BULGARIA COMPETITIVENESS REVIEW

May 2011

The present report makes an assessment of Bulgaria's stance in terms of competitiveness based on the following OECD definition[1]: Competitiveness is the degree to which a nation can, under free trade and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people over the long-term.

The way it is formulated, the above definition consists of three important parts:

1. The ability of the economy to meet international requirements, assuming
2. Free trade and market conditions, while
3. Increasing its incomes over the long-term.

Accordingly, the current publication is structured as follows: first, developments of the main competitiveness indicators are briefly outlined in the Keypoints section. The indicators selected to measure Bulgaria's competitiveness include:

- Country's export share in world trade;
- Real effective exchange rate (REER) calculated using different price deflators;
- REER deflated by unit labour costs (ULC);
- Energy prices index adjusted for exchange rate differences;

The first indicator measures the current position of the country on the international markets. Indicators 2-4 are used to assess Bulgaria's price and cost competitiveness.

Particularly, concerning real effective exchange rate (REER), there are several measures which are used to measure price competitiveness. The main purpose of our analysis is to assess external price competitiveness and how producers set prices to maintain market shares. The CPI (HICP) deflated REER is probably the most often used indicator on a monthly bases but it includes indirect taxes, imported goods and non-tradable goods (services) and is also affected by price controls. The REER deflated by export prices covers only tradable goods and services and represents the most obvious choice for measuring price competitiveness. This indicator, however, does not include all potentially tradable goods. It covers only those tradable goods that are sufficiently low priced to be exported[2]. An export-based index of competitiveness provides little information on the relative profitability of domestic vs. foreign traded goods. The REER deflated by industrial producer prices is chosen to approximate prices of tradable goods. It includes not only exported goods but also those traded on the domestic market. The advantage of the producer price index is that, similarly to CPI, it is calculated on the principle of a basket of goods. We view the PPI deflated REER as the most indicative measure for external price competitiveness.

[1] OECD, 1996, Industrial competitiveness, OECD, Paris. Cited in Garelli S. "Compatitiveness of Nations: The Fundamentals", available at: http://www.imd.ch/research/centers/wcc/upload/Fundamentals.pdf.

[2] Exchange Rates and Economic Fundamentals. A Framework for Analysis, IMF, December 1994.

Crisis induced restructuring made a positive repercussion on the accumulated imbalances adjustment. Investment and household consumption had the largest contribution to the economic growth before the crisis period, namely during 2006-2008. Though economic growth rates remained strong in this period, it was coupled with a certain accumulation of macroeconomic imbalances: high current account deficit, high inflation and house prices, increase of real unit labour costs.

In the past two years Bulgarian economy faced many challenges. After contracting by 5.5% in 2009, the economic recovery began in the second half of 2010. Economic growth last year reached 0.2% and was driven mainly by export. Easing domestic demand pressures resulted in the almost balanced current account and low core inflation in the country. As a result of the ongoing restructuring and optimization processes in the Bulgarian economy, real unit labour costs (RULC) declined by 2.2% and house prices and real estate and construction demand eased to avoid overconstruction, especially in Black Sea and mountain resorts.

Figure 1: Contributions to GDP growth (pps, yoy)

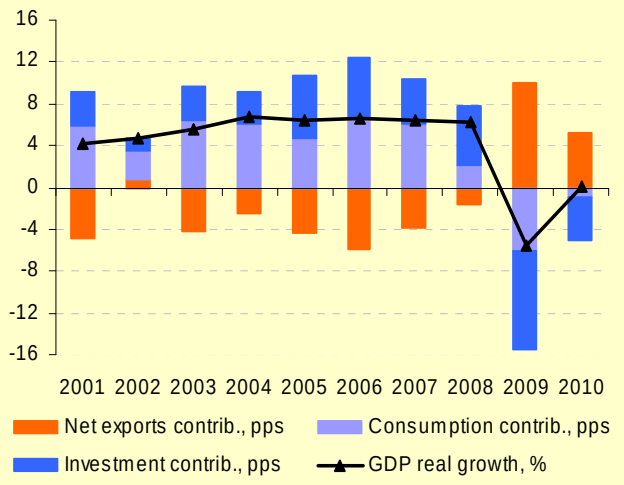
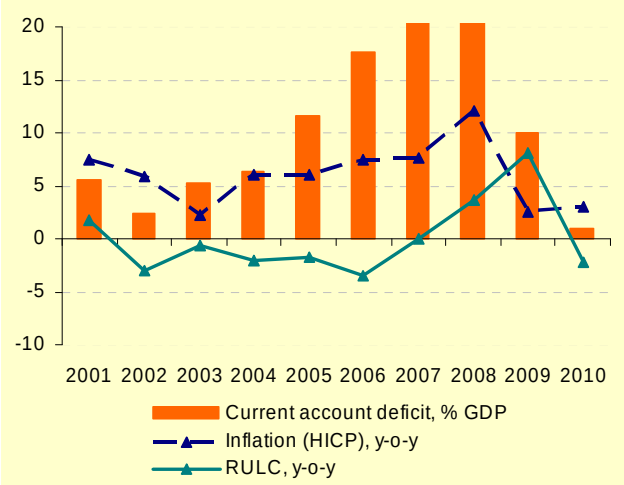


