

Economic Development of Slovakia in 2010 and Outlook Up to 2012¹

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

Abstract

Economic development of Slovakia in 2010 was marked by the decline of recession symptoms. Recession was replaced by a recovery, strongly differentiated by sectors. The economy has responded well to the signs of recovery in external demand. Change of government has also brought economic policy changes, their impact was not shown fully in the same year. More significant were the effects of external environment. The labour market responded to the renewed performance growth with delay. The outlook reflects the expectation of continuing economic policy changes, including fiscal consolidation. The performance of the economy in 2011 will return to pre-recession levels, but some indicators will remain on unfavourable level: the inflation revives, high unemployment rate will remain, the public debt will grow, and the wage growth will be probably weak. In 2012 should be the higher growth associated with a better state of balance. Very likely it will strengthen the catching-up process.

Keywords: economic growth, economic policy, post recession development, 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

Introduction

Evaluation of economic development in the previous period and prediction of its future progress is a usual scope of employment of research institutions, financial corporations and analytical centres of state administrations throughout the world. The Institute of Economic Research of the Slovak Academy of Sciences

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has been producing a publication dealing with the economic development of Slovakia in the past year for eighteen years in a row. This publication also contains an outlook of the development in the next period.

However, the publication on the economic development of Slovakia not only describes the development tendencies in the past calendar year. The authors tried to capture a longer time period and situate the last year's development inside it. Here and there, one might be confronted with economic events that occurred in the world economy in different time periods (such is a confrontation of the accompanying effects of the last economic recession with those that occurred in the past).

Traditionally, the authors evaluate the economic growth and balance of the economy, production development, external economic relations, labour market parameters, prices and selected segments of economic policy. The current issue of our publication delivers some innovations compared with past volumes: it separately considers the factors affecting the development of competitiveness, accentuates evaluation of the all-European dimension of economic policy and broadens the one-year outlook horizon to two years. The year 2010 was the year of overcoming the recession and also the election year. These factors increase "analytical attractiveness" of the economic development evaluation.

1. Overall Economic Development

Change of the Government and Related Change in Economic Policy

After the elections to the National Council of the SR in May 2010, the government lead by SMER – sociálna demokracia party was replaced by a coalition of parties: Slovenská demokraticko-kresťanská únia – DS (Slovak Democratic-Christian Union – DS), Strana slobody a solidarity (Freedom and Solidarity Party), Kresťansko-demokratické hnutie (Christian-Democratic Movement) and Most-Híd (Bridge). The economic-policy programme of the new government concentrates on the following: first, macroeconomic stability recovery, and second, business environment improvement. Macroeconomic stability recovery focuses on gradual lowering of the public finance deficit, and stopping the assumption of more state debt. Business environment improvement should stress the following: removal of barriers to employment growth, especially by creating a more flexible labour market, distinct strengthening of law enforcement in a broader context of improving the judicial system, fight against corruption and clientelism, and also increase in education level which would provide the required structure and qualification of labour force. Both main directions of the programmed economic policy support each other. Macroeconomic stability is part

of a broader concept of business environment and sound business environment is a necessary condition for maintaining long-term macroeconomic stability. The above mentioned main pillars of economic policy are understood to be the basic preconditions for overcoming the recession and recovery in high and sustainable economic growth bringing new work opportunities.

One of the first steps of the government, leading to implementation of its economic objectives, was the compilation of the 2011 budget, which shall ensure a gradual improvement of public finance. The government has also introduced legislative and other initiatives in favour of improving business environment. Both realized and prepared economic measures have a common denominator: deregulation of the economy coupled with freeing space for business activities and market mechanisms. Changes in the economic policy could not much affect the results of the economic development of Slovakia in 2010. However, they can be counted with when predicting the next years' economic development.

In the Grid of the World Economy

The Slovak economy is woven into the European economy, and especially through it, into the world economy, by many solid threads (participation in the international division of labour, activities of foreign investors in the financial and non-financial sector, acceptance of the influence of the EU economic policy and membership in the euro area). It is, therefore, impossible to analyze and understand its development without taking account of the basic economic trends beyond its boundaries.

In 2010, the development of the world economy, and within it the development of the Slovak economy, was still affected by the recession which arose from the 2008 financial crisis dilating from the USA. In order to understand the basic direction and content of the economic development in 2010, it is useful to clarify the following questions. First, what the present results of the current recession are. Second, how strong it is compared with other post-war recessions and also to the Great Depression in the 1930s. Third, how it is developing and where the place of the economic development in 2010 is. All the questions are answered from different points of view by information presented in Table 1 and Graph 1.

It is clear that the current recession has affected the selected advanced economies with a greater force than all its post-war predecessors. Particularly the recession at the beginning of the third millennium seems like a light cold compared with an illness requiring hospitalization of the patient. On the other hand, the recession, which started in 2008, lags behind the recession which plundered the world economy in the 1930s, in both depth and length. The decline in exports following the implementation of protectionist measures will hardly ever be surpassed.

Table 1
Impact of Recessions on Selected Advanced Economies¹

A. Decline in GDP Compared with Pre-recession Levels, %²

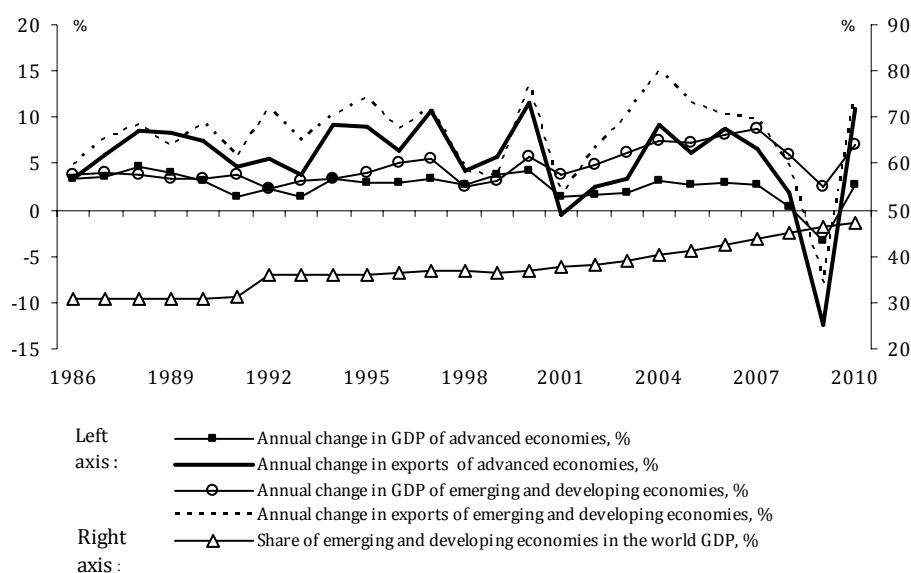
Period Country	1930s	1974 – 1975	1981 – 1983	1991 – 1993	2001 – 2003 ³	2008 – 2009
USA	-31	-0.9	-2.1	-0.3	. ⁴	-2.4
Japan	-. ⁶	-1.2	. ⁴	. ⁴	. ⁴	-6.4
Germany	-23 ⁵	-1.3	-0.9	-0.8	-0.2	-5.0
England	-5	-2.2	-1.5	-1.4	. ⁴	-4.9

B. Decline in Exports of Goods and Services Compared with Pre-recession Levels, %²

Period Country	1930s	1974 – 1975	1981 – 1983	1991 – 1993	2001 – 2003 ³	2008 – 2009
USA	-. ⁶	-0.7	-9.5	. ⁴	-7.6	-9.7
Japan	-. ⁶	-1.0	. ⁴	. ⁴	-6.9	-24.0
Germany	-69	-6.3	-0.8	-5.7	. ⁴	-14.2
England	-50	-3.0	-0.7	-0.2	. ⁴	-12.3

Source: ¹ Statistical Annex of European Economy. Spring 2003; Statistical Annex of European Economy. Spring 2010; Eisler (1968), Mitchell (1980), Židek (2007). In case there was no decline in GDP and exports during a recession, the recession was manifested in a substantial deceleration of their growth. ² Cumulatively for the years in which the recession manifested itself. ³ The years 2001 – 2003 are considered recession years, because GDP contracted in two consecutive quarters compared with the same period of the previous year. This, however, did not always manifest itself in the annual GDP changes. ⁴ There was no decline. ⁵ Net domestic product. ⁶ Lack of information.

Graph 1
Development of GDP and Exports in Advanced, Emerging and Developing Economies



Source: Based on IMF data (World Economic Outlook, October 2010).

Graph 1 confirms the strength of the last recession's effects. It also points to its highly universal, global nature in the sense that it hit not only advanced economies, but also emerging and developing ones. At the same time, it shows the lower recessionary decrease in performance in the selected segment of the world economy caused also by the fact that some emerging economies (and especially those most significant) have withstood the recession.² Due to a lower decline in economic performance in emerging and developing economies, their share in the world GDP grows faster during recessions. This share, which should, according to the IMF, exceed 50% of GDP (measured in PPP) already in 2013, contributes to overcoming the recession especially in those advanced countries which intensively trade with emerging countries. Thus, this is one of the opportunities to stabilize and even accelerate the recovery in Europe and therefore also in Slovakia.

In Graph 1, it is also evident that in 2010, the decline in both GDP and exports did not continue on a world-wide scale. Therefore, although in 2009 economists were concerned with the causes and consequences of the recession, in 2010 their concern shifted to determining the pace and process of the business cycle recovery.

Information in Graph 2 reports the progress of recovery in Europe and its main partner countries.

The economy of the EU-27 as a whole, as well as the economies of most – 21 – of its member countries, entered the recovery phase already in 2010, with reference to annual data on the development of aggregate economic activity (measured by GDP formation). In 2011, economic decline has continued only in those EU countries severely hit by different manifestations of the crisis in private or public finance (Greece, Ireland, Spain), or suffered the consequences of low competitive capacity (Bulgaria, Romania, Latvia).³

Data attached to Graph 1 underscore that the recovery in most European countries in 2010 returned their performance to pre-recession levels only exceptionally – besides Poland which did not experience a recession, this was achieved only in Finland, Malta and Norway (non-member of the EU). Based on these data, it can be expected that if the recovery continues with the same intensity as in 2010, the performance of the EU as a whole and most of its member states will reach pre-recession levels already in 2012. However, this will probably not

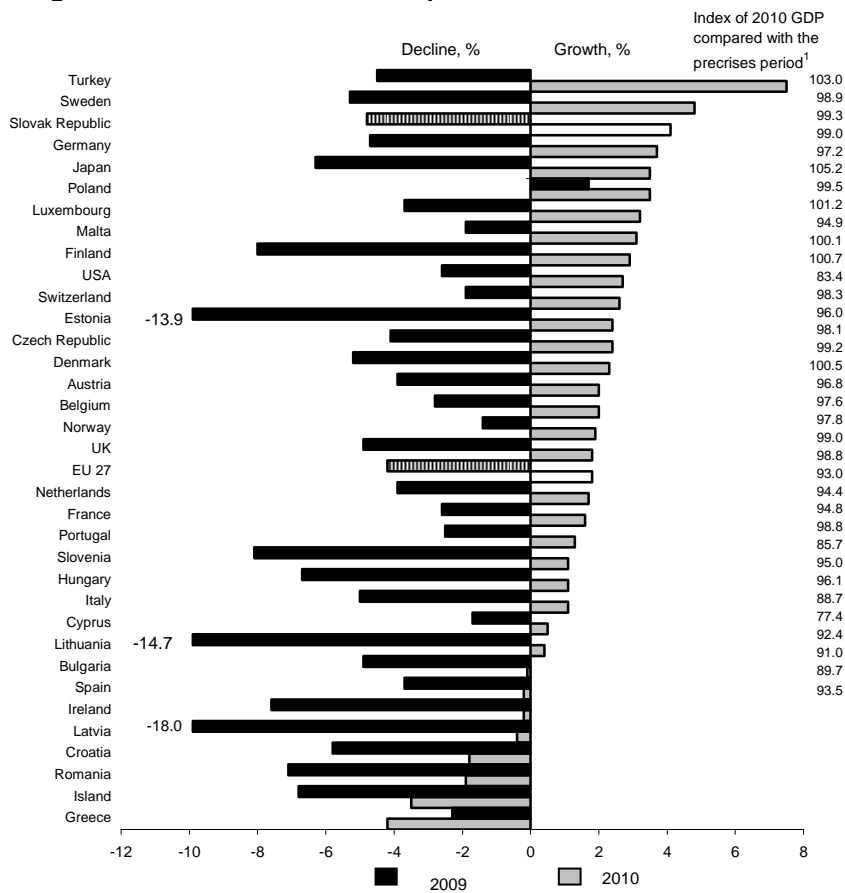
² In the two largest emerging economies, GDP grew even in recession; in China by 9.2% in 2009 and 10.3% in 2010; in India by 5.7% and 9.7% respectively (WFO Updated, 2011).

³ The same division of EU countries into a group which remains in the recession also in 2010, and a group already in the recovery phase can be reached by using the standard criterion of an economic recession, according to which a country is in a recession when its GDP declines for two consecutive quarters.

be achieved by those EU countries in which the recession is connected to deep macroeconomic imbalances. That is the case of some peripheral EU countries (Greece, Ireland, Spain, and Italy) and some new member states (Bulgaria, Romania, Estonia, Lithuania and Latvia).

Graph 2

Change in GDP in 2009 and 2010 Compared with Pre-crisis Levels



¹ In Poland, where GDP grew by 1.7% also in 2008; in Denmark, Estonia, Ireland, Italy, Latvia, Sweden, UK and Japan compared with 2007, in other countries compared with 2008.

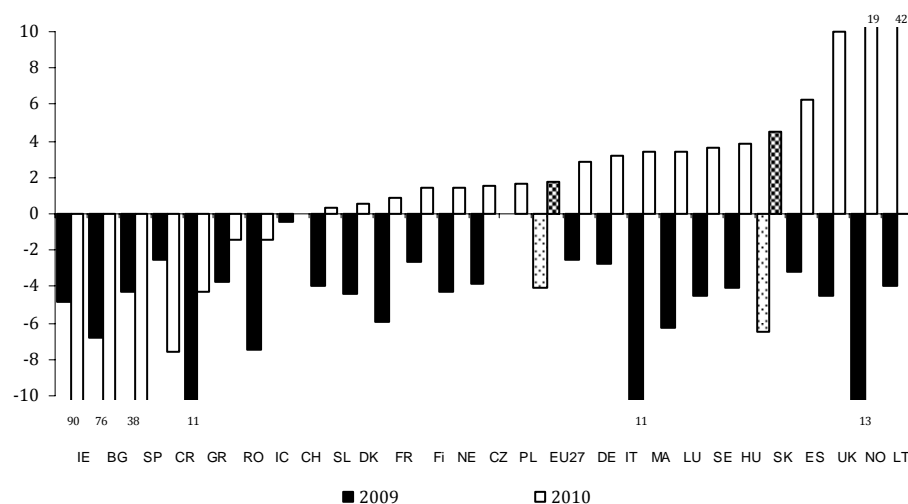
Source: Based on Eurostat data.

In international comparison by the GDP development in 2010, Slovakia's position is strong. The second place which it assumed by GDP growth rate and one of the best results in removing the GDP decline caused by the recession, also manifested itself in improving the convergence objective. GDP per capita in the SR in proportion to the EU-27 average rose 1 percentage point – from 73% in

2009 to 74% in 2010. It is highly probable that Slovakia will be one of the few countries in which GDP formation exceeds pre-recession levels already in 2011. When evaluating economic crises and recessions, one has to avoid a single sided view that sees them only as sources of economic decline. Every recession destructs the less efficient parts of the economy, scrapping outdated technology and production. Recessionary decline in GDP formation is coupled with an even larger decline in investment activities (gross capital formation). Negative values of investment accelerator increase. On the other hand, productive capital formation accelerates in a recovery so that the increase in gross capital formation equals many times the GDP increase. This is expressly illustrated in Graph 3.

Graph 3

Investment Accelerator (Rate of Annual Change in Gross Capital Formation to GDP) in European Countries

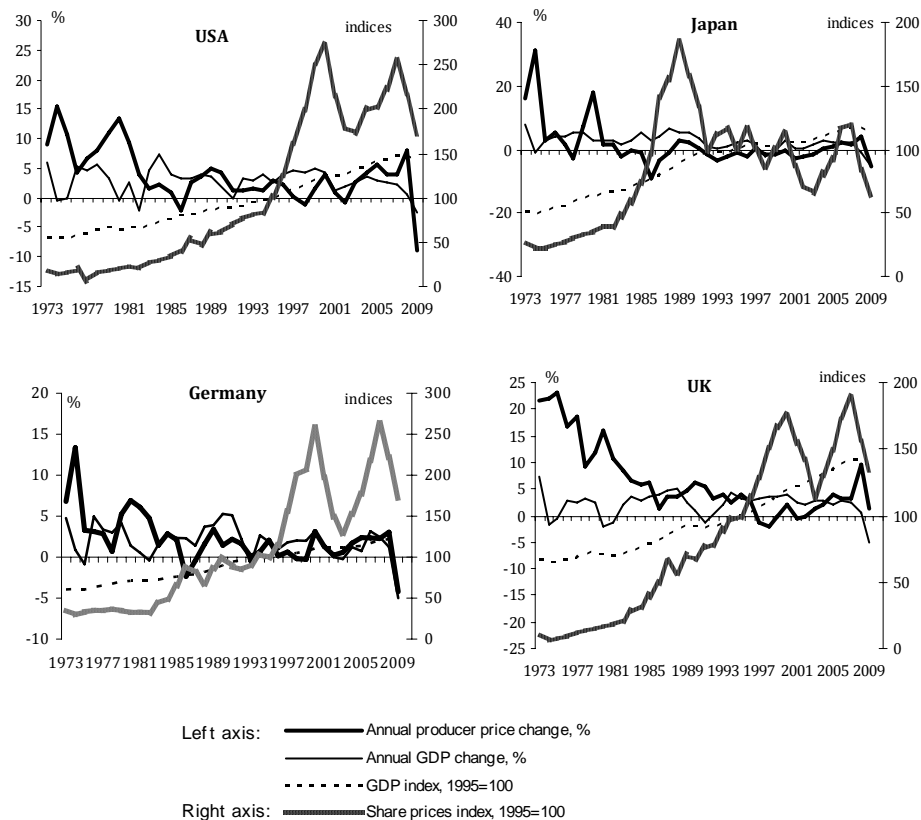


Source: Based on own calculations based on Eurostat database. Belgium, Cyprus, Latvia, Austria and Portugal are missing from the illustration of the development of investment accelerator in Graph 3 because in 2010, one of the values necessary to compute the accelerator was positive (in most cases the change in GDP) and the other negative (increase in gross capital formation). However, the development of investment accelerator in these countries is also improving as would be clear if counted with a more time-differentiated values of the accelerator, e.g. for individual quarters of 2010. E.g. in Austria, investment accelerator was negative in 1Q 2010, but its value was in 2Q 2.4, in 3Q 2.0 and in 4Q 2.8.

In 2010, investment accelerators changed radically in most of the selected countries – their values changed from negative to positive. Everywhere, where this happened – and Slovakia is in one of the best positions in this aspect – the recovery has created conditions which will sustain a positive continuation of the business cycle. On the other hand, in those countries where investment accelerator remained negative in 2010, the transition to recovery will probably be delayed.

In order to understand the current progress and future possibilities of the recovery, it is useful to mention the causes of the recession that the recovery has been overcoming. They are indicated in elementary fashion in Graph 4.

Graph 4
Selected Parameters of the Business Cycle



Source: Based on: OECD database; Statistical Annex of European Economy, Spring 2003, Autumn 2010; International Financial Statistics Yearbook 1995, 2003, 2010. IMF.

Graph 4 illustrates two expressions of GDP. The first is its indexation used to compare the real economy development with the development of share prices. This characterizes the development of financial side of the economy. The comparison of the indices clearly shows the significant lag in the real economy (represented by the GDP development) behind the development of activities in financial markets throughout the selected period.⁴ 1% GDP growth in 1974 – 2007

⁴ In Graph 3, share prices indices replace stock market turnover indices because of lack of information on their development in the all selected period. However, it is evident from the comparison

was coupled with an average share prices increase of 3% in USA, 1.2% in Japan, 5.3% in Germany and 1.9% in England.

Naturally, the breakaway of the financial transactions development from the real economy development, which was immense in the pre-crisis years, can not be considered a direct cause of the financial crisis which grew into the global recession. However, it shows the deterioration of the situation caused by risky operations in financial markets, where also a relatively small liquidity (the ability to meet obligations) fallout could produce a rapidly spreading chain reaction⁵ (see: IMF, October 2010, pp. 57 – 70).

In the second illustration of the GDP development, its annual changes are compared with producer price changes, characterized by a certain fluctuation linked to the business cycle. Especially in the first part of the selected period, their development was affected by sudden large changes which resulted from the shocks at the supply side of the economy. In 1974 – 1975 and 1979, there were the oil shocks, which by themselves caused, triggered global economic recessions. It is necessary to note that in recessions caused by supply factors, first, producer prices change rapidly, and then, with approximately a yearlong lag, economic performance decreases. In the recessions at the beginning of the 1990s and 2000s, and also in the current recession, such a connection is nonexistent. The cause of these recessions and the decrease in performance are not growing industrial producer prices and thus growing costs. Reduced demand linked to the financial crisis becomes the factor of change and later causes the decline in producer prices. This implies that when studying the current recovery, we have to pay appropriate attention to its connections to the development of demand. This applies to all economies including small ones and thus also to the Slovak economy.

Main Trends in the Slovak Economy

In order to understand the changes in the Slovak economy in 2010, it is useful to compare them not only with the changes in the crisis year 2009, but also to put them in a medium-term development framework (see Table 2).

of the stock price development with the stock market turnover development after 1995 that the growth rate of financial operations represented by share prices changes is not overexposed. In 1996 – 2007 (until the financial crisis), share prices rose on average by 9.7% in USA, 1.5% in Japan, 8.4% in Germany and 5.5% in England, while the average growth rate of stock market turnover was significantly higher in all selected countries in the same period. It reached 18.6% in USA, 10.8% in Japan, 11.1% in Germany, and 9.0% in England. It is necessary to note that share prices growth slackened in Japan after 1990 due to restrictive monetary policy with broadly devaluational consequences.

⁵ In 2005 – 2007, stock market turnover reached 1.8-times in both England and Japan, and in Germany 2.5-times the level reached in 2004. In the USA in 2005 – 2008, it was almost 3-times the level reached in 2004 (according to Eurostat).

Table 2

Socio-economic Development of the SR, 1998 – 2010

	1998	1999	2000	2002	2004	2006	2007	2008	2009	2010
GDP index, previous year = 100 ¹	104.4	100.0	101.4	104.8	105.2	108.5	110.4	106.4	95.3	104.0
Labour productivity index; previous year = 100 ²	104.9	102.6	103.4	104.7	105.4	106.1	108.1	103.5	98.1	105.5
Unit labour costs, PPP, Austria = 100 ⁷	.	32.3	34.8	33.4	31.3	35.0	37.3	40.6	41.8	40.4
Cost profitability in non-financial organizations, %	0.4	1.4	2.7	4.5	7.0	7.7	7.6	6.2	5.1	6.2
Inflation rate, % ³	6.7	10.4	12.2	3.5	7.5	4.3	1.9	3.9	0.9	0.7
φ interest rate on household credits, % ⁴	10.35	8.86	8.53	10.20	10.98	11.72	11.82	10.60	7.69	7.05
Balance of public finance/GDP, %	-3.7	-7.0	-12.3	-5.7	-3.3	-3.4	-1.9	-2.2	-6.8	-7.9 ^p
Share of general government consumption in GDP, %	22.3	20.2	20.2	20.5	19.3	19.2	17.3	17.6	19.6	19.3
Annual Δ in productivity ² – annual Δ in real wages, percentage points	2.2	5.7	8.3	-1.1	2.9	2.8	3.8	0.2	-3.3	5.8
Net exports of goods and services/GDP, % ¹	-9.7	-2.8	-2.5	-6.5	-1.5	-1.3	3.1	3.1	3.8	-1.0
Year-on-year employment index ⁵	99.7	97.0	98.6	100.2	100.3	103.8	102.4	103.2	97.2	98.0
φ unemployment rate, % ⁵	12.5	16.2	18.6	18.5	18.1	13.3	11.0	9.6	12.1	14.4
Annual change in real wages, %	2.7	-3.1	-4.9	5.8	2.5	3.3	4.3	3.3	1.4	2.2
Index of real wages, 1989 = 100	93.6	91.0	86.9	92.8	93.6	102.8	107.2	110.7	112.2	114.7
Index of real household consumption/capita, 1989 = 100	99.5	102.1	101.1	112.3	115.4	129.8	138.8	147.3	146.0	145.6
Share of social benefits in household incomes, %	22.2	23.0	21.9	22.4	21.3	21.3	20.7	20.1	22.3	20.4
Share of expenditure on social protection /general government/ in GDP, % ⁶	14.5	14.9	14.5	14.9	12.1	12.3	10.6	10.1	12.2	.

¹ At constant prices (year 2000).

² Based on GDP at constant prices per 1 worker.

³ Based on Harmonized Index of Consumer Prices (HICP).

⁴ From credits drawn from commercial banks, average per annum.

⁵ Based on Labour Force Sample Survey methodology.

⁶ Public finance expenditure, according to Eurostat.

⁷ WIIW, 2011.

^p Preliminary.

Source: SO SR; NBS; MF SR.

The 2010 macroeconomic indices suggest that in Slovakia, the overcoming of the economic recession and the related recovery is unbalanced, even fragmentary. It is distinctly reflected in the increase in economic performance and the related improvement of economic results of business non-finance sector; however, so far, the indications of improvement in employment development have been less convincing.

Also, the positive development of economic performance in 2010 only manifested itself aggregately. GDP formation in separate industries developed diversely. There are differences among annual changes in performance of various industries. Compared with the GDP created in 2008 (which we consider to be 100), the 2010 result equalled 84% in agriculture, 83% in industry, 94% in construction, 93% in trade and restaurants, and 116% in transportation and storage. Besides these, there are other larger differences among industries in the speed of overcoming the recession in 2010. These differences manifest themselves most distinctly in quarterly comparisons of agricultural and industrial performance changes.

Table 3

GDP Indices, Same Period of the Previous Year = 100

	1Q 2010	2Q 2010	3Q 2010	4Q 2010
Industry	101.4	90.0	104.9	111.0
Agriculture	91.4	107.8	75.0	72.5

Source: www.statistics.sk.

The main cause of the decline in agricultural production in the second half of 2010 was low harvest.⁶ We can assume that if the development of agricultural production was more balanced in 2010, there would be no slowdown in the year-to-year GDP growth rates (1Q 4.7%, 2Q 4.2%, 3Q 3.8%, 4Q 3.5%) and the transition of the Slovak economy from recession to recovery would be more distinct.

