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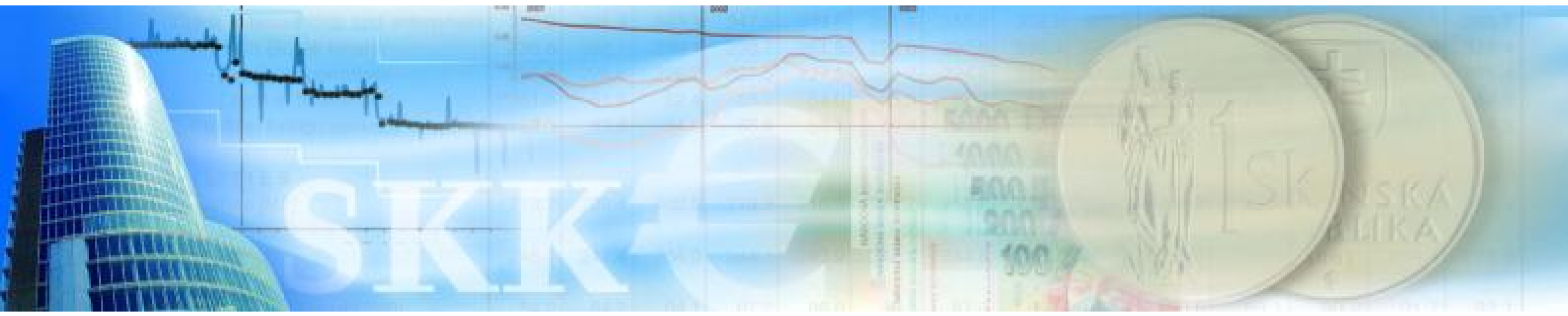
SELECTED INDICATORS OF COMPETITIVENESS: BRIEF OUTLINE



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Selected Indicators of Competitiveness: Brief Outline[1]

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Abstract

Competitiveness is crucial for maintaining the productivity growth and for raising the living standard, particularly in small open economies based on international trade and to a great extent dependent on foreign direct investments. According to a definition, competitiveness is the ability of a country to sell goods and services in a given market. The term also includes the overall business environment of a country, the physical and knowledge infrastructure, as well as labor market indicators and the regulation in financial markets and product and service markets. It is therefore not possible to narrow the issue of competitiveness merely to monitoring nominal exchange rate fluctuations. The aim of this policy paper is to evaluate the development of competitiveness in Slovakia, in particular in relation to the depreciating currencies of the neighboring countries.

[1] The authors would like to thank Martin Šuster and Tibor Lalinský for their valuable advice and helpful comments.

INTRODUCTION

Over the past months, the currencies of Central European countries have depreciated considerably in comparison with the Slovak koruna and later with the euro. This has generated concerns that Slovakia is losing its competitiveness against the other V4 countries.

Competitiveness is a level of the ability of a country to sell goods and services in a given market. It is crucial for maintaining the productivity growth and for raising the living standard, particularly in small open economies, which are based on international trade and to a great extent dependent on foreign direct investments.

It is not possible to narrow the issue of competitiveness merely to monitoring nominal exchange rate fluctuations. The term competitiveness also includes, for instance, the overall business environment of a country, the physical and knowledge infrastructure as well as labor market indicators and the regulation in financial markets and goods and service markets. Competitiveness as such is hard-to-measure. Therefore international institutions prefer evaluating competitiveness on the basis of composite indicators and surveys among entrepreneurs.

The aim of this brief analysis is to evaluate the development of competitiveness in Slovakia, in particular in relation to the weakening currencies of Slovakia's neighbors (CZE, PL, and HU).

The first part of the paper deals with absolute competitiveness indicators. It uses complex assessments of international institutions. Moreover, it also contains a view on a frequently discussed dimension of the issue: labor costs. Since the international assessments are not available on a quarterly basis, the second part of the paper describes a relative change of competitiveness through real effective exchange rates. The third part searches for an answer to the question: What effects does the exchange rate have on the competitiveness of Slovakia in the current situation?