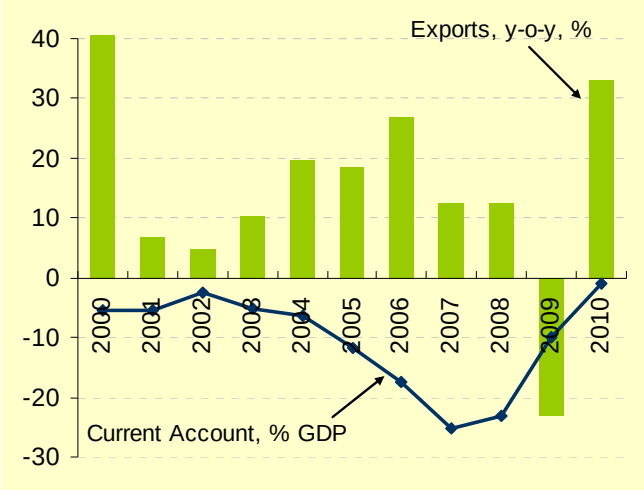
Figure 2: Indicators of imbalances, y-o-y, %



Keypoints

Bulgarian merchandise export share in the world trade increased in 2010. In late 2008-early 2009, Bulgarian export decreased with rates similar to those of the other EU countries, which was mainly due to contracted world demand. In 2010 the share of Bulgarian exports was restored to its pre-crisis values.

Figure 3: *Current Account Balance, (% of GDP)*



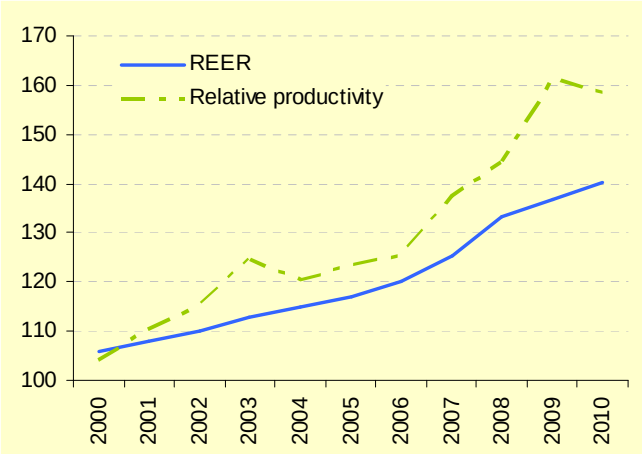
Source: BNB, NSI, MF

The fast contraction of the current account deficit is indicative of the high flexibility of the economy. The current account adjustment resulted in a low deficit of 1% of GDP. Increased exports of goods and improving cost competitiveness are the main reasons for a better external position, as well as the structure of exports dominated by basic metals, food and oil products. At the end of 2010, the level of exports has regained its pre-crisis levels.

Price and cost competitiveness improved in 2010. REER indices calculated using different price deflators showed a relatively low rate of appreciation and the REER deflated by nominal ULC showed the lowest increase in the last five years.

Generally, the REER appreciation is a consequence of real convergence in terms of productivity, income and prices. The accumulated labor productivity growth in Bulgaria compared to the EU27 average is higher than the real appreciation of the REER calculated with different deflators. The productivity increase in the tradable sector leads to an increase in the price level and subsequently to a real appreciation of the exchange rate.

Figure 4: REER deflated by PPI and relative productivity in tradable sector (Manufacturing), Bulgaria to EU27, 1999=100



Source: MF staff calculation based on Eurostat data

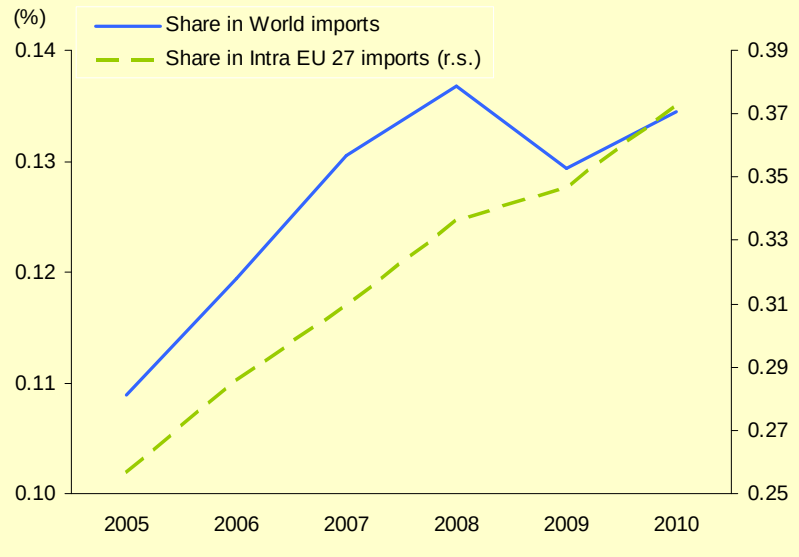
Delayed response of the labour market to the decreasing demand in 2009 and the ongoing restructuring fuelled the employment reduction in 2010, mainly concentrated among the low-skilled workers. Employment numbers decreased significantly by 5.9% (SNA) and the unemployment rose by 3.4 p.p. reaching 10.2% on the average. The labour costs optimization has gradually influenced positively on productivity gains dynamics and supported the growth of companies' profits in 2010.