The high rate of labour productivity growth in 2010 is undoubtedly a positive phenomenon and certainly contributes to preservation of the Slovak economy's competitive capacity. On the other hand, it is necessary to note that e.g. unlike in 2007, in 2010, productivity growth was achieved mainly as a consequence of the recession and forced dismissals of workers.

Therefore, it is only partly a result of application of new technologies, which could help also in the following years.

⁶ In 2010, leguminous crops increased by 14% and sugar beet by 9% compared with 2009. On the other hand, the production of cereals declined by 23%, potatoes by 42%, oil seeds by 16%, grapevines by 50%, and vegetables on arable land by 20%.

The development of unit costs also contributed to sustained competitive capability, thanks to a favourable relation between the development of wages and labour productivity. In international comparison, unit labour costs in Slovakia are still more than a half smaller than in advanced West European economies.⁷

With regard to data on cost profitability, it is advisable to note that its decline in 2009 caused by the recession was not nearly as deep as throughout the return of the transformation recession in 1999 – 2000. The general trend of economic performance recovery in 2010 was also visible in the increase in cost profitability in non-financial organizations.

Assessment of the changes in the indices of the macroeconomic stability of the Slovak economy is more complex than evaluation of performance and competitive capacity development in 2010. Adverse development of public finance balance continued also in 2010 and is likely to have peaked in this year. A slight decline in the general government consumption share in GDP and its preservation under the 1998 – 2002 levels was a primary consequence of the positive development of economic performance. In international comparison, the above mentioned share was lower than the European average (which equalled 22.2% in EU-27; 22.4% in EU-15). Only in 7 EU countries was it lower than in the SR.

Extremely low inflation rate coupled with continuing reduction of the interest rates contributed significantly to maintaining macroeconomic stability and economic recovery in 2010. However, to a large degree they bear the mark of the European Central Bank (ECB) decision-making about the single monetary policy of the euro area and provisions of the European economic and monetary union to protect the euro.

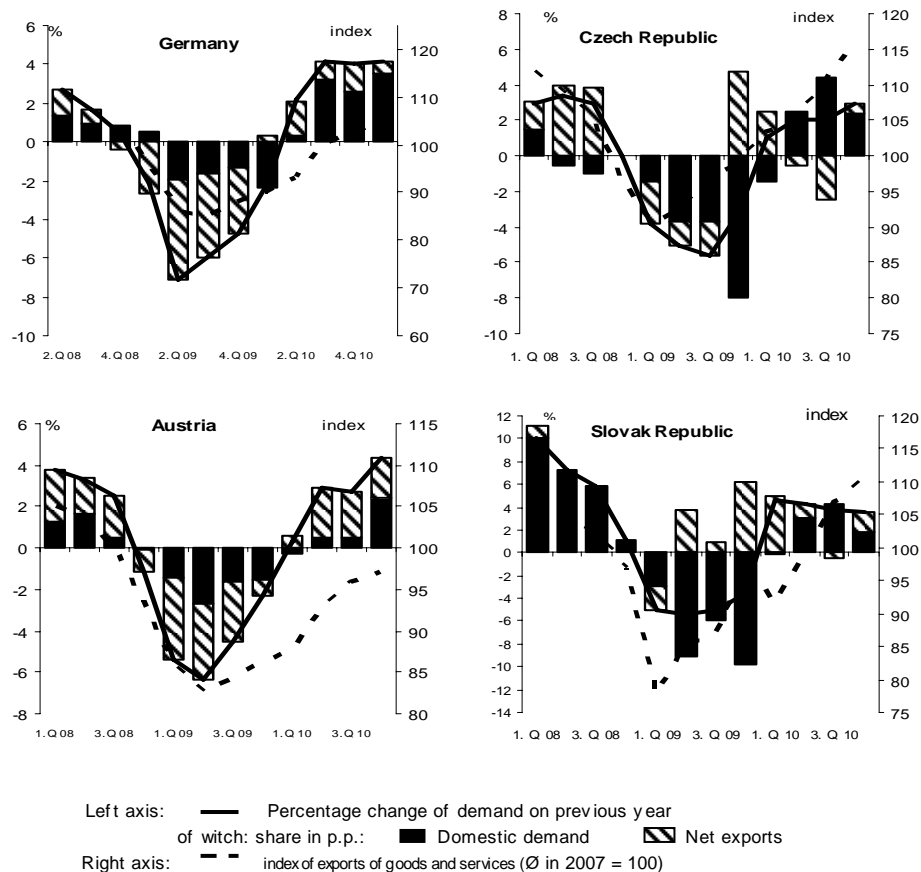
In the area of social development, negative trends persisted in the labour market in 2010 – employment declined throughout the year and unemployment increased. A mild increase in real wages was coupled with a 0.4% decline in real domestic consumption, which is mainly a consequence of decline in real gross mixed income, assets income and social benefits.

Changes in the Demand Side of the Economy as a Starting Point of the Recovery

With regard to the development trends of the world economy in the current recession, it can be ascertained that when researching the recovery process, it is necessary to carefully observe its connections to the development of demand. Graph 5 pays attention to the impact of domestic and foreign demand (exports) on the development of selected economies' performance.

⁷ In 2010, unit labour costs (in PPP) compared with Austria were 40.4% in the SR; in the Czech Republic 47.8%; in Hungary 40.7%; in Poland 47.1%; in Slovenia 69.3% (WIIW, 2011).

Graph 5
Development of Exports and Share of Domestic and Foreign Demand in GDP Changes



Source: Based on Eurostat and SO SR data.

Selected countries are not only geographically close, but also (not only) share similar mutual economic partnerships and a large significance of exports. In all of them, and in Slovakia to an extremely large extent, it was the decline in exports that transferred the recession to the economy from abroad. Graph 5 also indicates the role of exports in overcoming the recession.

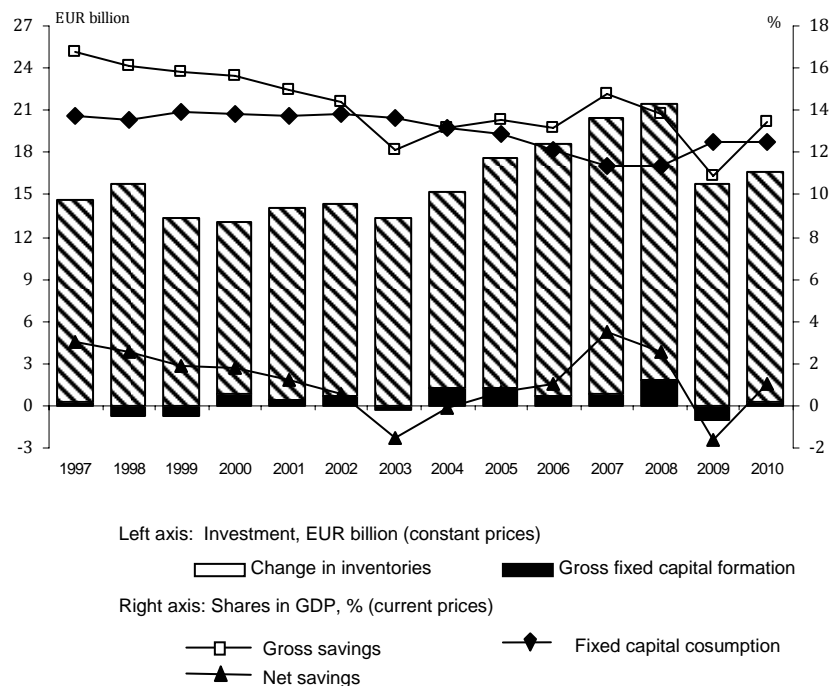
The core of Graph 5 illustrates of the development of domestic and foreign demand (exports) contributions in the way to the bottom of the recession and in the starting phase of the recovery.⁸

⁸ It is necessary to note that net exports and domestic demand contributions to GDP growth rates illustrated in Graph 5 represent their impact on the GDP change inaccurately. Net exports are namely the difference between exports and total imports, which are related not only to exports, but also necessary to produce all elements of domestic demand. After splitting exports into those parts of production

The development of observed processes is different in Slovakia compared with the other countries. Upon entering the recession, only in the Slovak economy was the depth of the GDP decline determined by the difference between the impact of decreasing domestic demand and increasing net exports (see the development in 2Q and 4Q 2009). The explanation can be found in the high rate of import intensity in the Slovak economy, due to which a decline in exports is coupled with an even larger decline in imports.

In the initial phase of the recovery grouped with rising exports, net exports, which usually give impulses to domestic demand, will induce positive GDP change. This interplay of positive impacts of both domestic and foreign demand is currently occurring in Germany. In other countries, the described process seems to be less straightforward. In the Slovak economy, concerns could be raised by the fact that beside an export-oriented sector (impulses of which are used in the economy), there is also a relatively large sector with a lower ability to exploit export opportunities and thus transfer export effects to the economy.

Graph 6
Development of Investment and Savings in the Slovak Republic



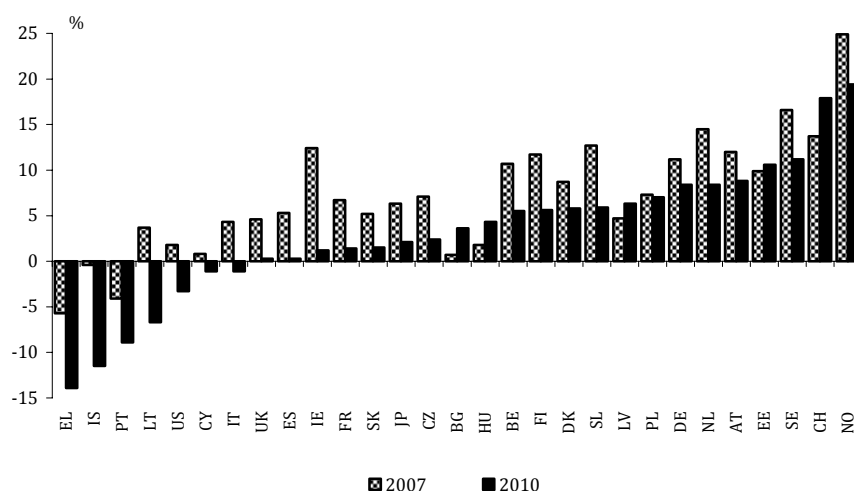
Source: Compiled based on SO SR and Eurostat data.

usage which required them, we find out that the share of exports in GDP change is different (usually much higher) than what net exports are indicating (more details in Okáli et al., 2007, pp. 10 – 13).

When researching the economic recession and the process of the recovery, it is necessary to carefully review the development of investment demand.

The attention paid to investment demand in the Slovak economy in Graph 6 is supplemented by international comparison in Graph 7.

Graph 7
Share of Net Savings in GDP, %



Source: Compiled based on SO SR and Eurostat data.

Also in the SR, gross capital formation traces the business cycle development as one of its main indicators (result of past and outlook for future development). It is very responsive to positive phases of economic development, as were the years 2001 – 2007, and also to worse times, as were those at the end of the past and the beginning of the new millennium, and especially during the current recession.⁹

The graphic illustration of the change in inventories shows that they react to business cycle trends even more sensitively than fixed capital investment. Suffice to say that in the development of the share of inventories in GDP, negative values (in the contraction years, e.g. 2009, when inventory levels share in GDP was –1.4%) are alternated by positive values. From this point of view, the 0.6% increase in inventories in 2010 is an indication of overcoming the recession.

⁹ From the point of view of investment in the economy, the years 1997 and 1998 were only seemingly the most successful period. Massive investment in fixed capital (its share in GDP equalled 32.7% in 1997 and as much as 34.3% in 1998) was achieved with the help of credit granted blithely by domestic unprivatized banks and foreign loans which were favoured due to an unrealistically overvalued fixed exchange rate of the Slovak crown.

A disruption in the development of fixed savings in the recession coupled with stable fixed capital consumption (a slight increase in its share in GDP illustrated in Graph 7 is caused by GDP decline and not by increase in fixed capital consumption) manifested itself in net savings decrease.

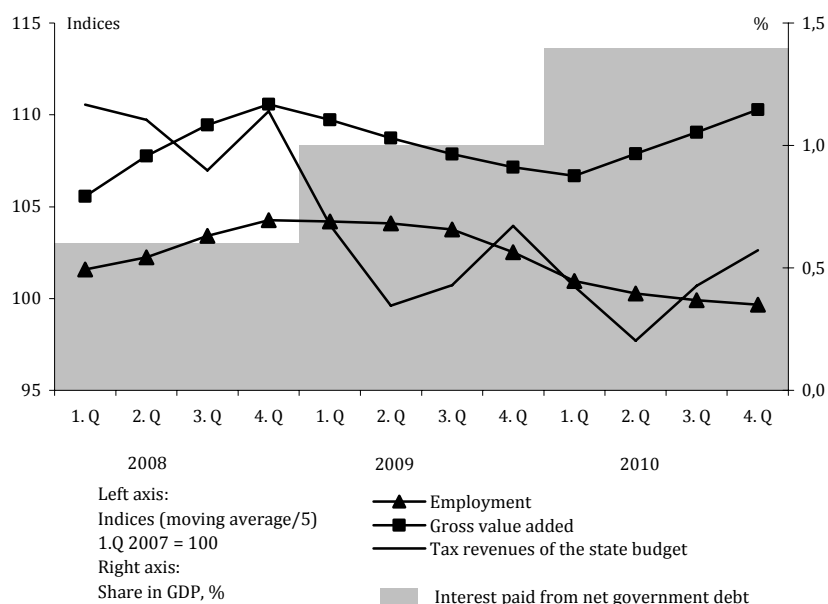
The decapitalization of the economy, coupled with negative values of net savings, was an extraordinary phenomenon before the currently fading recession. In 2007, the decapitalization appeared in Greece and Portugal, i.e. in those countries where it reached hardly imaginable levels by 2010. Based on the economic growth results in the countries jeopardizing euro stability, their ability to handle the stabilization objective is doubted. The development of savings also creates doubts about their capability to reverse negative economic growth trends. Large size of the shadow economy recorded in the national accounts perhaps also plays a certain role. Although this hypothesis can contribute to determining the causes of the negative situation in the above mentioned countries, it does not lead to its solution.

In 2010, international comparison shows the Slovak economy catching its breath also in the area of savings creation. The scope of savings creation, however, still remains on a very low level. It lags behind pre-recession levels and also levels reached in numerous European countries, which achieved a lower GDP growth rate than Slovakia in 2010. This suggests that positive economic growth results in the Slovak economy in the recovery do not have a solid basis in domestic savings but are at least substantially imported from abroad.

Graph 8 illustrates the impact of the recession on selected key and interlinked processes running in the economy. The changes in performance represented by the changes in gross value added affect the changes in employment with a lag when the economy enters a recession and even more so when it enters a recovery. There is also negative development of state budget revenues, two thirds of which (directly or indirectly) depend on the employment level.

It is very likely that all the illustrated processes, which represent the general movement of the economy, will begin an ascending route away from the recession already in 2011. Despite that, the burden of the consequences of the recession will persist in the Slovak economy in the form of a much larger state debt and expanding obligations to service it. The graph illustrates more than a twofold increase in debt service expenditures – from 0.6% GDP in 2008 to 1.4% GDP in 2010 (OECD, 2010). With regard to the results of the Slovak economy in 2010 (mainly the relation between the public finance balance and GDP growth rate), the government debt will rise and the credit interest payments to maintain it will increase in 2011 and maybe even in 2012. Particularly coupled with lower GDP growth rates, the debt service can become a true burden blocking the real convergence of Slovakia with advanced economies, as well as achieving resource-intensive objectives of overall social progress.

Graph 8
Selected Influences and Consequences of the Recession



Source: Compiled based on Eurostat; SO SR; MF SR and OECD data.

At the end of the part dealing with the overall view of the Slovak economy, it is useful to note that the recession has not yet vanished from its horizon, despite the recognized positives of the present recovery.

2. Production Development

Economic growth recovered in 2010 together with a larger production growth (7.2%) and intermediate consumption (9.1%) than value added (4.5%). The basic GDP aggregates increased in all quarters of 2010 in real terms (see Table 4). Given the complex circumstances, Slovakia achieved a relatively strong GDP growth compared with the EU-27 average (1.8%) and also with other EU member states, among which only Sweden achieved a higher economic growth (5.5%). Slovakia also belongs among the few EU member states which rapidly coped with the consequences of the economic recession already in 2010, i.e. returned almost to 2008 level (with the exception of Poland, whose GDP grew continually).

Positive overall results of the Slovak economy were coupled with a much differentiated development of value added in individual branches in 2010 (see Table 5).

Table 4

Development of GDP Formation by Components, 2008 – 2010

	2008	2009	2010	2010				2010
				1Q	2Q	3Q	4Q	2008 = 100
				Year-on-year changes,% (based on 2000 prices)				
GDP	5.8	-4.8	4.0	4.7	4.2	3.8	3.5	99.0
Production	6.4	-9.8	7.2	6.6	8.2	8.5	5.7	96.7
Intermediate consumption	6.3	-13.0	9.1	7.5	11.3	12.1	6.1	94.8
Value added	6.5	-4.6	4.5	5.2	4.0	3.9	4.9	99.7
Net taxes on products	-0.4	-6.9	-0.7	-0.5	6.2	2.9	-10.6	92.5

Source: Own calculations based on Slovstat database.

Table 5

Development of Value Added by Branches, 2008 – 2010¹

	2008	2009	2010	2010				2010
				1Q	2Q	3Q	4Q	2008 = 100
				Year-on-year changes,%				
Agriculture, Fishery	13.1	0.2	-16.0	-8.6	7.8	-25.0	-27.5	84.2
Industry, total	5.7	-18.2	1.8	1.4	-10.1	4.9	11.0	83.2
Manufacturing	9.2	-21.3	2.2	-6.4	-11.9	10.9	16.7	80.4
Construction	18.8	-5.6	-0.5	-12.9	-5.2	3.5	6.3	93.9
Trade, hotels, restaurants and transportation	9.6	-5.9	5.7	17.5	5.8	1.9	-0.7	99.4
Financial intermediation and real estate	4.6	7.2	9.6	9.4	17.4	5.6	6.2	117.5
Public administration and other services	-2.6	9.5	8.6	0.8	11.5	14.8	7.4	118.9

¹ Based on constant prices calculated by chain-linked volumes, reference year 2000, data are not seasonally adjusted.

Source: Eurostat database.

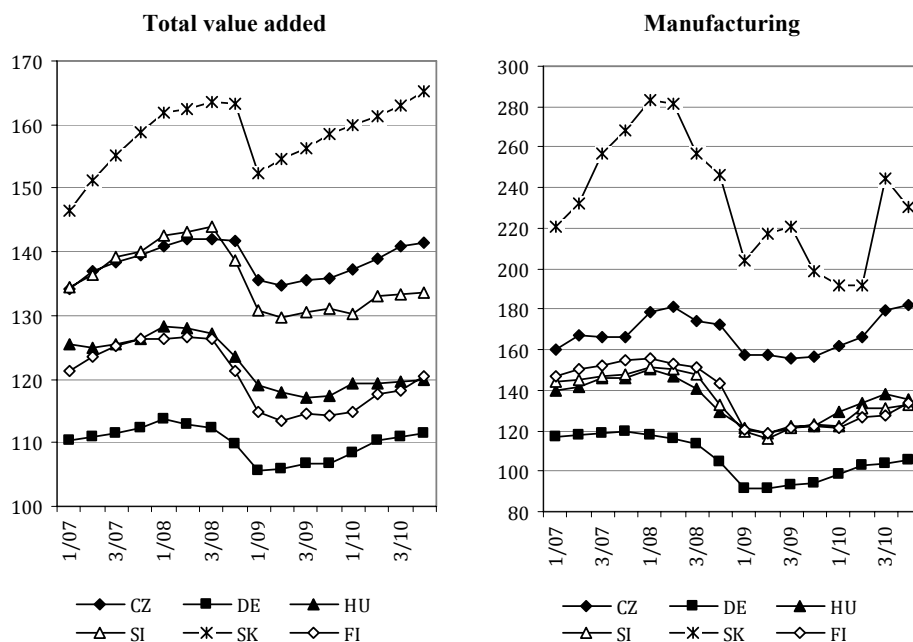
A relatively large increase in value added was achieved in all services segments, while a decline persisted or only a weak increase was achieved in manufacturing branches. Weak year-on-year increase in value added in industry and its major branch, manufacturing, was particularly surprising.¹⁰ If we notice the comparison with 2008 in Table 5, we recognize e.g. an almost 20% lag behind the 2008 level in manufacturing.

¹⁰ It is necessary to note that compared with the results published by Statistical Office of the SR in 2009, there were considerable changes after the last revision of the quarterly national accounts in the individual industries data, which deepen the decrease (or lower the increase) in manufacturing branches and generally reduce the decline in services with a minimum impact on the real GDP growth rate (change of -0.1 percentage point). While e.g. in 2009, the SO SR ran a decline of -8.3% value added in industry (compared with 2008), -10.6% in manufacturing and -1.8% in construction, according to revised national accounts the decline is -18.2%, -21.3% and -5.6% respectively; in agriculture the increase was reduced from 10.2% to 0.2%.

In comparison with the development in the selected EU member states,¹¹ the Slovak economy as a whole developed very favourably (see Graph 9, left side); by the end of 2010, total value added considerably exceeded pre-crisis levels. Not all of the selected economies achieved this (e.g. Slovenia, Hungary and Finland). As for the value added in manufacturing (see Graph 9, right side), the return to pre-crisis levels is more complicated. Czech Republic appears to be successful in this area. As for Slovakia, the return to increase in value added in manufacturing is not yet stable and achieving pre-crisis levels will require a lot of effort.

Graph 9

International Comparison of the Value Added Development (index 2000 = 100)¹



¹ Based on constant prices calculated by chain-linked volumes method (reference year 2000); seasonally-adjusted and working day-adjusted data.

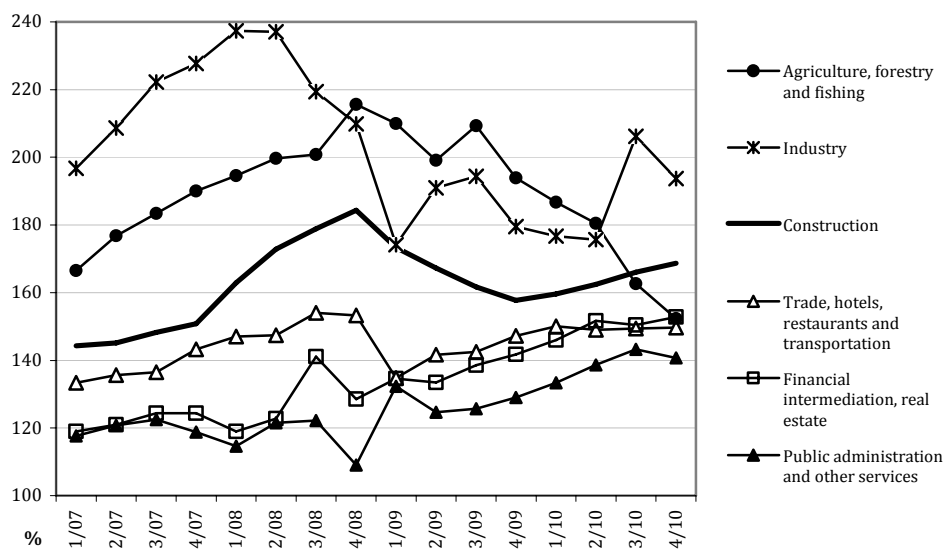
Source: Eurostat database.

The development of value added in industry basically traces the unbalanced development in manufacturing (see Graph 10). Not only the recession but also extremely unfavourable natural conditions (floods) caused a sharp decrease in

¹¹ We compared four new Central European member states and two EU-15 countries whose value added in manufacturing declined similarly in 2009 compared with 2008: Germany (by 18%), Finland (by 20%); similar decline was also recorded in Czech Republic – by 12%, Hungary by 14%, Slovenia by 17% and SR by 21%.

performance of the Slovak agriculture and this sector has not yet managed to reach a growth phase. The recovery in construction has been somewhat delayed but has been stable since 4Q 2009 onwards. In contrast to manufacturing branches, the impact of the recession in services was considerably milder and the recovery is essentially smooth.

Graph 10
Quarterly Development of Value Added by Branches in the SR (index 2000 = 100) ¹



¹ Based on constant prices calculated by chain-linked volumes method (reference year 2000); seasonally-adjusted and working day-adjusted data.

Source: Eurostat database.

The differences in performance of individual sectors could be characterized by more detailed economic indicators.

In contrast to other sectors, for the past two years the problematic development in agriculture, forestry and fishing has been affected not only by the recession, but to a great extent also by unfavourable natural conditions (especially floods) and large fluctuations in agricultural product prices.¹² Large differences between the development in current and constant prices, typical for the years 2009 – 2010, are caused by price changes (see Table 6). The sharp decline in employment (by 20% in two years) is an unmistakable sign of deteriorating performance.

¹² They rose slightly in 2008 and declined by almost 25% in 2009. In 2010 they rose by 14.2% but considering the past decline stayed lower than in 2008 (approximately 86% of that level).

Table 6
Selected Indicators of the Agricultural Sector Development, 2008 – 2010

	2008	2009	2010	2008	2009	2010
	Absolute values ¹			Year-on-year changes,%		
Agriculture, forestry and fishing ²						
Gross production, current prices	5 019	4 410	4 190	9.3	-12.1	-5.0
Value added, current prices	2 559	2 256	2 314	13.7	-11.8	2.5
Value added, constant prices	2 522	2 528	2 122	13.1	0.2	-16.0
Employment	79	69	64	-1.8	-12.6	-8.0
Agriculture ³						
Revenues for own products, current prices	1 452	1 141	1 215	-2.0	-21.4	6.5
Revenues for own products, constant prices	1 308	1 513	1 231	-5.8	15.7	-18.6

¹ EUR million. Employment, 1 000 persons.

² Based on ESA 95 methodology.

³ For agricultural products and selected self-employed farmers.

Source: Own compilation based on SO SR data.

The negative development in agriculture is characterized not only by unbalanced development of revenues of agricultural businesses, as shown in Table 6, but also by a decline in production of almost all types of plant products (e.g. the production of cereals declined by 20% in 2009 and 23% in 2010) and constantly falling sales of animal products.¹³

The decrease in performance of agricultural and food processing sectors was also reflected in accelerated increase in imports of food, drinks and tobacco (by 14% in 2010 compared with 2008) compared with exports (by 9% in the same period) and in rising negative balance of trade in these products (more than EUR 1 054 million in 2010 compared with EUR 851 million in 2008).

Industrial production increased by 18.9% in 2010; by 20.1% in manufacturing, 0.4% in mining and quarrying and 15.6% in gas and electricity supply. Revenues for own performances and goods developed equally positively (see Table 7). The increase in production and revenues was recorded in all months of 2010.