1 Absolute competitiveness indicators

In the first part we will focus on absolute competitiveness indicators. We will present the results of international rankings, which compare competitiveness and the business environment in individual countries. We will also focus on a comparison of labor costs and the productivity of labor.

Position of Slovakia in international rankings

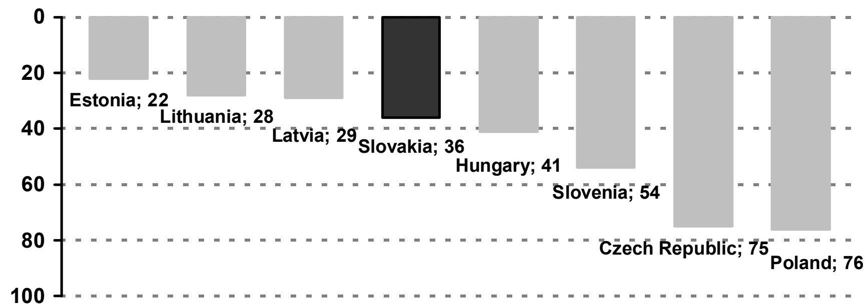
An international comparison of competitiveness is monitored yearly for instance by the World Economic Forum and by the World Bank. These reports assess the global environment for doing business.

The current assessment of the World Economic Forum was issued in the previous year. The ranking of countries of the *Global Competitiveness Report 2008-2009* is based on publicly available data and on the results of an opinion survey among corporate managers. In the most recent assessment Slovakia ranked 46th (in the preceding Report it was 41st). From among the neighboring countries our country was outperformed only by the Czech Republic (33). On the other hand, Poland (53) and Hungary (62) scored worse. According to the Report, the greatest Slovakia's competitive disadvantage is the burden of paying high taxes and social security contributions. Worse ranking of Slovakia is caused also by low flexibility of the labor legislation, widespread clientelism, and an extremely low public confidence in the financial integrity of politicians.

The World Bank Yearbook *Doing Business 2009* compares the level of the business environment in 181 countries in the period of June 2007 - June 2008. The assessment is based on more than 40 indicators (covering "bureaucratic", time and financial burdens), which are classified into 10 areas. At present Slovakia ranks 36th. Our neighbors ranked worse: Hungary 41st, the Czech Republic 75th, and Poland 76th. In 2008, the overall ranking of Slovakia improved by one place.

In the past three years the business environment in the Slovak Republic has not improved markedly. There are reserves mainly in the following areas: low labor market flexibility, investor protection, high tax and social security burdens, knowledge economy and bureaucracy.

Slovakia – the best place for business in Central Europe (country ranking of the World Bank)



Source: Doing Business 2009, The World Bank.

Labor market flexibility

For a complete picture of the competitiveness of countries we also present labor market flexibility indicators. So called EPL[2] indicator is constructed up by the OECD. A disadvantage of this comparison is that the most recent data reflect the situation from 2006. However, the flexibility of labor regulations has not improved markedly, and thus the position of Slovakia probably has not changed much in Slovakia after 2006. According to these data[3] the flexibility of labor regulations was higher for instance in Hungary or Poland than in our country. The Czech Republic ranked worse than Slovakia. Of the countries mentioned, only Hungary had flexibility higher than the OECD average. Also this comparison confirms the conclusions of the above reports that one of the required measures to improve Slovakia's competitiveness is to increase labor market flexibility.

Comparison of labor costs and productivity

An important competitiveness factor is total labor cost. The higher this cost is, the worse the position of a country is as regards competitiveness. To assess the situation in the V4 countries, we state the hourly labor cost in the industry, expressed in the euro (the following

[2] We have used Employment Protection Legislation indices from the report *"Economic Policy Reforms: Going for Growth"*, 2008, OECD. The data for 2006 are OECD estimates.
[3] Restrictiveness of protection legislation on regular employment.

table). In the periods of years 2000 – 2007, the labor costs were the lowest just in Slovakia, which also contributed to the inflows of direct foreign investments. In 2008 the situation started to change, and the lowest costs were in Hungary. The depreciating currencies of Slovakia's neighbors and also the fixation of the koruna exchange rate affect this rank in such a manner that today the cheapest countries in terms of the labor costs are Hungary (6.2 EUR/h.) and Poland (6.5 EUR/h.). Slovakia ranks the third with the hourly costs of 7.1 EUR. The highest labors cost are traditionally in the Czech Republic, 8 EUR/h.