Underlying Analyses

Demand Competitiveness

After the slump in late 2008 - early 2009, mainly due to the world demand contraction, in 2010 Bulgaria's export share in world trade returned to its pre-crisis values. The share in EU trade did not dampen in 2009 and Bulgaria continued to gain market share in 2010. Bulgarian export improved in 2010, as nominal merchandise export was 33% higher compared to 2009. It reflected both increase of external demand as well as higher international commodity prices such as: metals, textiles and food.

Figure 5: Bulgaria's Share in World and EU Trade



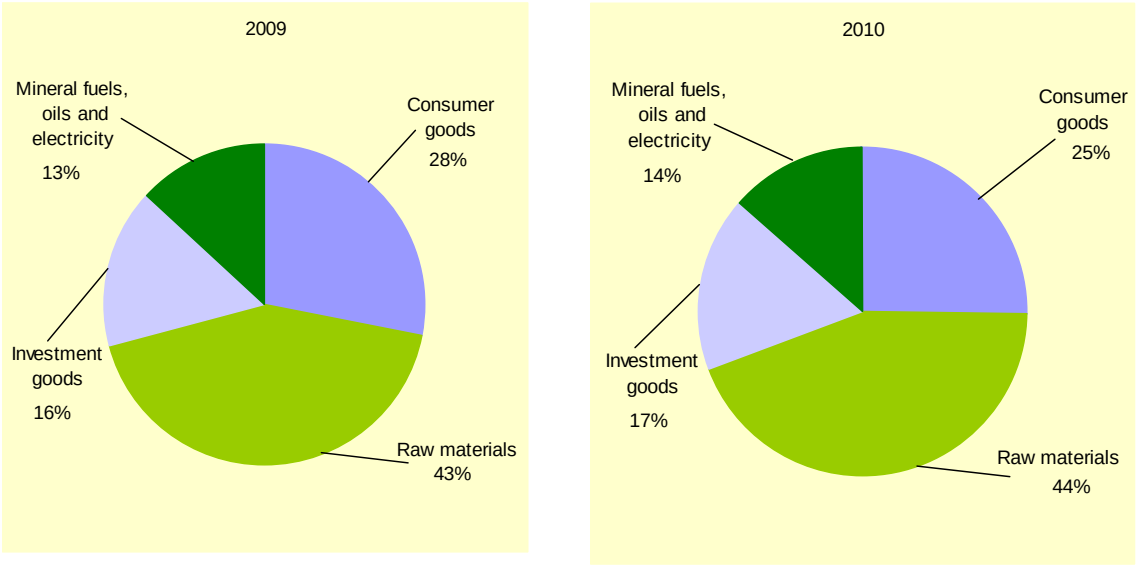
Source: MF staff calculations based on WTO and BNB data

In 2010 Bulgarian exports registered steady and high growth rates. The sector "Raw materials" accounted for the largest positive contribution to the dynamics of exports in 2010, increasing by 37% y-o-y in nominal terms, where ferrous and non-ferrous metallurgy exports expanded most. Investment goods were the second best performing sector, increasing by 41% due to the continuing recovery in our main trading partners. "Mineral fuels, oils and electricity" also posted a high growth of 41% in 2010 with a major contribution from the sub-sector "Petroleum products".

Although export of consumer goods increased less impressively by 20%, it pertained as the best performing grouping of exported goods in the past few years. Consumer goods exports registered the smallest decrease during the crisis. In nominal values in 2010, compared to 2008[3], exports of this group of goods increased by 15.8%. Bulgaria has traditions in agriculture and food processing and has a still uncovered potential for production and exports of bio food and fuels.

[3] In 2008 Bulgaria recorded the highest levels of exports.