Employment developed less positively in both industry and manufacturing. In 2010, it declined year-on-year by 19 thousand persons in all industry segments. Thus, the employment in industry declined by 107 thousand persons compared with 2008, which represented 83% of the overall decline in employment in the economy throughout 2008 – 2010. However, in the last months of 2010, the situation changed and there has been a gradual increase in employment (see Graph 11).

¹³ In 2004 – 2010, sales of slaughtered cattle (in material units) declined by 28%, slaughtered swine/pigs by 44%, poultry by 20% and milk from cows by 23%.

Table 7

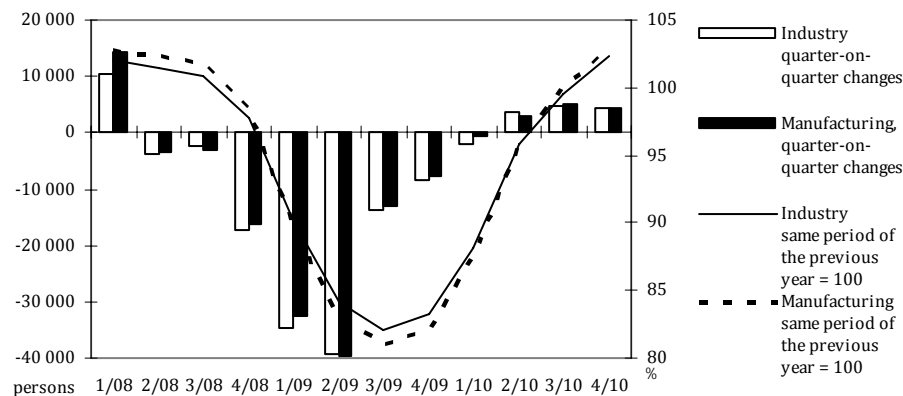
Selected Indicators of the Development of Industry in the SR

	Total industry			Manufacturing		
	2008	2009	2010	2008	2009	2010
	Year-on-year changes,%					
Revenues for own performances and goods ¹	3.8	-18.0	19.2	2.9	-19.9	20.9
Industrial production index ²	3.2	-13.7	18.9	2.5	-15.5	20.1
Employment ³	0.6	-15.0	-3.8	1.3	-16.0	-3.8
Labour productivity in revenues ¹	3.2	-3.4	23.9	1.5	-4.6	25.7
	Nominal values					
Revenues (EUR billion, current prices)	72.8	57.4	67.5	60.1	45.3	54.7
Of which: domestic market	36.0	28.1	30.6	23.9	16.9	19.4
non-domestic market	36.8	29.3	36.8	36.1	28.4	35.2
Employment (1 000 persons)	586.0	497.8	479.1	532.9	447.7	430.7

¹ Based on constant prices.² Working day-adjusted data.³ Average number of employed persons.

Source: Own calculations based on SO SR data.

Graph 11

Development of Employment in Industry and Manufacturing

Source: Own calculations based on SO SR data.

Labour productivity increased significantly due to declining employment and increasing performance (see Table 7). In our opinion, a more adequate expression of productivity could be derived from the real development of value added. In this case, real labour productivity increased by 5.8% in industry and by 6.2% in manufacturing.

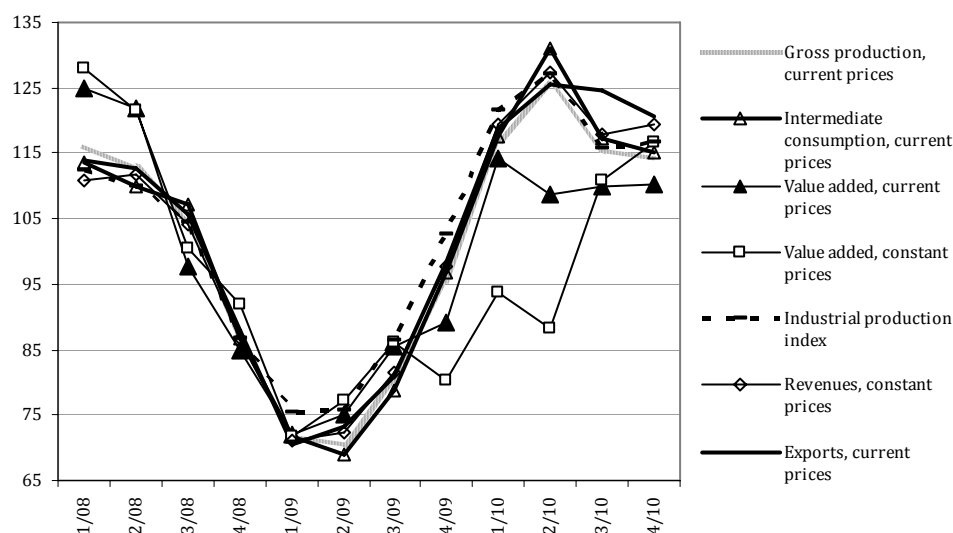
In 2010, real growth of value added in manufacturing was problematically weak despite the fact that all other available indicators signaled a robust reversal towards growth (see Table 7). It is necessary to add that exports of manufactured

goods increased by 22% in 2010 after a decline of almost 20% in 2009, and achieved 98% of the 2008 level (in current prices). Net income of manufacturing companies also improved significantly.

Based on selected quarterly manufacturing indicators illustrated in Graph 12, it can be determined that until 3Q 2009, all indicators developed similarly. In the next period, the development of both nominal and especially real value added started to differ.

Graph 12

Development of Selected Indicators of Manufacturing (year-on-year indices)



Source: Own compilation based on Eurostat and SO SR database.

It is hard to identify the cause of this change. If we agree with the claim that exports stimulated economic growth in 2010 (and the share of manufacturing in exports was approximately 96%), it is necessary to add that it made a very small contribution to value added in manufacturing. It is undisputable that the reversal from declining to increasing exports kick-started the overall economic recovery (it stimulated demand for material inputs and related services¹⁴), but it occurred in an environment of severe international competition and in considerably hindered economic conditions for our exporters (pressure on prices and cost reductions).

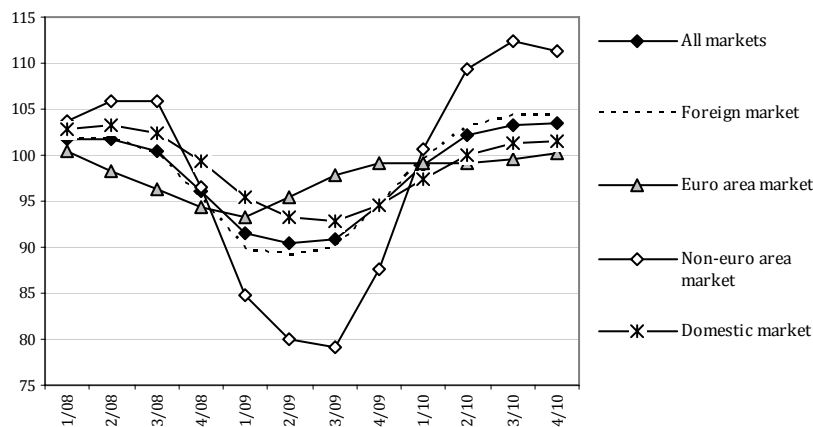
¹⁴ Not only those used in production, but also those related to delivery of goods at the frontier of the exporting country (e.g. transportation, insurance, transloading, storage etc.). Based on comparison of export sale revenues of manufactured goods with their export value (in FOB prices), it can be determined that export related services represent one fourth of the nominal value of exports.

Both the phase of decline and the phase of growth were undoubtedly accompanied by strongly fluctuating industrial producer prices in international markets throughout 2008 and by their gradual recovery in 2009, which supported competitiveness of our goods, but also resulted in a fall in producers' incomes. The industrial producer prices rose constantly throughout 2010. However, import prices started to rise as well.¹⁵ The development in individual markets was highly differentiated. As illustrated in Graph 13, the largest fluctuations were recorded in foreign markets outside the euro area (an approximate one fifth of all manufacturing revenues is realized in these markets). A slower decline and a relatively rapid reversal to a price increase were recorded in the euro area markets (more than two fifths of revenue).

The domestic market plays an important role in the development of manufacturing along with foreign demand (domestic demand generated 36 – 40% of its total revenues in the last years). Domestic demand for manufactured goods reacted more strongly to the economic recession than foreign demand, and has been returning to pre-crisis levels more slowly. This may be documented by the development of domestic and foreign revenues (in current prices): domestic revenues decreased by 29% in 2009 compared with 2008 and reached only 81% of 2008 level in 2010, foreign revenues decreased by 21% in the same period and reached 97% of 2008 level in 2010. Domestic revenues comprise 83% of the total decrease in revenues. Missing revenues in the domestic market are apparently one of the causes of lower manufacturing performance.

Graph 13

Development of Industrial Producer Prices in Manufacturing by Individual Markets (same period of the previous year = 100)



Source: Own compilation based on Eurostat and SO SR database.

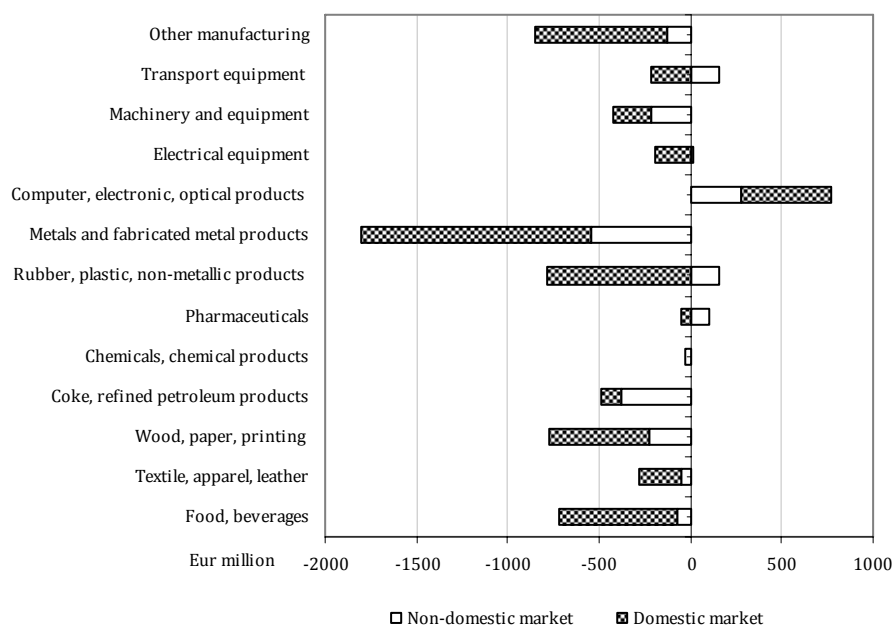
¹⁵ In the respective quarters of 2010, total import deflator developed in the SR as follows: 98.5%, 105.2%, 107.2%, 108%.

These relations are relatively differentiated in individual manufacturing branches (see Graph 14). As illustrated in the graph, the largest decrease in revenues still exists in manufacture of metals and fabricated metal products, and more in relation to the domestic market. It is also high in branches oriented on the domestic market. In 2010, only one branch managed to overcome the revenue loss compared with 2008 both in the domestic and foreign market; three branches only in the foreign market. The revenues of the remaining manufacturing branches have so far stayed below the 2008 levels.

In general, in 2008 – 2010, the position of manufacturing in the economy weakened with regard to its value added share in the economy (which decreased from 23.1% to 20.6%) as well as its share in employment (which declined from 24.3% to 21.9%). We assume this to be a temporary condition. Existing companies will probably strive to continue in the achieved trend of tighter resources management, including human resources (lower number of workers compensated by higher labour productivity). In that case, the return of manufacturing to its former position will only be possible with new investment.¹⁶

Graph 14

Differences between Domestic and Foreign Revenues in 2010 Compared with 2008 by Individual Manufacturing Branches (EUR million, current prices)



Source: Own calculations based on Slovstat database following Sk NACE Rev. 2 classification.

¹⁶ "...Slovakia will have to find new sources of competitiveness so as to maintain its attractiveness as place of investments." OECD (2010), p. 85.

Growing energy prices resulting from political conflicts and natural disasters in the world can severely restrain future growth of manufacturing and the economy as a whole. According to an OECD analysis¹⁷, in 2008, Slovakia was among the four economies with the highest share of energy-intensive industries in total value added (10.4%)¹⁸, while the span among the 30 selected economies ranged from 12.1% to 3.4% (mean value was 7.5%). What is more, the share of energy in total expenditures in these energy-intensive sectors is significantly higher than in the euro area. E.g. the expenditures in the Slovak chemical industry represent more than 20% of total expenditures, while in the euro area it is only 10%. Manufacture of metals (more than 10% compared with 6% in the euro area) and transportation (12% compared with less than 8%) is also more energy-intensive.¹⁹ Thus, energy savings can be achieved not only by changing the industrial structure of the economy, but also by changing the technology and products in individual energy-intensive branches.

In contrast to industry, real decrease in output and revenues for own performances and goods continued in construction also in 2010. Employment also declined further (see Table 8). In 2010, the nominal construction production decreased by 12.5% and revenues in construction decreased by 16.3%.

Table 8

Selected Indicators of the Development in Construction in the SR

	2008	2009	2010	2008	2009	2010
	Year-on-year changes,% ¹			Nominal values ²		
Construction production	12.0	-11.3	-4.7	6.3	5.7	5.5
Revenues for own performances and goods	16.4	-13.9	-6.1	10.3	9.1	8.6
Employment	9.1	2.0	-2.6	180.8	184.4	179.6
Labour productivity ³	2.6	-13.0	-2.1	34.7	31.0	30.6

¹ Based on constant prices; employment based on average number of employed persons.

² Construction production and revenues for own performances and goods, EUR billion; employment, thousand persons; labour productivity, EUR thousand.

³ From construction production of construction companies.

Source: Based on SO SR data.

A possible reversal towards recovery was indicated in 4Q 2010, when construction output increased slightly after 7 quarters of constant year-on-year decrease. However, year-on-year output decreased again in the first two months of 2011. Throughout 2008 – 2010, the year-on-year decline in the average number

¹⁷ OECD (2010), p. 75.

¹⁸ Manufacture of pulp, paper, publishing and printing, refined petroleum products, chemicals, chemical products and man-made fibres, rubber and plastic products, non-metallic mineral products, metals and metal products are considered energy-intensive in this case.

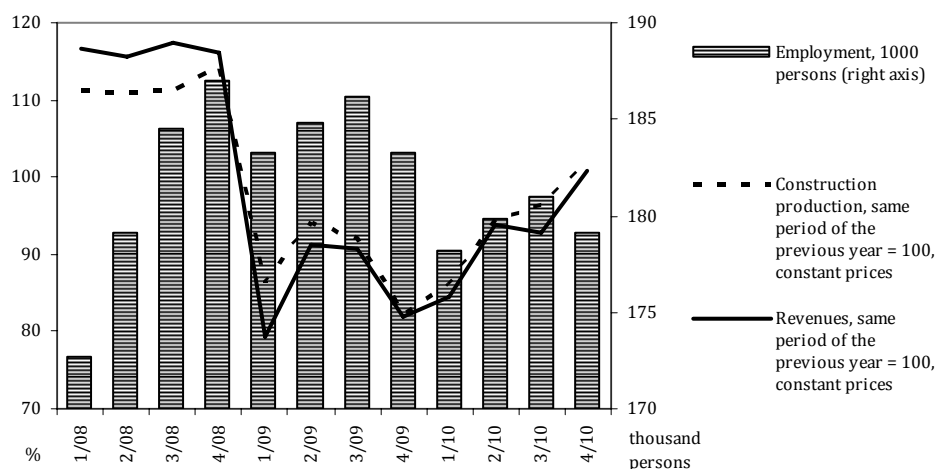
¹⁹ ECB (2010), p. 49.

of employed persons was not registered until 2010 (−2.6%). However, the whole period was characterized by large fluctuations between individual quarters (see Graph 15).

As for the future development in construction, so far the expectations are not very optimistic. According to the last business cycle survey (March 2011), the confidence indicator in construction has declined and remains well under the long-term average. Further employment decline and construction activity decrease is to be expected in the following months.

Graph 15

Development of Performance and Employment in Construction in the SR, 2008 – 2010



Source: Compiled based on SO SR data.

In 2010, the service sector significantly contributed to the increase in value added in the economy, namely by 3.5 p. p. of the total 5% of the increase in value added in current prices. Naturally, public (non-market) services comprise a large part of services as a whole and it is hard to specify their performance (moreover, their value added creation usually depends on public finance resources).

However, development tendencies in some mostly²⁰ market service branches can be characterized on the basis of company statistics. We characterize their development tendencies in 2008 – 2010 on the basis of information about revenue changes in Table 9.

²⁰ In some branches, management based on market principles is combined with state participation in their financing, e.g. the public finance participation in transport financing.

In 2010, real growth was achieved only in selected market services, nominal growth also in wholesale trade, transportation and storage. The decrease in revenues slackened in most of the branches, but a reversal to year-on-year increase was not achieved, not even based on current prices.²¹ In 2010, nominal revenues decreased in information and communication, despite their increase in 2009.

All in all, the recession significantly decreased the performance of monitored service branches. Only in selected market services, revenues were 4% higher in 2010 compared with 2008. In some branches (nominal) revenues decreased by 22 – 30% compared with 2008 (trade and repair of motor vehicles, wholesale trade, accommodation, restaurants and catering), in retail trade by 13%, in transportation and storage by 7% and in information and communication by 6%.

Table 9

Development of Revenues for Own Performances and Goods by Market Services

	Revenues, EUR billion, current prices			Year-on-year changes, % ¹		
	2008	2009	2010	2008	2009	2010
Trade and repair of motor vehicles	5.1	3.9	3.8	7.0	-17.9	-1.5
Wholesale trade	31.0	22.7	23.3	13.7	-26.8	2.6
Retail trade	19.8	17.4	17.3	9.1	-10.3	-2.2
Accommodation	0.4	0.3	0.3	-2.9	-23.6	-4.8
Restaurants and catering	1.1	0.9	0.8	2.4	-27.7	-9.1
Transportation and storage incl. postal activities	6.3	5.4	5.8	.	-13.6	7.1
Information and communication ²	4.7	4.9	4.5	.	3.3	-8.7
Selected market services ³	8.3	8.0	8.6	.	-4.7	5.7

¹ Based on constant prices; wholesale, transportation and storage, information and communication based on current prices.

² Including: publishing activities, motion picture, video and television programme production, sound recording and music publishing activities, programming and broadcasting activities, telecommunications, computer programming, and information service activities.

³ Including: real estate activities, professional and technical activities, administrative and support service activities, other education and education activities, arts, entertainment and recreation, computer repair activities, repair of other equipment and personal service activities.

Source: Compiled based on SO SR data.

Changes in performance of market service branches were fully reflected in the development of employment (see Table 10). In 2010 compared with 2008, average number of employed persons in monitored branches declined by 78 thousand persons, of which almost 40 thousand worked in wholesale trade. The smallest decline in employment was registered in transportation and storage, but we expect a further decline in the near future.

²¹ Only in trade and repair of motor vehicles, year-on-year revenues started to increase in the last two quarters of 2010.

Table 10
Development of Employment in Market Service Branches

Branch, NACE	Employment, 1 000 persons			Year-on-year changes		
	2008	2009	2010	2008	2009	2010
Trade and repair of motor vehicles	25.3	22.8	21.1	1.0	-9.9	-7.4
Wholesale trade	134.8	107.2	95.2	2.5	-20.5	-11.2
Retail trade	160.5	155.7	152.3	1.3	-3.0	-2.1
Accommodation	10.9	10.2	9.5	-12.3	-6.8	-6.8
Restaurants and catering	39.1	31.0	28.7	1.8	-20.7	-7.5
Transportation and storage inc. postal activities	110.9	111.8	110.6	.	0.9	-1.1
Information and communication	35.8	37.6	33.2	.	5.0	-11.6
Selected market services	131.5	123.7	120.6	.	-6.0	-2.5

Source: Compiled based on SO SR data.

The rise in non-financial corporations' profit/loss after two years of decline can be regarded as an unmistakable sign of recovering from the consequences of the economic recession in the business sector. In 2010, non-financial corporations profit/loss rose by 30% (EUR 2 billion) compared with 2009, which, however, does not cover the profit lost in two previous years (EUR 3.7 billion). Industry contributed most (57%) to this growth, followed by service sector (38%); construction contributed 1% and agriculture, forestry and fishing (due to decrease in the loss) 3%. A general overview of the development of profit/loss in the last years is presented in Table 11.

Table 11
Development of Financial Position of Corporations, 2007 – 2010

	2007	2008	2009	2010
	Profit/loss, EUR million			
Non-financial and financial corporations	10 887	8 905	7 353	9 144
Financial corporations	643	-579	767	554
Non-financial corporations	10 244	9 485	6 586	8 590
of which:				
Agriculture, forestry and fishing	39	156	-104	-42
of which: Agriculture	10	130	-104	-42
Industry	5 054	3 998	2 819	3 965
of which: Manufacturing	3 171	2 355	1 026	2 153
Construction	513	678	558	584
Services, total	4 638	4 652	3 315	4 083
	Cost profitability, %			
Non-financial corporations	7.6	6.2	5.2	6.2
of which:				
Agriculture, forestry and fishing	1.4	5.1	-4.6	-1.9
of which: Agriculture	0.4	5.2	-5.5	-2.3
Industry	7.3	5.2	4.8	5.9
of which: Manufacturing	5.4	3.6	2.2	3.9
Construction	8.8	8.9	7.8	9.5
Services, total	8.0	7.0	5.5	6.4

Source: Compiled based on SO SR data.

Manufacture of motor vehicles contributed most (31%) to total profit/loss growth, followed by manufacture of metals and fabricated metal products (27%). In the service sector, it was transportation (38%) and trade (17%).

On average, cost profitability of the non-financial corporations returned to the 2008 level; in industry (and also manufacturing) and construction, the level was even slightly higher than in 2008. On the other hand, services did not achieve this level; in agriculture, forestry and fishing, which make losses, it is lower by 7 p. p.

Loss-making segments which formed in the economy in 2009, were reduced or vanished in 2010. In 2009, agriculture, forestry and fishing, four branches of manufacturing²² and one branch of services made losses. In 2010, only agriculture, forestry and fishing, as well as manufacture of wood and of products of wood, made losses. The number of loss-making non-financial corporations with 100 and more employees declined from 712 to 498 and their negative net income from EUR 1.6 billion to EUR 1.0 billion. The share of loss-making corporations in the total number of non-financial corporations with 100 and more employees declined from 39% to 32% (from 45% to 30% in manufacturing).

3. Qualitative Factors of Economic Development

Gradual exhaustion of price and cost factors of Slovakia's competitive capacity leads to focusing on the evaluation of qualitative factors of economic development. Effective research and development (R&D), innovation capacity of the economy, educated labour force and the use of information and communication technology (ICT) constitute the prerequisites to higher national labour capitalization, higher economic growth and job creation.²³ The development of selected input (R&D expenditure and employees in R&D) and output (patents and academic papers) indicators of the innovation system in the years 2004 – 2009 is presented in Table 12.

The share of R&D expenditure in GDP has not exceeded 0.5% GDP and this negative trend did not change in 2009. The Slovak economy shows not only a long-term trend of insufficient R&D expenditure, but also an inadequate structure represented by low R&D expenditure in the business sector. This trend was confirmed in 2009. Graph 16 illustrates the R&D expenditure (% GDP) and the structure in the SR compared with the Visegrad Group (V4) and the EU-27 average. R&D financing in Slovakia lags not only behind the EU-27 average but also behind the V4 countries levels.

²² Manufacture of textiles and apparel, manufacture of wood and of products of wood, manufacture of coke and refined petroleum products, manufacture of chemicals, chemical products and pharmaceuticals.

²³ R&D and education indicators are published with a two-year lag.

Table 12
Selected Indicators of Research and Development, 2004 – 2009

	2004	2005	2006	2007	2008	2009
R&D expenditure (% GDP)	0.51	0.51	0.49	0.46	0.47	0.48
of which (% GDP):						
Government sector	0.16	0.15	0.16	0.16	0.15	0.16
Businesses enterprise sector	0.25	0.25	0.21	0.18	0.20	0.20
Higher education sector	0.10	0.10	0.12	0.11	0.11	0.12
R&D expenditure by sources of funds (%)						
State and public sources	0.571	0.570	0.556	0.539	0.523	0.506
Higher education sources	0.003	0.003	0.003	0.002	0.003	0.006
Business enterprise sources	0.383	0.336	0.350	0.356	0.347	0.351
Abroad sources	0.043	0.060	0.091	0.102	0.123	0.128
R&D employees ¹	22	22 294	23 120	23 437	23 641	25 388
year-on-year change (%)	6.2	0.3	3.7	1.4	0.9	7.4
Patent applications ²	215	155	193	240	167	176
Number of patent applications ² per 1000 of R&D employees	9.7	7.0	8.3	10.2	7.1	6.9
Academic papers ³	2 160	2 010	2 238	2 274	2 392	2 390
Number of academic papers per 1000 R&D employees	97.22	90.16	96.80	97.03	101.18	94.14

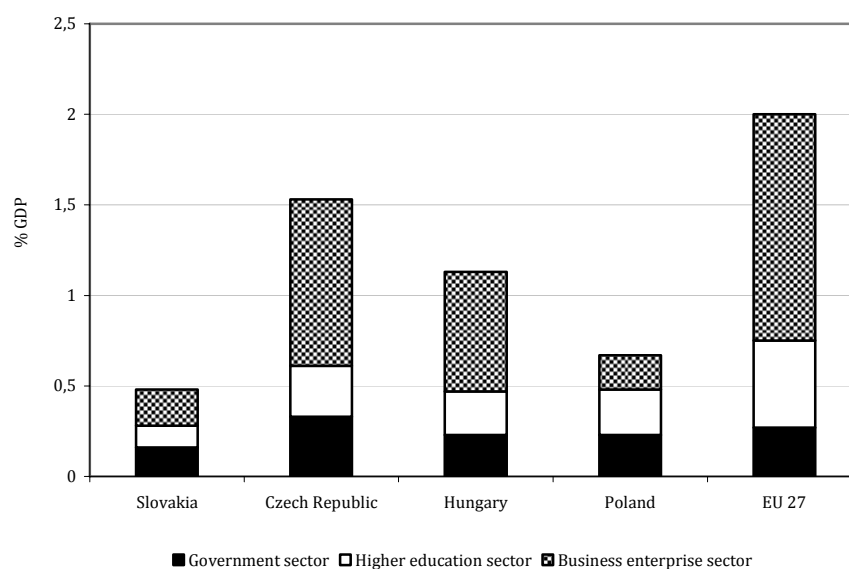
¹ By 31. 12.

² Domestic patent applications filed at the Industrial Property Office of the Slovak Republic.

³ Academic articles listed in Current Content Connect® (by 31. 3. 2011).