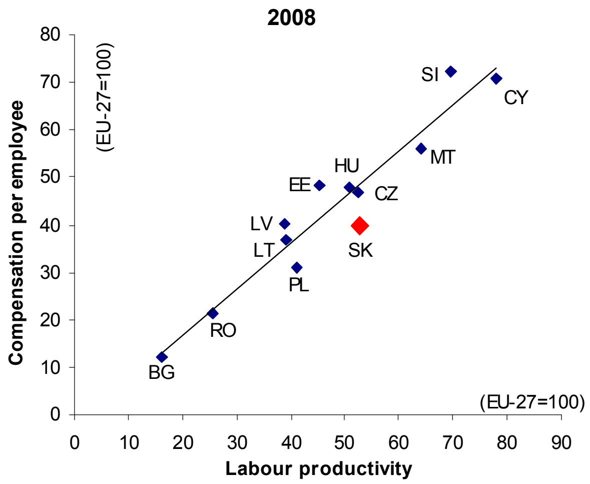
Hourly labour costs in industry (in EUR)

	2000	2001	2002	2003	2004	2005	2006	2007	2008[e]	Jan - Feb 2009[e]
EU15	22.9	22.8	23.6	24.6	25.6	26.3	27.0	27.7	28.3	28.3
Average of the V4	**3.7**	**4.2**	**4.6**	**4.7**	**5.0**	**5.5**	**6.0**	**6.8**	**7.5**	**6.9**
Czech Republic	**3.7**	**4.4**	**5.2**	**5.3**	**5.6**	**6.2**	**6.8**	**7.5**	**8.7**	**8.0**
Change in comparison with the previous period		19.8%	17.5%	1.5%	5.9%	11.0%	10.7%	9.6%	15.8%	-7.5%
% of EU15 average	*16.0*	*19.3*	*21.9*	*21.4*	*21.7*	*23.5*	*25.4*	*27.1*	*30.7*	*28.4*
% of V4 average	*100.1*	*104.9*	*113.2*	*112.8*	*112.2*	*111.9*	*114.8*	*111.0*	***115.4***	***115.8***
Hungary				**4.9**	**5.3**	**5.9**	**5.9**	**6.6**	**6.8**	**6.2**
Change in comparison with the previous period					9.0%	11.0%	-0.3%	11.2%	3.1%	-8.8%
% of EU15 average				*19.9*	*20.8*	*22.6*	*21.9*	*23.7*	*23.9*	*21.8*
% of V4 average				*105.0*	*107.6*	*107.4*	*99.2*	*97.2*	***90.0***	***88.9***
Poland	**4.3**	**5.1**	**5.1**	**4.5**	**4.6**	**5.4**	**5.9**	**6.6**	**7.6**	**6.5**
Change in comparison with the previous period		17.8%	-0.6%	-10.7%	1.3%	17.2%	9.5%	12.9%	15.2%	-14.9%
% of EU15 average	*18.8*	*22.3*	*21.4*	*18.4*	*17.9*	*20.4*	*21.8*	*24.0*	*27.0*	*23.0*
% of V4 average	*117.5*	*121.1*	*110.6*	*96.9*	*92.2*	*97.2*	*98.7*	*98.3*	***101.6***	***93.7***
Slovakia	**3.0**	**3.1**	**3.5**	**4.0**	**4.4**	**4.6**	**5.2**	**6.3**	**7.0**	**7.1**
Change in comparison with the previous period		2.6%	12.2%	14.0%	9.8%	5.5%	13.0%	21.3%	10.8%	0.7%
% of EU15 average	*13.2*	*13.6*	*14.8*	*16.2*	*17.1*	*17.6*	*19.3*	*22.8*	*24.8*	*24.9*
% of V4 average	*82.4*	*74.0*	*76.3*	*85.3*	*88.0*	*83.5*	*87.4*	*93.5*	***93.0***	***101.6***

Source: Eurostat, own calculations.
Note: [e] refers to estimate.

