9
Index of industrial production <sup>2</sup>	16.9	2.5	-14.6	20.5	2.8	-16.1
Employees <sup>3</sup>	2.4	0.6	-15.0	3.0	1.3	-16.0
Labour productivity based on sales <sup>1</sup>	10.4	3.2	-3.4	12.0	1.5	-4.6
Profit/loss	3.1	-21.1	-29.9	4.4	-26.0	-56.0
	Year-by-year changes of nominal values					
Turnover (bil. Euro)	7.6	4.0	-15.4	7.2	1.8	-14.8
Employees (1 000 persons)	13.6	3.3	-88.2	15.4	6.8	-85.2
Profit/loss (bil. Euro)	0.2	-1.1	-1.2	0.1	-0.8	-1.3
Cost profitability (in %)	-0.7	-2.1	-0.4	-0.6	-1.8	-1.4
	For comparison					
Cost profitability in % <sup>4</sup>	7.3	5.2	4.8	5.4	3.6	2.2

<sup>1</sup> At constant prices. <sup>2</sup> Data adjusted by working days. <sup>3</sup> Based on average registered number of employees. <sup>4</sup> Based on nominal values.

Source : Own calculations on data by SO SR.

The year 2008 is typical through considerable slow down in growth of all indicators in industry, as well as in manufacturing, with the exception for profit/loss which was falling as early as in 2008. In 2009 it registered already well-marked decline (between 15 – 20%) in indicators which qualify production and employment development, while in manufacturing the fall was slightly deeper than in the whole industry. Absolutely exceptional is the productivity decline in industry, which did not occur in the independent Slovak economy ever.<sup>8</sup>

The unfavourable turnover development hit practically all branches of manufacturing industry, of course, with different intensity. Exceptional in this respect is manufacture of coke and refined petroleum products (+6.6%) and manufacture of computers, electrical and optical equipment (+2.1%). The biggest influence on decline in turnover in manufacturing exerted manufacture of basic metals and fabricated metal products (decline by 31%) and manufacture of transport equipment (-25%). Deep decline in turnover registered also manufacture of machinery and equipment (-34%) and other manufacture (-28%), as well as manufacture of textiles, apparel, leather and related products (-26%). Decline in economic activity was accompanied by general decline in employment (with the exception for minimum gain in manufacture of computers, electrical and optical products). Manufacture of basic metals and metal products registered the greatest reduction in employees number (18 thousand), followed by manufacture of textiles, apparel,

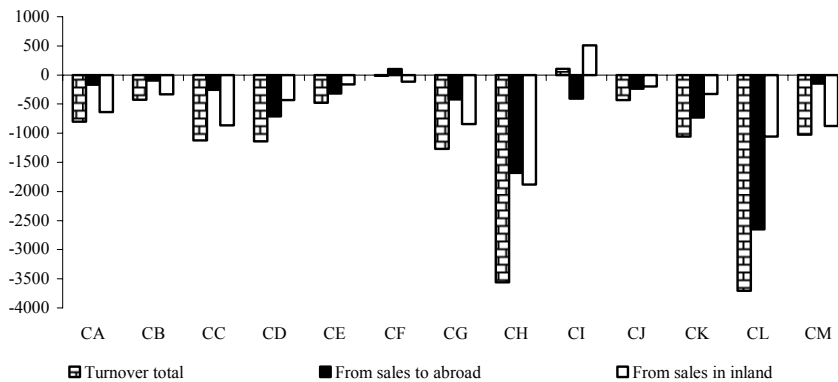
<sup>8</sup> Over this time not even decline in turnover happened and practically only once the industrial production index (IPI) decreased.

leather and related products (10 thous. persons), in other manufacture (9.8 thous.) and in manufacture of wood and paper industry (9.3 thous.). Positively may be regarded manufacture of transport equipment, in spite of decrease in turnover by one fourth, decline in employment was essentially smaller (–11.6%, resp. 6.9 thous. persons).

Decrease in turnover was shared by decrease in receipts from sales to foreign countries as well as decrease in receipts from sales in inland. In 2009 the share of decline in sales in inland in total sales in industry made up 52% and in manufacturing industry 48%. It can, of course, be supposed that a considerable part of decline in sales in inland is indirectly connected with decline in foreign demand; especially those are branches, which operate predominantly as suppliers for final exporters. However, some branches do not perform these activities, therefore decline in sales was caused by decline in final domestic demand.

Changes in nominal development of sales in branches of manufacturing industry divided on sales from abroad (except for minimum differences data are identical with data on export) and on receipts from sales in inland are given in Graph 8.

**Graph 8**  
**Decline/growth in Sales in 2009 Compared to 2008 by Branches (mil. Euro, current p.)**



*Explanatory notes:*

- CA – manufacture of food products, beverages and tobacco products
- CB – manufacture of textiles, apparel, leather and related products
- CC – manufacture of wood and paper products and printing
- CD – manufacture of coke and refined petroleum products
- CE – manufacture of chemicals and chemical products
- CF – manufacture of pharmaceuticals
- CG – manufacture of rubber and plastics and other non-metallic products
- CH – manufacture of basic metals and fabricated metal products except machinery and equipment
- CI – manufacture of computer, electronic and optical products
- CJ – manufacture of electrical equipment
- CK – manufacture of machinery and equipment n. e. c.
- CL – manufacture of transport equipment
- CM – other manufacturing, repair and installation of machinery and equipment.

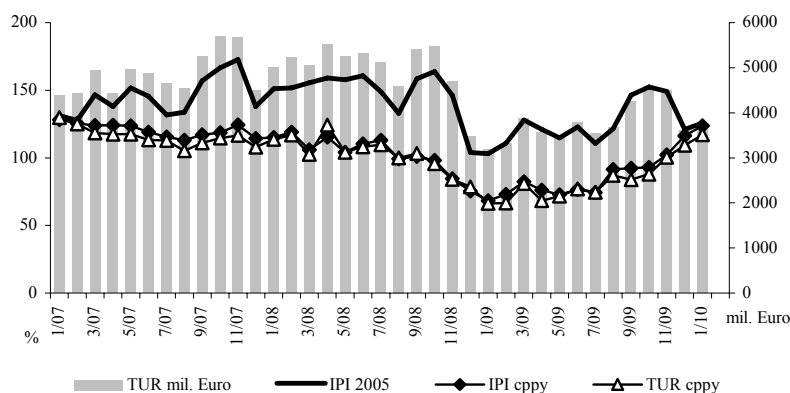
Source: Own calculations by Slovstat database.



Coming back to data in Table 4 it can be stated that deterioration of financial results of the industrial corporations continued in 2009, holding on the second year already, but with greater intensity than in 2008. Situation from this point of view is in many branches of industry very unfavourable. Growth in profit was achieved only in manufacture of electricity and gas and exceptionally in some branches of manufacturing industry (food and leather industries, and manufacture of computers and related equipment). In total, loss-making branches within manufacturing industry became: manufacture of textiles and apparel, wooden and paper industry, manufacture of coke and refined petroleum products, manufacture of chemical and pharmaceutical products. In some branches profit fell to minimum: in manufacture of basic metals and fabricated metal products to 15% level of the previous year, in manufacture of machinery and equipment to 11% and in manufacture of transport equipment to 22%. The level of cost profitability in manufacturing went down in the course of two years from 5.4% to 2.2%.

Of course, within 2009 situation in manufacturing was passing through changes. Therefore, in the Graph 9 we attempt to find out in details on basis of selected monthly indicators in manufacturing what kind of tendencies in this development predominate and if there are any chances for turning back to a stable growth trajectory.

**Graph 9**  
**Monthly Development Indicators in Manufacturing Industry**  
(January 2007 till January 2010)



*Explanatory notes:*

TUR mil. Euro – nominal monthly values of turnover

IPI 2005 – industry production index adjusted (average month 2005 = 100)

IPI cppy – industry production index adjusted (corresponding period of previous year = 100)

TUR cppy – index of turnover (corresponding period of previous year = 100).

Source: Own calculations on data by SO SR.

First sight at the manufacturing industry suggests that it has overcome yet the phase of decline and is on its way into the phase of growth. This is being confirmed by year-on-year index of IIP and of turnover. Attention should be drawn to the fact that the current level is being compared here to a period of the deepest economic activity recession which naturally increases quantities of the pertinent indices. Indices of IIP based to 2005 indicate to the end of surveyed period a tendency towards growth as well, however, in comparison with the pre-recession period, the differences remain relatively high (about 20 p.p.). Essentially the same holds true also for nominal turnover values. On the whole, it can be said that statistical data do not provide unambiguous information on transition of this economic segment towards a stabilised growth.

In 2009 in *agriculture* according to business reporting the value added declined in current prices by 43% and the branch as a whole ended up with a loss amounting to 104 mil. Euro. This corresponds also with development of turnover, which declined in nominal terms by 21.4%, as well as declined sales of livestock products and majority of agricultural crops in 2009 in comparison to 2008. So the past year was extraordinary unfavourable for agricultural firms. It sounds paradoxical that in constant prices the turnover recorded 15% growth, and by statistics of national accounts (obviously in accordance with the set methodology) also growth in value added in agriculture and fishing by 10.2%.

In *construction* unlike industry a strong growth continued still in 2009, higher than in previous year in all indicators, with the exception for employment. See Table 5.

Table 5  
Selected Indicators in Construction in SR

	2007	2008	2009	2007	2008	2009
	Year-on-year changes					
	in %			in nominal values		
Construction production <sup>1</sup>	5.8	12.0	-11.3	0.5	1.0	-0.6
Turnover <sup>1</sup>	8.2	16.4	-13.9	0.9	1.9	-1.2
Employees <sup>2</sup>	6.0	9.1	2.0	9.4	15.1	3.5
Labour produktivity <sup>3</sup>	-0.2	2.6	-13.0	.	.	.
Profit/loss <sup>4</sup>	6.9	34.2	-21.6	34.0	165.2	-119.8

*Percentage changes:*<sup>1</sup> In constant prices. <sup>2</sup> Based on average registered number of employees.

<sup>3</sup> From construction production of construction enterprises, at constant prices. <sup>4</sup> Based on nominal values.

*Changes in nominal values:* Construction production and turnover in billion Euro, employees in thousand persons, profit/loss in mil. Euro.

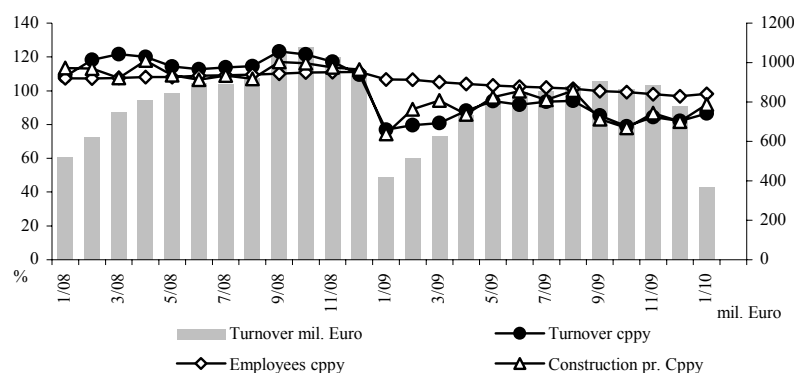
*Source:* Own calculations on data by SO SR.

Downfall in the construction production was shared partly by the fall in inland (by 11%) as well as abroad (by 16%). In case of construction it is particular that in spite of the fall in performance it succeeded to maintain the employment

growth, of course, to the detriment of a steep fall in labour productivity. We presume that certain role is played here by „liquidation“ of the work of tradesmen, who exactly in construction used to have found „employment“ abundantly. In fact decline in „employment“ was obviously noticed, but it did not show up in the registered employment.

The effects of recession in construction proved fully in January 2009, however, in the following months until January 2010 the turnover as well as construction production (in constant prices) remained on the level of previous year. Unlike industry, at the break of 2009/2010 no return to year-on-year growth appeared; according to the results for February in comparison with the same period in 2009 there is further drop in performance. All things considered, the slump in construction will still continue for a certain time, a turn may bring only more intensive construction of infrastructure and new foreign investments. See Graph 10.

Graph 10  
**Monthly Indicators of Development in Construction**  
**(January 2008 till January 2010)**



Turnover mil. Euro – nominal monthly turnover

Turnover cppy – index of turnover (corresponding period of previous year = 100)

Employees cppy – index of average registered number of employees (corresponding period of previous year = 100)

Construction pr. cppy – construction production index (corresponding period of previous year = 100).

Source: Own calculations on data by SO SR.

In 2008 the *market services* except for accommodation recorded continued growth in turnover.<sup>9</sup> Decrease occurred predominantly as late as by beginning of 2009 (in wholesale trade as early as in the last months of 2008). Except for the branch information and communications all branches of market services recorded

<sup>9</sup> Due to the shift to new Statistical Classification of Economic Activities SK NACE Rev. 2 the year-on-year indices for some branches are not available.

year-on-year downfall – most sharply in wholesale, in accommodation and in restaurant services (downfall by more than one-fourth). Basic data on development of turnover in branches of market services are given in Table 6.

**Table 6**  
**Development of Turnover in Branches of Market Services**

Branch	Turnover in billion Euro in current prices		Year-on-year change in % <sup>1</sup>	
	2008	2009	2008	2009
Sale and maintenance of motor vehicles	5.1	3.9	7.0	-17.9
Wholesale trade	31.0	22.7	13.7	-26.8
Retail trade	19.8	17.4	9.1	-10.3
Accommodation	0.4	0.3	-2.9	-23.6
Food and beverage service activities	1.1	0.9	2.4	-27.7
Transport and storage, incl. post	6.3	5.4	.	-13.6
Information and communication <sup>2</sup>	4.7	4.9	.	3.3
Selected market services <sup>3</sup>	8.3	8.0	.	-4.7

<sup>1</sup> Based on constant prices; in branches wholesale, transport and storage, information and communication based on current prices.

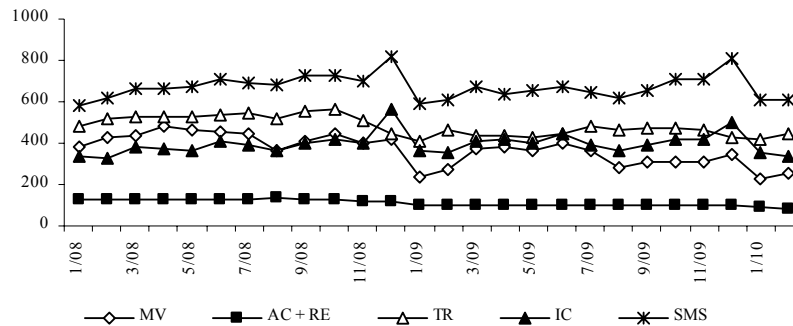
<sup>2</sup> Include: publishing activities, motion picture, video and television programme production, sound recording and music publishing activities, programming and broadcasting activities, telecommunications, computer programming, consultancy and related activities, information service activities.