Source: Slovstat (2011); IPO SR (2011); ISI Web of KnowledgeSM (2011).

Graph 16
Structure of R&D Expenditure in 2009 in V4 Countries and EU-27



Source: Own compilation based on Eurostat data (2011).

Almost two thirds of the Slovak R&D expenditure flow to the public sector (government sector + higher education sector). This, coupled with insufficient institutional support of transfer of the public sector research results to the commercial sector, causes a further deterioration of the weak innovation activity in the economy. However, relocating the existing resources from public to private sector would probably threaten the existence of public research in Slovakia.

In terms of the R&D expenditure resources, public and state resources (50.6%) dominated in 2009. Their share has declined gradually since 2004. Business resources have achieved a share of 35% on a long-term basis. Foreign resources have increased every year and their share reached almost 13% in 2009. The share of university college resources has been extremely low (only 3% in 2009).

The number of R&D employees increased year-on-year by 7.4%, which represented the highest increase in the 2003 – 2009 period. Patent activity measured by the number of domestic patent applications increased slightly in 2009, but stagnates on a long-term basis. Patent productivity declined slightly from 7.1 to 6.9 domestic patent applications per 1000 R&D employees. Academic productivity (measured by the number of academic papers per 1000 R&D employees) also declined in 2009 from 101 to 94 articles. This was caused by an increase in the number of employees.

Education is one of the key pillars of knowledge-based economy. Especially higher education constitutes a necessary prerequisite of high-quality human capital. In Slovakia, there is a negative trend of declining public expenditure on education. While the EU-27 invested on average 5.2% GDP in education in 2008, in Slovakia it was only 3.5% GDP. A similar lag exists in public expenditure on higher education (in 2007, only 0.79% GDP in the SR compared with the EU-27 average of 1.12% GDP). An equally negative trend was registered in participation in lifelong learning. While 9.3% of all 25 – 64-year-olds educated themselves in the EU-27 in 2009, it was only 2.8% in Slovakia. A relatively positive development is visible in the number of graduates in mathematics, sciences and technical science. 15 graduates per 1000 of all 20 – 29-year-olds exceeds the EU-27 average (13.9 graduates).

Development of knowledge-based society is to a large degree preconditioned and dynamised by the use of ICT across society. Table 14 introduces some indicators of ICT penetration in the society (households, businesses and public administration). In Slovakia, the number of households with Internet access increases every year, as well as digital literacy expressed as the share of citizens who regularly use the Internet.

Table 13
Selected Indicators of Education

	2004	2005	2006	2007	2008	2009
Total public expenditure on education (% GDP)	4.2	3.85	3.8	3.62	3.5	4.3
Public expenditure on higher education (% GDP)	0.98	0.81	0.90	0.79	.	.
Participation in lifelong learning (% 25 – 64-year-olds)	4.3	4.6	4.1	3.9	3.3	2.8
Number of graduates in mathematics, sciences and technical science (per 1 000 20 – 29-year-olds)	9.2	10.2	10.3	11.9	15.0	.

Source: Eurostat (2011); Slovstat (2011).

In business sector, ICT use also develops rather dynamically. The share of business revenues from trading via electronic networks (e-commerce) records a relatively high year-on-year increase, as does the number of companies sending or receiving electronic invoices (e-invoicing). ICT are also used in the area of electronization of public administration services. The demand for public administration online services is represented by the share of citizens and businesses which use the Internet to interact with public administration institutions. Businesses record a more dynamic year-on-year increase and also a much larger share in the last monitored year compared with citizens who use the Internet to interact with public administration. This may be explained by the fact that the supply side of public administration online services concentrates mainly on the business sector (e.g. prioritizing online tax collection). The availability of selected public administration online services (the supply side) is annually evaluated by the European Commission, which reviews 20 selected areas of public administration online services. The result of the evaluation is the online availability index (value 0 – 100) of public administration services. Slovakia achieved 62.5 percentage points in 2010, which represents an unflattering 28th place out of the 32 measured countries.

The development of R&D, innovations, education and ICT penetration in the society, which shows the potential of qualitative factors of economic development in Slovakia, can be evaluated as negative. Particularly R&D financing lags behind not only the EU-27 average but also other V4 economies. The same position was recorded in the development of public expenditure on education, which has been stagnating in recent years. Support of knowledge-based society factors remains only verbal, which is confirmed e.g. also by the effort to relocate a proportion of the funds from the Operational Programme Research and Development and Information Society to the Operational Programme Transport for highway construction.

Table 14
Selected Indicators of ICT Penetration in the Society

	2004	2005	2006	2007	2008	2009	2010
Share of households with Internet access	23	23	27	46	58	62	67
Share of citizens ¹ who regularly use the Internet	40	43	43	51	62	66	73
Share of citizens ¹ who use Internet banking	10	10	13	15	24	26	33
Share of business revenues from e-commerce in total revenues	.	0	0	3	8	12	.
Share of businesses which send or receive e-invoices	.	.	.	14	23	31	.
Share of citizens who use the Internet to interact with public administration	25	27	32	24	30	31	35
Share of businesses which use the Internet to interact with public administration	47	57	77	85	88	92	.
Availability of selected public administration online services	.	.	15	20	30	56.3	2.5
Number of mobile phone subscribers (per 100 persons)	79	84	91	112	102	102	.
Share of broadband Internet connection	0.4	1.5	4	6.9	9.6	14.3	.

¹16 – 74-year-olds.

Source: Eurostat (2011).

4. Labour Market

After the recession-led deterioration in all labour market areas in 2009, negative development continued also in 2010. Although a more detailed look at individual quarters indicates a gradual retreat of the initial “shock” of the economic crisis, most labour market parameters recorded worse year-on-year results: based on the labour force sample survey (LFSS), employment in the economy declined by 2% compared with 2009 (by 48 thousand persons), the number of unemployed increased year-on-year by 20% (to a record 389 thousand persons), the unemployment rate increased from 12.1% to 14.4%, the number of job applicants registered at labour offices increased by 40 thousand persons, the number of vacant positions declined by 22.4%. Both nominal and real average monthly wage continued to increase slightly, but its growth rate does not reach pre-crisis levels. This development was coupled with certain particularities which the economic crisis either directly induced or whose effects it intensified.

Employment Development

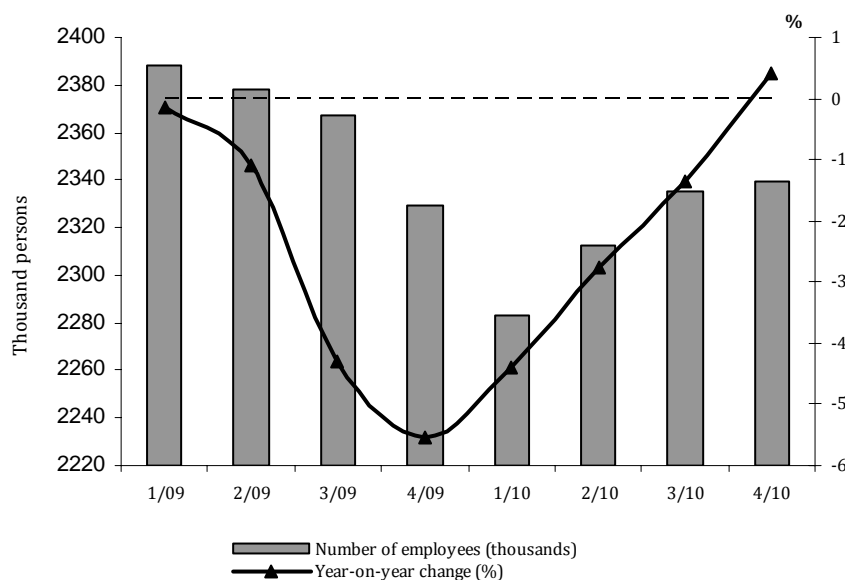
Despite negative annual results, the end of 2010 brought a certain positive reversal in the employment development – the number of employees (based on the LFSS) increased approximately by 10 thousand persons in 4Q 2010 compared with the same period of the previous year and total employment increased slightly (by 0.4%). This occurred for the first time since the end of 2008.

However, indications of labour market stabilization were visible already earlier in 2010. This can be illustrated by a more detailed survey of the employment development by individual quarters: while continuous year-on-year increase in employment was registered in the pre-crisis period, it was halted in 1Q 2009 and employment declined for almost the next two years (2009 – 2010; this development is documented in Graph 17 by the year-on-year change curve, whose values were negative throughout the monitored period – with the exception of the last quarter, its values are on the right axis); the trend in the real number of employees reversed already in 2Q 2010, when the number increased quarter-on-quarter by 29.4 thousand employees (by 1.3%).

The number of employees increased further in 2010 (Graph 17, bar chart).²⁴ The positive trend in employment is confirmed also by the shape of the year-on-year change curve, which clearly illustrates the gradual softening of the year-on-year decline dynamics (in 2010, the number of employees increased compared with the decline in employment in the critical year 2009). However, despite the year-on-year increase, at the end of 2010 total employment did not achieve pre-crisis levels.

Graph 17

Quarterly Development of the Number of Employees, 2009 – 2010



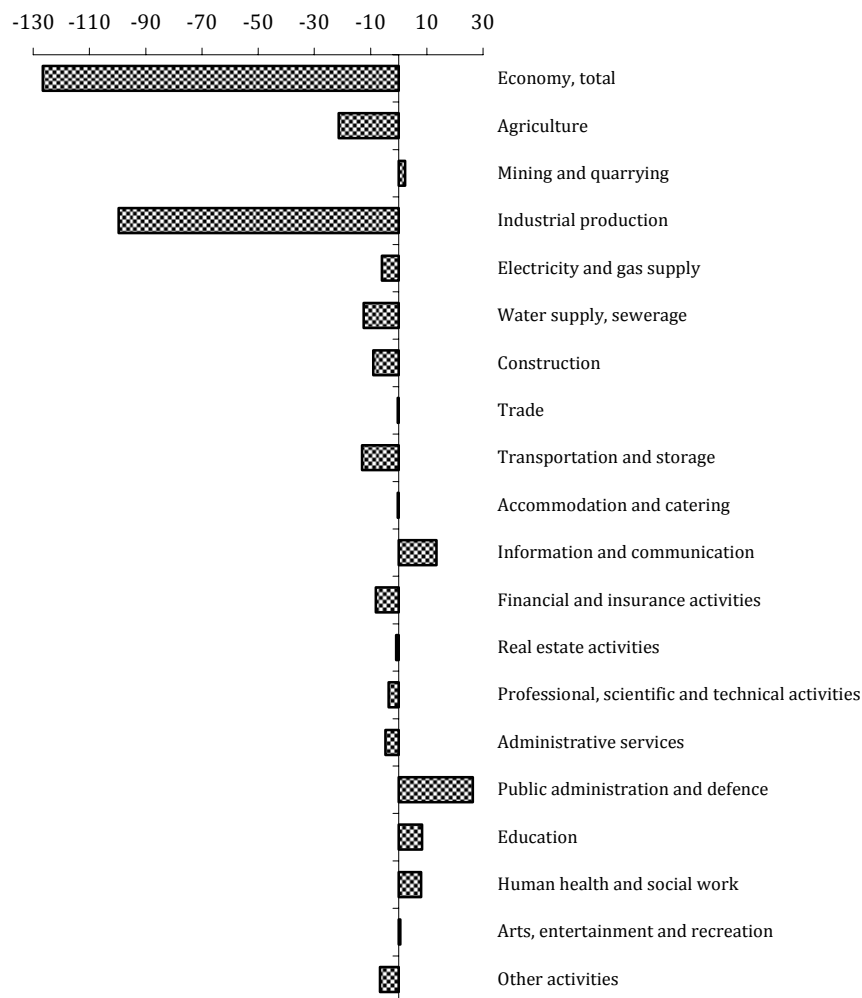
Source: Based on SO SR data (Slovstat database, LFSS methodology).

²⁴ Seasonally adjusted total employment declined slightly in 3Q 2010 compared with 2Q.

Comparing 4Q 2008 (when the year-on-year employment increased for the last time) to 4Q 2010 (when the employment increase was restored after two years of decline) offers a more complex evaluation of the impact of the recession on the employment development in the SR. The employment development in the two-year period marked by the recession, structured by individual branches (NACE), is illustrated in Graph 18.

Graph 18

Change in the Number of Employees by Economic Activity between 4Q 2008 and 4Q 2010 (thousand persons)



Source: Based on SO SR data (Slovstat database, LFSS methodology).

The graph shows the disappearance of approximately 130 thousand employees²⁵ from the market in 2009 – 2010 as a result of the economic crisis. The largest loss was registered in industrial production. The share of industrial production in total employment declined more than the share of other branches affected by the recession, namely in favour of the share of public administration and education.

It is clear from the graph that in the crisis years 2009 – 2010, employment in the SR increased almost solely in the public sector (only the ICT sector represented a significant exception from the point of view of employment development during the crisis within the private sector). This structural effect induced by the recession is in line with the development in other new EU member states; the EU-10 as a whole registered the highest losses in employment in industry and construction and the highest increase in employment in public administration, defence and human health in the monitored period.

Employment Development and Structural Changes in the Labour Market

Although total unemployment in Slovakia increased by 20% (the number of unemployed persons increased by 64.8 thousands to 389 thousands compared with 2009, based on the LFSS), the highest level was registered in 1Q 2010 (407 thousand persons) and the number of unemployed declined throughout 2010. The unemployment rate fell as well, from 15.1% in 1Q to 13.9% in 4Q (Graph 19). The unemployment rate was 14.4% in 2010, of which the largest increase was registered in the 15 – 24 age group; as much as one third of economically active population in this age group was unemployed (33.6%, see Graph 19). It is possible to verify this trend by comparing the unemployment rates in individual age groups in 2010 and in the pre-crisis year 2008 (“pre-crisis” from the point of view of the labour market development). While total unemployment rate increased by 4.8 p. p. in 2008, in the 25 – 49 age group an increase of 4 p. p. was recorded; in the 50 – 64 age group it was only 3.4 p. p. In contrast, the unemployment rate increased by 14.8 p. p. in the youngest age group during the crisis. The unemployment rate developed to the detriment of the youngest age group, which constitutes another structural change in the labour market induced by the recession.

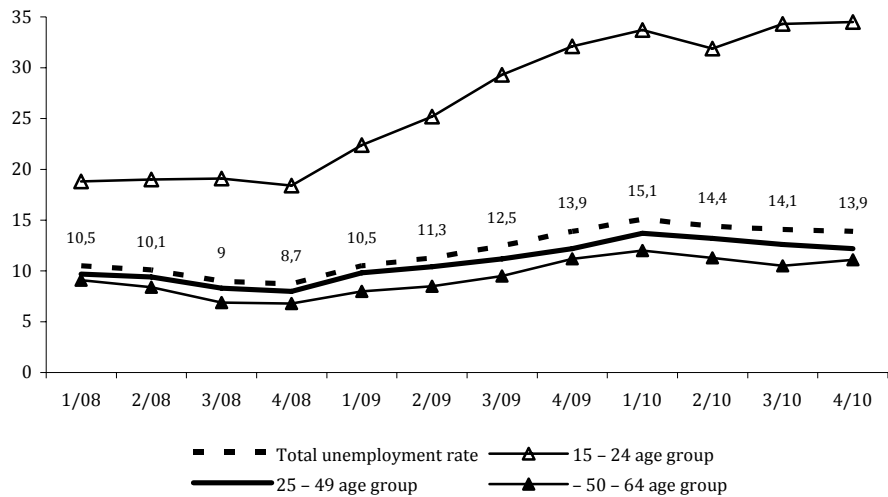
Analysis of the unemployment development by achieved education exposes another trend. The most numerous groups of unemployed contributed most to the increase in unemployment during the crisis – persons with apprentice education

²⁵ If we compared 3Q 2008 and 3Q 2010 – the absolute peak and the bottom numbers of employees, we would have to conclude that 138 thousand employees disappeared from the labour market during the crisis, of which 110 thousand jobs were lost in industrial production.

without the school-leaving examination (year-on-year increase of almost 30 thousand persons) and persons with completed secondary education (Graph 20 A).

Graph 19

Unemployment Rate by Age Groups, 1Q 2008 – 4Q 2010 (%)

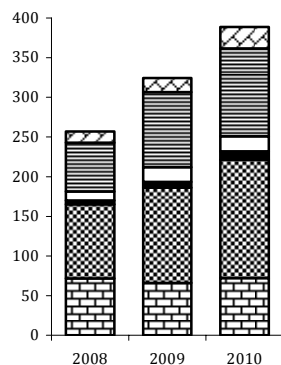


Source: Based on SO SR data (Slovstat database, LFSS methodology).

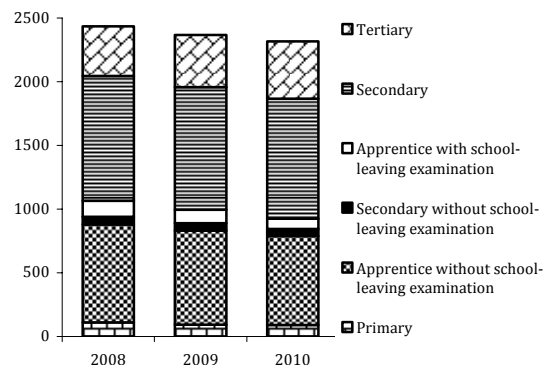
Graph 20

Structure of Unemployed and Employed Persons by Education, 2008 – 2010 (thousand persons)

A) Unemployment by Education



B) Employment by Education



Notes: Secondary = general secondary, vocational secondary and higher vocational education.

Source: Based on SO SR data (Slovstat database, LFSS methodology).

The number of unemployed was least expanded by persons with tertiary education (whereby the labour force level of education increased statistically). From the point of view of development dynamics (year-on-year% change), such a causality is not so obvious. Therefore, it is necessary to supplement the analysis of unemployment by education with the development of the number of employed (employment development) by achieved education (Graph 20 B). Graph 20 B clearly confirms that in 2010, the year-on-year employment increase was registered only in the group of employees with tertiary education (in case of employees who completed the first stage, employment increased by 20.6%; the second stage by 9.7%). However, to some extent this could have been affected by the real increase in qualification of the population (especially with regard to the unemployment rate development²⁶). In contrast, the largest decline in employment was registered in employees with apprentice education and school-leaving examination (by 22.4%).

During the economic crisis, it was possible to monitor both of the above mentioned trends, the disadvantageous position of the youngest age group and the employees with lower education in the labour market also in other countries of the region (see e.g. WIIW, 2011). In contrast, the change in the employment structure in favour of entrepreneurs (increasing number of entrepreneurs coupled with declining number of employees in the labour market) registered in the Slovak economy in the initial phase of the recession was unique in the European context (see Morvay, 2010).

Especially in 2008 and 2009, there was a substantial increase in self-employed persons. This expansion of self-employment was caused mainly by an increase of more than 10% in the number of entrepreneurs, particularly those without employees. However, the expansion of self-employed persons²⁷ is not a new phenomenon in the Slovak economy – e.g. in 2004, the number of entrepreneurs without employees increased year-on-year by a quarter. To a certain degree, this development could have been a consequence of the minimum level of self-employment in the period of transition from centrally-planned economy and its gradual convergence to the EU average. However, in the initial phase of the recession, the expansion of self-employment accelerated again – and in this case we speak of a structural change because it was grouped with a decline in the number of employees – there was a replacement of dependent work by self-employment. On one hand, this process resulted from some kind of a defence

²⁶ In 2010, the unemployment rate increased in all groups by achieved education; the highest year-on-year increase was registered in persons with secondary education without school-leaving examination (by 5.7 p. p.) and the lowest increase in persons with third academic degree (by 0.1 p. p.).

²⁷ Self-employed – e.g. businessmen, sole proprietors, self-employed farmers, persons with freelance occupation.

reaction in a period of increased uncertainty in the labour market; on the other hand, the transition to self-employment was motivated by more advantageous conditions in terms of social security contribution burden; the recession only intensified this motivation. In 2010, the transition from dependent work to self-employment ceased, the number of entrepreneurs stagnated throughout the year (the increase in number of entrepreneurs and self-employed persons ceased already in the last quarter of 2009), and the number of employees increased slightly in individual quarters of 2010 (the number of employees increased by 60 thousand between 1Q and 4Q 2010). The number of employees still registered a year-on-year decline (by 2.4%), and the number of entrepreneurs declined year-on-year by 0.1%. To compare, the number of entrepreneurs increased by 10.7% in 2009 and this development was coupled with a 4.8% decline in the number of employees. Additional increases in the share of employees in total work force can be expected in the nearest future, particularly with respect to the tax and social security contribution reform, which aims to decrease the disproportions in social security contribution burden between employees and self-employed persons and also to tighten the requirements to obtain a sole proprietor license.

The Long-term Unemployment Problem and Unemployment Registered at Labour Offices

Repeated worsening of long-term unemployment, which is a serious problem of the Slovak labour market, is a negative result of the 2010 development. Long-term unemployment (i.e. with the duration of more than 1 year) increased by almost 40% in 2010 after 4 years of uninterrupted decline. Long-term unemployed are the largest group of unemployed and their share in total unemployment increased from 50% to 59%. While the recession in 2009 caused the number of unemployed with average duration less than 1 month and 1 to 6 months (short-term unemployment) to increase most rapidly, in 2010 the share of these groups in total unemployment declined in favour of unemployment with duration of more than 6 months and more than 1 year. The statistical increase in long-term unemployment could have resulted from mentioned development in 2009. Therefore, a more exact picture of the 2009 recession can be obtained by comparing long-term unemployment with the duration of more than 2 years. The number of persons unemployed for more than 2 years increased year-on-year by approximately 20 thousand, but the share of this group of unemployed in total unemployment did not change (it actually declined slightly).²⁸ Based on that, we

²⁸ The number of persons unemployed for more than 2 years reached the lowest point in this decade in 2009 as a result of the continuing positive tendency of lowering long-term unemployment in Slovakia; although in 2010 the multitude of this group increased, it did not reach e.g. the levels of the first half of 2008.

can conclude that the increase in long-term unemployment was caused mainly by those unemployed who lost their jobs throughout 2009 because of the recession and have not yet entered the labour market. The development of long-term unemployment by quarters offers certain optimism. We can see a definite turning point at the end of 2009 and beginning of 2010, when the quarter-on-quarter growth rate accelerated significantly. Later throughout 2010, the deterioration of long-term unemployment development slackened.

This tendency is confirmed by the development of the number of job applicants in the labour offices registers, as documented in Table 15. The average duration of registration extended to almost 14 months, which is more than 1 year which defines long-term unemployment. This occurred last time in 2004, when the average duration reached 12.35 months. In 2010, the registered unemployment rate was 12.5% and the dynamics of its increase softened considerably compared with 2009 (an increase of 1.1 p. p. compared with an increase of 3.7 p. p. in 2009; see Table 15). Stabilization of the unemployment rate (and also the number of job applicants) throughout 2010 is also a positive development, especially after it achieved 13% in the 1Q 2010.

Table 15

Characteristics of Registered Unemployment, 2005 – 2010

	2005	2006	2007	2008	2009	2010
Registered unemployment rate (%)	11.6	10.4	8.4	7.7	11.4	12.5
Average duration of registration (months)	11.89	10.83	10.52	10.18	11.90	13.92
Number of available job applicants	301 186	265 353	219 231	199 561	303 063	335 308
Amount of paid unemployment benefits (EUR thousand)	80 985	63 982	59 616	66 121	172 430	150 339

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

Source: Based on SO SR data (Slovstat; quarterly statistic data).

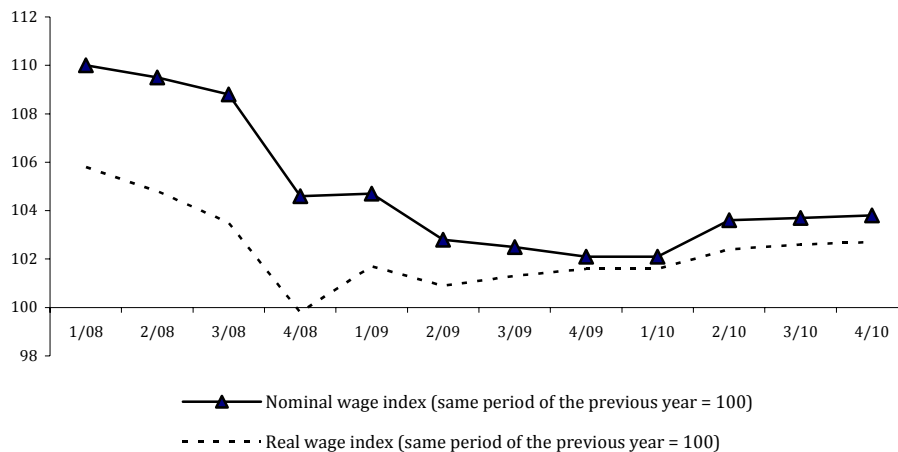
Average Wage and Labour Productivity Development

In the last quarter of 2008, the growth rate of average nominal wage declined significantly. This was coupled with deterioration in other areas of economic development which indicated the arrival of the economic crisis in the Slovak economy (in this quarter, average real wage in the Slovak economy fell year-on-year for the first time since the end of 2003). The increase in average nominal wage in the economy was further slackened throughout 2009. In 2010, a reversal of this trend occurred; the growth rate of nominal (and real) wage has been increasing, although slightly, since 2Q 2010. The dynamics of the average wage development is illustrated in Graph 21.

In 2010, the nominal wage increased year-on-year by 3.2% on average and reached EUR 769, which represented an acceleration of average monthly wage growth by 0.2 p. p. (by 0.8 p. p. in real terms). Although a slight acceleration of the average wage growth rate compared with the previous year evokes a positive picture, it is necessary to note that in the reference year the wage growth rate was the lowest since 1989.

Graph 21

**Quarterly Development of Average Monthly Wage, 2008 – 2010
(year-on-year indices)**



Source: Based on SO SR data (Slovstat; quarterly statistic data).