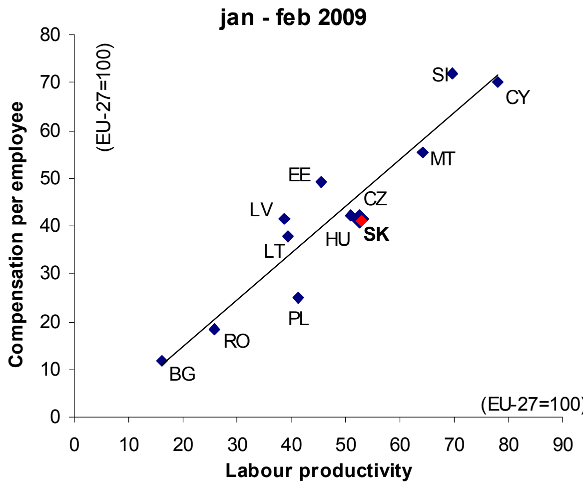
A look on the absolute labor cost, however, does not give a complete picture. The relation between compensations and labor productivity is particularly important. From this point of view, in comparison with the EU average, Slovakia has still a good position; however, as a result of the evolution of exchange rates at the beginning of 2009 the benefit of Slovakia has slightly decreased. While the ratio of wages (in euros) to labor productivity has decreased in all of the neighboring V4 countries, in Slovakia it rather approached the average of the new Member States.

Comparison of wage and productivity ratios (2008)



Source: Eurostat estimates.

Comparison of wage and productivity ratios (jan-feb 2009)



Source: Eurostat estimates and own calculations (reflecting exchange rate developments).

2 Real effective exchange rate

In this part we will study the development of Slovakia's price and cost competitiveness, also in comparison with the development in Central Europe. The most suitable price competitiveness indicator is real effective exchange rate, which compares the price level of a country with the weighted average of its trading partners price levels, taking into account the exchange rates of domestic currency against trading partner's currencies. Then the growth of real effective exchange rate means a loss of competitiveness, and vice versa, a drop of the indicator means an improvement in country's competitiveness. However, it is necessary that real effective exchange rate develops near to its equilibrium level, which is defined as real effective exchange rate in a condition of internal and external balance of the economy. While an overvalued exchange rate compared to the equilibrium undermines exporters' competitiveness and weakens the country's external position, an undervalued exchange rate brings about inflation pressures in the economy.

Development of equilibrium exchange rate by the end of 2008

According to our estimates applying the BEER/PEER method, at the end of Q4 2008, the real exchange rate of the Slovak koruna on the basis of PPI manufacturing (producer prices in manufacturing) was overvalued by 4% compared to the equilibrium (a standard deviation for the estimate is 2%).

Faster productivity growth in this country than abroad and faster reduction of government expenditures per GDP in this country than abroad had an effect on the development of equilibrium exchange rate (in our model).[4] The elasticity of productivity differential is roughly 0.7, and the elasticity of the differential of government expenditures per GDP is roughly –0.8, i.e. 1% positive productivity differential results in a 0.7% appreciation of

[4] Depreciation effect of a growth of government expenditures is not clear in the literature. In our model a longer-term effect is reflected; an increase in the government expenditures reduces the efficiency of the economy, which sooner or later results in increased tax burden, so in the longer-term, the GDP growth will decline. Financial markets will take this into account immediately, and thus the exchange rate will weaken.

equilibrium exchange rate, and 1% negative differential of government expenditures per GDP results in a 0.8% appreciation.

Development of equilibrium real effective exchange rate based on PPI manufacturing up to end of 4Q 2008

Source: own calculations.