<sup>3</sup> Include: real estate activities, professional, scientific and technical activities, administrative and support service activities, other education and educational support activities, arts, entertainment and recreation and other service activities.

Source: Own calculations by data by SO SR.

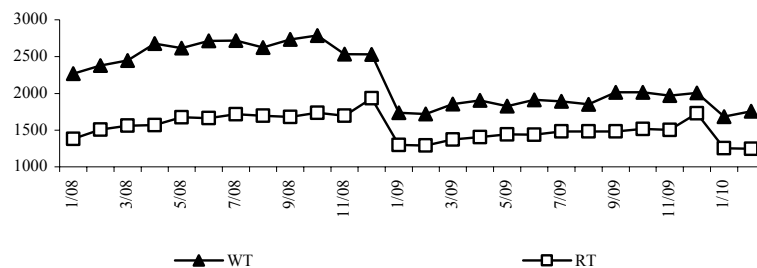
The course of changes which appeared in particular branches of services within 2008/2009 is depicted in Graph 11 on basis of monthly nominal values of turnover (since indices in constant prices are available only for some branches).

**Graph 11**  
**Monthly Nominal Values of Turnover in Sector of Market Services in mil. Euro**  
**(January 2008 till February 2010)**



*Explanatory notes:*

MV – sale and repair of motor vehicles; AC + RE – accommodation, food and beverage service activities; TR – transport, storage incl. post; IC – information and communication; SMS – selected market services.



*Explanatory notes:* WT – wholesale trade; RT – retail trade.

*Source:* Own calculations by data by SO SR.

According to the surveyed turnover in particular branches of market services, only the branch of selected market services and branch of information and communications can be marked as stabilized and growing. In other branches rather the tendency to downfall dominates, notably in wholesale and storage, development of which may evidently change merely in dependence on more intensive business with industrial products.

### 3. Labour Market<sup>10</sup>

While in 2008 we could have said that as far as the Slovak economy is concerned, approaching recession did not affect indicators of labour market that much (unlike for instance industrial production and GDP development), its consequences early in 2009 cannot be overlooked either in this field of economy. Owing to recession, a gradual worsening occurs in all basic indicators of the labour market. Over the whole year 2009 we are witnessing a decline in number of employed, growth in rate of unemployment, shrinkage in job vacancies, slow-down in the pace of growth in nominal and real wage.

#### Employment Development

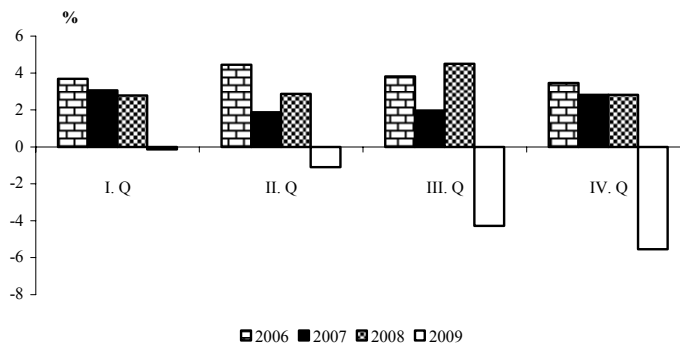
The overall positive development of the Slovak economy in the past years has inspired also a continual increase in employment – according to the Labour Force Sample Survey (LFSS) employment has grown more than by 2% annually since 2005. The number of employed peaked in the 3rd quarter of 2008 when their total number reached its highest value 2 472.9 thous. persons. Even in the last quarter of 2008 – at the time when emerging recession apparently hit the other fields of the Slovak economy, growth in employment continued at 2.8%

<sup>10</sup> Author of this part is Veronika Hvozdičková.

pace on a year-on-year basis (Graph 12). As presented by Graph 12, a turnaround in positive trend in employment arises in the first quarter of 2009. It is the first time since 2nd quarter of 2004 when the number of employed experiences a negative year-on-year trend (in this case, a decline by 0.1%).<sup>11</sup>

Besides this, Graph 12 demonstrates gradual acceleration in decline of employment over the whole year 2009, i.e. from 0.1% in the first quarter to 5.5% in the last quarter. The last quarter's number (not seasonally adjusted) represents historically the deepest fall in employment on a year-on-year basis. Compared to the previous year, total employment fell down by 2.8%<sup>12</sup> in 2009 – a downfall was recorded in spite of the fact that decline in the number of employees was considerably compensated by growth in the number of entrepreneurs. While the number of employees dropped year-on-year by 4.8% (by 99.5 thous. persons), the number of entrepreneurs rose by 10.7% (responds to growth by 35.4 thous. persons). The number of entrepreneurs rose at 10% pace yet in 2008 – a tendency of structural change in the number of employed (entrepreneurs increasing their share at parallel decline in the share of employees) thus continued also in 2009.<sup>13</sup> A part of this development may be attributed to the measures stimulating job formation on behalf of self-employment (e.g. several forms of non-refundable financial benefits).

**Graph 12**  
**Year-on-year Change in the Number of Employed by Quarters 2006 – 2009**



*Note:* By Labour Force Sample Survey (LFSS).

*Source:* Own calculations by Slovstat database.

<sup>11</sup> By comparing quarterly results of employment index; always to the same period of the previous year.

<sup>12</sup> For comparison: by the ESNU 95 methodology total employment in 2009 decreased by 2.4%.

<sup>13</sup> The growth in number of entrepreneurs in 2009 included significant growth in number of entrepreneurs without employees (by 12.7%).

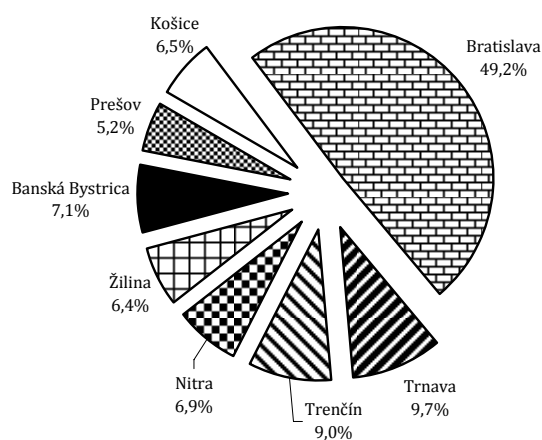
Comparison of 2008 and 2009 last quarters' numbers of persons employed (structured by economic activity) reveals that the biggest slump in the number of employed emerged in the branches of industrial production (almost 100 thousand of jobs have been lost in industry since last quarter of 2008); in transport and storage; in finance and insurance services (classification SK NACE). From the point of view of labour market development, those branches can be considered to be exposed to the crisis the most. On the contrary, growth in employment continued even during 2009 in wholesale and retail; in information and communications and in public administration. The age structure of employed has changed as well, according to the LFSS employment dropped in the youngest age group 15 – 24 years (year-on-year decline by 15.3%); by contrast, the number of employed in age group 55 – 59 years rose up.

### Changes in Labour Demand

The economic slowdown was coupled with a weaker demand for workforce; by year-on-year method the average number of job vacancies shrank almost by one third (by 30.2%), while the dynamics of this drop deepened especially in the second half of 2009. In the first quarter the economy disposed of 21 thous. vacancies on average, in the last quarter of 2009 they fell to only 14 thous. job vacancies.

Graph 13

### Number of Job Vacancies by Regions (2009, share in the SR in %)



Source: By data on the number of vacancies published by SO SR (2010b).

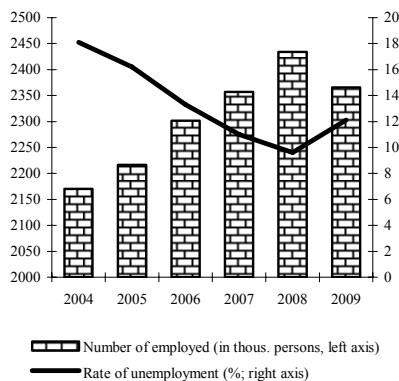
As much as one half of the total average number of vacancies in economy in 2009 (17 310 vacancies) were allocated within Bratislava region. As it can be seen in Graph 13, share of the other regions of SR in total number of vacancies ranged below 10%, the least vacancies are assigned to Prešov region. These figures exhibit a distinct disparity in chances of the job seekers when trying to be placed in the labour market. In comparison with the previous year, the number of job vacancies contracted in all regions of the SR. The largest loss in vacancies was observed in Žilina region (almost half lower number of vacancies than in 2008), the smallest one in Trnava region.

### Unemployment Development

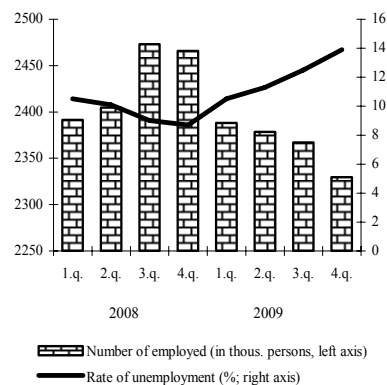
The recession's crucial implications for the labour market involved a "set-back" in the unemployment development when 2009 data failed to repeat a favourable trend of decreasing unemployment rate seen in the past years; after four years of apparent decline the rate of unemployment (measured by LFSS) grew up in 2009 by 2.5 p.p. and climbed to the level of 12.1% (Graph 14a). The number of unemployed swelled from 257.5 thous. persons in 2008 to 324.2 thous. persons in 2009 (which means year-on-year growth by 25.9%). The rate of unemployment reported rising tendency continually over the whole year 2009, in the last quarter of 2009 it reached its highest level (13.9%) since the outset of 2006 (Graph 14b).

Graph 14  
Comparison of the Employment and Unemployment Patterns

#### a) Within 2004 – 2009



#### b) In details by quarters 2008 – 2009



Note: By Labour force sample survey.

Source: By data by SO SR (2010c).



When comparing year-on-year changes, the positions in administrative services and in transport and storage (the number of unemployed more than doubled in both cases), as well as in industry and construction appear to be the most sensitive to crisis. The latter two are of a special importance – in absolute terms, the category of unemployed has expanded especially by those persons whose last occupation was exactly in industry (100 thous. unemployed), in trade (25 thous. unemployed) and in construction (21 thous. unemployed).

The largest part of total number of unemployed in 2009 consisted of unemployed with secondary apprentice education without school leaving (final) exam, the highest rate of unemployment was recorded by persons with primary education (Table 7). Both phenomena are the trend held on from the past.

**Table 7**  
**Structure of Unemployed by Level of Education**

<b>Indicator</b> <b>Educational level</b>	<b>Number in</b> <b>thous. persons</b>	<b>Share in %</b>	<b>Index</b> <b>2009/2008</b>	<b>Rate of unem-</b> <b>ployment, %</b>
Total	324.2	100.0	125.9	12.1
Primary education	66.1	20.4	92.3	41.6
Secondary apprentice without final exam	119.9	37.0	128.4	14.0
Secondary without final exam	7.2	2.2	150.0	11.1
Secondary apprentice with final exam	18.5	5.7	160.9	15.1
General secondary with final exam	14.9	4.6	173.3	12.9
Secondary vocational with final exam	78.6	24.2	151.2	8.6
Higher vocational education	1.2	0.4	100.0	5.6
Tertiary education	17.7	5.5	126.3	4.6

*Note:* By LFSS methodology.

*Source:* Data by SO SR (2010c).

The highest year-on-year increase was recorded within the category of unemployed with full general secondary education, but (as shown in Table 7) since their share in total unemployment is not that significant, more weight of importance belongs to the pace of increase in unemployed with full secondary vocational education, who account for the second most numerous group of unemployed and at the same time their number increased by more than half on a year-on-year basis. The unemployed with apprentice education (without final exam) are not only traditionally the largest group, in absolute terms their number arose the most in 2009, i.e. by 41 thous. persons (comparison between the first and fourth quarters of 2009). Based on these patterns we can conclude that the job positions most seriously affected by the recession were probably those requiring qualification responding to the full secondary vocational education and secondary apprentice education.

When classified by duration of unemployment the highest year-on-year increase appeared in short-term unemployment in the categories unemployed for

less than one up to six months (in total by 52.5 thous. persons). What is particularly interesting is not the actual size of the group of long-term unemployed (i.e. unemployed for more than one year, in 2009 they represented half of the total unemployment), which continued to be the largest group in absolute terms, but rather the trend of continuing decline in the size of its most numerous subgroup (unemployed for more than two years), which diminished in comparison with the previous year by 11.8 thous. persons. It led to a drop in total long-term unemployment by 4.8 thous. people.

The decline in long-term unemployment is continuing positive sign which we could have noticed since 2006, however, in 2009 its pace slowed down substantially. Increase in the number of short-term unemployed can be attributed primarily to the falling demand for labour force resulting from a confrontation with the economic crisis impacts.

The number of unemployed who had never had a job was declining in the first half of the year (year-on-year and quarter-on-quarter), however, in the second half of 2009 the number rose, even on a year-on-year basis. Its average year-on-year change was insignificant in 2009, while their share in total unemployment decreased, particularly due to the jump in unemployment in branches affected by recession.

An alternative perspective on the unemployment development is provided by data on the registered unemployment rate published by the Central Office of Labour, Social Affairs and Family. As it can be seen in Table 8, the difference between the unemployment rates by both methodologies gradually diminishes. Data in table clearly document significant hike in claims for unemployment benefits in response to deteriorating labour market conditions – higher volume of granted benefits was caused mainly by increase in the number of applicants eligible for the unemployment benefits, and to a lesser extent, by expanding average length of unemployment.

Table 8  
Characteristics of Registered Unemployment, 2004 – 2009

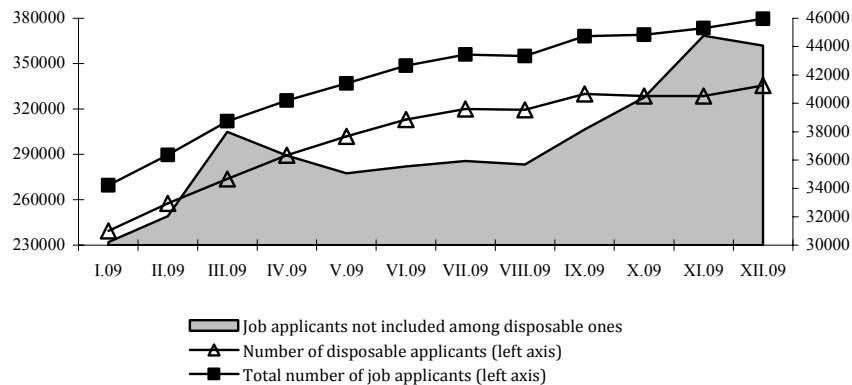
	2004	2005	2006	2007	2008	2009
<i>Unemployment rate by LFSS (%)</i>	18.1	16.2	13.3	11.0	9.6	12.1
Rate of registered unemployment (%)	14.3	11.6	10.4	8.4	7.7	11.4
Number of disposable job applicants	373 471	301 186	265 353	219 231	199 561	303 063
Volume of paid unemployment benefits (thous. Euro)	131 850	80 985	63 982	59 616	66 121	172 430

Note: The rate of registered unemployment is derived from the number of disposable job applicants registered in labour offices.