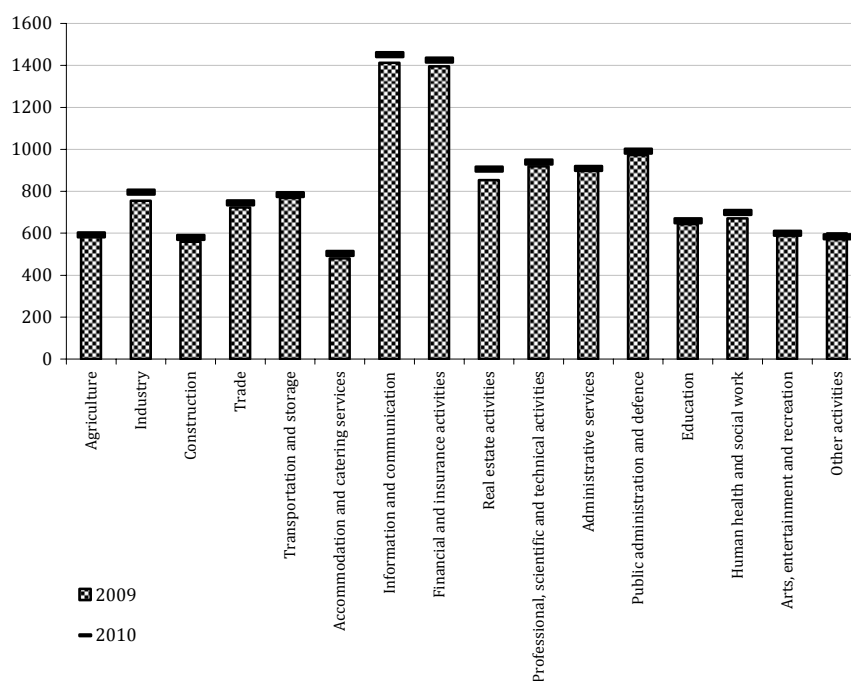
In 2010, average nominal wage fell only in administrative services and other activities (Graph 22). On the other hand, it increased most rapidly in real estate activities, industry and accommodation and catering services. Traditionally, employees in ICT and financial and insurance services received the highest average wage (in both cases more than EUR 1400, which is high above the average wage levels in other branches, see Graph 22).

Decline in labour productivity was one of the first manifestations of the economic crisis in the labour market – it occurred already in the last quarter of 2008. Labour productivity decline was more pronounced in the first three quarters of 2009. The development reversed at the turn of 2009/2010 – after labour productivity (in constant prices) declined by 2.3% (based on ESA 95 methodology). Throughout 2010, the labour productivity growth rate ranged from 8% (1Q) to 3% (4Q) – the gradual slackening of the labour productivity growth rate was caused by increasing employment. On average, labour productivity in the Slovak economy increased by 5.5% in a year. In contrast to the previous period, in 2010, labour productivity growth surpassed the growth of real wages (on average by

3 p. p.). Since nominal compensations per employee increased more slowly than real productivity, there was also a decline in unit labour costs (ULC). On average, unit labour costs declined by 2.7% in a year. In 2009, their growth rate was more than 7% (NBS Monthly Bulletin, February 2011).

Graph 22

Average Nominal Monthly Wage by Economic Activities, EUR



Source: Based on SO SR data (Slovstat; quarterly statistic data).

Development in the Regional Labour Markets in Slovakia

The situation in the Slovak labour market is regionally differentiated, but based on the development in 2010, it can not be clearly stated that the labour market parameters suggest a further deepening of the regional disparities.

Looking at the dynamics of the employment development, 2010 was a critical year especially for Žilina and Trenčín regions, where the year-on-year unemployment increase as well as the increase in number of unemployed persons was the highest. In Prešov and Banská Bystrica regions, where the unemployment rate is traditionally the highest and where the number of unemployed persons is the highest in absolute terms, the situation developed differently. While in Prešov region unemployment increased steadily (an increase of 10 thousand unemployed

persons represented an increase in the unemployment rate by 2.4 p. p.), in Banská Bystrica region, the number of unemployed hardly changed and the unemployment rate even fell slightly, whereby the share of Banská Bystrica region in total unemployment in the SR declined visibly. However, Košice region ranked among the regions with the highest number of unemployed as well as the highest unemployment rate. As in Prešov and Banská Bystrica regions, the unemployment rate in Košice region exceeded 18% in 2010.

The disproportion between the number of vacant positions and the number of unemployed among the Slovak regions is illustrated in Graph 23, which shows the share of vacant positions in individual regions in total number of vacant positions, as well as their share in total unemployment.

Average nominal wage continued to increase year-on-year in all Slovak regions. The largest increase in monthly wage was recorded in Banská Bystrica region, where the growth rate achieved 5% (to compare, the nominal wage growth rate in Banská Bystrica region did not even reach 1% in the previous year). The nominal wage growth rate slackened in Prešov, Bratislava and Nitra regions compared with the previous year. In 2010, the monthly wage growth rate was the slowest in the last mentioned region.

Table 16

Unemployment (LFSS) and Average Monthly Wage by Regions, 2009 – 2010

Region	Number of unemployed		Unemployment rate		Average nominal monthly wage	
	2010 (thousand persons)	Index 2010/ 2009	2010 (%)	Change compared with 2009, p. p.	2010 (EUR)	Index 2010/ 2009
SR – total	389.0	120.0	14.4	2.3	769	103.2
Bratislava	20.9	128.2	6.1	1.4	991	102.2
Trnava	36.6	133.1	12.0	2.9	705	102.3
Trenčín	30.7	143.5	10.2	2.9	657	103.5
Nitra	54.1	118.4	15.4	2.4	636	101.8
Žilina	48.7	137.6	14.5	3.9	686	104.4
Banská Bystrica	60.3	100.8	18.6	-0.2	635	105.0
Prešov	72.0	115.4	18.6	2.4	593	103.7
Košice	65.8	117.9	18.3	2.8	716	104.7

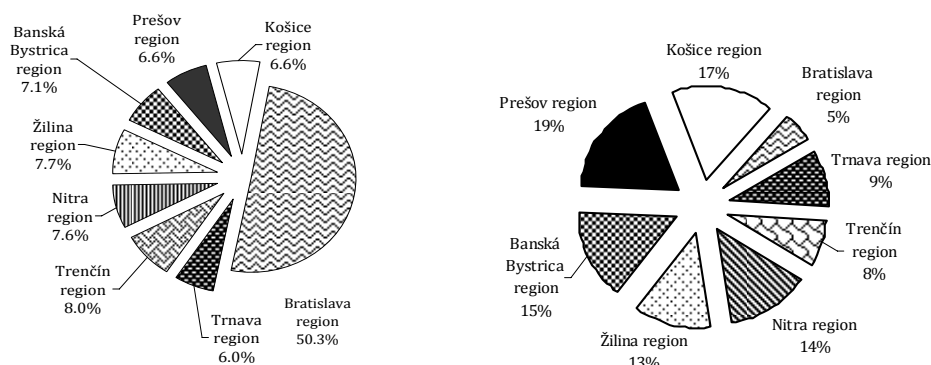
Source: SO SR (2011b).

Despite worse year-on-year results in 2010 compared with 2009, there was a certain stabilization in the labour market development. The stabilization manifested itself in the slow increase in the number of employees, as well as the gradual decline in the unemployment rate between 1Q and 4Q 2010. The employment and unemployment development in 2010 offers an opportunity to evaluate the structural changes, such as the increase in unemployment in younger age groups or the more favourable position of employees with higher education.

Graph 23

Share of the Slovak Regions in Vacant Positions and Total Unemployment, %

A) Share in total number of vacant positions B) Share in total unemployment



Source: SO SR (2011b).

Table 17

Unemployment rate based on LFSS, 2000 – 2010 (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Unemployment rate	18.6	19.2	18.5	17.4	18.1	16.2	13.3	11.0	9.6	12.1	14.4

Source: Based on SO SR data (Slovstat database).

The unemployment rate level of 14.4% is not the highest in the history of the SR. Throughout the past decade, the unemployment rate was higher and e.g. in 2005 it was still 16.2% (see Table 17). Currently, however, it is the fifth highest in the EU. Spain remains the EU unemployment “leader” (with 20.1%), followed by Latvia (18.7%), Lithuania (17.8%) and Estonia (16.9%). A similar situation to Slovakia prevails in Ireland and Greece. Repeated worsening of the long-term unemployment situation is an ongoing negative consequence of the economic crisis. In this aspect, the SR has ranked first in the EU since 2002 (compared with all current EU-27 member states). According to Eurostat, the share of long-term unemployed in total active population in the SR is more than two times higher than the EU-27 average.

With regard to the labour productivity decline during the recession in 2009, we can anticipate a recovery in the economy which will not automatically be followed by new job openings. The increasing economic performance will be coupled with productivity growth and pressure on efficiency and existing capacities utilization, which is a result of rationalization measures implemented during the crisis. Even if the labour market stabilization continues, the return to

the pre-crisis situation in this area will probably lag behind the other areas of economic development.

The wary evaluation of the year-on-year average monthly wage growth recorded in 2010 stems from the fact that the wage growth rate in 2009 was the lowest since 1989. The wage development can also be statistically overvalued because of the structural change in favour of declining numbers of less-qualified employees. The willingness of workers to accept a lower wage due to the negative development in the labour market will counteract the acceleration of the nominal wage growth rate. In case of ongoing labour productivity growth, this would mean if not a decline then at least a slowdown in the pre-crisis unit labour costs growth, which would positively affect the cost competitiveness of the economy.

The government of the SR prepared an amendment to the Labour Code with the objective to support the recovery in the labour market. Proposed changes include e.g. ranging the notice period depending on the length of employment; replacing the simultaneous notice period and severance payment by more flexible possibilities; introducing job sharing, flexible full-time, the possibility to culminate off time etc. The aim is to increase labour market flexibility, particularly in the area of permanent employment. It will be possible to evaluate the real impact of the proposed legislative changes (including the above mentioned proposed tax and social security contributions reform) some time after their approval.

5. External Economic Relations

Balance of Payments

Alongside many negative impacts of the economic crisis on the Slovak economy and other EU countries, there was a positive impact in the form of moderation of the external imbalance, which is evident from the decline in the current account deficit share in GDP in 2009 and 2010 (Table 18). In 2009, the balance of trade improved significantly since the decline in imports exceeded the decline in exports. Since the outbreak of the crisis, it has been confirmed that foreign demand plays a key role in the economic development of the SR and will undoubtedly remain an important source of economic growth also in the next years.

Although the current account balance and its ratio to GDP hardly changed in 2010 compared with the previous year, the structure of the current account deficit was different. While the foreign trade surplus fell and a high financial account surplus changed to a deficit, the balance of services developed more positively than in 2009. This was related especially to the positive development of “other services in total”, where the decrease in expenditures on financial services exceeded the

increase in income, and at the same time the increase in income for computer services was coupled with the decrease in expenditures on these services. The balance of tourism services developed more positively due to the increase in income and decrease in expenditures. On the other hand, transport services affected the balance of services negatively. Although income in the oil and gas transit category rose, a deterioration was recorded in the category of automobile transport as well as passenger air transport.

Table 18

Development of Main Balance of Payments Components in the Slovak Republic, 2006 – 2010

	2006	2007	2008	2009	2010
Balance of trade (EUR million)	-2 498	-725	-758	946	138
Balance of services (EUR million)	745	435	-487	-1 246	-744
Balance of income (EUR million)	-2 446	-2 634	-2 295	-1 288	-1 249
Current transfers (EUR million)	-54	-368	-893	-676	-422
Current account (EUR million)	-4 252	-3 292	-4 433	-2 264	-2 278
Capital account (EUR million)	-40	377	806	464	1 018
Financial account (EUR million)	1 490	5 788	5 063	2 958	-480
Current account/GDP (%)	-7.7	-5.3	-6.6	-3.6	-3.5
Rate of current account deficit offset by capital and financial account surplus	0.34	1.87	1.32	1.51	0.24

Source: NBS (2011); SO SR (2011c); own calculations.

The balance of income deficit did not decline significantly compared with the previous year. Its slight improvement was related to the increase in surplus of workers compensations which occurred as a consequence of the decrease in remittances from foreign workers working in the SR. The balance of investment income almost did not change, as the higher estimated profitability of businesses with foreign property participation, related to the recovery in the economy, leading to a higher dividend payout, was compensated by the positive development of interest income in the NBS sector. The balance of current transfers improved year-on-year due to the increase in government transfer surplus related to the increase in EU funding as well as the decrease in payments to the EU budget. A deterioration of the offset of the current account deficit by capital and financial account surpluses was caused primarily by the slump in received deposits within the balance of other investment related mainly to the different development in the government and NBS sector compared with the previous year.

Foreign Trade

In the context of overcoming the consequences of the crisis and recovering foreign demand, the volume of foreign trade and thus the openness of the Slovak economy achieved pre-crisis levels in 2010. Imports rose by 25.5% and exports

by 22.8% compared with the previous year (Table 19), erasing the decline of the previous year (Graph 24). The fast increase in imports was induced by rising import intensity related to resupplying due to expected production growth in the economy, as well as higher raw material prices in the world markets. These factors affected the development of foreign trade more strongly than the recovering foreign demand, which was reflected in the decline of balance of trade surplus from 1.5% GDP to 0.2% GDP. However, the balance of trade remains positive and such development can be expected also in the next years.

Table 19

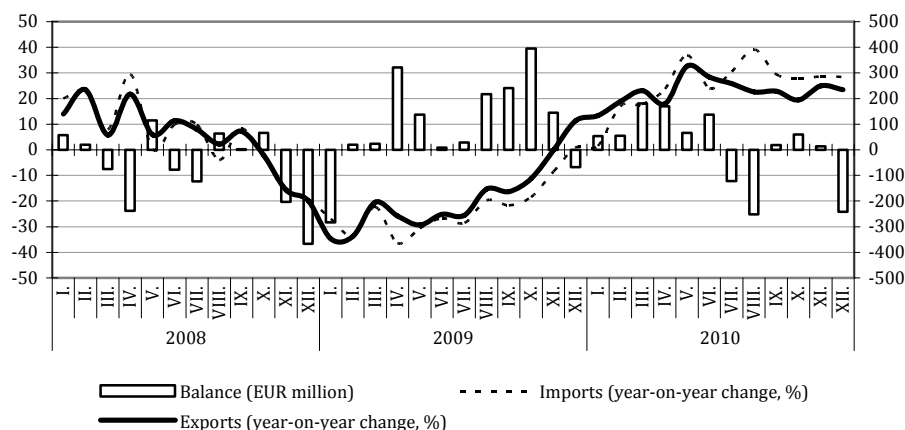
Development of the SR Foreign Trade in Goods, 2006 – 2010

	2006 ¹	2007 ¹	2008 ¹	2009	2010
Export (EUR million, current prices)	40 891.5	47 351.0	49 522.3	39 721.2	48 791.0
Annual change (% , current prices)	24.4	15.8	4.6	-19.8	22.8
Import (EUR million, current prices)	43 453.6	48 075.9	50 280.1	38 775.1	48 653.5
Annual change (% , current prices)	23.0	10.6	4.6	-22.9	25.5
Balance (EUR million)	-2 562.0	-725.0	-757.8	946.1	137.5
Balance/GDP (%)	-4.7	-1.2	-1.1	1.5	0.2
Export performance (Export/GDP,%)	74.3	76.9	73.7	62.7	74.0
Import intensity (Import/GDP,%)	78.9	78.1	74.8	61.2	73.8

¹ Data are converted in accordance with the conversion exchange rate 1 EUR = 30,126 SKK which may cause a certain distortion of the original data in SKK.

Source: SO SR (2011c); own calculations.

Graph 24

Year-on-year Change in Exports and Imports (%) and Balance of Foreign Trade (EUR million) by Individual Months of 2008 – 2010

Source: SO SR (2011c).

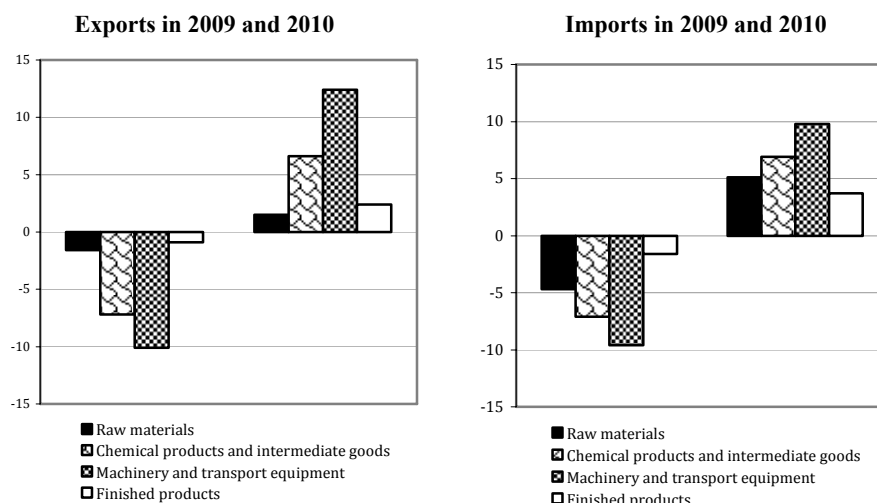
As illustrated in Graph 24, both exports and imports recorded the highest year-on-year growth in 2Q and 3Q 2010. Year-on-year changes recorded in the last quarter can also be evaluated as very positive. Both exports and imports rose by more than 20% despite a weakening base effect related to the improvement of their dynamics at the end of the previous year.

While in 2009, the category of machinery and transport equipment recorded the highest contribution to the year-on-year decline in exports, in 2010, this slump was more than compensated for when their contribution to the increase in exports reached 12.4 p. p. (Graph 25). This development was caused mainly by rising exports of passenger cars and machinery. The reversal in the development of exports of chemical products and intermediate goods due to the oil products price increase was a little milder. Higher exports of raw materials, mainly refined petroleum products and gas, were also related to the price development.

Similarly to the export side, the import side recorded the highest growth in the category of machinery and transport equipment, particularly due to the higher import of component parts for the automotive industry. The contribution of chemical products and intermediate goods and raw materials to the increase in imports also exceeded 5 p. p. This was related to the price development in the world market. Finished products recorded the smallest contribution to the increase in both exports and imports.

Graph 25

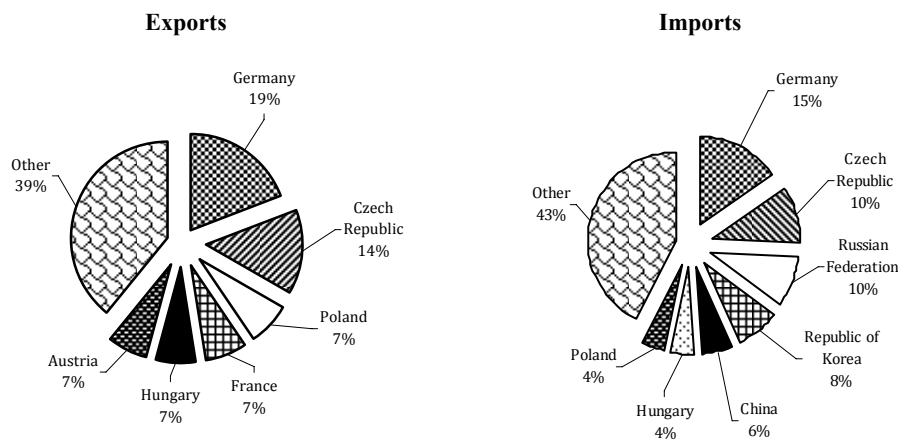
Structure of Contribution to Year-on-year Changes in Exports and Imports by Commodity Groups in 2010 (p. p.)



Source: NBS Monthly Bulletin, February 2011.

The territorial structure of foreign trade hardly changed compared with previous years. The EU member states led by Germany, the Czech Republic, Poland and Hungary have remained the key trade partners of Slovakia (Graph 26). In 2010, the EU share in imports to the SR achieved 66% and in exports from the SR even 84%, which documents the fact that the Slovak export competitiveness within the EU did not deteriorate significantly despite the depreciation of the currencies of the neighbour states.²⁹ Russia, China and the Republic of Korea have also reached a significant share in the imports to the SR.

Graph 26
Territorial Structure of the SR Exports and Imports in 2010 (%)



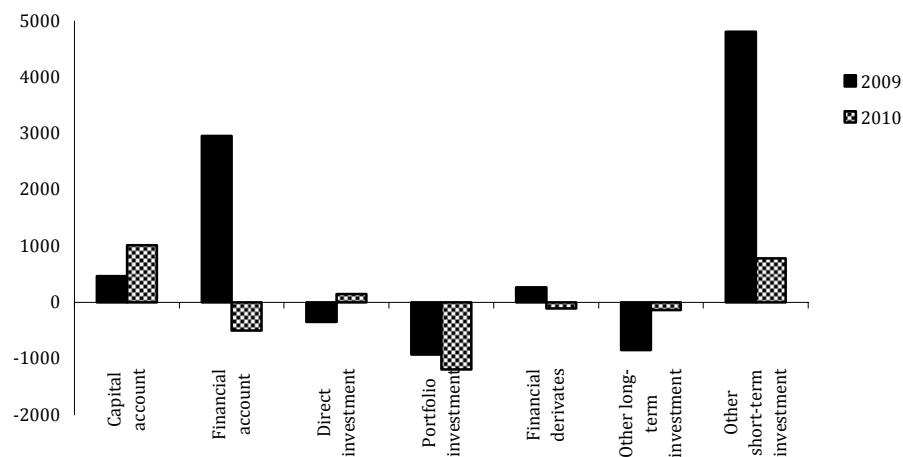
Source: SO SR (2011c).

Foreign Capital

In 2010, the balance of financial account deteriorated significantly due to the slump in received deposits within the balance of other investment (Graph 27). Foreign direct investment (FDI) in the SR recorded a higher year-on-year inflow due to the balance of other capital which changed from negative to positive. This was caused by a decrease in claims on and an increase in liabilities to mother companies. The inflow of other capital exceeded the decrease in inflow of funds within foreign property participation in Slovakia. Portfolio investment recorded a lower net outflow than in 2009, which was caused by the demand for foreign securities among the residents prevailing over the demand for the Slovak government securities among the non-residents.

²⁹ If Slovakia did not adopt the euro in 2009, the development of the SKK exchange rate would also have been extremely volatile throughout 2010.

Graph 27
Capital and Financial Accounts in 2009 and 2010 (EUR million)



Source: NBS (2011).

A significant decrease in the inflow of funds was registered within other investments compared with 2009. On one hand, year-on-year decrease in short-term deposits of non-residents in Slovak banks continued due to the financial crisis and particularly due to the euro introduction because there was no incentive for the non-residents to keep their resources on euro accounts. However, the government and the NBS sector had the largest impact on the decrease in other investments because in 2009, they recorded an exceptionally high inflow of funds as a consequence of the NBS policy after the euro adoption when the NBS borrowed funds from the euro system to fulfil its liabilities towards banks instead of using its foreign exchange reserves.

According to the NBS preliminary data, in 2009, the FDI stock in Slovakia reached EUR 31 billion, of which more than EUR 26 billion was directed to the business sector and more than EUR 4 billion to the banking sector. So far, primarily the EU countries, particularly the Netherlands, Germany and Austria have invested in Slovakia (Table 20).

With regard to the fact that domestic businesses are still not strong enough and do not have enough innovation potential, Slovakia is highly dependent on foreign investment. FDI are and will remain the key factor of the Slovak economic growth. They significantly affect the growth of exports and realization of structural changes supporting the shift towards knowledge economy. The crisis and post-crisis period is a phase of intense competitive struggle also in the case of foreign investment. The support of FDI should therefore necessarily stay among the economic policy priorities of the SR.

Table 20

Largest Investor Countries in Slovakia by FDI Stock in 2009

Investor country	FDI stock, EUR thousand
Netherlands	8 524 289
Germany	4 752 107
Austria	4 440 399
Hungary	2 000 279
Czech Republic	1 802 881
Italy	1 744 234
Cyprus	1 034 825
France	999 081
Belgium	838 042
Luxembourg	712 594
Republic of Korea	664 686
USA	623 454

Source: NBS (2011).

In accordance with the amendment to the Investment Incentives Act, which should come into force on June 1st, 2011, investment incentives will preferably be granted in the form of tax relief. The Ministry of Economy has therefore suggested extending the entitlement to tax relief for beneficiaries of investment aid from five to ten years. Another proposal aims to create conditions to grant investment aid to a broader range of businessmen by lowering the minimum amount of investment to a half.

According to the proposal of the Ministry of Economy, companies which plan to invest in higher value added production in less developed regions of Slovakia would obtain the largest investment aid. This would support the solution of the FDI regional concentration problem, which Slovakia has been struggling with for several years.

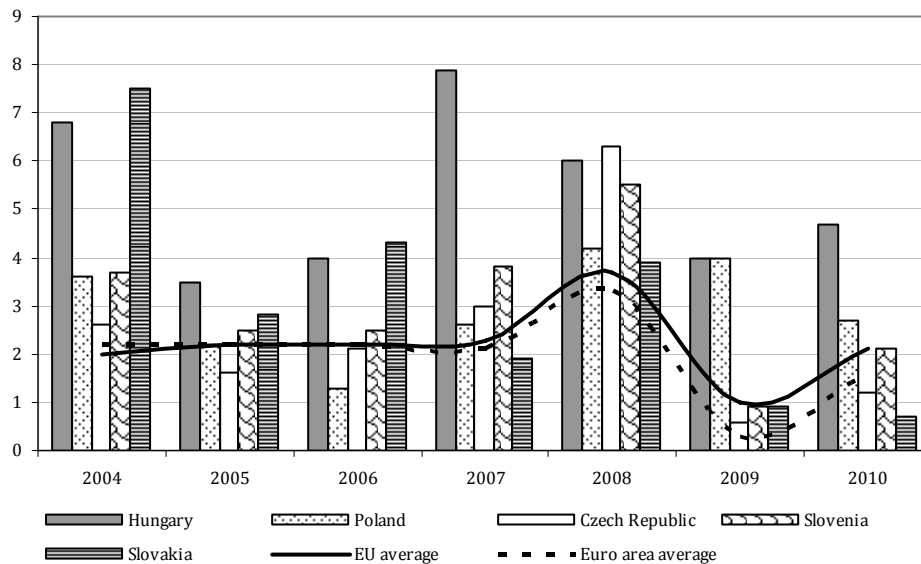
6. Price and Exchange Rate Development

In 2010, Slovakia recorded an even lower inflation than in the previous year and the lowest inflation measured by the harmonised index of consumer prices (HICP) in both the euro area and the EU. On the other hand, average inflation in the EU was boosted mainly by Romania and Hungary, and in the euro area by the problematic Greece. HICP in Slovakia reached 0.7% which was almost by 1 p. p. lower than the euro area average (Graph 28).

The prices of goods rose by 0.1% after a decline in the previous year, but the services price growth slackened to 1.9% (Graph 29) due to stagnant demand and consumer caution.

Graph 28

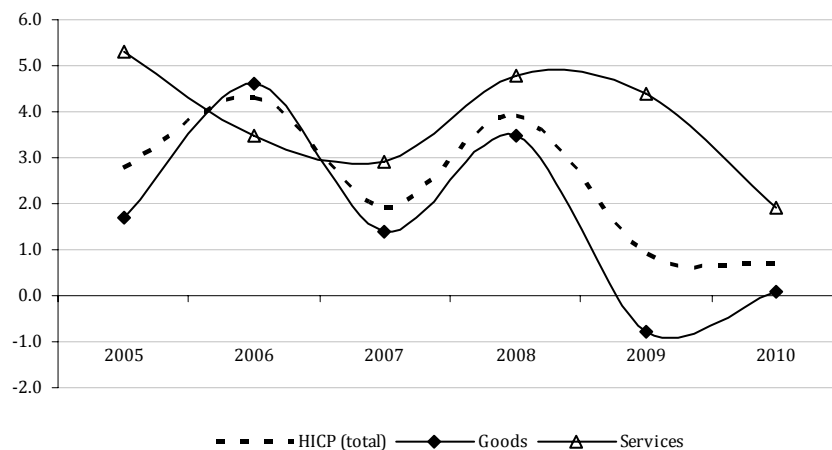
HICP Development in Slovakia Compared with other Central European Countries, EU and Euro Area Average, 2004 – 2010 (%)



Source: Eurostat (2011).