Development in QI 2009

Since in the present turbulent situation it is almost impossible to predict reliably the development of economic fundamentals in this country and in our trading partners countries (foreign countries are represented in the model by Germany and the Czech Republic in the ratio of 3:2), we will assume that equilibrium exchange rate will not change or will strengthen maximum by 1% (as a result of higher growth in our economy compared to foreign countries).

Since the beginning of the year, the Czech koruna has weakened by 10% in comparison with the euro, which resulted in 4% (the weight of the Czech koruna in the model is 0.4) strengthening of the real exchange rate of our currency. If we took into account other currencies of our trading partners (Hungarian forint and Polish zloty have weakened by 15%), then the strengthening of our currency is higher than the above 4%. Inflation differential is low (up to 1%). In QI 2009, the overvaluation of Slovak currency's real exchange rate is about 9% (4% from the end of 2008 + 4% nominal weakening of CZK + 1% inflation differential). From this point of view Slovak economy's competitiveness has become worse.

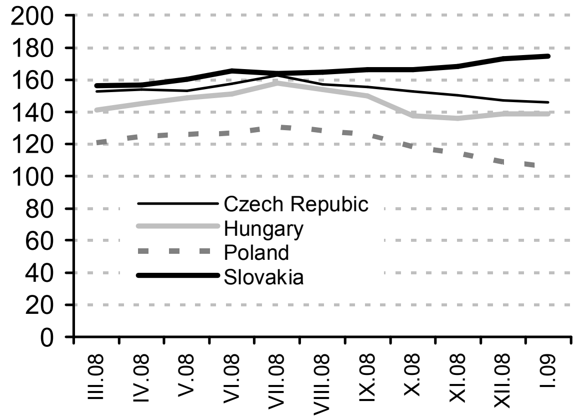
Development by 2010

Assuming that in the second half-year of 2009 the euro area economy begins revitalizing, the outlooks of V4 countries will improve. Their economies will begin to grow and the nominal values of their currencies (except the Slovak currency) will strengthen. According to the Eastern Europe Consensus Forecast, the Slovak economy growth should be the fastest from among the surrounding countries; productivity differential should be 3% per year on average, which will result in a 2% growth of real equilibrium exchange rate (0.7*3). By the end of 2010, the Czech currency should have strengthened by 9% (HUF by 10%, PLN by 19%). The growth of Slovak currency's real equilibrium exchange rate together with the nominal strengthening of CZK and other neighboring currencies will cause the narrowing of a 9% gap between Slovak currency's current and equilibrium exchange rate.

Comparison of development of real effective exchange rate with development in V4 countries

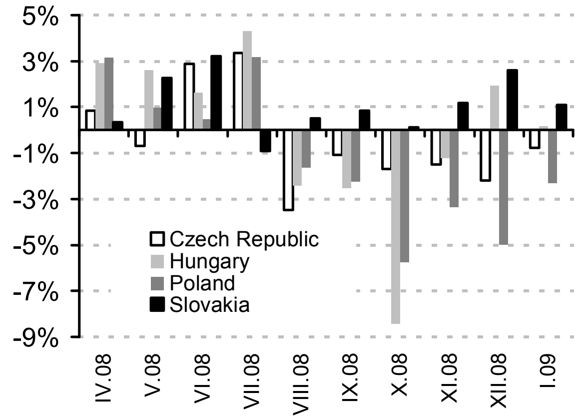
The following graphs show REER development in the V4 countries, calculated at the consumer prices. It can be observed that since August 2008 Slovakia has gradually been losing its price competitiveness (1.1% per month on average), while the other V4 countries have been gaining by 2.4% per month on average as a result of their weakening currencies. A weakening currency in normal situation results in better competitiveness for exporters, but it also brings economic instability, increases inflation risks for the future and can potentially mean that the domestic population and businesses may have problems to pay off their loans in foreign currencies.

Relative consumer price indices (2000 = 100)



Source: OECD.