Source: Data by SO SR (2010c).

However, there is other interesting point about the registered unemployment statistics in 2009. More detailed view of 2009 data reveals that unlike unemployment rate by LFSS, registered unemployment rate did not follow the rising tendency so smoothly. It is a matter of methodology – registered unemployment rate is calculated by the number of disposable applicants, not the total number of job applicants – and it is exactly the methodology that detects so called „scissors gap“ between total number and number of disposable applicants noticed since September 2009 (Graph 15). While the rate of registered unemployment was declining in October and November (compared to September), the actual total number of job applicants registered in labour offices was thenceforth rising.<sup>14</sup>

**Graph 15**  
**Development of the Job Applicants Flows (in persons), January – December 2009**



Source: By data by SO SR (2010a).

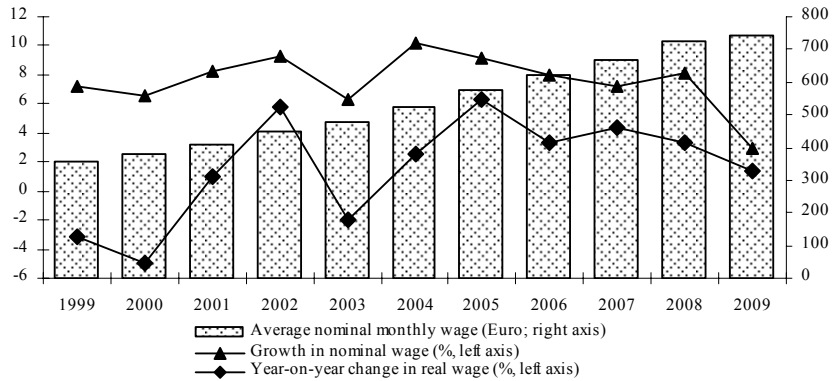
### Development of Average Nominal and Real Wage

With a deterioration of the labour market conditions, a slowdown in growth rates of both nominal and real average wage could be observed. The year-on-year growth in average monthly nominal wage in 2009 accounted for 3%, the

<sup>14</sup> Growth in the number of job applicants temporarily excluded from the disposable ones is usually explained by the higher rate of sickness absence through the winter months. This kind of growth in winter was apparent in the previous years as well, though not to such a sizeable extent. Temporary incapacity for work becomes a very specific phenomenon when the crisis occurs. The rate of temporary incapacity for work in SR (reported by Social Insurance Agency) achieved its record values in 2009. While in case of the employed persons it may reflect the lack of work due to recession, or the effort to postpone the expected lay off, in case of the unemployed persons it may be a sort of speculation – if a temporary incapacity for work emerges within the protective period (42 days) after terminating the employment, the unemployed is entitled to sickness benefits. After the temporary incapacity for work has ended, he is entitled to unemployment benefit, within the next 6 months.

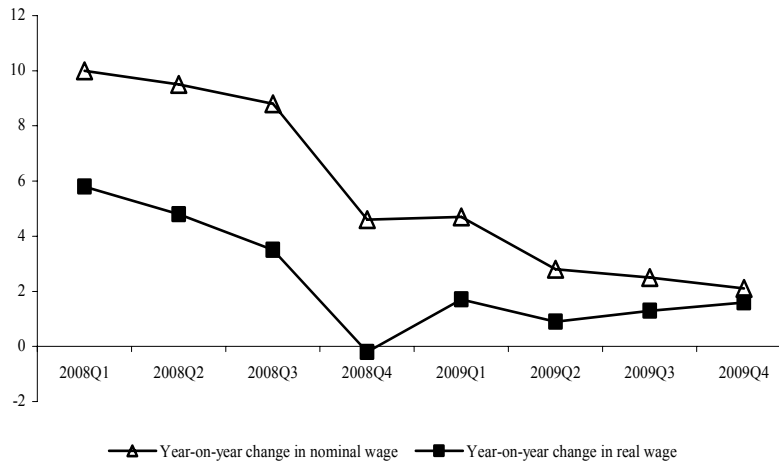
lowest value since 1989. Over the recent ten years, nominal wage rose by 6 – 10% on a year-on-year basis (Graph 16).

**Graph 16**  
**Development of Average Nominal and Real Wage, Year-on-year Changes in %, Value in Euro (1999 – 2009)**



Source: Data by SO SR (2010c).

**Graph 17**  
**Development in Average Nominal and Real Wage in More Detailed View by Quarters 2008 – 2009 (in %)**



Source: Data by SO SR (2010c).

The pace of growth in monthly nominal wage slowed down more explicitly as early as in the 4th quarter of 2008, i.e. simultaneously with a slowdown in economic growth and industrial production – both representing the signs of economy being

hit by global downturn. Intensity of the slowdown has deepened further since the 2nd quarter of 2009 (Graph 17). The growth rate in average real wage reached 1.4% in 2009 representing a year-on-year slowdown by 1.9 p.p. The pace of growth in nominal and real wage responded to the ongoing recession more sensitively than other parameters of labour market development.

On average, the monthly nominal wage in the economy achieved the level of 744.50 Euro, the wage dropped year-on-year in four branches: hotels and restaurants; electricity and gas supply; real estate activities; wholesale and retail. Hence, it rose in majority of branches, of which most explicitly in branches of administrative services (9%), education (7.3%), water supply (7%), cultural activities, recreation (6.4%), health care and social service (5.4%), public administration and defense (5.0%). In absolute terms, the highest average monthly wages were achieved (similarly to the past) by employees in information and communications (1 413 Euro) and by employees performing financial and insurance activities (1 396 Euro). However, as regards the wage growth rates, it is needful to note that year-on-year growth by 3% in average nominal wage may have influenced (to a certain extent) by structural change in unemployment; employees, who lost their jobs in 2009 due to recession, were predominantly persons with lower education attained, what may have overvalued the resulting statistically positive development of growth in average wage.

### **Regional Perspective of the Basic Labour Market Parameters**

The data on average wage as well as the unemployment rates differ largely across the regions; regional disparities are apparent when comparing particular figures for 2009, as well as when comparing their year-on-year changes. The highest number of unemployed in 2009 was posted in Prešov region (62.4 thous. persons), the share of this region in total number of unemployed in SR accounts for 19.2%. Bratislava, the region with the lowest number of unemployed, participates in total unemployment in SR by 5%. However, in comparison with the previous year the number of unemployed rose most rapidly in Trenčín and Trnava regions, in both cases by more than 50% (Table 9), representing serious challenge in these regions. On the contrary, in Banská Bystrica region, the region with the highest unemployment rate in SR (18.8%), the number of unemployed in comparison with 2008 almost did not change (59.8 thous. unemployed in 2009 compared to 59.5 thous. unemployed in 2008). Besides the region Banská Bystrica the rate of unemployment matches well above the average levels also in Prešov (16.2%) and Košice (15.5%) regions. On a year-on-year basis the unemployment rate rose the most in the region of Nitra. Data on year-on-year changes in the number of unemployed imply (and in the end, it is confirmed also by the year-on-year

changes in the rate of unemployment) that dispersion between regions within the country diminishes regarding the number of unemployed (and rate of unemployment as well); regions with lower share in total unemployment increased their share, and on the contrary, two of three problematic regions decreased their share in total unemployment (Banská Bystrica and Košice). Unexpectedly, recession in the Slovak economy in 2009 thus contributed, even though very slightly, to a reduction in the regional disparities.

Similar situation can be noticed in some cases of the average nominal monthly wage as well, which hiked the most in 2009 in Prešov and Nitra regions (Table 9), that means in two of three regions with the lowest average nominal wage. However, it is rather a sort of distortion due to already mentioned structural change in employment (other regions did not confirm this trend though) – the year-on-year increase in wage was high in Bratislava region, where the average wage reaches the highest value in the country (969.92 Euro). The average monthly wage stayed sluggish in Trenčín and Banská Bystrica regions, i.e. in regions with the nominal monthly wage far below the average level.

Table 9

**Unemployment (LFSS) and Average Monthly Wage by Regions**

Region	Number of unemployed		Rate of unemployment		Average nominal monthly wage	
	2009 (thous. person)	index 2009/2008	2009 (in %)	change opposite to 2008 in p.p.	2009 (Euro)	index 2009/2008
SR total	324.2	125.9	12.1	2.5	744.50	103.0
Bratislava	16.3	131.5	4.7	1.1	969.92	102.8
Trnava	27.5	150.3	9.1	2.9	689.01	101.9
Trenčín	21.4	154.0	7.3	2.6	634.76	100.7
Nitra	45.7	144.2	13.0	4.2	624.58	103.0
Žilina	35.4	136.7	10.6	2.9	656.93	101.7
Banská Bystrica	59.8	100.5	18.8	0.6	605.41	100.9
Prešov	62.4	128.1	16.2	3.2	573.00	105.0
Košice	55.8	118.2	15.5	2.0	684.00	101.8

Source: SO SR (2010b).

Despite the government measures aimed to boost employment, development in this field worsened rapidly in 2009. From the point of view of employment and unemployment development a critical snapshot provides the last quarter of 2009. Dip in employment by 5.5% in this quarter is the steepest drop recorded; employment was plunging even when seasonally adjusted. In the 4th quarter of 2009, only 14 100 job vacancies were offered to almost 375 thous. of unemployed persons. Rate of unemployment approaching closely the level of 14% is the highest one since the outset of 2006. By Eurostat method<sup>15</sup> the rate of

<sup>15</sup> LFS – Labour Force Survey, data seasonally adjusted.

unemployment in SR even surpassed the level of 14% in the last quarter; when compared with the same period of the previous year it rose by 5.2 p.p. At the same time the rate of unemployment in the EU-27 rose on average only by 2 p.p. within the same period; in the Eurozone by 1.9 p.p. Among the European Union countries, the unemployment rose more rapidly in 2009 only in three Baltic countries. A detailed view on the statistically positive wage development reveals that in case of nominal wage it was significantly the steadiest growth in average wage in the history of SR. Real wage hasn't turn negative mainly thanks to the low inflation rate. Moreover, in evaluating the average wage development we must consider two factors: growth in nominal wage was maintained notably by wage development in public sector (education, health care, public administration, defense) and the growth of average wage was positively influenced by structural change of employment – job positions were lost predominantly by persons with lower education and lower average wage. The results for the first months of 2010 indicate that negative labour market development is likely to continue even further and probably did not reach its trough yet.

#### **4. External Economic Relations<sup>16</sup>**

##### **Balance of Payments**

In 2008 the global financial and economic crisis manifested itself in the development of external economic relations of Slovakia particularly in the last months, but in 2009 the development was already fully affected by the crisis. While in the previous years the external demand had been a significant factor of positive economic development, it had adverse effects during the crisis – the year-on-year decline in the export (and import) volume occurred, accompanied by production constrains and unemployment growth. At first sight, some indicators make positive impression (Table 10); however, reality is not that clear.

In comparison with the previous years, the current account deficit markedly reduced, approximately to 3% GDP, mainly due to the unusual trade balance surplus as well as due to development in the income balance and in lesser degree also in the balance of current transfers. On the other hand a more pronounced fall in deficit of the current account was avoided by development in the balance of services, which compared with the previous year ended with a relatively high deficit owing to lower revenues in the three main subcategories of services (transport, tourism, other services total).

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<sup>16</sup> Author of this part is Ivana Šikulová.

The year-on-year improvement in the income balance occurred due to decrease of the deficit in the balance of income from investment as a result of limited dividend payments by companies with foreign ownership (resulting from expectation of lower profits during the crisis), as well as due to lower interest payments. The decrease in the negative balance of income from investment exceeded the decrease in the employee compensation surplus imposed by lower employment of Slovak citizens abroad owing to the economic crisis. The balance of current transfers recorded year-on-year improvement as a consequence of positive development in the balance of private transfers, resulting mainly from the decline in payments.

Table 10

**Development of Main Components of Balance of Payments of the Slovak Republic in 2005 – 2009**

	2005	2006	2007	2008	2009
Trade balance (mil. Euro)	-2 456	-2 498	-710	-758	1 187
Balance of services (mil. Euro)	330	745	435	-487	-1 246
Income balance (mil. Euro)	-2 075	-2 446	-2 634	-2 295	-1 288
Current transfers (mil. Euro)	16	-54	-368	-893	-676
Current account (mil. Euro)	-4 186	-4 252	-3 277	-4 433	-2 023
Capital account (mil. Euro)	-19	-40	377	806	464
Financial account (mil. Euro)	6 224	1 490	5 788	5 063	2 958
Current account/GDP (%)	-8.5	-7.7	-5.3	-6.6	-3.2
Degree of current account deficit offset by capital and financial account surplus	1.48	0.34	1.88	1.32	1.69

Source: NBS (2010); SO SR (2010a); own calculations.

In the previous years, the share of the current account deficit in GDP as an indicator assessing external (non)balance of the economy remained above the level of 5% GDP, which is considered as the lower sustainable limit by the IMF. However, like in other transition economies, the current account deficit in Slovakia has been offset by surplus in the capital and financial account over several years. With regard to the fact that along with reducing deficit in the current account also a year-on-year decrease in the financial account surplus occurred in 2009, the degree of current account deficit offset by capital and financial account surplus did not change notably compared with the previous two years.

### Foreign Trade

Due to economic recession accompanied by decline in foreign and domestic demand, Slovakia recorded a year-on-year drop in exports by one fifth (19.8%) and drop in imports nearly by one fourth (23.4%) over the whole year 2009



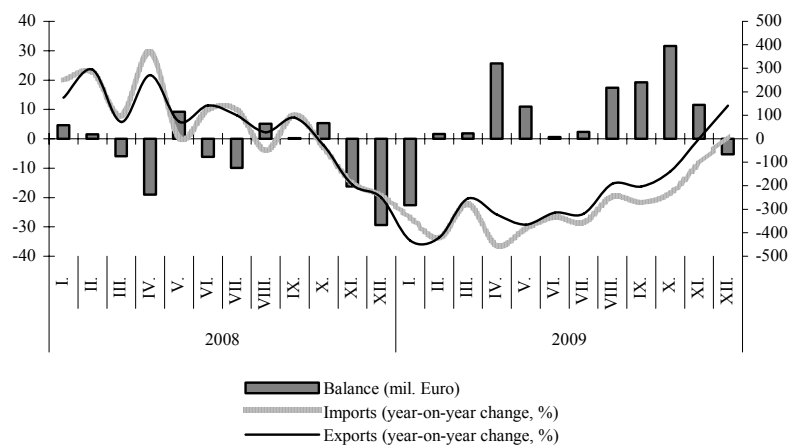
(Table 11).<sup>17</sup> With respect to a more pronounced fall in foreign trade compared to the GDP fall, export performance as well as import intensity of the economy reduced by more than 10 p.p. It was originally expected that a significant decrease in the demand for Slovak products would reflect in increase of foreign trade deficit. However, due to larger contraction in imports than in exports, Slovakia recorded surplus in the amount of 1 187 mil. Euro after many years of negative trade balance. So the foreign trade paradoxically contributed with positive net exports to moderation of the GDP fall.