Graph 29

HICP Development by Goods and Services, 2005 – 2010 (year-on-year change, %)



Source: NBS (2011).

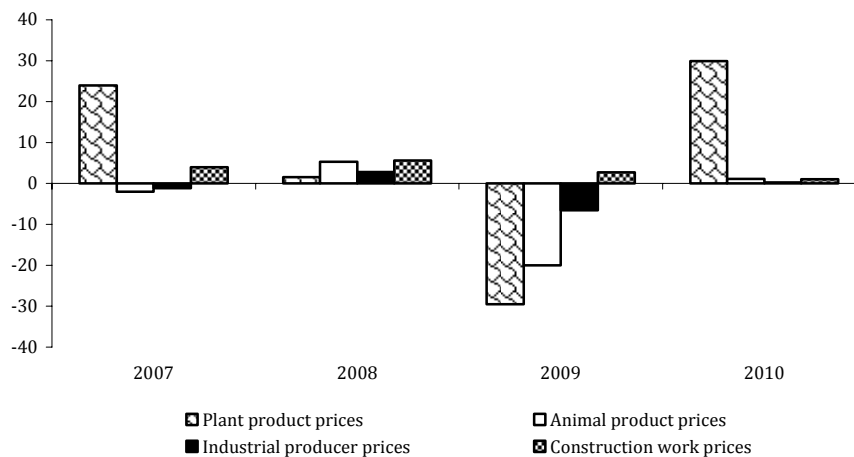
The increase in consumer prices measured by the consumer price index (CPI) decelerated from 1.6% in the previous year to 1.0% in 2010. Inflation was fuelled mainly by prices of alcoholic beverages and tobacco (5.7%), education

(4.5%) and health care (3.7%). Prices fell in the category furnishings and household equipment (−3.5%) and clothing and footwear (−1.3%). The prices of transport as well as housing, water, electricity, gas and other fuel prices hardly changed and the prices of food and non-alcoholic beverages rose only by 1.6%. However, in the first two months of 2011, prices of food and non-alcoholic beverages rose by more than 6%, which reflects the unfavourable development of agricultural commodity prices.

Producer prices, especially the plant product prices, recorded a turbulent development in 2010, although in the other direction compared with the previous year (Graph 30). After the plant product prices slumped in 2009 (compensating their large increase in 2007 and in the first half of 2008), they rose again by almost 30%. Although the plant product prices fell year-on-year until the middle of 2010, they started to increase rapidly in the summer months (Graph 31).

Graph 30

Year-on-year Changes in Plant and Animal Product Prices, Industrial Producer Prices and Construction Work Prices, 2007 – 2010 (%)



Source: NBS (2011).

This development was induced by unfavourable weather conditions, which resulted in lower production, especially in the case of cereals, corn and oil seeds. The European Commission reacted to the tense situation caused by insufficient supplies and high prices of cereals by introducing zero tariffs on this commodity to support import from non-EU countries. With regard to the strong response of purchasing prices of food in Slovakia to the development in the EU market, and also to the fact that domestic production is weak due to unfavourable weather, we can assume a further increase in purchasing prices of cereals and cereal animal feeds, cole-seed, sunflower seed and potatoes. The animal product prices

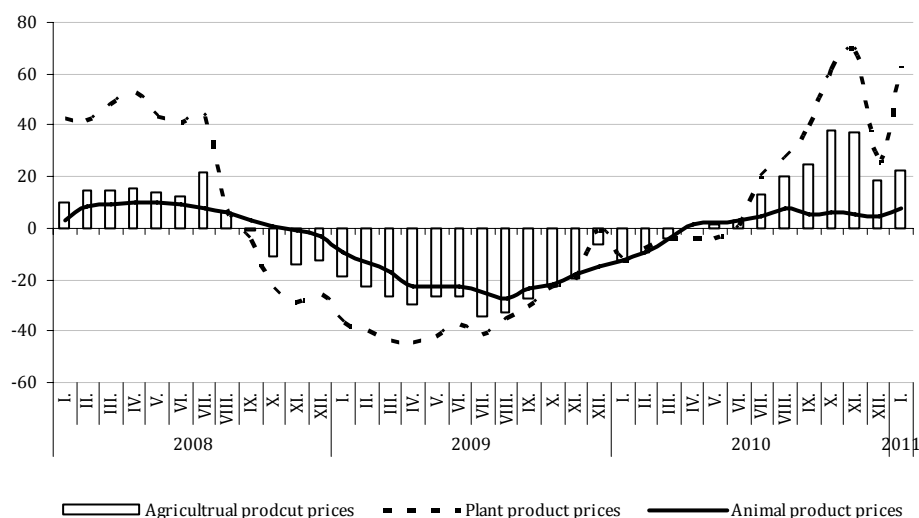
and industrial producer prices recorded a moderate increase after a decline in the previous year. Construction work prices recorded a slightly slower increase compared with 2009.

An increase in inflation is expected in the next few years due to gradual recovery and more dynamic growth of the Slovak economy. The price level will be affected mainly by the following factors:

- increase in food prices related to higher agricultural commodity prices as a consequence of poor harvest and higher demand in the world market;
- accelerated increase in energy prices due to gas, electric energy and heat price increases, and also increase in fuel price as a consequence of the oil prices development in the world market;
- increase in excise taxes and VAT;
- possible improvement of the labour market development coupled with the recovery in domestic demand.

Graph 31

Year-on-year Changes in Agricultural Product Prices Divided into Plant and Animal Products by Individual Months from January 2008 to January 2011 (%)

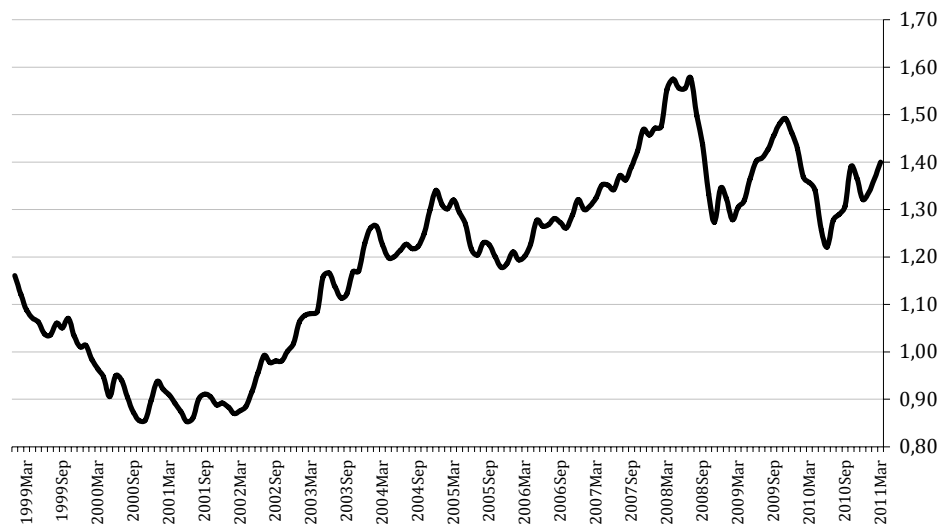


Source: NBS (2011).

It can be assumed that the increase in inflation in Slovakia will be faster than in other EU countries, which can even lead to a failure to meet the inflation criterion. Accelerated increase in consumer prices compared with the euro area average can be expected at least until the average level of GDP per capita in PPP is achieved.

The US dollar as well as the Japanese yen and the Czech crown, all appreciated against the single European currency throughout 2010. In the first half of the year, the development of the EUR/USD exchange rate was affected by increasing uncertainty with regard to the fiscal development of some euro area member states, especially Greece. Declining investor confidence and concerns about future development were reflected in the strong turbulences in the government bond markets. Positive news about the recovery in the American economy also bolstered the US dollar. By June, the euro weakened by more than 15% and fell to its 4-year minimum below 1.20 USD/EUR (Graph 32).

Graph 32
Development of USD/EUR Exchange Rate



Source: ECB (2011b).

With regard to the euro area steps to save the problematic countries, the atmosphere in the financial markets improved in the second half of the year and the euro appreciated. Thus, it depreciated against the USD approximately by 7% for the whole year, but is still stronger than in the first years of its existence.

It is extremely challenging to estimate the future development of the EUR/USD exchange rate in the current complicated situation in the euro area. The Czech crown is expected to appreciate against the euro also in 2011, which might have a positive impact on the volume of Slovak exports to Czech Republic.

7. European Central Bank Monetary Policy, EU Financial Market Supervision and the Euro Area Functioning

As a euro area member state, the Slovak Republic does not execute independent monetary policy but participates in the formulation of the monetary policy of the European Central Bank (ECB), which reacts to the development in the euro area as a whole. One of the steps in the European integration process in reaction to the crisis was the creation of a new financial market supervision system in the EU, which has been operating since January 1st, 2011. The National Bank of Slovakia (NBS), which has been performing integrated supervision of the Slovak financial market, is also part of this system. The turbulent crisis period has supported the need to reform the current functioning of the euro area, which will affect the economic policy of the SR and the future development of the Slovak economy in many ways. We discuss these issues in this chapter.

European Central Bank Monetary Policy

In 2010, the ECB proceeded with the exceptionally expansive monetary policy with the aim to stimulate the economy. Throughout the year, key interest rates remained at the level of 1% (since May 2009), which represented the lowest interest rate since the creation of the euro area. However, rising inflationary pressures increased the probability of monetary policy tightening, which occurred in April 2011, when the ECB increased the interest rate to 1.25%. Since December 2010, inflation in the euro area has not been complying with the definition of price stability (HICP lower than, but close to, 2%), and increased to 2.8% in April. This development strengthens expectations of future interest rate increases throughout 2011.

In May 2010, the Governing Council of the ECB approved some measures aimed at easing the growing tension in the financial markets. It started to intervene in the euro area markets with state and private bonds within the frame of the Securities markets programme to help the monetary union member countries in danger. By March 2011, the ECB invested almost EUR 80 billion in the bonds of these countries.

Critics consider the ECB steps within the EU stabilization plan, consisting of purchases of the euro area member states' bonds in secondary markets, to be a circumvention of article 123 of the consolidated version of the Treaty on the Functioning of the European Union, according to which "Overdraft facilities or any other type of credit facility with the European Central Bank or with the central banks of the Member States (hereinafter referred to as 'national central banks') in favour of Union institutions, bodies, offices or agencies, central governments,

regional, local or other public authorities... shall be prohibited, as shall the purchase directly from them by the European Central Bank or national central banks of debt instruments.” The actions of the ECB connected monetary policy to undisciplined fiscal policies. Thus, doubts arise about the political independence of the central bank. According to some experts, however, the word “directly” in the above mentioned article of the Lisbon Treaty grants legality to the ECB steps. Although the purchases of bonds in secondary markets do not represent a clear contradiction to the wording of article 123, they are not in full compliance with it either.

New System of Financial Market Supervision in the European Union

The crisis has uncovered a need for more effective supervision of the EU financial institutions. At the end of 2008, the European Commission entrusted a group of experts chaired by Jacques de Larosière with the task of providing recommendations on the strengthening of the EU supervision cooperation in order to improve its functioning and crisis prevention. In February 2009, the group of experts recommended the creation of a new model of the EU financial market supervision. After discussions and specifications in the EU institutions, in November 2010, the European Council approved the new financial supervision architecture. It was implemented on January 1st, 2011, and represents continuity of the European Commission ambition to create the EU single market for financial services.

The European System of Financial Supervisors (ESFS) consists of one body with competences in the macro-prudential area, which supervises the EU financial system, and three bodies with competences in the micro-prudential area, which are in charge of supervision of the prudence of financial institutions. The National Bank of Slovakia is a member of all four European bodies and participates in their decision-making.

The main objective of the ESFS is to protect financial stability and ensure confidence in the financial system as a whole, as well as sufficient protection of the clients of financial services. It should lead to greater harmonization of the EU legislation and also the financial market supervision. While the aim of the macro-prudential supervision is to reduce tensions in the financial system as a whole and thus to prevent GDP losses, the aim of the micro-prudential supervision is to reduce problems of the individual financial institutions and consequently to protect the consumer.

On the micro level, the control of the institutions remains in the hands of national regulators and international boards, which will be more coordinated when monitoring international banks and insurance companies. Thus, national authorities will be under the supervision and some influence of the EU authorities.

On the EU level, the micro-prudential supervision was entrusted to three new supervision authorities (the European Supervisory Authorities, ESA), which replace the European Commission advisory committees and strengthen the harmonization of the EU financial market supervision. These authorities are:

- the European Banking Authority, EBA, headquartered in London,
- the European Insurance and Occupational Pensions Authority, EIOPA, headquartered in Frankfurt,
- the European Securities and Markets Authority, ESMA, headquartered in Paris.

In addition, a Joint Committee comprised of and run by these three new supervision authorities on a rotating basis was established. The Joint Committee discusses questions related to the competences of several EU supervision bodies, e.g. financial conglomerates, retail investment products, accounting and auditing and measures against money laundering.

A new independent authority – the European Systemic Risk Board (ESRB) – was created in the area of macro-prudential supervision. It is headquartered in Frankfurt and focuses on the financial system as a whole. It identifies, analyzes and monitors possible threats to the EU financial stability and aims to prevent financial tremors. Until now, no other EU body fulfilled this function. This authority will identify systemic risks for the financial stability and, where appropriate, issue warnings and recommendations, implementations of which it will monitor. It will analyze and monitor the connections among the countries and financial institutions, channels which spread the tremors among regions, joint behaviour of the market participants as well as joint exposure to risks. The ECB president is ex officio the chairman of the ESRB. The decision-making body, the General Board, is comprised of the ECB president, the vice-president, the governors of the EU member states' central banks, and also the chairmen of EBA, EIOPA and ESMA. High officials of the financial supervision authorities of the EU member states are nonvoting members of the General Board.

Reforms in the Euro Area Functioning

In spring 2010, financial markets reacted to severe imbalances in some euro area member states' public finance and started to doubt the sustainability of their public debt. Concerns about the solvency of Greece, Ireland, Portugal and in a smaller extent also of Spain, Italy and Belgium, led to a record increase in spreads on their ten-year government bonds compared with German bonds. With regard to the high level of integration of the member economies, risk arose that the "contagion" might spread to the euro area as a whole. The European Council worked to solve the critical situation by adopting ad hoc measures to help the countries in danger. At the beginning of May 2010, a 110 billion EUR three-year

rescue plan was approved for Greece, under the condition of implementing fiscal consolidation measures and structural reforms. At the same time, the European Financial Stability Facility has been established as a limited liability company managed by the euro area member states, and also the European Financial Stabilisation Mechanism managed by the European Commission.³⁰ However, the establishment of this mechanism as a three-year temporary tool to protect the single currency did not calm the markets. Therefore, Europe proceeded to the next step.

At the March 2011 summit of the European Council, the heads of states and governments decided to amend article 136 of the consolidated version of the Treaty on the Functioning of the European Union and added a new paragraph with regard to the establishment of a permanent mechanism to ensure the euro area financial stability (the European Stability Mechanism – ESM).³¹ The European Stability Mechanism will be an intergovernmental organization, a regional rescue fund serving as a potential extraordinary financial assistance to euro area members in danger. Its effective lending capacity will be EUR 500 billion. Other EU institutions should express their opinion on the change and then it should be approved by the member states. National approval procedures, whose progress will probably not be easy, should be finished by the end of 2012 so that the decision could come into force on January 1st, 2013, i.e. before the termination of the temporary mechanism, and should be used as of July 2013. Slovakia and other countries will have to borrow money in order to make a deposit in the ESM, but the European Commission will make provisions for thus elevated deficit and debt when reviewing the fulfilment of the Stability and Growth Pact rules.

The current framework of the economic governance in the euro area was not strong enough to protect the single European currency and prevent the crisis. On the contrary, the crisis has revealed its weaknesses and deficiencies in its implementation. The EU reacts to these not only by establishing the crisis management framework, but above all by several reform steps with the aim to minimize the risk of future repetition of the crisis in the euro area.

The working group of the president of the European Council was assigned the task of developing proposals to strengthen the supervision framework (especially fiscal and macroeconomic). The resulting proposals aimed at greater coordination of economic policies of the euro area members, a more austere fiscal supervision and a new supervision framework in order to identify and correct emergent

³⁰ More on Slovakia's participation in the European Financial Stability Facility in the chapter on public finance.

³¹ The following paragraph is to be added to article 136: "3. *The Member States whose currency is the euro may establish a stability mechanism to be activated if indispensable to safeguard the stability of the euro area as a whole. The granting of any required financial assistance under the mechanism will be made subject to strict conditionality.*"

macroeconomic imbalances. Following the recommendation of the working group, the European Council decided to strengthen the “ex ante” dimension of the economic policies coordination by introducing the European semester³² as of the beginning of 2011.

In September 2010, the European Commission submitted six legislative proposals regarding the economic governance, which also included the Stability and Growth Pact reform, new provisions on the national fiscal framework and new supervision of the macroeconomic imbalances. The final agreement is expected in June 2011.

With regard to the coordination of economic policies, at the beginning of February, Germany and France presented a so-called competitiveness pact which should have ensured convergence of the euro area economies. The pact included abolishment of the wage indexation systems, mutual recognition of education diplomas and qualifications for the promotion of work force mobility, introduction of a common assessment basis for the corporate income tax, adjustment of the pension systems to the demographic development, incorporation of the so-called debt brake into constitutions of the member states and introduction of national crisis mechanisms for banks. Some of the above mentioned points raised strong criticism in many member states. Slovakia expressed disagreement with the proposed unification of the corporate income tax base. Eventually, at the March 2011 summit, the heads of states and governments of the euro area countries and some non-member states of the monetary union approved a so-called Euro-Plus Pact which stems from the French-German proposal. It should strengthen the economic pillar of the euro area and achieve a new quality of economic policy coordination, with the objective of improving competitiveness and thus ensuring a higher degree of convergence. Its objectives are, apart from the increase in competitiveness, also an increase in employment, public finance sustainability and reinforcing financial stability. Attention will also be paid to tax policy coordination. Direct taxation, however, will remain a competence of the individual member states.

Even now, it is possible to state that the EU and especially the euro area are becoming different from those which Slovakia entered. Essential solutions are necessary in order to manage the debt crisis. Only if the member states succeed in getting their public finance under control, restoring their financial stability and increasing competitiveness, the monetary union will strengthen and conditions for long-term and sustainable growth will be created. It would be hardly achievable without essential changes to the euro area functioning rules.

³² The European semester represents a time schedule pertaining to all supervision aspects including fiscal and structural policies. Individual supervision processes will be synchronized, although legally and procedurally autonomous.

8. Public Finance Development in the SR in 2010

In 2010, the development of public finance was to a large extent determined by the external environment influence and the domestic political development. The most important external factors which significantly affected the Slovak public finance development in the euro area included persisting impacts of the economic and financial crisis which manifested above all in the spreading of the so-called debt crisis to countries with a high general government debt-to-GDP ratio.

Concerned with a further spreading of the crisis to other euro area countries with a high general government debt-to-GDP ratio, the Lisbon Treaty no bail out³³ provision was circumvented and a EUR 110 billion loan to Greece was approved in the form of bilateral agreements between the individual EU countries and the Greek government. Part of the finance was contributed by the International Monetary Fund (IMF). The initial agreement of the Slovak Ministry of Finance to grant a EUR 800 million loan to Greece was reviewed after the change of government in the second half of 2010, and Slovakia became the only euro area country which did not participate in this loan. Despite the fact that the Slovak government dismissed bilateral help to Greece, it approved the participation in the European Financial Stability Facility (EFSF).³⁴

The total value of Slovakia's obligation within the EFSF framework is EUR 4 371 million, which represents a 0.99% share in the guarantees totalling EUR 440 million. However, expectations were not fulfilled that financial help coupled with the EFSF would contribute to the stabilization of the financial markets and restore the confidence in the ability to service the debt also in other highly indebted countries. The debt crisis spread to other countries, especially to Ireland, which also requested help from the EFSF,³⁵ due to the negative development in the banking sector and through increasing risk premiums paid to refinance public debts.

The most important internal factors affecting the general government budget (GGB) development include above all the end of the electoral cycle in 2010, and persisting effects of the economic and financial crisis. Despite the relatively strong growth of the Slovak economy, this was not reflected in the increase in general government budget revenues. As in the previous years, we can observe the following tendencies in the GGB development:

³³ Article 125 of the Lisbon Treaty: "A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project."

³⁴ Formally, the EFSF was created on May 20th, 2010, by the decision of ECOFIN. The functioning of the EFSF is time-limited and it will be liquidated in 2013. As of July 2013, it will be replaced by a permanent European Stabilization Mechanism (ESM).

³⁵ In 2011, Portugal was bailed out by the IMF and EFSF.

- The assumptions for budget drafting and approval was too optimistic due to the expected economic development. This manifested itself in the higher than planned general government budget deficit.

- The tendency to overvalue the expected revenues continued, especially with the revenues from the EU budget, but also tax revenues, partly also due to adjustments of some tax rates, above all the excise tax on diesel.

- The overall management process became less transparent due to the end of the electoral cycle in the first half of 2010 (tax predictions were not published on usual dates, especially in the first half of 2010, before the parliamentary elections).

The failure to fulfill the budget objectives followed also from the analysis of the approved Stability Programme for 2009 – 2010, which was updated in February 2010. The consolidation programme was based on tax and macroeconomic predictions of the relevant committees of the Ministry of Finance of the SR made in September 2009. The Stability Programme assumed a public administration budget deficit of 5.5% (GDP) and the consolidation effort (i.e. the year-on-year change in the adjusted primary balance of PAB) of 1% GDP.

Despite the more positive development of GDP growth in 2010, the GGB deficit reached 7.7% GDP according to preliminary data. Thus, the objectives defined in the Stability Programme were not fulfilled despite measures taken in the area of both revenues and expenditures in the second half of the year.

The initial period of the new political cycle brought a necessity to consolidate the PAB, because it was obvious already in the second half of 2010 that the planned parameters of the PAB management would not be achieved in that year. The new government reacted to this situation by several budgetary and non-budgetary measures. In November 2010, the framework document Proposal of measures to increase the public sector efficiency and improve the public finance was approved. Its main objective is to “intensify the systematic reduction of public expenditures. It has to result in savings already in 2011, but also in a higher-quality 2012 budget compilation.” The document defines the basic principles of effective public finance management:

- Orientation of the public sector on providing those activities which it can provide more effectively than the private sector.

- Transparency and efficiency of public finance spending.

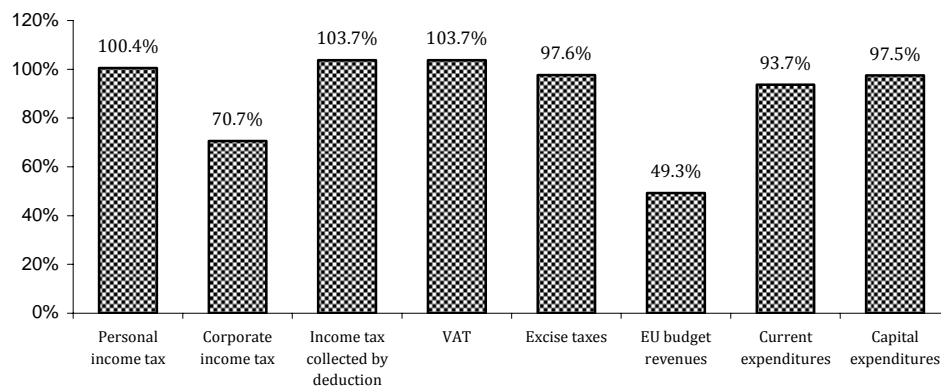
In a more detailed classification, it defines cross-sectional savings (institutional changes, electronic public procurement and auctions, sale of excessive immovable property) and identifies the basic framework areas in individual ministries where savings should be achieved. The budgetary impact of these measures will manifest themselves mainly in 2011 and 2012.

Central Government Budget

The above mentioned factors, the persisting impact of the economic and financial crisis and the date of the parliamentary elections, were the primary factors shaping the development of the central government in 2010. Compared with the previous year, the development of revenue and expenditure has been less volatile. The planned central government revenues should have amounted to EUR 12.5 billion, the expenditures to EUR 16.2 billion, and the total deficit to EUR 3.7 billion. The fulfillment of the individual categories of revenues and expenditures in 2010 central government budget compared with the originally approved central government budget is illustrated in Graph 33.

Graph 33

Development of Selected Central Government Budget Revenues and Expenditures in 2010 (comparison with initially approved budget)



Source: MF SR (2011a); own calculations.

The analysis of available data shows that the largest revenue fallout was recorded in corporate income tax revenues, which reached only 70.7% of the planned amount, and, traditionally, in the EU budget revenues, which reached only approximately 50% of its planned amount. This confirmed the assumptions about the overly optimistic expectations regarding the disbursement of finance from the EU budget, which have been present in the budget revenues structure practically since the beginning of the current programming period (2007 – 2013). Corporate income tax revenues continued to decrease and the year-on-year decrease reached EUR 872 million. Compared with the previous year, we observed an improvement in most tax and non-tax revenues, which reached the 2008 level (notably the personal income tax revenues). The fulfillment of individual income tax revenues exceeded the expected levels by 0.4% and achieved a year-on-year

increase by a respectable 485.7%. The revenues from this type of tax increased year-on-year by EUR 110.4 million. The second largest year-on-year increase – by 15.2% (EUR 585 million) – was recorded in value added tax (VAT) revenues; excise tax revenues increased by 6% (EUR 110 million). Compared with the approved budget, the tax revenues were lower by EUR 657 million and the EU budget revenues by EUR 1.2 billion. On the contrary, dividend revenues increased by EUR 183 million and other revenues by EUR 77.4 million. Total revenues were 3.4% higher compared with 2009, which represented an increase by EUR 360 million in absolute terms.