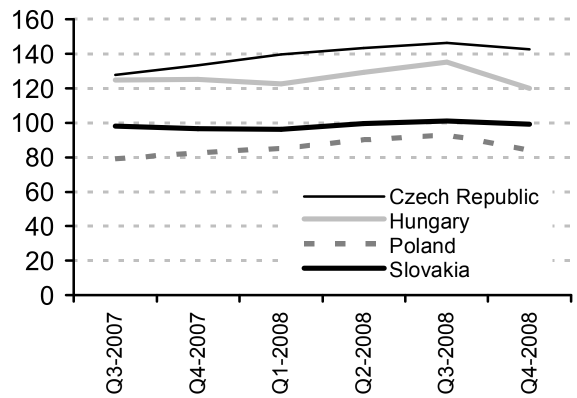
Relative consumer price indices (MoM changes)



Source: OECD.
Note.: Increase implies loss of competitiveness and vice versa.

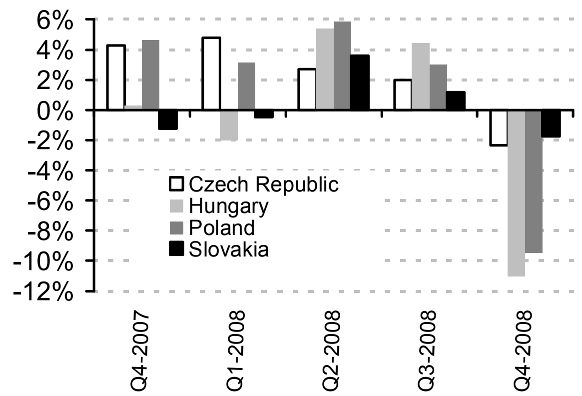
Relative unit labor costs as an indicator of cost competitiveness have an advantage in that the data are internationally more comparable than in the case of relative consumer prices[5].

Relative unit labour costs indices (2000 = 100)



Source: OECD.

Relative unit labour costs indices (QoQ changes)



Source: OECD.
Note.: Increase implies loss of competitiveness and vice versa.

[5] In comparison with the prices of different trading partners it uses wages and productivity of the relevant country.

The graphs indicate that based on unit labor costs over the course of 2008 Slovakia's competitiveness developed more neutrally than in the other V4 countries. However, while in the first quarters relative unit labor costs in Slovakia increased more slowly than in the neighboring countries, in the last quarter, when the weakening exchange rates started to show up, this trend turned round, and in comparison with the V4, labor costs decreased least in Slovakia.

3 Effects of currency depreciation on competitiveness

In the third part we present the effects of currency depreciation on the competitiveness of a country. We will show that at present exports decrease in the Central European countries even despite their weakening currencies. We will evaluate the effect of exchange rate volatility and of other aspects on the competitiveness of a country.

In general, it is true that a weakening of a currency has a positive effect on one aspect (price) of the competitiveness of a country, however, it is not possible to over-estimate its importance for the following reasons.

Redistribution effects

A weakening exchange rate generally improves price competitiveness of a country. It means that it benefits the exporters who may sell their products cheaper abroad. On the other hand, a weakening currency is disadvantageous for the consumers, because it results in the growth of the price level, since imported goods become more expensive due to the exchange rate. Extremely negative consequences are in countries with a high proportion of loans in foreign currencies. A weakening currency automatically means making such loans more expensive[6].

Sectoral structure

The weakening effect of currencies of the neighboring countries will be notable in Slovakia mainly in some economic sectors such as the retail, tourism, and hotels and restaurants. At present we have detected traveling abroad for shopping mainly in the border areas of Slovakia, and a decrease of tourists from the surrounding countries. Large industrial businesses are not considerably sensitive to the exchange rate level. Only a small portion of their costs is denominated in the domestic currency, and in the world markets they compete in mainly by quality, and not so much by prices.

Time aspect

In evaluating the effect of the V4 weakening currencies on the competitiveness of Slovakia, it is necessary to take into account the time aspect as well. From this point of view we may consider the effect of exchange rate changes temporary. We can expect that after the recession the V4 currencies will strengthen again, and this will mean an improvement in the price competitiveness of Slovak exports.