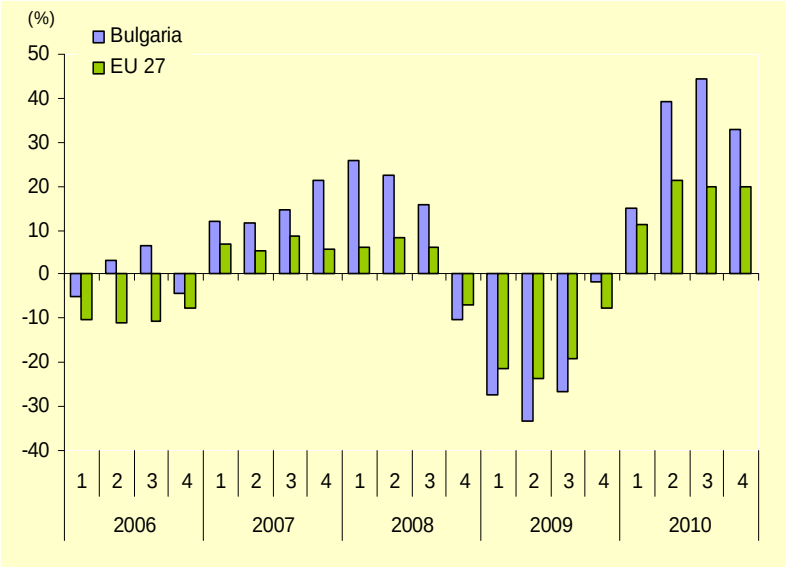
Figure 6: *Bulgaria's Merchandise Exports Composition*



Source: MF staff calculations based on BNB data

In 2010, Bulgarian exports growth rates are significantly higher than the average for EU countries. Thus, the country gains higher market share compared to most of the other EU countries.

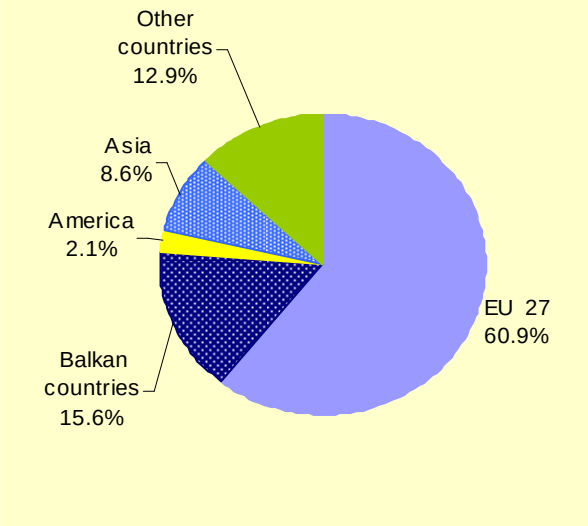
Figure 7: *Exports Nominal Growth (y-o-y)*



Source: Eurostat

In 2010 there is a shift of the geographical structure of exports towards third markets. Some new markets, mostly Asian were entered by Bulgarian companies in 2010. For example exports to China have nearly doubled in 2010 and exports to Turkey increased by 56.6% compared to 2009. In 2010 these countries have been reemerging from the financial crisis faster compared to EU and therefore their markets absorption grew faster. Nevertheless, in 2010 EU absorbed about 61% of Bulgarian exports and this share, although declining from nearly 65% in 2009, makes EU the largest and most important trading partner for Bulgaria.

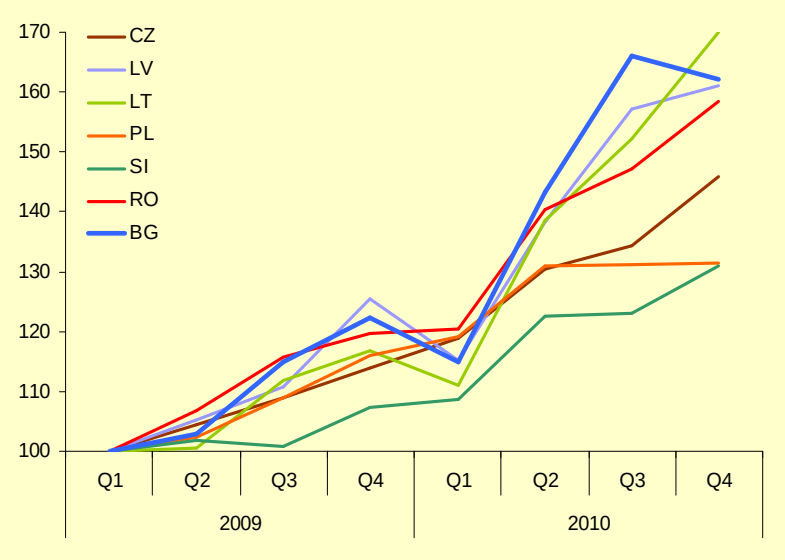
Figure 8: *Geographical structure of exports*



Source: BNB

Currently Bulgaria is among the top performing countries from the new EU members in terms of exports. The increase of Bulgarian exports remains second only to Lithuania.

Figure 9: *Growth in Exports (Q1 2009 = 100)*



Source: Eurostat

In 2010 the real growth of export of services was positive, but lower compared to merchandise exports. There was a slight shift in the composition of services exports as "travel" and "transportation" increased, while "other services" decreased. In 2010 the positive net services balance increased, which, however can be hardly interpreted as an indication of improving competitiveness, as it is ascribed mainly to sluggish domestic demand and resulting lower imports of services.