Table 21

Central Government Budget Development in 2010 (EUR million)

Indicator	Reality 2009	Proposal 2010	Adjusted 2010	Reality 2010	% fulfilment (initial)	% fulfilment (adjusted)	Index Reality 2010/2009
Total revenues	10 541	12 531	11 867	10 901	87.0	91.9	103.4
of which:							
1. Tax revenues	8 025	8 620	7 999	7 962	92.4	99.5	99.2
of which:							
Personal income tax	29	138	148	139	100.4	93.9	485.7
Corporate income tax	2 130	1 780	1 316	1 258	70.7	95.5	59.1
Income tax collected by deduction	156	147	135	152	103.7	113.1	97.8
VAT	3 846	4 504	4 395	4 432	98.4	100.8	115.2
Excise taxes	1 835	1 993	1 951	1 945	97.6	99.7	106.0
2. Non-tax revenues	828	627	583	681	108.7	116.8	82.3
3. Grants and transfers	1 688	3 284	3 284	2 257	68.7	68.7	133.7
of which:							
EU budget revenues	1 081	2 898	2 898	1 427	49.3	49.3	132.0
Total expenditures	13 332	16 277	16 407	15 337	94.2	93.5	115.0
of which:							
Current expenditures	11 173	13 847	13 977	12 969	93.7	92.8	116.1
Capital expenditures	2 159	2 430	2 430	2 368	97.5	97.5	109.7
Surplus/Deficit	-2 791	-3 746	-4 540	-4 436	118.4	97.7	158.9

Source: MF SR (2011a); own calculations.

In 2010, total state budget expenditures were higher by EUR 2 billion compared with the previous year, which represented a year-on-year increase of 15%. With regard to the negative development of expenditures, the new government had to gradually implement several austerity measures. However, due to the formation of the new government and the advanced period of the state budget management, these were restricted mainly to general expenditure cuts. In order to promote transparency, organizations funded from general government budget

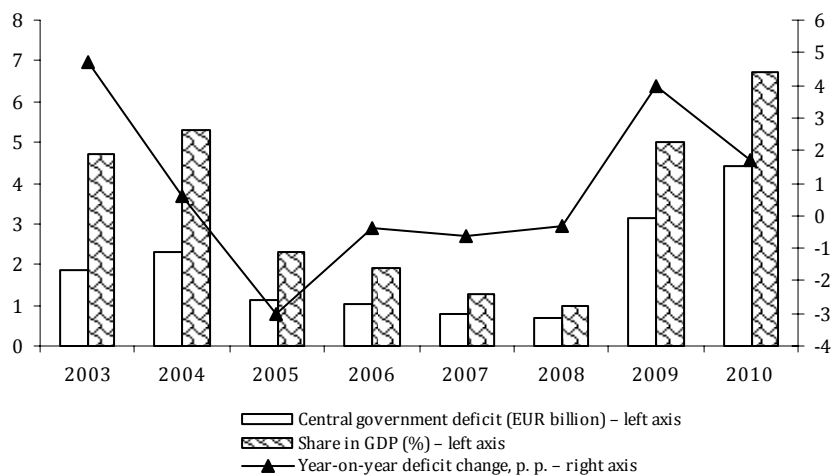
have been obliged to make public all contracts they signed with the private sector. Since the central government budget deficit reached 65.1% of its planned value by the end of the first half of the year, the government reviewed the actual deficit and also individual revenue and expenditure items. In the basic expenditure structure, current expenditures increased year-on-year by 16.1% and capital expenditures by 9.7%.

The expenditure side of the budget was negatively affected by unexpected expenditures related mainly to the unfavourable climate development, concretely the widespread floods which affected a considerable number of towns and villages in Slovakia's territory. Furthermore, the economic development of state owned enterprises, especially the railway companies and also the largest public health insurance company, significantly contributed to the negative development of the general government budget in 2010.³⁶

Central Government Budget Deficit and Debt

The central government deficit reached a record EUR 4.44 billion and its volume surpassed even the crisis year of 2009. It was the highest deficit since 2003 in both absolute and relative terms, its share in GDP reached 6.7% and increased year-on-year by 1.7 percentage points (Graph 34).

Graph 34
Development of Central Government Deficit in 2003 – 2010



Source: MF SR (2011a); own calculations.

³⁶ A more detailed analysis of other public administration budget components will be possible after the State Final Account for 2010 is published.

This was caused by a decrease in central government revenues coupled with an unchanged volume of expenditures approved in the initial version of the budget, which were not adequately revised due to impact of the political cycle (parliamentary elections).

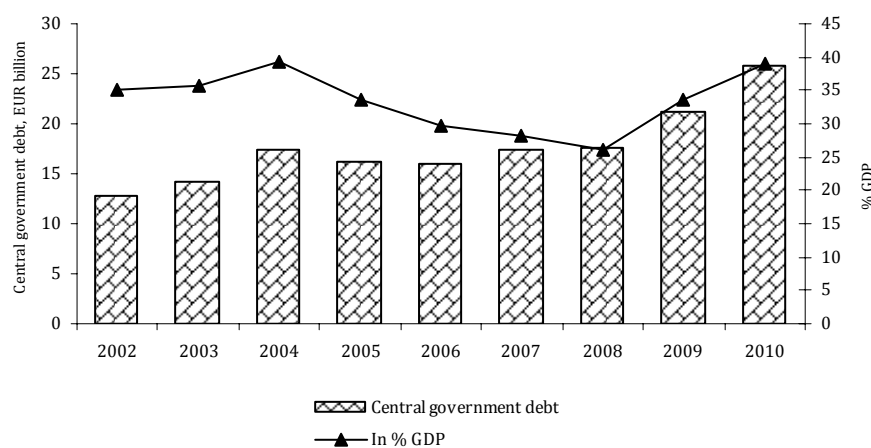
Since the state budget deficit reached 65.1% of its planned value by the end of the first half of 2010, throughout the year it increased by a further 17%, which represented EUR 794 million. The total deficit increased by EUR 690 million, which represented an excess of 16% over the planned deficit.

The last years' recurring deficits have been reflected in the significant increase in the central government debt. In 2010, it amounted to EUR 25.8 billion and its share in GDP increased to 39.1%. Also, its growth dynamics was the second highest since 2001, when its share in GDP increased year-on-year by 6.5 percentage points (in the previous year, 2009, the year-on year increase in debt was the largest since 2001, when its share in GDP increased year-on-year by 7.4%). Consequently, the share of the central government debt in GDP, illustrated in Graph 35, reached in 2010 the levels recorded in year 2004.

Throughout 2007 – 2010, the average central government deficit share on GDP was 2.3%. The most significant increase has been recorded in 2009 and 2010. It was caused partly by the global economic recession, but also by discretionary fiscal policy, and above all by insufficient flexibility of the fiscal authorities in response to changing macroeconomic conditions, inappropriate expenditure structure and especially by unwillingness to implement austerity measures on the side of expenditures in the parliamentary election year.

Graph 35

Development of Central Government Debt, 2002 – 2010



Source: MF SR (2011b); own calculations.

In 2010, the total central government debt increased year-on-year by 20.8% to EUR 25.8 billion. The share of domestic debt reached 61.7% and declined year-on-year by 2 percentage points in favour of increasing share of external debt by the same amount. In absolute terms, domestic debt increased by EUR 2.3 billion and external debt by EUR 2.1 billion. Compared with the same period of the previous year, short-term debt rose by a marginal 0.3 percentage point. Changes in the debt structure were mainly a consequence of the higher growth rate of external debt by 27.7% and short-term debt by 29.5%.

Throughout the 2007 – 2010 political cycle, the total central government debt increased by 48.1% and its share in GDP increased from 28.2% to 39.15% despite the fast GDP growth.

The approved consolidation of general government budget, whose foundations were laid in 2010, constitutes a reaction to this negative development. Its primary objective is to gradually decrease the general government deficit (part of which is also the central government budget deficit) to 2.9% of GDP in 2013. This ambitious goal will, to a large extent, be determined by the successfulness of the fiscal policy in realizing fundamental changes on the revenue side, but above all on the expenditure side. A vital aspect of the reform will be the creation of appropriate and stable institutional environment in the area of fiscal supervision (a so-called fiscal board), which will expertly, independently and apolitically gradually evaluate the implemented fiscal policy.

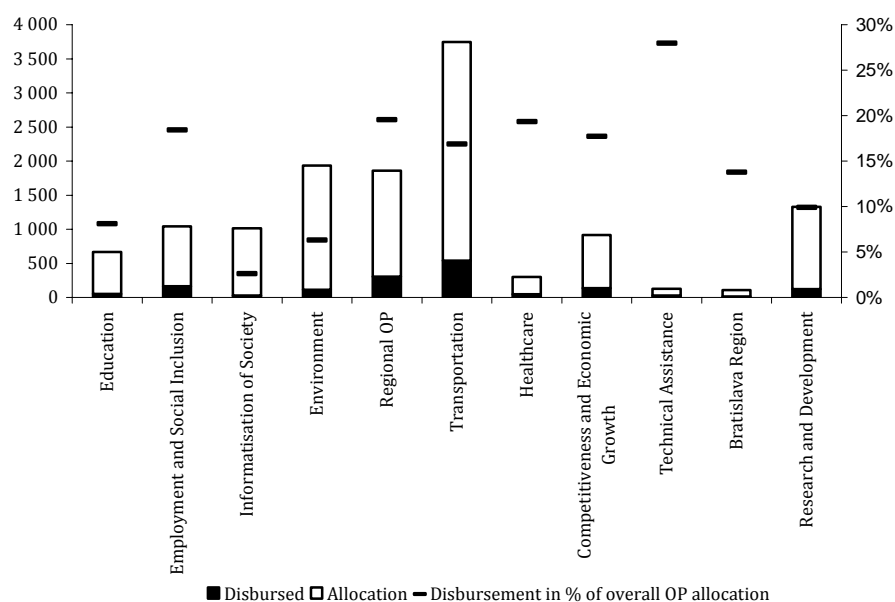
Implementation of the EU Structural Support in the 2007 – 2013 Programming Period

After a fairly slow financial implementation of the EU structural support in the previous years, the rate of implementation has been gradually improving in 2010. By the end of 2009, the rate of financial implementation reached 4.5%, which represented a year-on-year increase of 4.33 percentage points. At the end of 2010, the rate of financial implementation allocated increased to 13.42%, which represented a year-on-year increase of 8.92 percentage points. The rate of financial implementation by individual operational programmes is shown in Graph 36.

The highest year-on-year increase in financial implementation in percentage points was recorded in the Operational Programme (OP) Healthcare by 14.3; Regional Operational Programme and Technical assistance by 13.2; OP Competitiveness and economic growth by 12.1 and OP Transportation by 10.5. In contrast, the lowest increase was, as usually, recorded in OP Informatisation of society by 2.2; OP Environment by 4.5; OP Education by 7.3 and OP Research and development by 7.1.

Graph 36

Financial Implementation of Structural Funds and Cohesion Fund in the Programming Period 2007 – 2013 (objective 1 and 2) as of December 31, 2010, in %



Note: Right axis – financial implementation by individual operational programmes, % of total allocation to an operational programme.

Source: MF SR (2011c); own calculations.

The main factors which are negatively affecting the financial implementation of the individual operational programmes can be summarised as follows:

- low absorption capacity on both demand and supply side,
- insufficient stability of administrative capacities on both national and regional level,
 - applicants' insufficient experience in project creation,
 - insufficient domestic financial resources needed to co-finance projects,
 - rent-seeking behaviour, intransparency,
 - competence disputes among authorities responsible for the management and implementation,
 - administrative difficulties with the implemented projects,
 - insufficient number of realised relevant calls in individual operational programmes.

In 2010, several important changes in the area of Structural funds have been implemented related to the managing authorities. The transfer of competences and responsibilities from one Ministry to another and back again, the dissolution

of Ministries and their subsequent reestablishment has significant damaging effects on the management of Cohesion Policy programmes and overall institutional stability.

9. Outlook for 2011 and 2012

Overcoming the consequences of an especially severe recession represents an extraordinary phenomenon (similar to the extraordinary recession that preceded this moment). Unstable economy can lead to a broader range of development possibilities and the authors and users of predictions must inevitably accept the possibility of larger variations from the most probable alternative.

Aggregate data on the production of the economy suggest the overcoming of the recession already in 2010, but if we look at the labour market development and several socio-economic parameters, we have to acknowledge the longer-term consequences of the recession.

The critical factor (from the point of view of the SR economy) of the origination as well as overcoming of the recession was the dynamics of foreign demand. After a relative stabilization of the dynamics of foreign demand, we expect an increase in the importance of internal determinants of the development, especially domestic economic policy.

The outlook for the years 2011 and 2012 is formulated as follows: First, we confront the prediction for 2010 with reality in order to identify the factors which were overestimated or underestimated in the previous year. Taking them into account can help create the outlook for the next period. Second, we deal with the expected development of external as well as internal determinants. The last step involves the quantification of selected macroeconomic parameters (a narrower interval for the year 2011 and a broader one for 2012).

Confrontation of Previous Prediction with Real Development

In the publication *Economic development of Slovakia in 2009* (see Morvay et al., 2010), we drafted the outlook for 2010 in chapter 7, which we confront here with the real development in 2010 with the aim to become aware of the factors which we predicted correctly and of those we either overlooked or evaluated inaccurately. We assume that such a critical confrontation will improve the quality of our future outlooks.

Development Characteristics which Were Estimated Correctly

The economic growth dynamics was estimated correctly; the real value is close to the upper margin of the prediction interval.

Our expectations that manufacturing would initiate fulfilled partially. We can assert that only some branches of manufacturing fulfilled this initiatory function (for more information, see the chapter devoted to the production development in this publication). Some service branches,³⁷ whose dynamics was higher than expected, also initiated growth.

A significant lag in the reversal of the labour market development behind production was also a correct assumption. The size of the “lagging” decline in employment and the increase in unemployment rate was, however, undervalued (see below).

The expectation that wages would develop as in 2009 was also correct. We expected 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” (Morvay et al., 2010). This expectation was fulfilled completely.

Development Characteristics which Were not Estimated Correctly

Although we correctly predicted a further deterioration of the situation in the labour market, the extent of this deterioration was undervalued. The real unemployment rate reached higher levels and the real year-on-year decline in the number of workers (based on LFSS) was greater than predicted. We undervalued particularly the possible deterioration of the labour market indicators in the first half of 2010 (this phenomenon was expected, but its force turned out to be greater than predicted). However, we correctly predicted the signs of improvement of the situation in the labour market at the end of 2010.

Table 22

Confrontation of the Prediction for 2010 with Reality

Parameter	Unit	2009	Prediction 2010	Reality 2010
Real GDP, year-on-year change	%	-4.7	3.1 – 4.1	4.0
GDP volume, current prices	EUR billion	63.3	65.1 – 66.4	65.9
Number of workers, year-on-year change based on LFSS	%	-2.8	(-0.8) – (0.1)	-2.0
Unemployment rate based on LFSS	%	12.1	12.5 – 13.1	14.4
Average annual inflation rate (CPI)	%	1.6	1.3 – 1.9	1.0

Source: Real data for 2009 and 2010 according to SO SR; prediction for 2010 according to Morvay et al. (2010).

To summarize, it is obvious that we correctly predicted the dynamics of economic performance as well as the exceptionally heterogeneous participation of individual sectors in the development of total performance. However, although

³⁷ E.g. transportation and storage, real estate, renting and business activities.

we estimated the time lag in the labour market reaction behind the development of the economy fairly correctly, we failed to predict the extent of this lag (to be more precise, we correctly predicted the lag in wages but not employment). The predictions in this period routinely encountered a similar problem.

Determinants from the External Economic Environment

Herein, we deal primarily with possible impacts from the EU with particular attention paid to Germany³⁸ (with regard to the SR export orientation and territorial structure of exports). We base our predictions on business climate indicators as well as predictions of the world economy development made by renowned institutions.

Approximately from the beginning of 2010 to the autumn months, the Composite Leading Indicator³⁹ (CLI, published by the OECD) stagnated or declined slightly. This stagnation contrasted markedly with the rapid growth of this indicator in the second half of 2009. At the end of 2010 and at the beginning of 2011, there was an indication of a mild improvement in the CLI development. With regard to the informative value of the CLI (actual values indicate the development in the next 6 to 9 months), we could not expect any fundamental change in the cycle phase in the OECD or euro area member states (Graph 37). It is also remarkable that the CLI fluctuations for the SR are more pronounced than the CLI fluctuations for the OECD or the euro area (also Graph 37). This implies a more substantial fluctuation in the expectations of cycle phase change in the SR compared with more advanced economies' average (e.g. the CLI in Czech Republic did not respond in this manner).

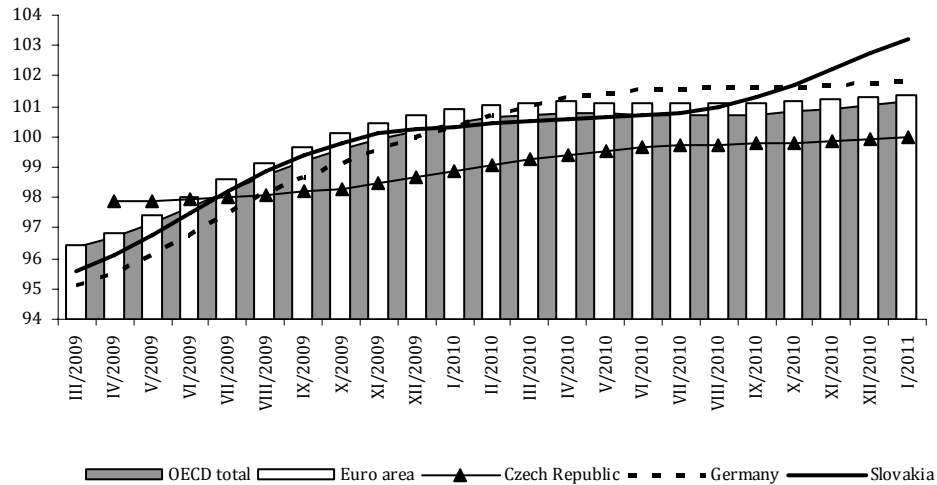
When concentrating on the German economy, we take into account the so-called business cycle clock which we construct based on the Ifo methodology.⁴⁰ It is remarkable, how this clock moved from the recovery phase to boom throughout 2010 and in the first months of 2011 (Graph 38).

³⁸ The development in Germany directly impacts the development of the Slovak economy through the terms of trade and the German economy also affects the development in other Slovakia's important business partners (thus secondarily affecting the Slovak economy).

³⁹ The Composite Leading Indicator is constructed by the OECD with the aim to provide early signals about reversal points between expansions and contractions of the economic activity. For each country, it is constructed from a system of selected economic indicators with the ability to inform about future reversal points. If there is a reversal point in the CLI, it signals an approaching reversal point in the real economic cycle in about 6 to 9 months. The CLI is optimized to identify reversal points, not the pace of recovery or slowdown in the economic cycle. E.g. a very high or low level of the CLI can not be interpreted as an indication of a very high or low level of economic activity or economic growth. It can only be interpreted as a probable change in the economic cycle phase in the near future. For more information see: < www.oecd.org/std/cli>.

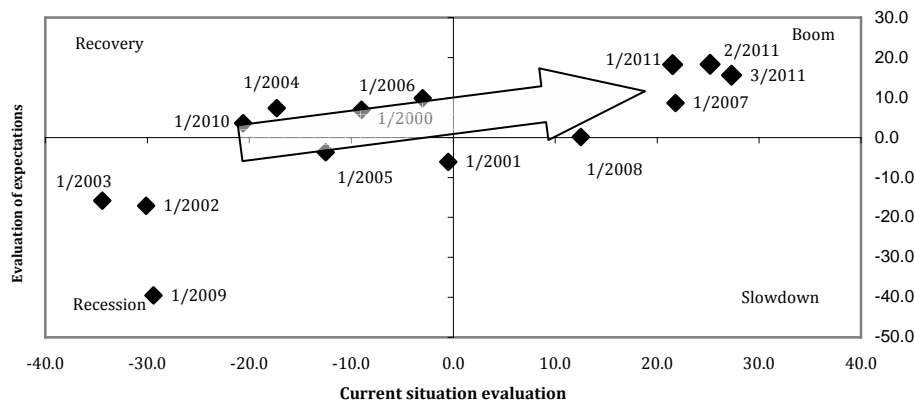
⁴⁰ Ifo provides the business cycle clock in German manufacturing (see Ifo, 2011). We use the same methodology but apply it to a broader range of sectors: German industry and trade.

Graph 37
Development of OECD Composite Leading Indicator
 (normalized CLI, average = 100)



Source: OECD.

Graph 38
Business Cycle Clock Applied to Data on Industry and Trade in Germany
 (seasonally adjusted balances)



Note: Combination of balances in the evaluation of current economic situation and short-term expectations.
 Source: The Ifo Business Climate for Germany, constructed based on Ifo methodology.

There has been a strong positive shift in perceptions of the current situation while expectations stagnated (in March, there was even a slight decline in expectations). This is consistent with the claim of another renowned institution, Institut

für Weltwirtschaft (IfW), which referred to the excess of the normal capacity utilization rate in Germany at the beginning of 2011 (see IfW, 2011). If, in case of Germany, we link the information about the balanced CLI, the position of the business cycle clock in the boom phase and the excess of the normal capacity utilization rate, it seems logical to expect a slight, minor slackening of the economic growth in the next period. This is reflected in the prediction of the IfW (2011a), as well as the European Commission (2010) and the EEAG (2011).

Similarly to Germany, we can also count with a slight, minor slackening of the economic growth rate in the EU region. However, the above mentioned CLI does not indicate a significant turning point (phase change). On the other hand, information about the consolidation programmes of the governments in the area of public finance, the persistent problems with the debt crisis and the already terminated effectiveness of the anti-crisis measures indicate at least a slight slowdown. Predictions of the above mentioned institutions draw attention to minor changes in the EU growth dynamics (Table 23). The expected slight slackening of the EU economic growth in 2011 is milder than in Germany (where e.g. IfW expects a growth rate decline from 3.6% in 2010 to 2.8% in 2011 and 1.6% in 2012).

Table 23

EU Economic Growth Rate Predicted by Selected Institutions

	2010 (r)	Institution	Prediction 2011	Prediction 2012
Year-on-year change in real GDP,%	1.8	IfW	1.7	1.6
		Eurostat	1.7	2.0
		EEAG	1.5	

Note: r – reality.

Source: European Commission (2010); IfW (2011); EEAG (2011).

It is interesting that throughout the second half of 2010 and at the beginning of 2011, the predicted rates of economic growth for 2011 were revised upwards, sometimes considerably. The expected slowdown is thus perceived as less severe compared with the previous predictions of the same institutions (a conspicuous difference is e.g. between the spring and autumn prediction of the EC for 2011). According to the above mentioned predictions, a mild slackening of the economic growth rate will be coupled with an increase in inflation rate in the EU in 2011 (without another increase in 2012). The cause may be the compensation for price stagnation during the recession as well as the tense situation in both energy resources market and agri-food market.

The factors related to the external environment imply the following:

1. In 2011 and 2012, the production development in the external environment will be slightly less positive compared with 2010. The main reason will probably

be the consolidation programmes in the public finance in the EU environment. However, most probably, there will be no crucial turning point which would negatively affect the export dynamics of the SR. At the time of preparation of this outlook, it was not possible to make a good estimate of the impact of the debt crisis in Portugal (and eventually in other countries).

2. Inflationary pressures will become more pronounced. The end of the previous disinflationary effects of the recession and the price increases in the energy and food markets are coupled with the price level increase which seems strong compared with the previous years. The reinforcement of the price level increase pertains especially to the year 2011. In 2012, the inflation rate should not increase further.

Determinants from the Internal Economic Environment

As stated above, the actual development of the economy in the previous period (during the recession and subsequent recovery) was determined mainly by the external factors. However, gradually (after the turbulences in the external environment alleviate), we anticipate an increase in importance of internal factors of development.

Among the internal factors of future (relatively short-run) development, we notice particularly the expected impact of the government economic policy and the development of indicators informing in advance about the future economic development.

In the monitored period, the economic policy will presumably be characterized by an effort to consolidate public finance and alleviate the interventionist impact of the state on the economy. A combination of these policies is restrictive in the short-run: the savings in public expenditures weaken domestic demand and the alleviation of interventionism supports growth only in the long-run (in the short-run, it increases economic uncertainty).

Although the public finance consolidation lowers the risks of economic destabilization, improves its future competitiveness and sustainability of its development, these positives can not balance the restrictive short-term impact of radical savings. As illustrated in Table 24, the decline in the share of public expenditure in GDP should play a crucial role in public finance consolidation. The reform intentions that the government will try to implement (hereby we mean especially the labour law and tax and social security contribution reform) will not have a rapid and positive impact on the economic development. Thus, we expect that the restrictive impact of the government economic policy will prevail. A potential achievement of consolidation objectives (public finance deficit lower than 3% GDP in 2013 and the first decline in gross public debt-to-GDP ratio in

the same year) would contribute to a higher quality of the economic growth – but well beyond the period of this outlook. Naturally, the realization of the intended consolidation programme can change sharply due to possible euro area instability or consequences of the reform steps of the government (e.g. due to unprogrammable consequences of the tax and social security contribution reform).

Table 24

Public Finance Development Parameters by Public Administration Budget (% HDP)

	2008 (r)	2009 (r)	2010 (pr)	2011 (pab)	2012 (pab)	2013 (pab)
Public administration revenues	32.5	33.4	31.8	33.3	32.1	31.0
Public administration expenditures	34.8	41.3	39.5	38.2	35.9	33.9
Public administration surplus (+)/deficit (-)	-2.3	-7.9	-7.8	-4.9	-3.8	-2.9
Public administration gross debt	27.8	35.4	43.4	45.6	46.9	45.4

Note: r – reality, pr – predicted reality, pab – public administration budget.

Source: Ministry of Finance of the SR (2010).

The economic sentiment indicator (ESI), which can be considered to indicate the future development, developed relatively positively in the first months of 2011 (at 95 – 97% of the average 2005 levels, which is 30 percentage points more than near the bottom of the recession in May 2009, see Graph 39). If we connect this information with the CLI development for Slovakia (in Graph 37), we can assume relatively positive development of expectations. Naturally, the ESI can help us solely when constructing short-term outlooks (only for 2011). When evaluating the climate, an increase in foreign investors' optimism is also remarkable: two thirds of 166 foreign investors in the SR who were included in the business survey (see Slovensko-nemecká obchodná a priemyselná komora, 2011) stated that they expect an improvement of their situation throughout 2011, and 39% even counted with hiring new workers.