Table 11  
Development of the SR Foreign Trade in Goods in 2005 – 2009

	2005	2006	2007	2008	2009
Exports (mil. Euro, current p.)	32 864.0	40 916.0	47 351.0	49 522.3	39 715.6
Annual change (% , current p.)	11.1	24.5	15.8	4.6	-19.8
Imports (mil. Euro, current p.)	35 320.0	43 667.0	48 075.9	50 280.1	38 528.7
Annual change (% , current p.)	13.1	23.6	10.6	4.6	-23.4
Balance (mil. Euro)	-2 456.1	-2 751.0	-725.0	-757.8	1 186.8
Balance/GDP (%)	-5.0	-5.0	-1.2	-1.1	1.9
Export performance (% GDP)	66.7	74.3	76.9	73.7	62.7
Import intensity (% GDP)	71.7	79.3	78.1	74.8	60.8

Source: SO SR (2010a); own calculations.

Graph 18  
Year-on-year Changes in Exports and Imports (%) and in Foreign Trade (mil. Euro) by Months in 2008 a 2009



Source: SO SR (2010a).

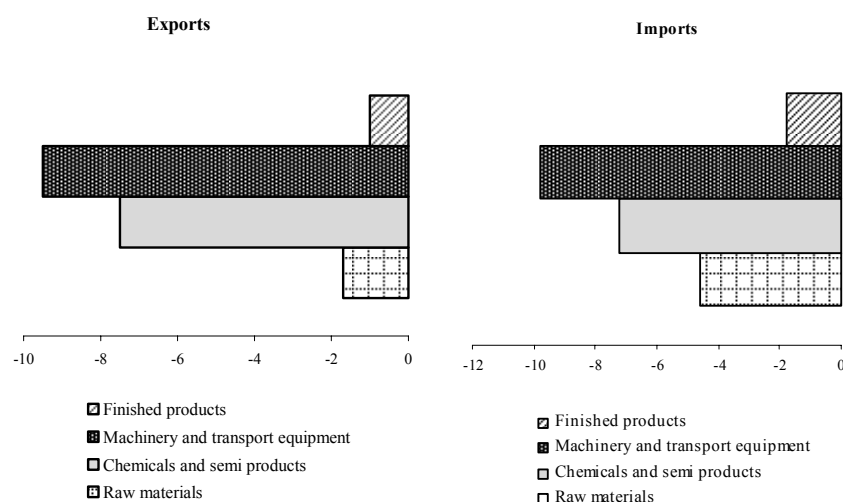
<sup>17</sup> For comparison, foreign trade in the Czech Republic was hit by the crisis in lesser extent in 2009 – export recorded year-on-year fall by 13.8% and import by 17.7% (Czech Statistical Office, 2010).

In some months of the first half of the year, exports and imports dropped even by more than 30% (Graph 18). As late as in December 2009 the year-on-year dynamics of exports achieved a positive value, namely 11.3%, for the first time since September 2008 (when the impact of the crisis on foreign trade started to manifest markedly) after several months of gradual improving. Dynamics of imports accelerated from negative figures to 0.9% in December 2009. However, these indicators have been affected not only by higher output in export-oriented branches (automotive, machinery, electrotechnical industries) owing to revival in foreign demand, but also by extraordinary low comparison base from the previous year. A slightly surplus balance resulted from delayed revival in imports, mainly because of lower household demand, lower imports of investment goods and fuels.

Almost a half of the overall export fall has been caused by decline in exports of machinery and transport equipment (Graph 19), mostly passenger cars. Consequently also imports of various types of semi-products declined, as some of them are related to the automobile production. In the second half of the year, the slowdown in the year-on-year export decrease in passenger cars contributed to moderation of the overall export decline. Reduction in exports of chemical products (obviously due to the slump in oil products' prices) and of semi products (especially of iron and steel, iron and steel products) was not negligible. However, it moderated in the last quarter of 2009 due to increase in foreign demand, similarly as in the case of passenger cars.

On the side of imports, with regard to relatively high import intensity of the Slovak economy as well as lowering inventories in the economy, fall in imports of semi-products needed for manufacture, especially of components for the automotive industry within the subcategory of transport equipment, was recorded. By the end of the year, revival in foreign demand and consequently in production contributed to moderating the decline in imports in this category, which reflected in lower dynamics of the overall import decrease. Also the year-on-year decline in imports of components for electrotechnical industry was recorded in the subcategory of machinery. Considering the current increase in exports of TV sets, this development indicates reduction in import intensity of electrotechnical industry thanks to production of screens in Slovakia. Decline in imports was significantly influenced by decrease in imports of chemical products (mostly plastics and rubber) and semi-products (iron, steel and related products) as well as raw materials. As a consequence of lower global demand oil prices on world markets had fallen, which led to lower oil imports to Slovakia. Even the imports of gas lowered, however, not due to decrease in import prices, but due to reduction of import quantity, apparently owing to production restrictions during the crisis. And lastly, lower domestic demand led also to decrease in imports for final consumption.

Graph 19  
**Structure of Contribution to Year-on-year Changes in Exports and Imports  
 by Commodity Groups in 2009 (in p.p.)**



Source: NBS (2010).

Territorial structure of foreign trade remained stable also in the crisis period accompanied by profound decrease in volumes of exports and imports. The European Union has still maintained the highest share in the overall trade (Table 12). Exports have been reduced in particular to the countries being for a long-time the most significant business partners of Slovakia, i.e. to Germany and to the Czech Republic. Slovakia recorded the highest positive balance with Germany, France, Poland and Austria, while the highest negative balance was registered with South Korea, Russia and China.

Table 12  
**Territorial Structure of the SR Foreign Trade in 2006 – 2009**

Country/grouping	2006		2007		2008		2009	
	export (%)	import (%)	export (%)	import (%)	export (%)	import (%)	export (%)	import (%)
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EU	85.1	68.0	86.7	68.9	85.2	67.1	85.7	67.6
Russia	1.6	11.3	2.3	9.4	3.8	10.8	3.6	9.0
USA	3.2	1.2	2.5	1.1	1.7	1.2	1.1	1.2
China	0.5	4.0	0.8	5.2	0.9	5.7	1.4	5.8
South Korea	0.1	3.9	0.1	5.0	0.1	5.8	0.1	6.8
Japan	0.3	2.0	0.2	1.6	0.2	1.4	0.1	1.3

Source: SO SR (2010a).

## Foreign Capital

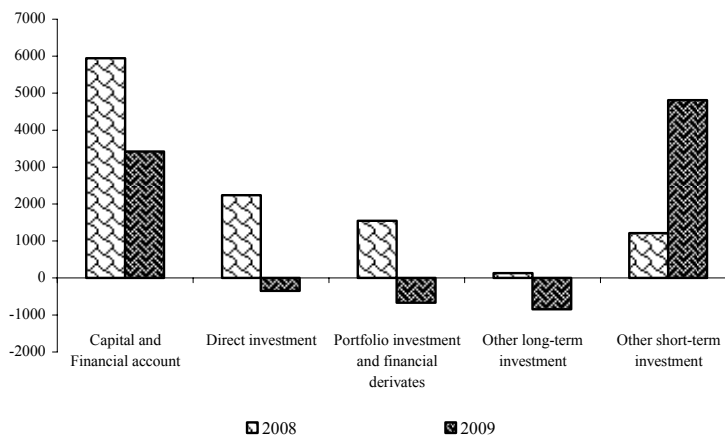
In 2009 the capital and financial account of the balance of payments recorded surplus as usually; however, lower than in the previous year (Graph 20). The reason is that the year-on-year higher inflow of other investment did not offset the year-on-year change from an inflow to an outflow in the balance of direct and portfolio investment.

Negative balance of foreign direct investment (FDI) was caused by the development of both liabilities and assets. On the liability side, increase in capital participation of foreign investors in Slovakia was recorded, however, development in other capital had opposite effect. On the asset side, increased interest of residents to invest abroad was reflected. Even higher net outflow recorded in portfolio investment compared to FDI resulted from increased interest of residents for foreign debt securities.

The high inflow of other investment in 2009 was determined mainly by the fact that inflow of funds in the government sector and the National Bank of Slovakia exceeded the outflow from the banking sector. The government sector recorded inflow of funds due to the central bank's policy after euro adoption, as the National Bank of Slovakia did not use its foreign exchange reserves to meet its liabilities vis-à-vis the banking sector, but it borrowed funds from the Eurosystem. In the banking sector, outflows resulted mainly from decline in short-term non-resident deposits held at Slovak banks, which was connected with the euro adoption and also with the financial crisis.

Graph 20

### Capital and Financial Account in 2008 and 2009 (mil. Euro)



Source: NBS (2010).

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### Impact of the Euro on Economic Relations with Abroad

The membership of Slovakia in the euro area strengthens confidence in the economy, as well as its stability, possibly promoting FDI inflow and thereby after-crisis recovery of the economy. The euro and high openness of the economy, which contributed to the large impact of the crisis on Slovakia, are likely to help the economy to recover.

However, the euro is a „double-edged weapon” – on the one hand it provides stability and is clearly advantageous for an export-oriented economy with ambitions to attract more foreign investment, but on the other hand it may have (at least in a short-time horizon) negative effects on country’s competitiveness, since joining the monetary union eliminates exchange rate flexibility. Thus Slovakia unlike other countries in Central Europe, which did not yet adopt the euro, is not in the position to support its exports by weakening the national currency. In this connection, however, we have to take into account the fact that Slovakia as well as other countries of today’s globalized world is not only an export-oriented economy, but also an economy that demands imports. The development of foreign trade in 2009 confirms this fact. So the effects of a relatively strong currency are not unambiguously negative, as a stronger currency makes not only exports more expensive, but also imports cheaper, what is advantageous for the population, as well as for domestic enterprises with lower volumes of exports. Moreover, high volatility of currencies implicates risks for national economies, particularly in the field of trade and investment, since a volatile exchange rate complicates forecasting business relations and thereby long-term business decision-making with negative effects on further FDI inflow.

### 5. Monetary Policy and Price Level Development<sup>18</sup>

Until the end of 2008 the execution of monetary policy, i.e. making monetary policy decisions (in particular setting the interest rates) and their implementation had been performed by the National Bank of Slovakia (NBS) as the monetary authority of the country. For all members of the Economic and Monetary Union, the monetary policy is set by the European Central Bank (ECB) which along with the national central banks of the euro area countries comprises the so called Eurosystem.<sup>19</sup> Since euro area accession, the NBS has not pursued an independent

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<sup>18</sup> Author of this part is Ivana Šikulová.

<sup>19</sup> The Eurosystem is part of the *European System of Central Banks* which consists of the ECB and central banks of all EU member states.

monetary policy and it has become co-responsible for the monetary policy of the Eurosystem through the NBS governor who as a member of the Governing Council of the ECB<sup>20</sup> participates in making monetary policy decisions for the whole monetary union. The governor is entitled to submit proposals and influence the direction of the euro area monetary policy by his vote with equal weight as have votes of governors from other central banks.

#### B o x 1

##### **Monetary Policy of the ECB**

Considering financial crisis and economic recession, the European Central Bank pursued strongly expansive monetary policy in 2009. Over the year, the ECB cut key interest rates by 1.5 percentage point (in January and March by 0.5 p.p., in April and May by 0.25 p.p.), even to the historically lowest level of 1%.

After the United States of America, the euro area was the second biggest region significantly hit by the financial crisis starting in 2007, so immediate intervention by the ECB was required. In the European banking sector, the volume of financial funds drawn by banks from the ECB has been enhanced and maturities structure adjusted.

In July 2009 the Eurosystem launched the covered bond purchase programme designed to facilitate the reduction in long-term money market interest rates, to support bank lending to the private sector, to improve liquidity in important segments of the private market, and to allow banks and enterprises easier access to funds. This program will last until June 2010. After recession is over, the key task of the ECB will be the optimal timing of monetary policy tightening.

In spite of several changes connected with euro adoption, the main objective of monetary policy henceforth is to maintain price stability in the medium term. In case of the Eurosystem it means keeping the year-on-year growth of consumer prices close to but below 2%. Besides the monetary policy decisions, the Eurosystem makes decisions on foreign exchange interventions, on the volume of money in circulation and on international cooperation. The National Bank of Slovakia conducts market operations and foreign exchange interventions, issues euro banknotes and coins. In an unchanged scope it performs tasks in the following areas: management of money circulation, ensuring operation of the system of payments and overseeing the payment systems. At the same time it conducts financial market supervision, i.e. supervision in banking, capital market, insurance and pension saving. The National Bank of Slovakia manages its own foreign reserves and is involved in the management of foreign reserves of the ECB.

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<sup>20</sup> The Governing Council is the ECB's highest decision-making body that makes strategic decisions. It comprises members of the Executive Board of the ECB (the President of the ECB, the Vice-President and four other members) and the governors of all central banks of the euro area. Members of the Executive Board and the governors of the central banks of all EU member states compose the *General Council*.

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### **Impact of Euro Adoption on the Slovak Economy**

Regarding the global crisis and meanwhile short membership in the monetary union, it is complicated to assess the benefits and costs of euro adoption in Slovakia. Though a complex assessment of euro adoption effects on the Slovak economy will definitely require a longer period, this integration step brought following benefits already in the first year of the euro area membership:

- decrease in transaction costs – this benefit is strongest in smaller and more open economies, undoubtedly including Slovakia;
- increase in exchange rate stability – currencies of big economic units are less vulnerable to speculative attacks;
- elimination of the exchange rate risk and thereby also of protection costs against this risk;
  - a more stable situation on the bond market;
  - easier comparison of prices with other euro area countries.

However, assessing a possible increase in FDI inflow and growth of trade, an acceleration in economic growth, an increase in employment and in economic and political importance in international affairs due to adoption of the single European currency will be feasible only in medium or long-term horizon, in particular with respect to the ongoing crisis.

On the other hand, besides one-shot costs of currency conversion, loss of independent monetary policy and along with this also possibility to influence the development of the national economy by standard instruments as interest rates and exchange rate level is considered to be cost of the euro area membership for Slovakia. So other channels, in particular sound fiscal policy and flexible labour market, become more important to avoid imbalances.

Regarding high openness and small dimension of the Slovak economy, it is expected that benefits of euro adoption will exceed costs in medium and long term. However, the balance of effects of the euro area membership will strongly depend on the further direction of European integration, as well as on the development of other, in particular large EU member economies determined by the direction of the global economy.