Table 1: *Real growth of exports and imports (annual rate of change)*

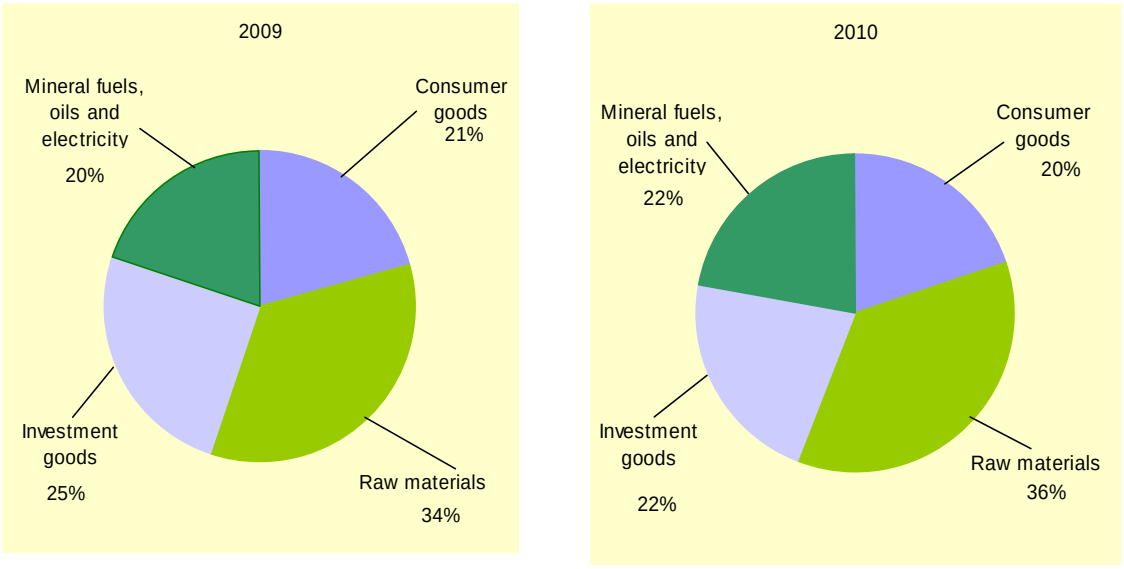
	2007	2008	2009	2010
Exports of goods and services	**6.1**	**3.0**	**-11.2**	**16.2**
Goods	6.2	4.1	-11.4	20.7
Services	5.8	0.1	-10.8	5.5
Imports of goods and services	**9.6**	**4.2**	**-21.0**	**4.5**
Goods	10.1	3.5	-22.7	7.6
Services	7.2	8.7	-10.7	-8.1

Source: NSI

Despite low domestic demand in 2010, imports of goods expanded, as a result mainly of raw materials imports which were processed and then exported. However imports of direct consumption goods as well as imports of services remained largely unchanged or even decreased slightly in 2010.

The share of investment goods in imports declined by 3 p.p. last year, reflecting the more volatile behavior of investment throughout the business cycle, as well as the pick-up in the imports of raw materials and energy products in line with increasing international prices and the high reliability of Bulgarian exports on imports of raw materials. The current import structure still needs to be improved to render it more conducive to technological and innovative development at company level and thus strengthen the export structure towards more effective participation of Bulgarian companies in vertical specialization in the network of production.

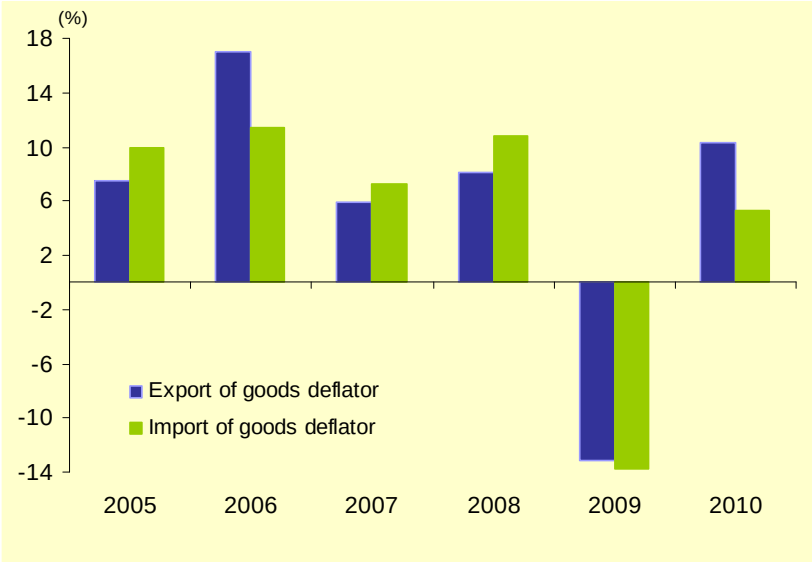
Figure 10: *Bulgaria's Import Composition*



Source: MF staff calculations based on BNB data

Bulgaria's terms of trade (ToT) have improved in 2010, implying that the country can receive more imports for a unit of its exported goods or services. There is a slight shift of Bulgarian export structure towards higher technology products but the main reasons for favourable ToT developments are in increasing world prices of intermediate consumption goods like metals, which account for a large portion of Bulgarian exports.