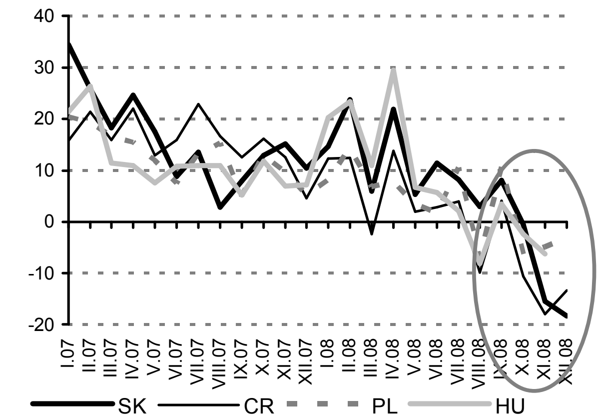
Type of shock

In the current situation when the negative shock results mainly from the fall of foreign demand, the issues of price competitiveness are less important. This is illustrated also by the case of the falling international trade in the neighboring countries despite their weakening

[6] This problem applies mainly to Hungary, where foreign currency loans account for more than 50 % of all loans granted in the past years.

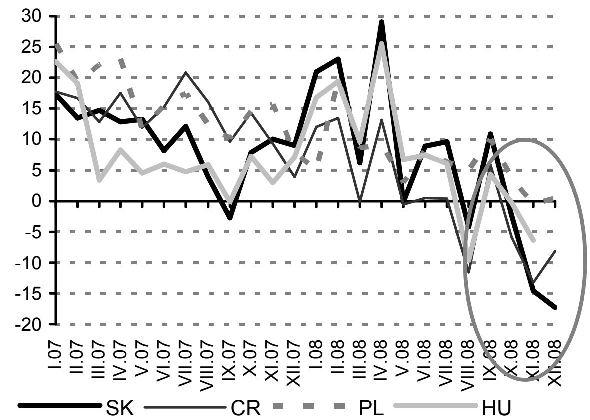
currencies. The following graphs show problems in foreign trade. The latest available data cover up to December 2008. In the last three months exports dropped most markedly in the Czech Republic and in Slovakia. In Hungary and Poland the drop was a bit more moderate. However, we must emphasize that the figures are in the national currencies.

Exports (annual percentage change)



Source: Statistical offices of particular countries.
Note: in domestic currencies.

Imports (annual percentage change)

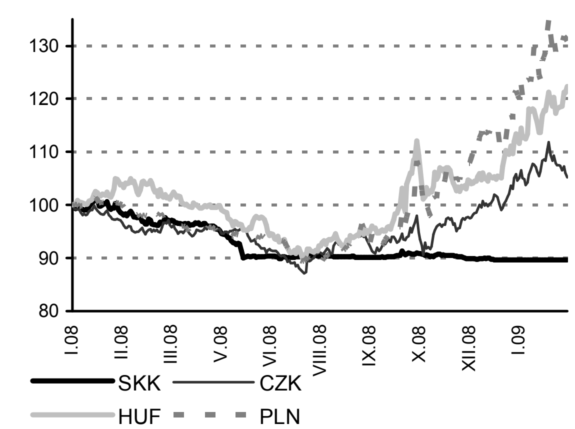


Source: Statistical offices of particular countries.
Note: in domestic currencies.

Negative signal for investors

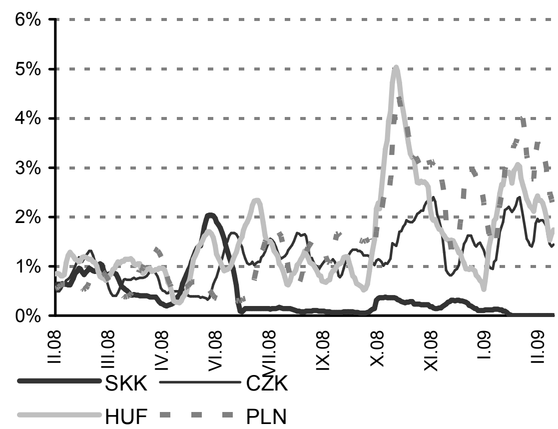
The attractiveness of the investment environment depends also on macroeconomic stability. Too volatile exchange rate is a negative signal for both prospective and existing investors. Therefore from this long term perspective currency depreciation is a worse alternative than the stability and predictability of the environment. All long-term investment plans are implemented more easily in an environment without foreign exchange risks.