### **Inflation Development**

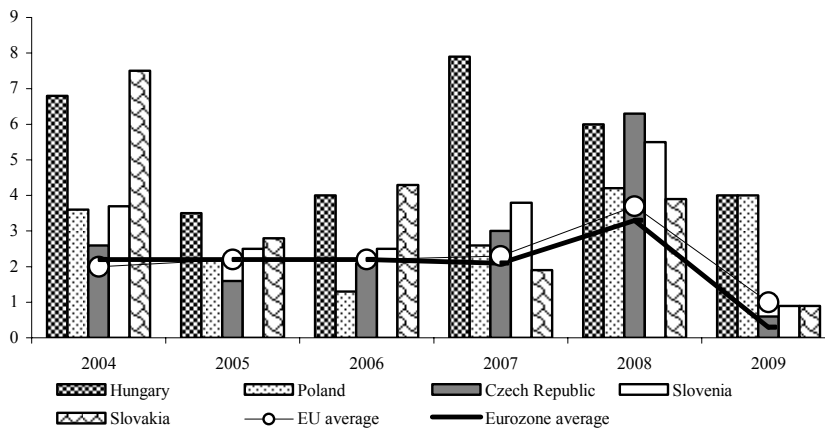
In spite of the fact that owing to euro adoption Slovakia lost the advantageous effect of the strengthening exchange rate on inflation, its level has reached historically lowest values. Prior to euro area accession, the inflation development in Slovakia had been strongly determined by external factors, mainly by growth of world oil prices and prices of agriculture commodities. With the date of the

euro adoption approaching, concerns about inflationary pressures intensified. After all, the price development has shown that these concerns were not reasonable and the impact of the euro on consumer prices was negligible. However, the inflation development in Slovakia has been again strongly influenced by external factors, in particular by the ongoing global economic crisis.

According to the NBS, the impact of euro adoption, i.e. effect of setting a new (higher) price due to currency changeover – so called *changeover effect*, on the total inflation measured by the harmonized index of consumer prices (HICP) in January 2009 reached 0.15 p.p. (as the centre of the interval 0.12 – 0.19 p.p. considering the lowest and the highest value within results of the five methods used in calculation) in Slovakia (NBS, 2009). When analyzing the development of items of the consumer basket, only items with price increase were considered. This result is comparable with estimated impact of euro adoption in other countries and is confirmed by analyses of the Ministry of Finance (MF SR, 2009a) and of the Statistical Office of the SR as well. In case that calculations would include also items with price decrease due to euro adoption (e.g. decline in prices because of rounding the figures in the foodstuffs sector, or in case of payments to the state), *changeover effect* as the euro contribution to the inflation development in January 2009 would have been quantified even on the level 0.0 p.p. as the centre of the interval  $-0.12 - 0.12$  p.p.

Graph 21

**HICP Development in Slovakia in Comparison with other Countries of Central Europe, with the EU and the Euro Area Average in 2004 – 2009 (%)**

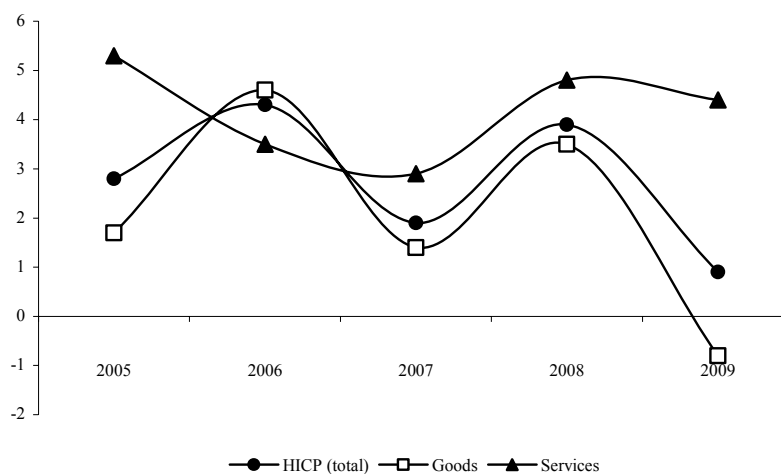


Source: Eurostat (2010).



In 2009 inflation measured by the HICP reached the lowest level in the history of Slovakia, namely 0.9%, i.e. by 3 p.p. lower level compared to the previous year (Graph 21). Since September 2008 the inflation rate has slowed down, in October 2009 prices even declined and stagnated in September, November and December. In the course of the year prices of goods decreased by 0.8%, while prices of services rose by 4.4% (Graph 22), confirming the trend of catching up in the service sector even during the crisis. Slovakia recorded markedly lower value of HICP than Hungary or Poland, where consumer prices rose due to weakening of national currencies. As in case of Slovenia, inflation in Slovakia was below the EU average, but above the euro area average, since some members of the monetary union registered deflation in 2009. Slovakia did not record lower inflation compared to the euro area average as yet, with exception of 2007 when the Maastricht criteria had to be fulfilled.

Graph 22  
HICP Development by Goods and Services in 2005 – 2009 (year-on-year change, %)



Source: NBS (2010).

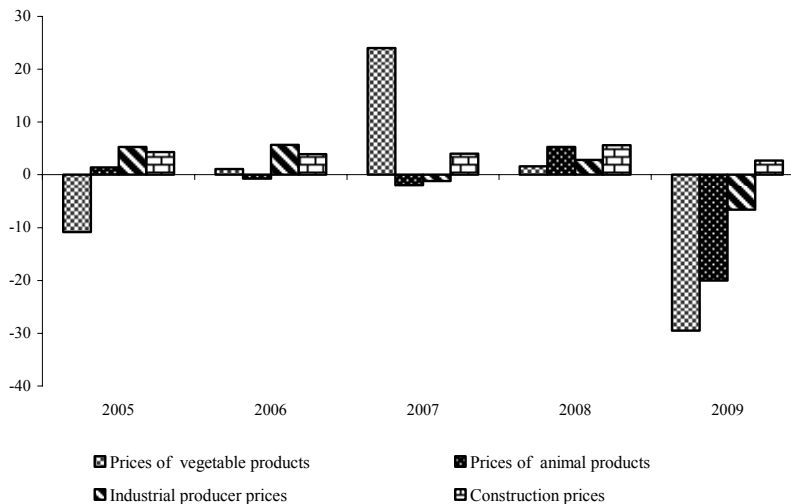
In 2009 consumer prices (measured by the CPI) recorded the lowest year-on-year growth since 1990, namely 1.6%, while in the previous year the CPI rose by as much as 4.6%. Since the first quarter of 2009 inflation has gradually fallen, only in December (compared with the same period one year ago) it increased slightly for the first time since September 2008, resulting from rising oil prices. As in the previous year, price increase was recorded mainly in the following items in 2009: alcoholic beverages and tobacco (8%); housing, water, electricity,

gas (6.6%), health (6.6%), education (5.5%), hotels, cafés and restaurants (5%). However, in contrast to the development in 2008, prices fell in transport (−6.4%) as well as in food and non-alcoholic beverages (−3.2%).

As to the development of producer prices, agricultural prices declined most (−24.6%) in 2009, mainly in case of vegetable products (Graph 23). While in 2007 and in the first half of 2008 a significant rise in prices of vegetable products was recorded in Slovakia, owing to the predominance of demand over supply accompanied by decline in stocks and by the panic on global markets, in summer 2008 the reversal of the abnormal development in the previous period started as a consequence of growing supply (Graph 24). The year-on-year slump in prices of vegetable products slowed down as late as by the end of 2009, mainly thanks to decelerating decrease in cereal prices. In 2009 industrial producers' prices recorded decline by 6.6% owing to the fall in energy and raw materials prices, while construction prices rose by 2.7%. In both cases price dynamics decelerated when compared with the previous years (Graph 23).

Graph 23

**Year-on-year Changes in Prices of Vegetable and Animal Products, in Industrial Producer Prices and Construction Prices in 2005 – 2009 (%)**



Source: NBS (2010).

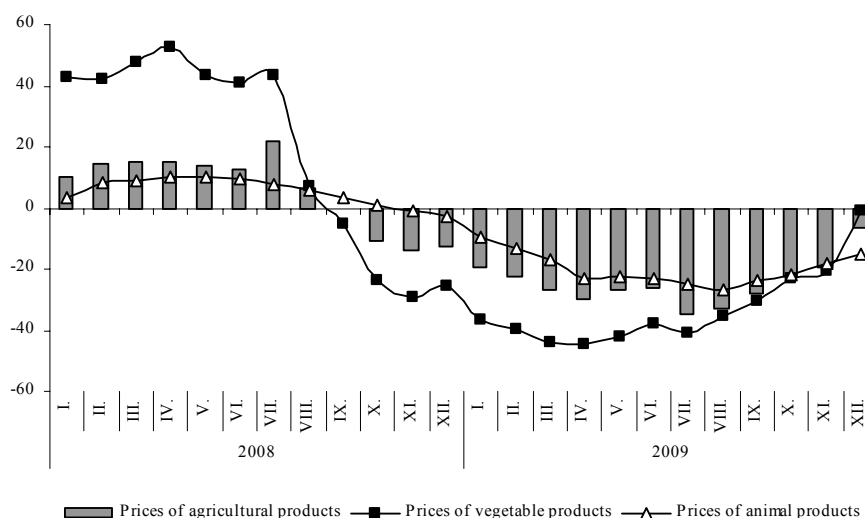
To conclude, the decisive factor of the extremely low inflation in 2009 was the global economic crisis. Prices rose slightly mainly due to:

- strong competition among producers of goods, providers of services and sellers in consequence of weakening foreign and domestic demand;
- reduced pressure on wage growth;

- relatively low world oil prices, in particular at the beginning of the year;
- predominance of cereals supply over demand due to high stocks from the previous year.

Graph 24

**Year-on-year Changes in Prices of Agricultural Products by Vegetable Products and Animal Products in the Individual Months of 2008 and 2009 (%)**

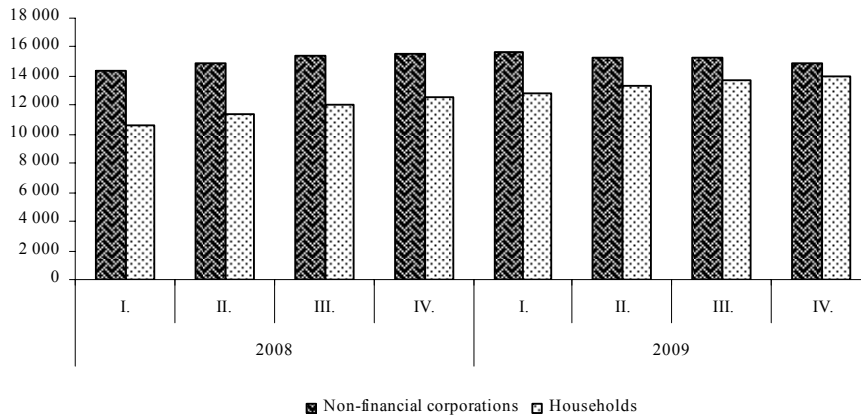


Source: NBS (2008 – 2010).

With regard to the expected gradual recovery of the world economy accompanied by increase in foreign demand and growth of oil prices, as well as considering the price catching up in the Slovak economy only through the inflation channel, price increase can be expected again in the next years in Slovakia. Such development would bring decline in real interest rates with positive effects on investment and thus also on performance of the economy.

In the last two years the development of credits had been characterized by reducing the difference between the volume of credits provided to the non-financial corporations and the volume of credits provided to households (Graph 25). In 2009 this development resulted from reduced volume of credits to the enterprise sector influenced by greater vigilance of banks as well as by decrease in demand for new credits regarding limited investment chances during the crisis. On the other hand credits to households rose even further as banks perceive lower risks when providing credits to households compared to enterprises.

Graph 25  
**Volume of Credits to Non-financial Corporations and to Households  
 by Quarters in 2008 and 2009 (mil. Euro)**



Source: NBS (2010).

## 6. Public Finance<sup>21</sup>

In the second half of 2008, the Slovak economy experienced the first negative influence of economic and financial crisis. In 2009, the crisis manifested its negative effects with full strength.

The negative impact of crisis connected with negative GDP growth has been inevitably reflected in the development of general government budget. The general government budget for 2009 was based on over optimistic macroeconomic assumptions. The draft budget assumed the GDP growth at 6.4%, employment growth at 1% and export growth at 8.9%. Although, these assumptions have been already assessed as unrealistic, the budget was approved without any changes. Although, these assumptions have proved to be unrealistic already in the first months of 2009, the central government has not taken into account the changes in economic development caused by the economic and financial crisis.

Changes on domestic market and in external environment had been insufficiently reflected in the first revised forecast of the Ministry of Finance of the SR. The first revision expected GDP growth at 2.4%. Not until the second revision the general government budget was based on unrealistic assumptions. The second revision put the budget in accord with the actual (expected) economic development of Slovakia.

<sup>21</sup> Author of this part is Karol Frank.

Despite difficult macroeconomic conditions coupled with uncertainty caused by financial and economic crisis, the process of forecasting revenue and expenditure shifted from previously conducted conservative scenarios to more optimistic (unrealistic) scenarios.

Aiming to mitigate the impacts of economic crisis the government approved a number of measures. The first series of measures had been approved by the government on November 6<sup>th</sup> 2008 and were focused primarily on:

- analysis of the state in contracting and financial implementation of the Structural Funds within the programming period 2004 – 2006 and elaboration of short-term crisis plan;
- evaluation of preparations and financial implementation in all operational programmes of the National Strategic Reference Framework (NSRF) including measures for effective financial implementation in the programming period 2007 – 2013;
- implementation of the PPP projects in the field of motorway construction within the scheduled time periods;
- reassessment of budgetary objectives related to general government balance for 2009 – 2011.

The financial crisis manifested itself strongly in decrease of general government revenue. In comparison with previous year, the last year prior to Euro adoption, the impact of all above mentioned factors resulted in considerable growth of general government deficit.<sup>22</sup> A more detailed analysis of state budget is provided in the following subchapter.

### **Central Government Budget**

The following analysis of central government budget is based on assumptions approved by the Act on the State Budget in 2008.<sup>23</sup> This version compared with the actual outcome allows us to demonstrate the impact of financial and economic crisis on majority of categories of revenue and expenditure.

The first proposal for the state budget expected the revenue at 13.1 billion Euro and expenditure at 14.1 billion Euro with total deficit at 1 billion Euro. As early as in the second half of 2008 and at the beginning of 2009, it has been already obvious that the development of revenue in the budget will be different in comparison with the approved budget. Although, it is necessary to note that

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<sup>22</sup> More detailed data will be available after the Final State Budgetary Account will be published.

<sup>23</sup> Already at the preparation stage of the draft budget for 2009 it was apparent that financial and economic crisis will inevitably influence the development of general government budget. However, the Ministry of Finance of SR responded to the warnings on unrealistic setting of revenue in the budget in the 3rd quarter of 2009.

deterioration in fiscal balances has been also experienced in majority of other EU countries, not only in Slovakia. Similarly, majority of EU countries experienced fall in revenue as well as increase of expenditure related to various types of fiscal stimuli.