Figure 11: *Terms of trade (annual rate of change)*

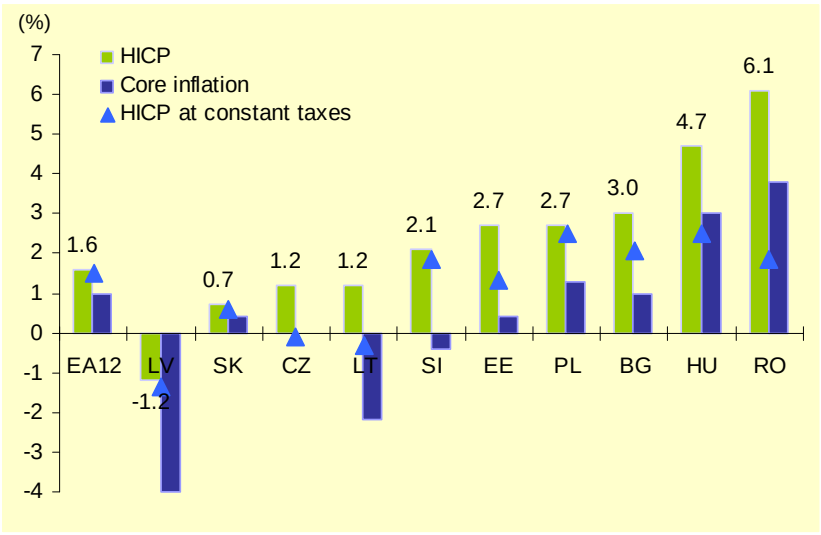


Source: NSI

Price Competitiveness

Inflation in Bulgaria is close to the average for the Central and Eastern Europe. The monthly headline inflation on an annual basis began to accelerate slightly in 2010 under the influence of international commodity prices, especially energy and food prices in particular that recovered their levels after the 2009 decline. Core inflation (the overall index excluding energy, food, alcohol and tobacco) reached historically low levels due to the weak domestic demand, the increase of productivity and the moderate growth in wages.

Figure 12: *HICP inflation in 2010 (annual rate of change)*

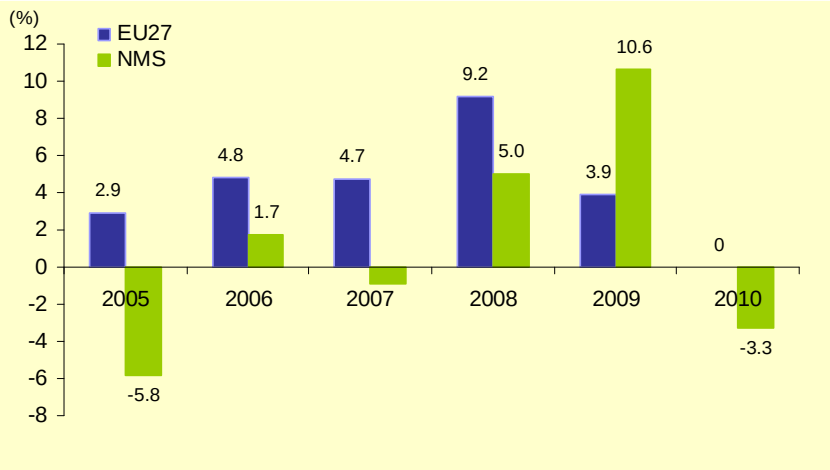


Source: Eurostat

In Bulgaria the higher excise duties on cigarettes had a significant impact on the HICP in the past two years. Inflation calculated at a constant level of taxes shows a lower value for all the countries compared to the traditional measure - the HICP. Some countries have taken measures to fight the crisis such as VAT increase, but for most of the countries in the CEE it was only the process of indirect taxes harmonization that influenced the consumer price index.

The trend of improvement of the Real effective exchange rate (REER) deflated by HICP has been continuing since the beginning of 2009. Positive developments were observed as compared to both the rest of EU 27 and to the countries of Central and Eastern Europe. The rate of the REER in 2010 indicates 0% compared to the rest of EU27 and 3.3% real depreciation to the CEE countries.