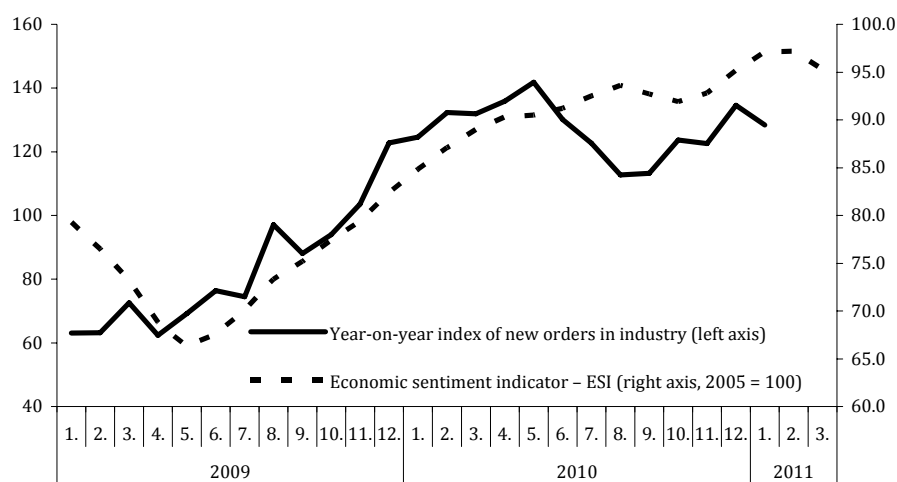
Optimistic conclusions also stem from the development of new orders in industry. In January 2011, their year-on-year increase was even higher than in the same month of 2010 (even though the January 2010 value was extremely high due to the low comparative basis of 2009, see Graph 39).

It is interesting that the increase in new orders is more equally divided among individual branches compared with the same period of the previous year: while in January 2010, the year-on-year dynamics of new orders was extremely diverse

(which caused expectations of a very heterogeneous development), in January 2011, the extent of this diversity is considerably lower (Graph 40). Thus, the recovery pertains to a wider spectrum of industrial branches than a year ago. Naturally, such an indicator does not describe the future development of the value added. It is only a signal referring to the production activity development.

Graph 39

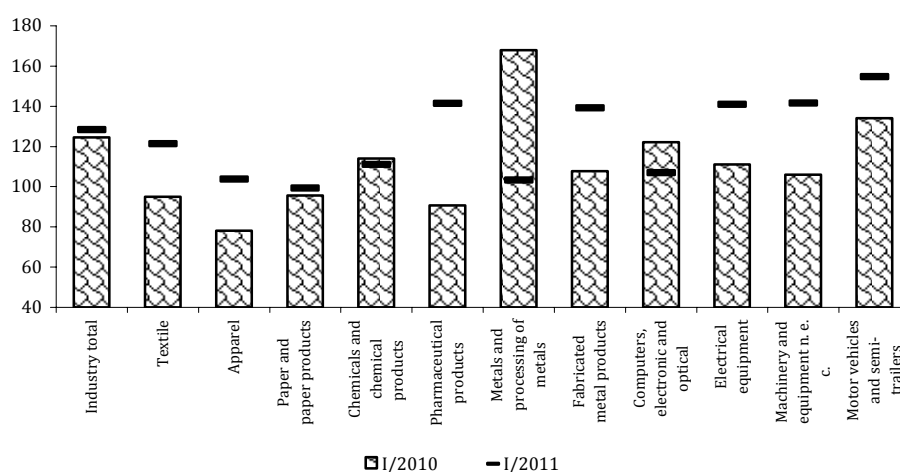
Development of Economic Sentiment Indicator and New Orders in Industry



Source: SO SR.

Graph 40

Development of New Orders in January 2010 and 2011 by Industrial Branches



Source: SO SR.

To summarize, in 2011, the known internal factors will imply a diffusion of the recovery among more branches, a relatively favourable climate but also an economic policy with a significant restrictive short-term impact. However, the public finance consolidation should have a less restrictive impact in the next year and factors accelerating economic growth should prevail.

Expected Macroeconomic Development in the SR

We focus mainly on predicting the development in the following three areas: economic performance, price level development and labour market indicators development.

According to the confrontation of external and internal factors of future development, in 2011, the forces slowing down the economic growth will probably be slightly more dominant. In the next year, the forces accelerating the economic growth rate will prevail. In our opinion, the result will be a minor economic growth deceleration in 2011, followed by a more substantial acceleration in 2012 (Table 25). It is very probable that in 2011, real GDP will exceed the “pre-crisis” 2008 levels. However, we do not expect the real GDP growth rate to achieve the exceptionally high values recorded in the last years before the economic recession.

Table 25

Prediction of Development of Selected Macroeconomic Parameters

Parameter	Unit	2009 (r)	2010 (r)	2011 (p)	2012 (p)
Real GDP, year-on-year change	%	-4.7	4.0	3.4 to 3.9	4.2 to 5.0
GDP volume, current prices	EUR billion	63.3	65.9	69.6 to 71.0	73.9 to 76.9
Number of workers, year-on-year change based on LFSS	%	-2.8	-2.0	0.6 to 1.1	0.7 to 1.6
Unemployment rate based on LFSS	%	12.1	14.4	13.6 to 14.1	12.8 to 13.6
Average annual inflation rate (CPI)	%	1.6	1.0	3.5 to 4.0	2.9 to 3.7

Source: Reality (r) in 2009 and 2010 according to SO SR; prediction (p) of the authors.

We can expect a substantial attention of the experts and the society as a whole drawn to the price level and labour market development.

The “attractiveness” of the topic of price level development will be caused by a substantial increase in inflation rate compared with the previous period. At the beginning of 2011, society’s attention was caught by the topic of recovering inflation and especially the increase in food prices. However, it is also necessary to note that both total inflation rate and food price growth rate are nowhere near extreme values. The values from the beginning of 2011 appear high only when compared with the last two years. When compared with a more long-term development, it is clear that they are not unusually high.

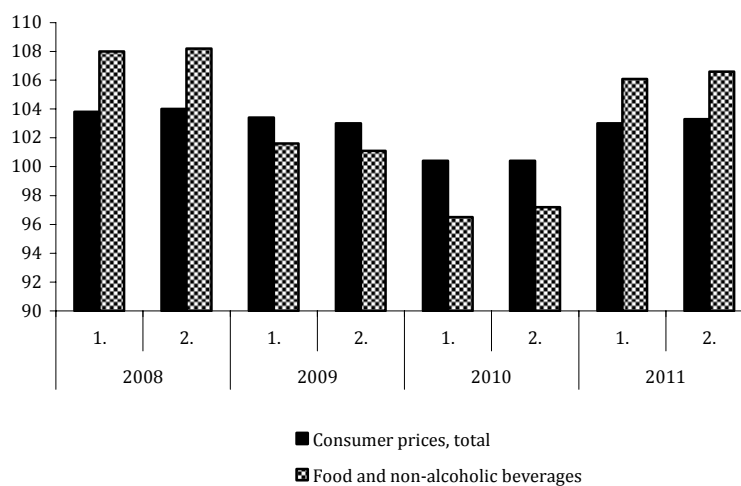
If we focus only on food prices, the jump development can not be denied. But e.g. the January jump in food price levels (6.1%, which is undoubtedly higher than in the previous two years) is similar to those in other years (2004, 2000, 1998, 1997) and even lower than in January 2008.

If we broaden our focus from food prices to prices of all goods, we see that the total inflation rate in the first two months of 2011 was 3.2%. The total inflation rate was only sporadically lower in the 16 years for which there is a qualitatively homogenous time series at our disposal. A relatively strong increase in food prices at the beginning of 2011 was to a certain degree compensated by a much weaker increase or even a decline in prices of other goods.

At the beginning of 2011, inflation is perceived as high mainly because it was significantly lower in the previous two years due to the recession. The return of rising prices is a normal phenomenon in an economy recovering from a recession (in the SR, other factors, such as the increased VAT and excise taxes rates, the impact of poor yields and the energy price corrections also played their role). At the same time, the inflation rate is not higher than the common and “normal” one before the recession.

Graph 41

**Consumer Price Development in the First Two Months of the Year
(year-on-year indices)**



Source: SO SR.

We expect the average inflation rate in 2011 to be slightly higher compared with the above mentioned value from the beginning of the year (Table 25). We predict a value between 3.5 and 4% which is substantially higher than the 1.0% in 2010. From the long-term perspective, this inflation rate is still relatively low

considering the SR economy attributes. In 2012, a slight decline in inflation rate can be expected (provided that the inflationary effect of the recovery as well as the tense situation in the world commodity markets fade away and the indirect taxes in the economy are not increased).

Due to the previous recession, the position of the labour market as the neuralgic point in the economy was emphasized. At the end of 2010, approximately three quarters after the economic growth rate recovery, signals of improvement appeared in the labour market:

- In 4Q 2010, the unemployment rate (based on LFSS) was not higher than in the same quarter of the previous year for the first time (Graph 42).

- In 4Q 2010, for the first time after seven quarters, the number of employees increased, although very slightly (by 0.4%, see Graph 43).

- In January 2011, the year-on-year parameters describing the inflow of job applicants registered at labour offices improved slightly (Graph 44). Their inflow decreased mildly, outflow increased more perceptibly and the number of placed (those who cease to be registered because they found a job) also increased.

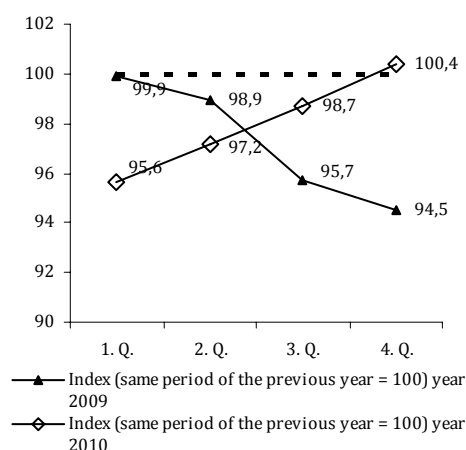
- It is remarkable that at the end of 2010, the outflow of job applicants was the largest in the last 4 years (Graph 45). It was stronger than in the years preceding the recession. The combination of high inflow and high outflow is the evidence of intensified flows in the labour market, which indicates the process of so-called creative destruction (many employees are being dismissed but more are already being employed).

Graph 42
Unemployment rate (LFSS) by quarters



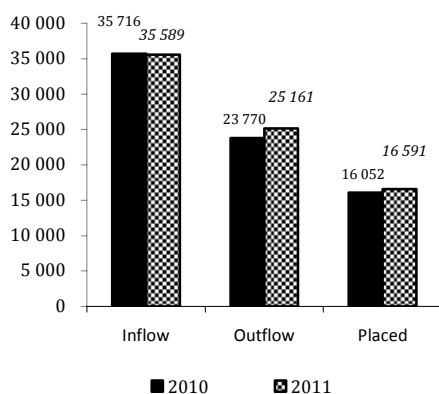
Source: SO SR.

Graph 43
Year-on-year change in the number of employees (LFSS)



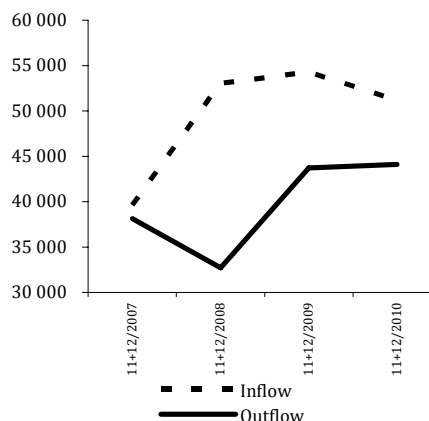
Source: SO SR.

Graph 44
Inflow and outflow of unemployed
registered at labour offices
(first month of the respective years)



Source: COLSAF.

Graf 45
Inflow and outflow of unemployed
registered at labour offices
(last two months of the respective years)



Source: COLSAF.

Although the first signs of improvement have already appeared in the labour market, we still suggest approaching the future development with a great deal of caution. We presume the recession forced the companies to realize a stringent rationalization of labour force. Companies try to react to the recovering demand by attempts to increase productivity, and they increase employment more significantly only when absolutely necessary. Thus, in 2011, we still count only with a slight increase in the number of employees (a little larger than in the last quarter of 2010).

In the next year, we expect better prospects for employment increases, although still not as good as in the last years before the recession. According to our estimates, the employment level will not reach pre-recession levels even in 2012. However, we expect a slight recovery in the labour price development. After a year-on-year increase in average wage of approximately 3% in 2009 and 2010, we expect a wage increase of around 4.5% in 2011 and of approximately 5% in the following year.

The employment rate development will be positively affected by an increase in employment in the private sector but negatively by the dismissals of public administration employees. It can also be negatively affected (in the short-run) by the reaction of some self-employed persons to the intended contributions reform.⁴¹

⁴¹ Mostly self-employed persons whose employment is of the same nature as dependent work; often they are so-called involuntary sole proprietors who became self-employed to save indirect labour costs or to avoid labour legislation.

A more significant reduction of the unemployment rate could be induced by new FDI inflows. We expect (based on LFSS) only a very small decline in the unemployment rate in both 2011 and 2012 (Table 25).

Basic characteristics of the expected macroeconomic development include the mild slackening of the economic growth (2011) replaced by its acceleration (2012) coupled with a very slight increase in employment, a very slight decline in the unemployment rate and recovering inflation. In the period covered by this outlook, economic performance will surpass pre-recession levels, but the employment level will not follow suit. The importance of internal determinants of economic development will increase (assuming that the importance of external shocks declines). It should be a period of renewed strengthening of the convergence process.

10. Selected Economic-policy Measures in 2010

The most important political event of the year 2010 were the parliamentary elections and the creation of the new government, which presented a change in the economic policy in its programme declaration (Civic Responsibility and Co-operation – Manifesto of the Government of the Slovak Republic for the Period of 2010 – 2014). In this document, the government expressed its concern especially over the following: sound and sustainable public finance, improvement of the overall business environment, solution of the new social risks, removal of barriers to employment growth, improvement of law enforcement and the fight against corruption. It also proclaimed the interest to support education, science and research.

The first measures of the new government concerned the fight against corruption and transparency of the public sector. By approving the Act No. 546/2010 Coll., the central authorities of the state administration, public institutions and subordinated organizations are obliged to publish contracts pertaining to the use of public resources. The second approved measure imposed (as of January 1st, 2011) obligatory electronic auctions by most public procurements at ministries, in subordinated organizations and other central authorities of the state administration and state companies.

At the beginning of 2010, R. Fico's government decided to liquidate the Ministry of Environment of SR in the framework of austerity measures in the state administration, and to merge its agenda with the Ministry of Agriculture of SR. The new government restored an independent Ministry of Environment of SR by an amendment of the Competence Act. The Ministry of Environment of SR has been operating since November 1st, 2010.

The negative development of public finance forced the new government to approve austerity measures throughout 2010. The government did not extend the validity of the contract on the 1st package of PPP projects related to building and operation of 75 km of D1 highway sections from Martin to Prešov. It also refused to grant financial help amounting to EUR 818 million to indebted Greece. The austerity plan affected also the state administration, where wage costs declined by 10%. The degressive business mark-up for hospital medication was established again (representing annual savings of EUR 10 million), as well as the purchases of some types of cancer medication for the patients directly by health insurance companies, and not by the pharmacies.

Changes also affected taxation. The amendment to the Income Tax Act abolished or modified some exceptions and exemptions.⁴² In accordance with the amendment, as of January 1st, 2011, the value of emission quotas registered in 2011 and 2012 will also be taxed. Their value will be determined based on the market price. The tax base should be the value of transferred and unconsumed emission quotas. In accordance with the amendment, the tax rate on the emission quotas will be 80% from the tax base. The Value Added Tax Act was also amended. The most important provision refers to the change in the base rate of VAT, which increased from 19 to 20% as of January 1st, 2011. The increase in the base rate is only temporary and the 19% VAT rate should be introduced again in the calendar year following the year in which the public administration deficit declines below 3%. The lower, 6% VAT rate, applied to a limited range of goods, was abolished by the amendment.

There were some changes also in the labour market and social policy. The approved amendment to the Employment Services Act introduced a new instrument of active labour market policy – a contribution towards the support of employment for implementation of measures for the protection against floods and resolving the consequences of an exceptional situation. The contribution is allotted to implementation of measures for the protection against floods and resolving the consequences of an exceptional situation. The amendment also defined the minimum duration of graduate work experience to be 3 months. The aim of the graduate work experience is to gain professional abilities and practical experience. The previous legal regulation limited only its upper limit – to 6 months. The amendment also abolished the contribution to employing graduates and preparation for the labour market (the contribution for moving because of work

⁴² The level of exemption for some types of incomes as well as the non-taxable part of the tax base per taxpayer and spouse were lowered; the non-taxable part of the tax base for life insurance, supplementary pension insurance and targeted savings was abolished; the level of lump expenditures was unified; the tax exemption of the income from real estate sales will be possible five years after its acquisition or its retirement from the business assets.

was retained). The approved Act on Subsidies for Housing Development and Social Housing, which replaced the decree of the former Ministry of Construction and Regional Development, set conditions for granting housing subsidies.⁴³ The 2010 minimum wage was EUR 307.7. The new government retained the Christmas contribution for low-income retirees also in 2010. The contribution was divided into 8 groups, from EUR 66.39 to EUR 40.34 depending on the income. The contribution applied to retirees with incomes amounting to EUR 446.70.

The government reacted to the floods not only by amending the Employment Services Act, but also by accepting a new Act on subsidies to compensate losses incurred by a negative climatic phenomenon which can be compared with a natural disaster, natural disaster itself or by an exceptional event. This act should ensure providing help by large economic damages which are caused in agriculture by floods.

The amendment to the Deposits Protection Act abolished the full coverage of deposits in banks. The former government introduced this protection in reaction to the global financial crisis. Since December 31st, 2010, the new European directive has been stipulating a single limit for deposits protection valid for all member states. The maximum compensation limit for inaccessible deposits in a credit institution was set at EUR 100 000. The time-limit to compensate for inaccessible deposits was shortened from three months to 20 working days.

The competences of the Council of Deposits Protection Fund have also changed. The obligation of all EU member states to regularly verify the functionality of the deposits protection systems represents a new aspect. The amendment to the Consumer Credit Act and Other Loans and Consumer Loans also pertains to the financial sector. The approved changes relate primarily to the incidence of the Act, information duties and termination of the legal relationship between the consumer and the consumer loan provider.

On March 4th, 2010, the National Council of the Slovak Republic approved the Act on inadequate conditions in commercial relations between the buyer and the seller of the good, specifically foodstuffs.⁴⁴

The previous National Council of the SR approved the Act No. 101/2010 Coll. on Proving Origin of Property. The aim of this act is to define the conditions and the process of forfeit of assets deemed by court to come from illegal

⁴³ A subsidy can be granted in order to buy flats whose average area does not exceed 60 square meters. Within the framework of the Programme of Housing Development, resources amounting to EUR 47.069 million were assigned to this aim in 2010. In 2011 and 2012, these expenditures will reach EUR 50.787 million.

⁴⁴ Inadequate conditions include e.g. financial settlements for enlisting the products in the buyer's evidence of goods; for using the distributional network of the buyer; for placing the seller's product at a certain place in the buyer's premises; for services rendered by a third party aimed at buyer's sales support and promotion etc.

earnings from natural and legal persons. Individual cases are investigated by the financial police on the basis of a written notice of a public authority or on their own initiative. If the financial police find a violation of the law, a proposition to take proceedings will be passed on to the prosecutor. The prosecutor subsequently calls upon the natural or legal person to provide an explanation and prove origin of the property. If the person in question fails to sufficiently prove legal origin of the property in a set period, the prosecutor can demand that a court rule that the property has been accumulated via illegal earnings. If the illegal accumulation of the property is proven, court can rule that the property is confiscated by the state.

On March 3rd, 2010, the National Council of the SR decided to change and amend the Act No. 581/2004 Coll. on health insurance companies, health care supervision and change and amendment to certain other laws as amended, and to change and amend the Act No. 580/2004 Coll. on health insurance, and to change and amend the Act No. 95/2002 Coll. on insurance and change and amendment to certain other laws as amended. In the long run, the approved changes should create a prerequisite to synchronising the health care and tax system, which is necessary for a smooth transition to a “single collection point”. The aim of the single collection of taxes, duties and contributions is to simplify and reduce the administrative burden.

The National Council of the SR approved the Act No. 136/2010 Coll. on services on the single market and change and amendment to certain other laws, which defines the rights and duties of services providers, rights of services recipients, supervision of services providers, activities of points of contact and co-operation with other EU member states’ authorities. By approving this act, the Directive of the European Parliament and the Council of European Union on Single Market was transposed. The aim of this directive is to liberalize services, remove inadequate, unsubstantiated and discriminatory burdens to providing services and unify conditions in the area of services providing in the individual member states. In 2010, the Act No. 91/2010 Coll. on support of tourism was approved. The act defines support of tourism, rights and duties of natural and legal persons operating in the area of tourism, creation of conceptual documents and financing of the development of tourism. In accordance with the act, state, higher territorial units, municipalities, natural and legal persons finance the development of tourism, especially through state budget subsidies and member fees in tourist organizations. The subject of legislation is the creation, functioning and financing of regional and local tourist organizations and setting the rights and duties of natural and legal persons in the area of tourism. The act represents the first systematic regulation in the area of tourism support.

From the point of view of approved economic-policy measures, the election year 2010 was special. The government of R. Fico, which presented itself as left-wing, was replaced by a central-right-wing coalition led by the Prime Minister I. Radičová. The new government had to react to the previous development (floods, loan to Greece, state budget management) in the second half of the year. The reforms advised in the programme declaration have started to be adopted only in 2011. Key changes appear to be those aiming at improvement of the business environment (changes to the Labour Code and tax and social security contribution burden of some groups of businessmen), as well as judiciary changes.

References

- ECB (2010): Energy Markets and the Euro Area Macroeconomy. Structural Issues Report. Frankfurt/Main: European Central Bank.
- ECB (2011a): Reforma hospodárskeho riadenia v eurozónе – základné prvky. Mesačný bulletin, marec 2011.
- ECB (2011b): Statistics. Exchange Rates.
- EEAG (2011): The EEAG Report on the European Economy 2011. <<http://www.cesifo-group.de/portal/page/portal/ifoHome/B-politik/70eeagreport>>.
- EISLER, P. (1968): Americké hospodárství v letech 1918 – 1945. In: Úvod do hospodářských dějin. Praha: Svoboda.
- European Commission (2010): European Economic Forecast – Autumn 2010. <http://ec.europa.eu/economy_finance/eu/forecasts/2010_autumn_forecast_en.htm>.
- EUROSTAT (2011): Statistics Database. <<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>>
- Európska rada (2011): Závery, 24. – 25. marca 2011.
- HAVLIK, P. et al. (2011): Economic Prospects for Central, East and Southeast Europe. Vienna: WIIW.
- Ifo (2011): Ifo Business Climate Germany. <<http://www.cesifo-group.de/portal/page/portal/ifoHome/a-winfo/d1index/10indexgsk>>.
- IfW (2011a): Deutsche Konjunktur im Frühjahr 2011. <http://www.ifw-kiel.de/wirtschaftspolitik/konjunkturprognosen/konjunkt/2011/konjunkturprognosen_deutschland_1-11.pdf>.
- IfW (2011b): Weltkonjunktur im Frühjahr 2011. <http://www.ifw-kiel.de/wirtschaftspolitik/konjunkturprognosen/konjunkt/2011/konjunkturprognosen_welt_1-11.pdf>.
- IMF (2010): Global Financial Stability Report. Sovereigns, Funding, and Systemic Liquidity. Washington, DC: International Monetary Fund, October.
- ISI Web of Knowledge (2011): On-line bibliografická databáza. <http://apps.isiknowledge.com/UA_GeneralSearch_input.do?product=UA&search_mode=GeneralSearch&SID=V19g1lbgINccF7kd5cn&preferencesSaved>.
- MF SR (2010): Rozpočet verejnej správy na roky 2011 až 2013. URL: <<http://www.finance.gov.sk/Default.aspx?CatID=7830>>.
- MF SR (2011a): Priebežné plnenie štátneho rozpočtu. URL: <<http://www.finance.gov.sk/Default.aspx?CatID=7767>>.
- MF SR (2011b): Dlh ústrednej vlády Slovenskej republiky. URL: <<http://www.finance.gov.sk/Default.aspx?CatId=7319&id=2010>>.
- MF SR (2011c): Štrukturálne fondy a Kohézny fond k záveru decembra 2010. URL: <<http://www.finance.gov.sk/Default.aspx?CatId=84&NewsID=395>>.

- MITCHELL, B. R. (1980): *European Historical Statistics 1750 – 1975*. Second Revised Edition. London: Macmillan Facts on File.
- MORVAY, K. a kol. (2010): *Hospodársky vývoj Slovenska v roku 2009*. Bratislava: Ekonomický ústav SAV. ISBN 978-80-7144-177-9.
- MORVAY, K. (2010): Vplyv ekonomickej recesie na štruktúrne zmeny zamestnanosti na Slovensku. *Ekonomický časopis/Journal of Economics*, 58, No. 2, pp. 144 – 155.
- NBS (2010): *Analýza konvergenie slovenskej ekonomiky*. Odbor výskumu NBS, júl 2010.
- NBS (2010 – 2011): *Mesačné bulletiny*. Bratislava: Národná banka Slovenska.
- NBS (2011): *Mesačný bulletin NBS*, február.
- NEBESKÝ, Š. – PALUŠ, P. – PÉNZEŠ, P. – ŠESTÁK, Ľ. (2010): Súvislosti vzniku nového usporiadania regulácie a dohľadu nad finančným trhom v Európskej únii. *Biatec*, 18, No. 10, pp. 22 – 27.
- OECD (2010a): *Economic Outlook*, Volume 2010/2, No. 8, November.
- OECD (2010b): *Economic Surveys: Slovak Republic 2010*. Paris: OECD Publishing.
- OECD (2011): *Composite Leading Indicators (CLIs)*. <www.oecd.org/std/cli>, March 2011.
- OKÁLI, I. et al. (2007): *Hospodársky vývoj Slovenska v roku 2006*. Bratislava: Ekonomický ústav SAV.
- Slovensko-nemecká obchodná a priemyselná komora (2011): *Prieskum konjunktúry 2011: Zahraniční investori na Slovensku sú opäť optimistickí*. <http://www.dsihk.sk/fileadmin/ahk_slowakei/Dokumente/Presse/Tlacova_sprava_prieskum_konjunktury_2011.doc>.
- ŠÚ SR (2011a): *Databáza Slovstat*.
- ŠÚ SR (2011b): *Štatistická správa o základných vývojových tendenciách v hospodárstve SR v roku 2010*. Bratislava: Štatistický úrad SR, marec 2011.
- ŠÚ SR (2011c): *Ukazovatele ekonomického vývoja SR*. Bratislava: Štatistický úrad SR.
- ÚPV SR (2011): *Výročná technická správa týkajúca sa činnosti v oblasti patentových informácií*. Bratislava: Úrad priemyselného vlastníctva SR. <http://www.indprop.gov.sk/swift_data/source/pdf/vyročne_technicke_spravy/patenty_2009.pdf>.
- WIIW (2011): *Current Analyses and Forecasts*. Vienna: WIIW, February.
- World Economic (2011): *International Monetary Fund*. Updated January 2011. <<http://www.imf.org/external/pubs/ft/weo/2011/update/01/index.htm>>.
- ŽÍDEK, L. (2007): *Dějiny světového hospodářství*. Plzeň: Vydavatelství a nakladatelství Aleš Čeněk, s. r. o.