Negative economic growth, rising unemployment, lower tax and non-tax revenue, poor financial implementation of Structural Funds, implementation of anti-crisis measures especially related to taxes (increase in non-taxable part of tax base, reduction of time period related to refund of excessive VAT allowances from 60 to 30 days for enterprises, adjustment of the input prices related to amortisation of tangible and intangible assets), labour market incentives (social enterprises, benefits on jobs, benefits mitigating tax burden) resulted also in deterioration of the general government budget balance. Development of revenue and expenditure of the State budget is shown in Table 13.

Table 13  
Development of the State Budget in 2009 (in million Euro)

Indicator	Actual 2008	Proposal 2009	Adjusted 2009	Actual 2009	% fulfilment/proposal	% fulfilment/adjusted	Index 2009/2008
Revenue total	11 352	13 116	10 971	10 541	80.4	96.11	92.9
of which:							
1. tax revenue	9 023	9 886	7 871	8 025	81.2	102,0	88.9
of which:							
personal income tax	118	123	39	29	23.3	73.5	24.3
corporate income tax	2 122	2 455	2 078	2 130	86.7	102.5	100.4
income tax collected by deduction	206	207	153	156	75.2	102.1	75.6
GDP	4 632	4 960	3 715	3 846	77.5	103.5	83.0
excise duties	1 906	2 072	1 829	1 835	88.6	100.3	96.3
2. non-tax revenue	874	894	676	828	92.6	122.5	94.8
3. grants and transfers	1 456	2 336	2 424	1 688	72.2	69.6	115.9
of which:							
Structural Funds	837	1 883	1 883	1 081	57.4	57.4	129.1
Expenditure total	12 057	14 125	14 125	13 332	94.4	94.4	110.6
of which:							
current expenditure	10 449	11 898	11 898	11 173	93.9	93.9	106.9
capital expenditure	1 607	2 227	2 227	2 159	96.9	96.9	134.3
Deficit/Surplus	-704	-1 009	-3 154	-2 791	80.4	96.1	396.4

Source: MF SR (2010); own calculations.

In contrast to the approved budget total revenue were lower by almost 20%. In comparison with previous year (2008) revenue were lower by 7.1%. The tax revenue reached only 81.2%, non-tax revenue only 92.6% and grants and transfers only 72.2% of expected total revenue.

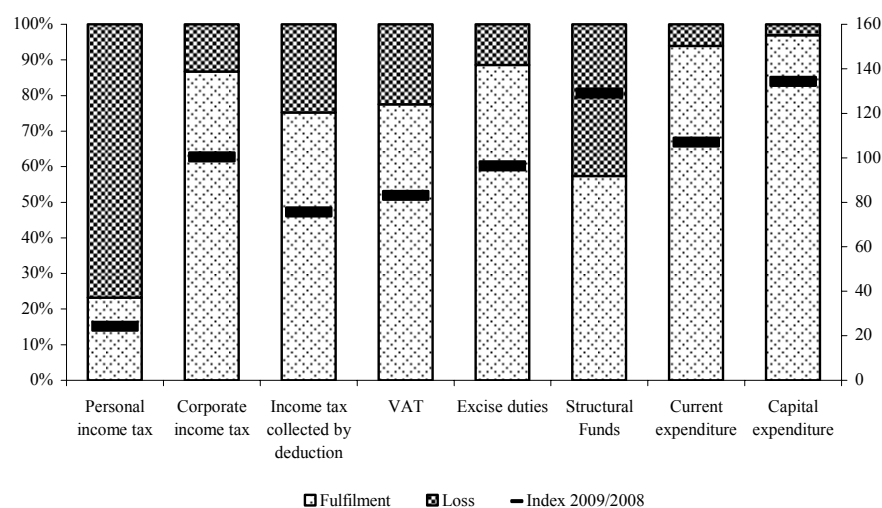
Highest decline has been recorded in the personal income tax. In comparison with the approved budget, personal income tax revenue amounted only 29 million Euros. The expected revenue was expected at 123 million Euro. In comparison with the approved budget this represented only 23.3% of expected revenue.

This sharp decline in personal income tax resulted in lower revenue of selfgoverning regions and municipalities, due to existing system of personal income tax budgetary assignment. The above mentioned lower personal income tax revenue have been caused mainly by the increase of unemployment.

The pace of financial implementation of Structural Funds remains still an important issue. Similarly as in previous years, the amount of financial resources spent had been significantly lower as planned. In 2009, the share of actual expenditure incurred reached only 57.4% on overall allocation. In comparison with the previous year the volume of budgeted revenue increased approximately by 1 billion Euro to 1.8 billion Euro. In scope of this substantial increase only 117 million Euro have been spend.

Lower revenue from excise duties and value added tax also contributed to negative development of total revenue. The actual revenue from VAT reached only 77.5% and excise duties only 88.6% of the planned amount. Negative development in these two revenue categories resulted in loss of revenue at 1.3 billion Euro.

Graph 26  
Development of Selected State Budget Revenue and Expenditure in 2009



Source: MF SR (2010); own calculations.

In comparison with previous year 2008, total revenue went down from 11.3 billion Euro to 10.5 billion Euro. In comparison with previous year the revenue went down by 7.1%. Total tax revenue went down by 11.1%, while the greatest decline by 75.7% was recorded in personal income tax. Revenue from corporate income tax remained unchanged and reached moderate year-on-year growth by 0.4%. Most dramatic fall has been recorded in VAT revenue which went down on year-on-year basis by 17% i.e. 786 mil. Euro. Revenue in the category Grants and transfers went up by 15.9% from 1.4 billion Euro to 1.7 billion Euro. Revenue from the EU budget funds grew by 29.1% (244 mil. Euro).

Total expenditure recorded a year-on-year growth by 10.6%. We can observe year-on-year growth in both main expenditure categories – current expenditure and capital expenditure. Current expenditure grew by 6.9% and capital expenditure grew by 34.3%.<sup>24</sup>

According to above mentioned data, the development of general government budget in 2009 was even worse than in the previous year. In 2009, the general government deficit was higher by 2 billion when compared with the previous year. This negative development was determined by the above mentioned loss of revenue accompanied by expansive fiscal policy (the structure and volume of expenditure remained unchanged during the whole fiscal year).

Despite already mentioned negative tendencies in the process of budget drafting, the deterioration of budgetary balances in Slovakia has been similar to other Eurozone countries. However, it is necessary to strengthen the effort to consolidate the public finances in the following years in order to facilitate the long – term sustainability of public finance.

### **Central Government Deficit and Central Government Debt**

In 2009, the central government deficit was 2.78 billion Euro. It surpassed the planned amount by 1.7 billion Euro (176.5%). The share of central government deficit on GDP was 4.4%. Compared to previous year it was higher by 3.4 p.p. The main reason for this negative development was the decrease of revenue combined with the unchanged structure and volume of expenditure. According to preliminary data the general government deficit was 6.77% GDP.

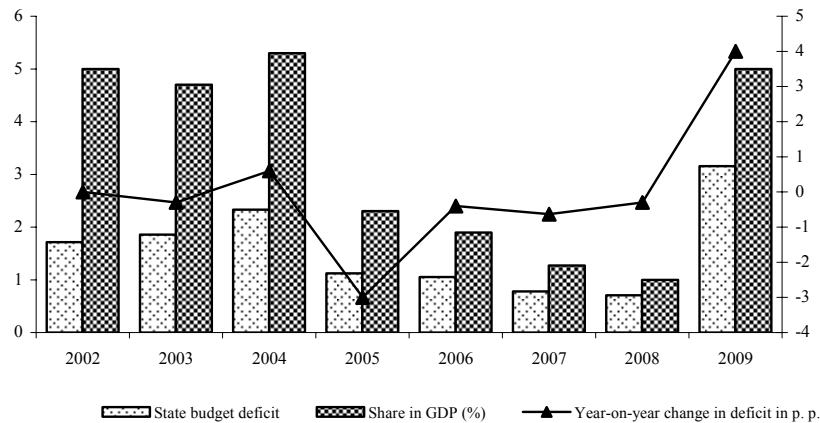
The central government debt (the sum of deficits from previous years) reached 21.3 billion Euro (Graph 28). The central government deficit increased the volume of central government debt by 3.6 billion Euro. The share of deficit on GDP was 33.6% and grew year-on-year by 7.44 p.p. This represented the second highest year-on-year growth of debt since 1999.

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<sup>24</sup> Due to unavailability of data, it is difficult to analyze the structure of expenditure, mainly in the category of capital expenditure.

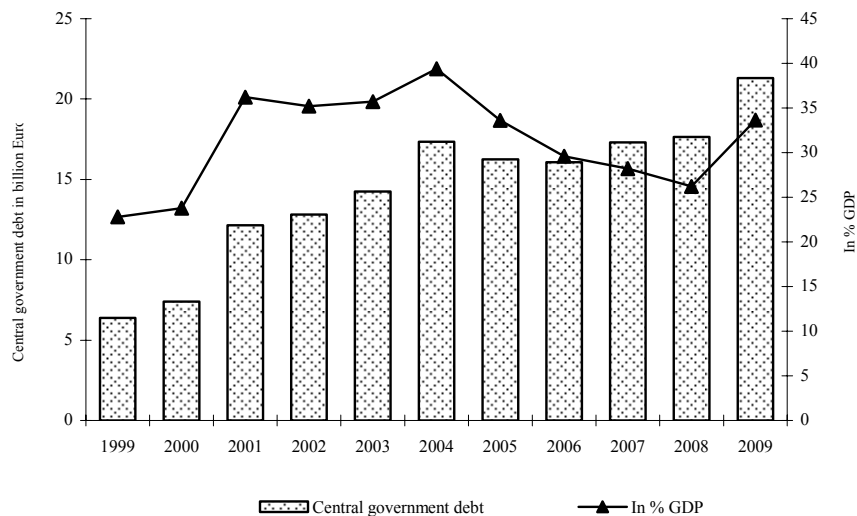


**Graph 27**  
**Development of the State Budget Deficit in 2002 – 2009**



Source: MF SR (2010); own calculations.

**Graph 28**  
**Development of the Central Government Debt in 1999 – 2009**



Source: MF SR (2010); own calculations.

In comparison with the previous year, the structure of central government debt changed. Domestic debt went up 8.4% and external debt went down by 14.2%. The long-term debt grew by 4.5% and short-term debt declined by 45.5%.

The favourable development of the central government debt over the recent years was influenced by a strong economic growth which, however, in years to come, will not provide sufficient manoeuvring space for the government for implementation of their own priorities, as compared with previous years. The obligations from Eurozone membership are also binding the Slovak authorities to consolidate the public finance until 2012 (excessive deficit procedure).

### **Implementation of Structural Funds in the Programming Periods 2004 – 2006 and 2007 – 2013**

Similarly as in previous years, in 2009 the financial implementation of Structural Funds was very low. In contrast to the originally approved proposal of the central government budget the actual financial implementation was at 1.08 billion Euro, i.e. 57.4% of the expected volume for 2009.

The year 2009 was the last year of implementation of the previous programming period. At the end of 2009, the overall financial implementation reached 107.98%. The highest share of financial resources was spend in the Operational programme (OP) Basic infrastructure (112.5%), INTERREG IIA SR-ČR (111%), in the Sectoral Operational Programme (SOP) Industry and Services (108.5%), in Sectoral Operational Programme Human Resources (107%) and in Single Programming Document (SPD) Bratislava Objective 3 (105%). A more detailed structure of the resources according to particular categories and percentage of financial implementation are illustrated in the Graph 29.

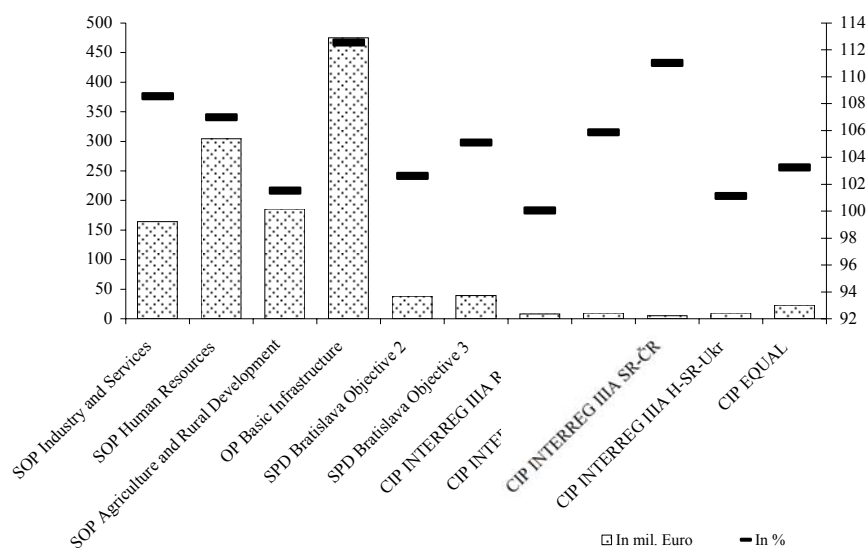
The current programming period 2007 – 2013 recorded in 2009 extremely low rate of financial implementation. The following factors negatively influenced this process:

- Parallel implementation of two programming periods (2004 – 2006 and 2007 – 2013)
  - Delays in preparation of the NSRF
  - Low absorption capacity on the side of demand as well as supply
  - Lack of efficient administrative capacities on national and regional level and on the side of managing authorities and applicants
    - Lack of experience with European projects on the side of applicants
    - Insufficient domestic financial resources available for co-financing on national as well as regional level
      - rent-seeking behaviour, lack of transparency
      - competences struggles between relevant national institutions
      - bureaucracy
      - financial and economic crisis
        - deterioration of budgetary balances
        - lack of financial resources on the side of applicants for co-financing

- administrative burden imposed by the Cohesion policy related regulations
- changes in the rules on financial control.

Graph 29

**Development of Financial Implementation in the 2004 – 2006 Programming Period as of December 31<sup>st</sup>, 2009**



Source: MF SR (2009b).

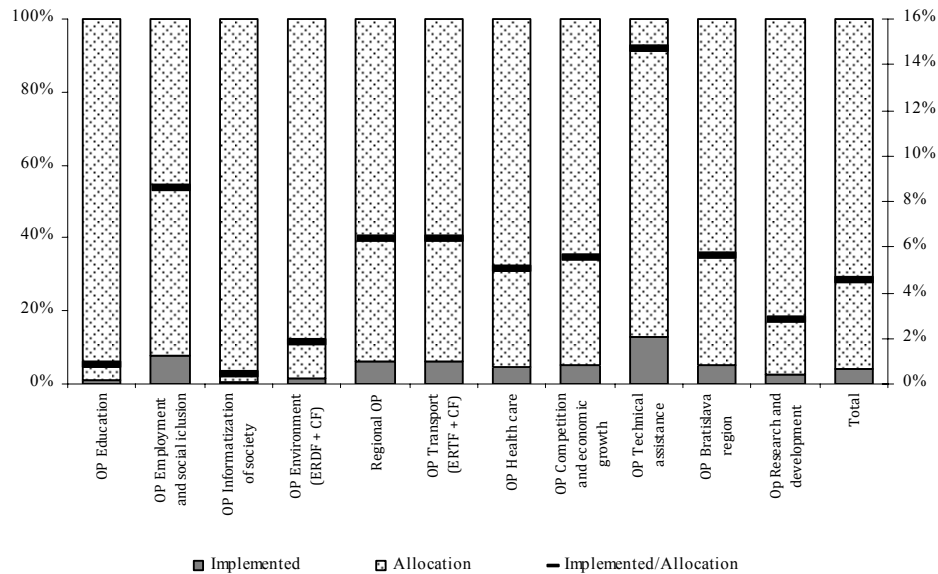
At the end of 2009 the share of financial implementation on overall allocation in the actual programming period reached 4.5%. In comparison with the end of 2008 the share grew by 4.33 p.p. (Graph 30).