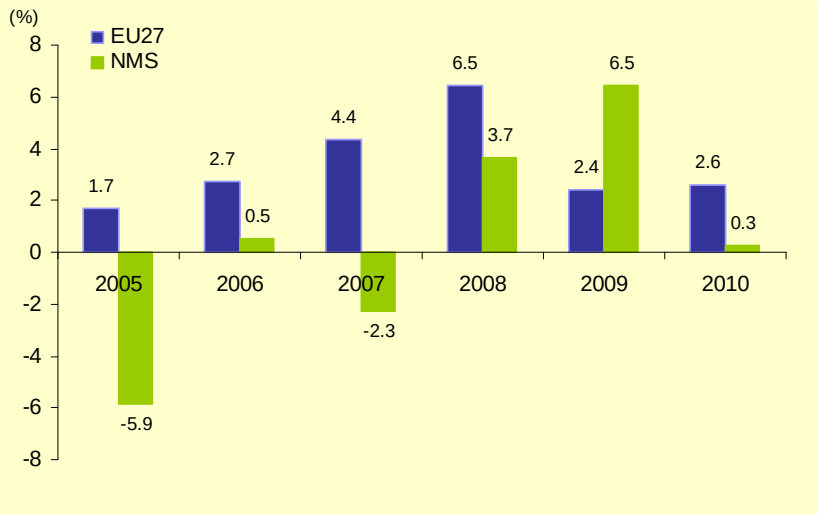
Figure 13: *REER deflated by HICP (annual rate of change)*



Source: MF staff calculation based on Eurostat data

The change in the average value of the REER deflated by the producer price index showed real appreciation of 2.6% compared to the rest of EU 27 and 0.3% against the CEE countries.

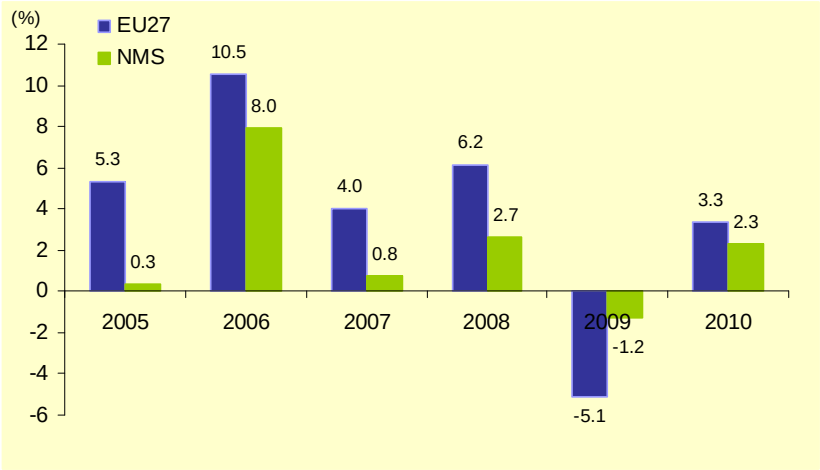
Figure 14: *REER deflated by PPI (annual rate of change)*



Source: MF staff calculation based on Eurostat data

Since the last quarter of 2008 the level of REER deflated by export prices of goods and services has declined significantly. In this period Bulgarian economy was affected by the global financial and economic crisis. The insufficient external demand and accordingly low commodity prices contributed to the decline in the export prices. External demand has increased after the second half of 2009, and Bulgarian export of goods registered double-digit growth rates in nominal and real terms in 2010.

Figure 15: *REER deflated by export prices (annual rate of change)*



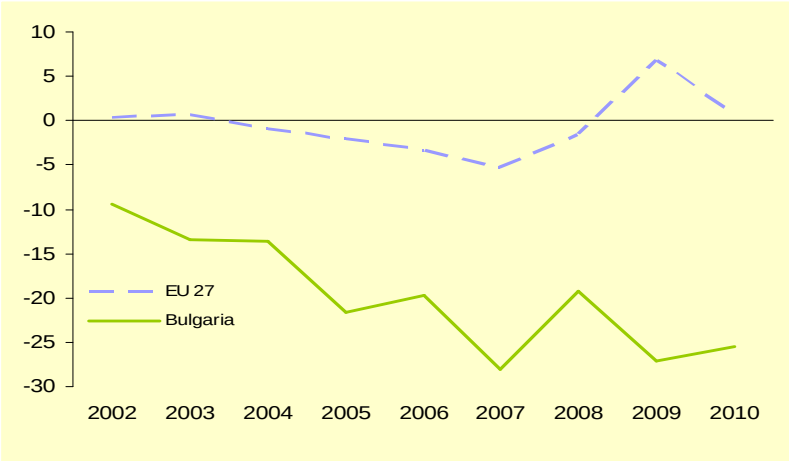
Source: MF staff calculation based on Eurostat data

REER deflated by export prices is a useful indicator for assessing changes in a country's external competitiveness. However the export price index is influenced by the structure of exported goods and services, which, in the case of Bulgaria is the high share of raw materials and oil products.