Exchange rate developments



Source: Eurostat.
Note: Decrease implies appreciation of the currency against the euro and vice versa.

Monthly historical volatility of exchange rates



Source: own calculations.

In the first half-year of 2008, volatility development for SKK, CZK, HUF, PLN was comparable. A change occurred in June, when the Slovak koruna exchange rate stabilized due to the published conversion rate. The volatility of the neighboring currencies compared to the euro started to grow significantly in October 2008. In 2008, the most volatile currency was the Polish zloty, followed by the Hungarian forint and the Czech koruna. The above graphs show the exchange rates development and volatility in the V4 countries.

Political economy and expectations

Competitiveness of a small and open economy cannot be based on the policy of a weak exchange rate. Depreciation (and the possibility to use it as a tool) can even motivate to a less efficient structural policy.

Persistent depreciation has also a disadvantage that it may build in the expectations of entities, and thus it will reduce considerably the efficiency of economic decisions.

4 Conclusion

The following conclusions result from the brief analysis of competitiveness indicators in the V4 region:

1. Competitiveness is not only an issue of the nominal exchange rate only

The exchange rate is just one of the economic competitiveness indicators. Many studies show that for instance, the stability of the business environment or labor market flexibility are more important than price competitiveness.

2. In absolute competitiveness indicators Slovakia still has a relatively good position in comparison with V4 countries.

It results from the international institutions assessments that the business conditions in Slovakia are still a little bit better than those in the surrounding countries. In the World Bank's list, the Slovakia's position is considerably better than Poland's, the Czech Republic's, Hungary's or Slovenia's.

3. **The relative position of the SR, however, has not improved or worsened in the last period.**

After years when the Slovak Republic was among the top reformers in the area of business environment and competitiveness, a period of stagnation has ocurred. Entrepreneurs and international institutions perceive the condition negatively mostly in the area of law enforcement, bureaucracy, labor market flexibility, and knowledge economy.

4. Weakening of the surrounding currencies reduces the competitiveness of Slovakia mainly in selected sectors.

Unit labor costs have dropped in all of the V4 countries recently, but in Slovakia they have dropped the least, whereby our competitiveness in labor costs has worsened. The real exchange rate appreciated, and thus increased the value of Slovak exports. This effect will manifest most in the tourism sector, sales of food products and other retail products, and less in the car-manufacturing and electrotechnic sector. Moreover, in the global decrease in demand the importance of price competitiveness is in the background.

5. Depreciation of currencies cannot be a substitute for good structural policies.

Depreciation has a significant redistribution effect in a small open economy. Exporters may profit from it, but consumers will lose as a result of higher inflation. In addition to this, reduced competitiveness due to the exchange rate is limited. We can assume that after the recession ends in the region, the currencies of the surrounding countries will start to strengthen against the euro, and thus the competitiveness of the Slovak export will improve again.

6. It is necessary to see long-term benefits of the euro for business.

The membership in the euro area fully guarantees currency stability and in this context represents a significant competitive advantage in comparison with the economies where their currencies are very volatile in this period. Another comparative advantage for our competitiveness arising from the euro area membership is that in the process of adopting the euro Slovakia had to implement important structural reforms which improve the quality of the business as well as of the overall macroeconomic environment.

7. Economic policy should concentrate on improvement in competitiveness in the areas in which our country falls behind most. At the time of decreased price competitiveness we have one more reason to do so.

From the point of view of political economy attempts to improve Slovakia's competitiveness at worse times may be acceptable more easily. The fact that the neighboring countries are gaining on us in the area of competitiveness may be a sufficient reason for carrying structural changes.

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