Similarly, as in the previous year the highest spending was in the Operation program (OP) Technical Assistance (14.7%), OP Employment and Social Inclusion (8.55%), Regional OP (6.33%) and in OP Transportation (6.34%). Least sources were drawn in operational programmes Informatisation of Society (0.4%), Education (0.85%) and Environment (1.8%). An increased pace in drawing with respect to necessity to implement the financial allocation from 2007 (rule  $n + 3$ ) is expected in 2010, particularly in the OP Informatisation and in OP Education.

In the financial implementation of Structural Funds it is important to focus not only on the volume of spend financial resources, but on effectiveness of spent resources within the individual OPs. However, the effectiveness can be evaluated only after a longer time period, when higher amounts of structural funds will be implemented.

Graph 30

**Financial Implementation from Structural Funds and Cohesion Fund  
in the Programming Period 2007 – 2013 (Objective 1 and 2)  
as of December 31, 2009, in %**



Source: MF SR (2009b), own calculations.

## 7. Outlook for 2010<sup>25</sup>

Making prognoses in an exceptional situation is marked inevitably by a high rate of uncertainty. Such an exceptional situation is shaped by economic recession. This should be perceived by every author and by every user of economic prognosis.

Slovak economy as export oriented and import intensive one, was always very susceptible to development in external environment. Depending on the external environment became even more visible in the course of economic recession: to succumb to the recession as well as to disengage it, depends above all on development in external environment.

Internal factors within preparations for this prognosis play a secondary role, however, not a zero one. Preparation of the prognosis is therefore deduced from the anticipated development in the external environment.

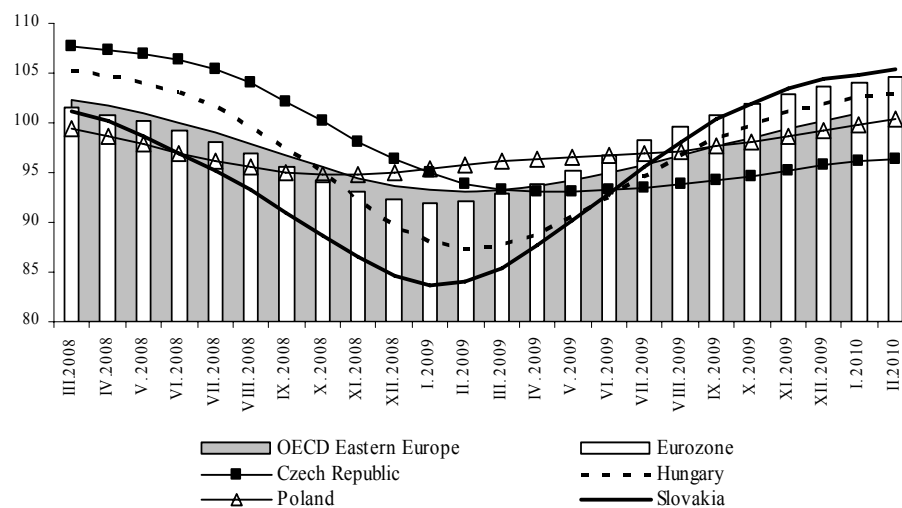
<sup>25</sup> Author of this part is Karol Morvay.

## Impacts of External Economic Development

At the present time impacts from the Eurozone, above all from Germany, are vital (with regard to the export orientation of SR and the territorial structure of exports). Within preparations of this prognosis predominantly optimistic news have been running on the coming end of recession (generated by specialized institutions dealing in boom in economy). For documenting this fact we would use climate indicators arranged by OECD and Ifo.

Since the turn (of July 2009) in the development of Composite Leading Indicator<sup>26</sup> (CLI – published by OECD) its position in direction towards positive figures till beginning of 2010 was reinforcing. With respect to experience with CLI, the turn in half of 2009 was offering a good chance for improvements in development of real economy at the start of 2010. The actual data of CLI (last available: April 2009) indicate gradual recovery within the first three quarters of 2010 (the actual values indicate development in nearest 6 months). It is remarkable that deviations in the CLI values for SR are more pronounced than CLI deviations for Easteuropean OECD countries or Eurozone (Graph 31). That means a deeper fall into recession, but likewise more sensible recovery at the retreat of recession.

Graph 31  
**OECD Composite Leading Indicator Development**  
 (CLI level in 2000 = 100)

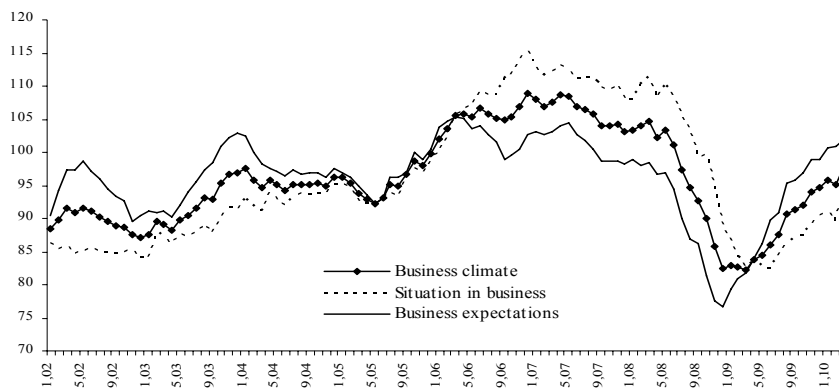


Source: OECD (2009).

<sup>26</sup> More on <[www.oecd.org/std/cli](http://www.oecd.org/std/cli)>.

When focusing on the German economy (the main partner for exports from SR), we take into account three indices of climate arranged by Ifo (Graph 32). After several months of continual improving in all three indices of Business Climate Index the positive tendencies data in II/2010 were interfered (but subsequently renewed since III/2010). Temporarily the situation was perceived badly, however, later expectations developed positively. This may have had connection with termination of government supporting tools and their function. The level of climate indicators values is similar to their levels in 2004, when no global recession did exist.

Graph 32  
Development of Business Climate Indicators in Germany  
(level in 2000 = 100)



Source: Ifo (2010).

From both types of named indicators (OECD, Ifo) it does not follow yet any recovery of economy, but expectations of recovery. Several available prognoses of external environment<sup>27</sup> suggest that any signs of recovery present since third quarter 2009 are to be taken with reserve. They indicate only expectations of gradual, not straight-lined recovery (prognosis of economic growth in Table 14). There may possibly appear repeated weakening in growth. Dynamics of recovery should be strongly differentiated, with a substantially expressive recovery in less developed economies and with creeping recovery in developed ones. The prognosis IfW (2010, p. 25) reads: „In spite of strong growth in climate indicators values we do not expect that after fall in production in the previous year an equally expressive expansion will now follow. The economic activity is burdened with adaptation

<sup>27</sup> See e.g. Ifw (2009); IfW (2010); IMF (2009); OECD (2009).

processes invoked by breaking the bubble in real estate prices, by lower exchange rates of shares and by turbulences on financial markets, and led to stronger propensity to save, to holding on investments and to an aversion against risk.“ Another reason to be cautious is that improvement in labour market situation in the OECD economies should fall behind recovery in production. The labour market situation should slightly worsen, and only then it will start to improve.

Table 14

**The Pace of Economic Growth in the EU According to Prognoses of Selected Institutions**

	2007 actual	2008 actual		2009 estimate	2010 prognosis
Year-on-year change of real GDP in %	2.9	0.8	IfW	-4.2	0.8
			Eurostat	-4.2	0.7
			Ifo	-4.0	1.0

Source: Eurostat (2010); IfW (2010); Ifo – EEAG (2010).

From the external environment probably no significant inflatory pressures will arise. From the above mentioned prognoses it follows insignificant acceleration of price level growth in comparison with 2009, however, still strongly lagging behind the values in period before recession. Thus it is impossible to reckon with the phenomenon of „imported inflation“. From the factors connected with external environment for Slovak economy it follows:

1. Production development will be in 2010 essentially more positive than in 2009. However, it won't be as positive as it would follow from improvement in business climate indicators development. In addition, within preparing this prognosis it was impossible to estimate the expected retardation effect of the debt crisis in Greece in a most satisfactory manner.
2. Recovery in a region relevant for the economy of SR will pass more leisurely, with potential repeated fluctuations in the pace of economic growth (see also limiting factors in Part 2).
3. Inflation effects from the external environment will not be significant.

**Impacts of Internal Environment Determinants**

As mentioned already in introduction to this chapter, internal factors will not play any priority role in determining macroeconomic development in 2010. This is a basic difference between the present recession and those recessions which the Slovak economy confronted in the past two decades.<sup>28</sup>

<sup>28</sup> At the „transformation“ recession 1990 – 1991 as well as the „stabilization“ recession 1999 – 2000, internal factors were vital for starting and retreat of recession. Either it was the elementary reforms performing shocks on the economy, inducing bases of a market economy (1990 – 1991) or package of corrective measures renovating macroeconomic stability (1999 – 2000).

Since the economic recession importantly contributed to the deterioration of public finance balance, the Slovak economy will not avoid the consolidation process. Its implementation follows from the approved public finance budget for 2010 – 2012. It is therefore probable that fiscal policy will perform more restrictively (it is hardly to expect a direct support of economic growth through fiscal expansion). However, owing to further mentioned factors the consolidation programme will touch the year 2010 only in reduced manner.

Inasmuch a notable part of consequences and signs of recession continues (mainly the unfavourable situation on labour market), there will continue as well the need for existence of non-standard government measures damping the impact of global recession on the economy of SR. As early as in preparing these measures the government reckoned with their effectiveness till the end of 2010. Effectiveness of these measures inevitably complicates fiscal consolidation. It is necessary to count also with restrictive effect of a possible contribution of SR to stabilization of Eurozone, hit by the debt crisis (at least in Greece).

The year 2010 is a year of parliamentary election. This may have impact on shaping the economic policy. Decisive steps in direction of declared fiscal consolidation were delayed and postponed on time after election. Development after election will apparently be marked by preparation of consolidating measures, despite the output of the election. Implementation of such measures will, however, be bound no later than at the beginning of 2011.

### **Expected Macroeconomic Development in the Slovak Republic**

After mitigating the fall of real GDP over the period of the 1st till 4th quarter 2009 (from  $-5.7\%$  to  $-2.6\%$ ) we anticipate in 2010 a sensible improvement in year-on-year changes in real GDP. Important here will be the comparison base. The comparison base since the last quarter 2008 was influenced by recession, remarkably low is the comparison base from the previous year for comparing data from the first half of 2010. So the comparison base will help to the actual data to achieve more positive level.

Thus in 2010 the pace of real GDP growth with the estimated value in interval  $3.1\%$  till  $4.1\%$  will be more positive than in 2009, minimally due to positive influence of comparison base. Provided we would add also possible more sensible recovery in external demand (and thereby also exports from SR), the pace of GDP growth could draw nearer to the upper line of the mentioned interval (prognosed data are mentioned also in Table 15). The shift in the direction to even more attractive values of GDP growth is anticipated approximately in 2012. This is joined with expectations of a subtle reviving over 2010 and 2011, accompanied by elements of a creative destruction. Apart from mutual elimination of positive and



negative impacts of creative destruction (by recession reinforced!) on economic growth we reckon also with the need of post-election start of fiscal restrictions, as well as with investors' carefulness.

Table 15

**Prognosis of Selected Macroeconomic Parameters Development in SR for 2010**

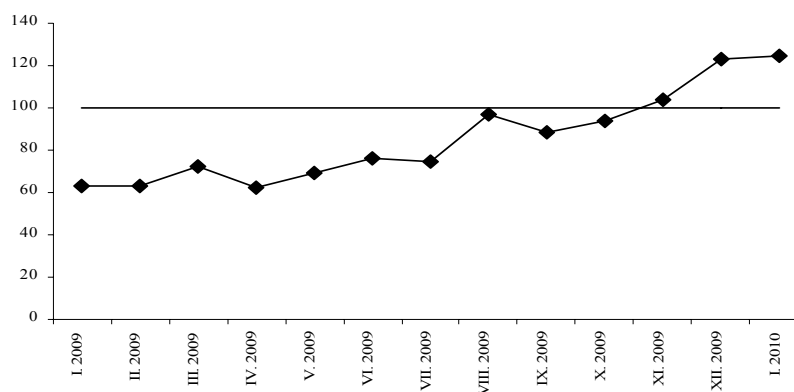
Parameter	Unit	2008	2009	2010
Year-on-year changes in real GDP	%	6.2	-4.7	3.1 – 4.1
GDP volume in current prices	billion Euro	67.2	63.3	65.1 – 66.4
Year-on-year change in number of employed by LFSS	%	3.2	-2.8	(-1.9) – (-0.5)
Rate of unemployment by LFSS	%	9.6	12.1	13.5– 14.5
Average annual rate of inflation measured by consumer price index	%	4.6	1.6	1.3 – 1.9

Source: Actual data for 2008 – 2009 by SO SR; for 2010 authors' prognosis.

Over the time of preparing this prognosis there existed already proofs of reviving production (of course, not in all branches). Year-on-year index of the volume of new orders in industry was in January 2010 on the level of 60 p.p. higher than in January previous year (again very low base from the previous year is decisive here, see Graph 33).

Graph 33

**Year-on-year Index of New Orders Volume in Industry of SR**  
(previous year's same period = 100)



Source: SO SR (2010c).

Recovery in production at the outset of 2010 is visible notably in industry (Graph 34). Particularly in manufacturing industry (i.e. in the industrial production) is the dynamics of production expressively more positive than at the outset of 2009.

It follows clearly from this survey that the initiator of revival in economy will be manufacturing industry (but we point to the restraints mentioned in Part 2 of this study). Exactly this branch will obviously react on improvement in conjuncture in external environment. In majority of other branches the signs of recovery will show up with delay.

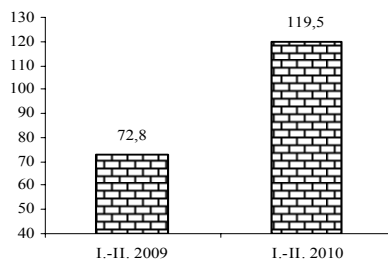
The level of the real GDP growth in the first quarter brought the estimated value on level as high as 4.8%. In comparison with data for 2009 it is a very good result, in spite of this we consider it reasonable to perceive the growth outlooks in 2010 cautiously. In the second half of 2010 the GDP growth pace may slow down even due to last year's comparison base.