Cost Competitiveness

Labour costs adjustment allowed for productivity gains and cost-competitiveness improvement. The competitive assessment of the economy is closely linked to labour market flexibility, related to fast labour costs adjustments in cases of economic cycle reversal. Following a certain lagged reaction, employment corrected downwards by 5.9% in 2010. As job losses were mainly concentrated among relatively low-skilled workers, the latter boosted upwards productivity gains, yet within the gradual economic recovery. Thus our pre-crisis positive productivity growth difference was restored and even widened, pointing to the continuing catching-up process. Processing industries, which are directly exposed to competitive pressure on the foreign markets, have succeeded in sustaining positive developments in productivity even in 2008 and 2009, further boosting the pace of increase to about 10% in 2010.

Figure 16: *RULC growth in manufacturing (base 2001)*



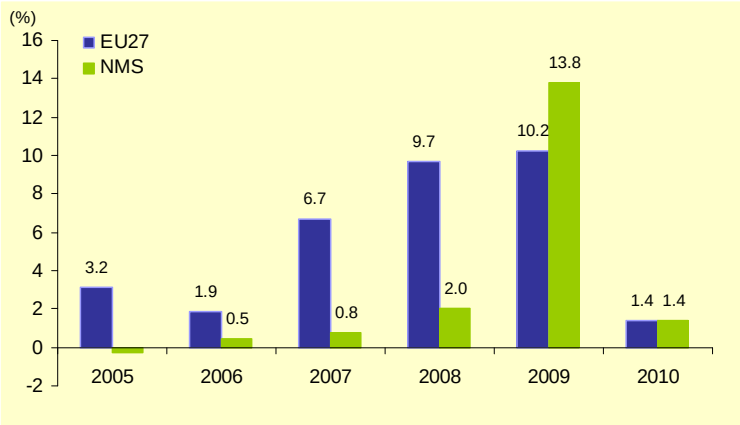
Source: MF staff calculation based on Eurostat data

Although productivity improvement in the first half of 2010 did not manage to fully compensate the year-on-year increase in compensation per employee, RULC decreased by over 6% in the second half, thus contributing to the overall 2.2% yearly drop. That was primarily due to the non-tradable sector, as the tradable one has reported a RULC

increase by 2.2% compared to 2009. The latter was spurred by the stronger rise in compensation per employee year-on-year, but it cannot be considered as endangering competitive positions. Processing industries started to revive from the recession, led by the export-oriented industries, reporting strong increases in exports and sales turnover. Pursuing competitiveness improvement on the foreign markets, enterprises have raised capacity utilization and productivity, which corresponded to the reported wage increases. Furthermore, albeit slightly increasing over 2010, the labour share in the processing industry stays far lower as compared to most of the NMS, thus upholding its cost-assigned competitiveness.

REER deflated by nominal ULC indicates improvement in cost competitiveness of the Bulgarian economy in 2010. The real appreciation last year was only 1.4%, implying overall correspondence between nominal increases in wages and labour productivity increases. Labour costs per unit of output picked up significantly in 2007-2009. From the middle of 2009 the rates of increase have slowed down. The process of labour costs adjustment has continued in 2010 as well.

Figure 17: REER deflated by ULC (annual rate of change)



Source: MF staff calculation based on Eurostat data

Besides labour input, Bulgarian output is highly energy-intensive as well and is therefore dependent of changes in the energy prices. The average annual increase in energy prices decelerated to 1.3% as compared to its level in 2009. After the well pronounced slowdown during 2009, however, it started to increase in quarterly terms throughout 2010, affected by higher liquid fuels and gas prices as compared to the other EU member states.

Figure 18: Energy prices (weighted average vis-à-vis the rest of EU27)

Source: MF staff calculation based on Eurostat data

The weighted average index of relative energy prices vis-à-vis the other EU member states decelerated further to 1.3% (y/y) in 2010. Lower solid fuels prices largely accounted for this slowdown, as the quarterly sub-index has been in the negative territory in y-o-y terms since Q4 2009. Well supplied coal markets remained a stabilizing factor in the development of wholesale electricity prices as well as of the overall energy price index.

Liquid fuels registered a 0.9% annual increase in their prices in 2010 as compared to the average for the EU, despite the excise duties and VAT corrections, undertaken in most of the other member states[4]. As global demand continued to recover, international oil prices kept on moving up in line with a trend that started at the end of 2008. That movement was amplified by the depreciation of the Euro against the major currencies. As a result, while Brent (measured in USD) registered a 28.7% average increase during 2010, Bulgarian producers underwent a price increase of 36.4%, denominated in local currency.

As the aggregated index reflects also nominal exchange rate movements vis-à-vis member states outside the Euroarea, the strengthening of the currencies in Poland, the Czech Rep., Hungary, the UK and Sweden against the euro in 2010, played an important role in containing Bulgarian energy costs inflation compared to the other members of the Union.

[4] Austria, Belgium, Cyprus, The Czech Rep., Denmark, Estonia, Finland, Greece, Hungary, Ireland, the Netherlands, Poland, Portugal, Slovenia, Slovakia, Spain, Romania, the UK.