Improvement in parameters of labour market will very likely lag behind the revival in production. There may be several reasons for such a delay, for instance:

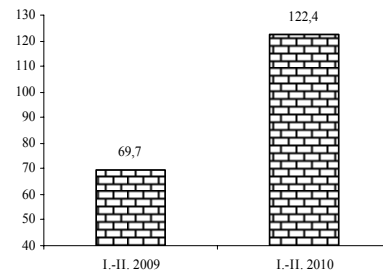
Graph 34

**Comparison of Year-on-year Changes in Selected Indicators over the First Months 2008 and 2009 (previous year's same period = 100)**

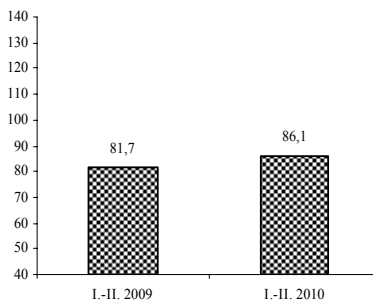
**A) Industrial production (industry total)**



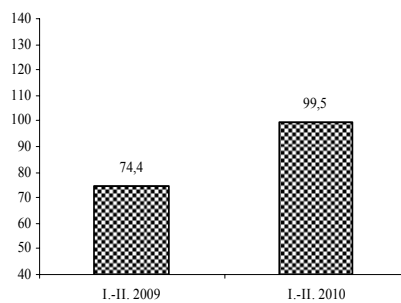
**B) Industrial production in manufacturing**



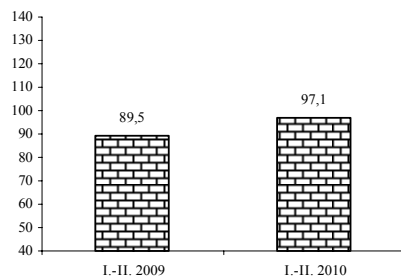
**C) Construction production**



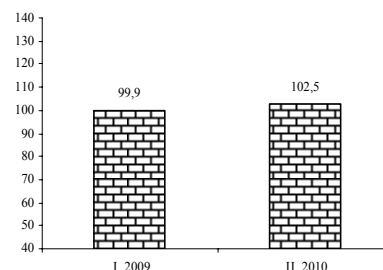
**D) Turnover in wholesale (from current p.)**



**E) Turnover in retail  
(from constant p.)**



**F) Turnover in selected market  
services (from constant p.)**



*Note:* Development for the first two months is contained in the graph; in case of selected market services only first month of the year (according to available data in time of elaboration of the text).

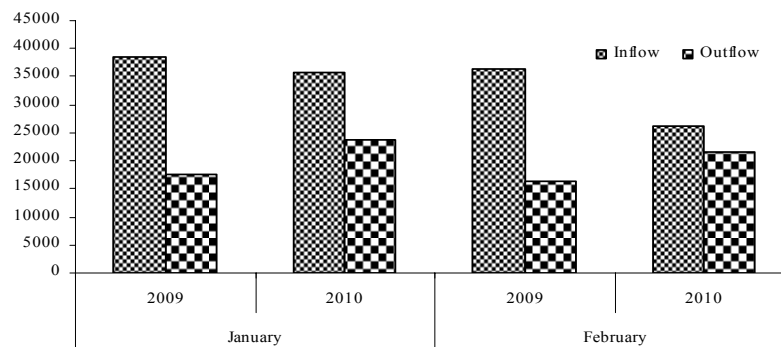
*Source:* SO SR (2010c).

- During recession a special segment of partially used labour force may have emerged in firms, which, however, was not laid off because of possible future full use. To improved demand firms may react in this case by full use of this labour force without recruiting new ones.

- Employers will wait until demand development raises up, they will not react promptly on the first positive swing in demand by recruiting new labour force.

- Historical memory will perform against enlargement in number of employees. After lessons from the recession the employers will be cautious in enlarging the staff (mainly the permanent stock). A new stimulation may thus emerge in pursue of expansion of free-lancing or to prefer leasing workers before receiving own (permanent) ones.

**Graph 35  
Inflow and Outflow of Job Seekers (in %)**



*Source:* National Labour, Social Affairs and Family Office (2009, 2010).

A positive signal is seen in improvement the ratio of inflow and outflow of job seekers in the files of labour offices. This shows to revival in flows on the market, though it did not suffice as yet to any reverse development (Graph 35).

After a dramatical downfall in number of employed namely in the second half of 2009, it is expected also next moderate downfall in 2010 (actual data in Table 15). Therefore, considering the labour market parameters, the bottom of recession will be achieved most probably in 2010. There is namely very small perspective that the relatively weak (compared with situation in SR before recession) and considerably by sectors differentiated economic growth as expected, would be coupled in 2010 with employment growth. According to our expectations, the employment growth (on round-the-year level) will appear not until 2011.

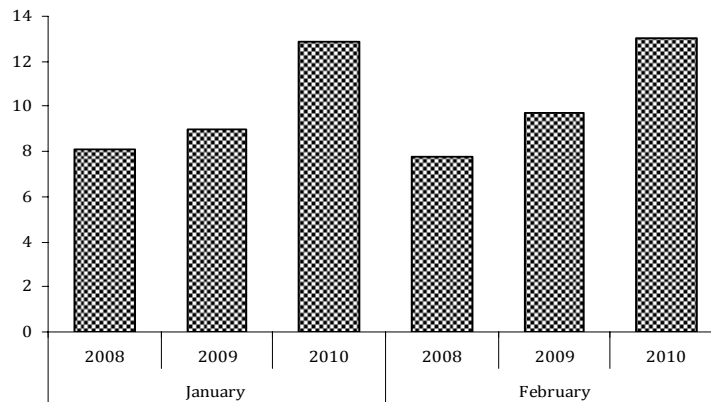
At the outset of 2010 the growth in rate of registered unemployment was essentially more significant than at the outset of 2009 (Graph 36).<sup>29</sup> It is the consequence of delayed and initially mild reaction of labour market on the starting recession. However, this does not mean that such a pace in unemployment rate would follow within the next year as well. In the following months of 2010 the unemployment rate will already be confronted with higher unemployment rate also in 2009 (another comparison base from previous year) and in addition, we anticipate gradual demand growth for labour force in branches which are as first in overcoming the recession. Within the annual average we expect a rise in unemployment rate above the 2009 level.

Delay in turn on the labour market development behind the production development will very likely reflect in wages development as well. We expect that the average nominal wage will speed up year-on-year only by the same rate as in 2009 (i.e. around 3%) and its growth rate will markedly be differentiated according to branches. Revival after recession will barely reach diminishing disparities in wage or income at a branch or regional level. A faster wage growth will face the high (and in the first half of the year still growing) unemployment rate, an extraordinary pressure on effectiveness (caused by recession), readiness of labour force to accept lower wage in order to retain the job, low inflation rate or extreme cautions of employers in cost regulation. The growth in average wage may be possibly affected by the renewed turnover and value added growth or a moderate rise in weight of higher educated in total number of employed (since during recession employees with lower education were more often dismissed). With respect to the expected low inflation rate even the growth rate in nominal wage ought to be linked with the growth in real wage.

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<sup>29</sup> Because of data availability from the first months of 2010 we present here the registered unemployment. Similar consideration applies also for the unemployment rate by the Labour Force Sample Survey mentioned in Table 15.

Graph 36  
Registered Unemployment Rate (in %)



Source: National Labour, Social Affairs and Family Office (2009, 2010).

Careful overcoming the economic recession does not provide any room for accelerating the growth in price level. We presume that following factors would prevent speed up of inflation:

- the subtle character of revival and fears of producers to increase prices at first signs of demand rise,
- already mentioned absence of imported inflation,
- political pressure against rise in regulated prices; government exerted repeatedly pressure on regulation bodies not to allow rise in regulated energy prices for households; in the election year we do not presume any substantial change in this policy; however, rise in regulated prices does not absent only due to this reason, but also because of more positive cost development in regulation agencies,
- slump in excise duty on fuels and slump in regulated prices,
- still lasting relatively low level of strategic raw materials prices, slump in these prices was an automatic internal anti-crisis measure of the world economy.

Unlike to the preceding part, in favour of higher inflation rate could perform the following factors:

- higher dynamic of aggregate demand,
- effect of differed growth in prices; after extraordinary low rate in price growth in the previous year, there obviously will appear an effort to compensate this as soon as situation allows; possibility of this compensation will depend on revival in demand growth and on the overall economy development; rather we presume that possible compensation may be implemented as late as after 2010.

In 2010 the government (either pre-election also post-election) will face serious restraints in implementing their own (autonomy) priorities and the content of their economic policy will constantly be above all a reaction on consequences of the global recession. Comprehensive characteristics of the macroeconomic development in SR in 2010 will perhaps be markedly differentiated revival in production along with delayed improving the labour market situation.

## **8. Overview of Selected Legislative and Economic Policy Measures<sup>30</sup>**

Adoption of economic-political measures in 2009 was largely influenced by the government of SR to prevent the negative impacts of the world economic downturn. At the outset of the year the Council for economic crisis was established, the members of which are representatives of National Bank of Slovakia, trade unions, entrepreneurs, regional governments, banks and representatives of individual ministries. The Council aims at preparing proposals how to fight against the economic crisis and its consequences, which are then submitted to the government for approval.

Measures of the government of SR approved in the course of 2009 are linked to the measures approved towards the end of 2008 and they supplement them. They contain a whole range of legislative proposals relating to stabilization of labour market, support to internal demand, energetics, drawing the EU funds, labour law, but also support to research or to improvement in performance of economic policy. We will take a closer look at selected measures.

Amendment of the Labour Code and of the Act on employment services introduced possible shift model known as flexikonto in Slovak (Act No. 49/2009 Code of Acts). This new measure can be applied as late as till April 2012. In case the employer cannot offer work to the employee, this measure allows employees to stay at home on minimum amount of the basic component of wage, with the unworked hours recorded in individual accounts. Later on, when situation is consolidated and there are no obstacles in work, the employee is intended to work the hours in the form of overtime without being paid. The flexikonto may be established exclusively in firms where the trade unions work.

The Parliament passed the Act No. 493/2009 Code of Acts relating to strategic firms and to amendment in some acts (the so called Act on strategic firms). This amendment enables the state to win the right of pre-emption on the property of firms going bankrupt, in case the government announced publicly these firms as strategic. After consolidation in the firm the state can subsequently dispose of this property by selling it again to a private owner.

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<sup>30</sup> Author of this part is Tomáš Jeck.

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Another measure by which the government aimed at mitigating the negative impacts of crisis, were the so called social enterprises. The objective of these enterprises was to lower the regional unemployment, they were financed from the European social fund. Originally, these social enterprises could be established by municipalities or regional governments with appropriation from the state, provided they would employ at least 30% of disadvantaged job seekers (people aged over 50, young people who could not find job within the period of two year since they left school, long-term unemployed, or people who lost jobs due to organizational reasons). Furthermore, the social enterprises were allowed only in districts with average registered rate of unemployment higher than the average for the whole Slovakia. At the outset of 2009 government adopted measures easing these conditions. According to this new regulation, the social enterprises can be established in every district and also the condition of obligatory recruiting disadvantaged job seekers has been cancelled.

With intent to support domestic automotive industry, according to the model from other countries, the bonus for buying new cars was introduced (car-scraping bonus). The government authorized 1500 Euro (provided that the car seller afforded at least 500 Euro discount) or the amount of 1000 Euro (when no discount is afforded). The bonus was allowed to be applied for, exclusively when the price of new car amounted to maximum 25 000 Euro. In the first round the amount earmarked for these bonuses was 33 million Euro, in the second round 22.1 million Euro.

Amendment to the Act on investment support (No. 56/2009 Code of Acts) enabled support to a wider range of entrepreneurs by reducing the minimum amount of investments for procurement of long-term tangible assets for projects in the field of industrial production and tourism. The effectiveness of this measure is limited for the period till the end of 2010.

With the aim at transposition of European legislature in the field of energetics into our legal system the Act No. 309/2009 Code of Acts passed. It deals with support to the use of renewable energy sources and highly effective combined production. This act determines conditions and ways of support to the production of electricity from renewable sources of energy, electricity by means of highly effective combined production and biometan.

From among other anti-crisis measures we can mention for example increase in the basic capital of Eximbanka and the Slovenská záručná a rozvojová banka by 11.45 million Euro, or 32 million Euro respectively, for the purpose of strengthening support to small and medium enterprises, for increase in availability and support to the infrastructure of broad band access to internet (high speed internet); increase in non-taxable part of tax base at the income tax of natural

persons; increase in employment bonus; introduction of some simplified terms in applying the act on value added tax; increase in energy efficiency and decrease in energy consumption by means of financing the Program of energy efficiency or improvement in drawing sources from the European structural funds.

Many anti-crisis measurements adopted by the government of SR in 2009 did not avoid criticism. Some referred to their inefficiency, to being only for impression (car-scraping bonuses), to discrepancy with legislature of the EU (social enterprises) or directly to distortion of a free market competition (act on strategic firms).

In the field of education and science several acts were passed in 2009 which introduce criteria for better functioning in these fields. Act No 185/2009 Code of Acts on stimuli for research and development aims at motivating the entrepreneurs to wider use of results of research and development in their entrepreneurial plans and activities. As stimuli for them may serve well appropriations from the state budget and at the same time tax abatement on their income which they can apply for. Stimuli will be provided within the so called basic intensity, or in increased intensity in projects on basic research, applied research, experimental development, in studies on technical feasibility, temporary leasing of highly skilled researchers and in protection of intellectual property.

The sphere of life-long learning is regulated by the Act No. 568/2009 Code of Acts on lifelong learning as amended and supplemented by other acts. The objective of this norm was to create the rules and procedures of recognition of the attained results of informal education and informal learning. Changes in the educational system have been brought also by the new Act No. 317/2009 Code of Acts on pedagogical and professional staff and on amendments and supplements to some acts. The law introduces changes in the field of remunerating the pedagogical staff, career degrees and positions.

In the field of health care policy a change in referencing the medication prices has been introduced according to the price level of 6 cheapest EU countries. Slovakia is one of the first countries which introduced into practice referencing of medication prices. The aim is decrease in prices and cost saving in the health care sector.

The social policy recorded also several legislative amendments. The sum of minimum monthly wage was set to 307.70 Euro. This decree by government is effective as of January 1, 2010. By the end of 2009 the Act No. 557/2009 Code of Acts passed, which is amending and supplementing the Act No. 650/2004 Code of Acts on supplementary pension saving as well as amending and supplementing some other acts. The amendment brought about several important changes which refer for example to setting the amount of bonuses by employers, the right and end of the right on benefits from supplementary pension saving, change in repayments by the supplementary pension saving company, transfer to another supplementary pension saving company etc.



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