

Export performance and import intensity of Slovakia

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Abstract

The role of international trade in national and global economies is significant, especially in small economically developed countries characterized by a high share of foreign trade, roughly equal to their domestic product, and indeed even more so if there is an even higher share of foreign trade per capita of the country. The aim of this paper is to highlight the development of exports and imports with respect to the total gross domestic product of Slovakia for the period 1993 - 2012. Predictions will be based on data analysis via a regression tool to forecast the evolution of export performance and import intensity with regards to gross domestic product.

Key words Model, Profitability Indicator, Return on Assets

INTRODUCTION

The purpose of this paper is to define the status of international trade in the global economy for the 21st century, in the context of how the conjugate cycles of continuous scientific and technological advances are causing rapid change. One of the relevant changes in the previous period is the change in the nature and our understanding of internationally successful companies. In addition, traditional, nearly century old transnational corporations have been joined in the international arena by small and fast-growing companies. Globalization tendencies of the contemporary world have highlighted the role of business in the international environment.

STATUS OF INTERNATIONAL TRADE

International trade is a consequence of the determination and categorization of the value of commodities across borders. Consequences of international trade on the individual, state, and national economies are subject to the laws of economics. Theories of international economics have been covered by many authors, but the most current include Samuelson (1990), Krugman (2003), Soukup (2012), Majerová (2009), Nezval (2011), Žamborský, Jirásková (2009), Svatoš (2009), Baláž, Verček (2010) and others. International Economics uses basic methods of economic analysis as well as other professional economics models, because the motives and behavior of economic agents are often identical, whether they are domestic or foreign transactions. International Economics, according to Soukup (2012, p.12), is divided into two parts: one part analyzes the international exchange (economics international trade, international transactions of goods and allocation of economic resources); and the second part analyzes international money (cash flow with regards to international economics and monetary transactions).

International trade, according to Majerová (2011, p. 6) is defined as the exchange of goods from one country with those of another country's, thus extending the possibilities of consumer economies. There

are several factors that contribute to the continuous development: production conditions; the difference between the state of a nation's economics and its technology (i.e., the south will specialize in the development of coastal tourism while the north on developing ski resorts); increasing returns due to the scale of production (i.e., the average cost of production declines with growth); differences in consumer tastes and demands; governmental economic policy and tax-subsidy policy (may determine prices); and potential conflicts between production and consumption (almost no country is capable as a producer goods and services to meet the needs of their consumers).

Figure 1 shows the transformation function for foreign trade.

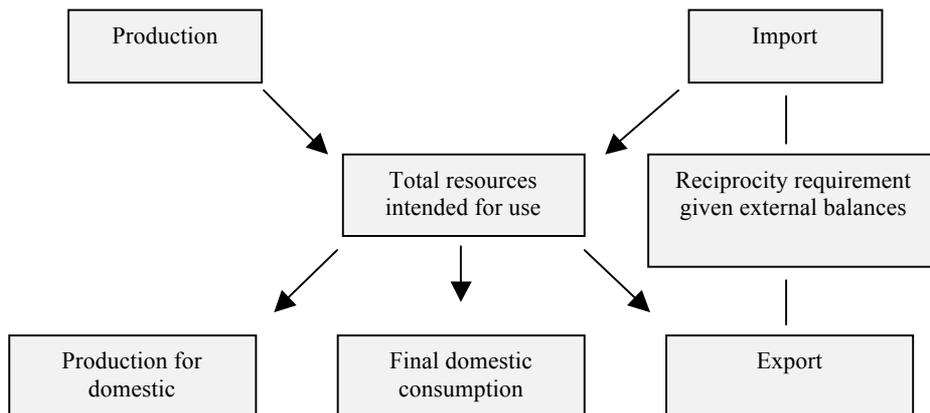


Figure 1 Function of Foreign Trade

Source: Štěrbová, 2013, p. 21

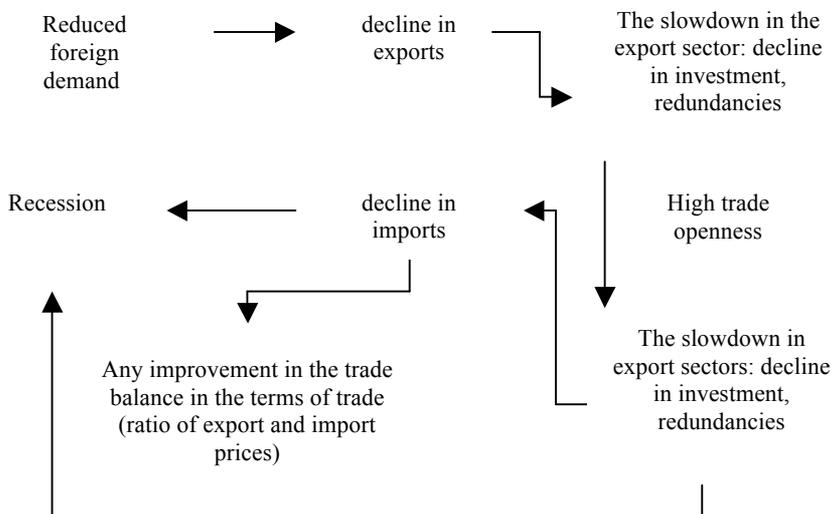


Figure 2 Transferring the Effects of an Economic Downturn from Abroad to the Domestic Economy

Source: Štěrbová, 2013, p. 25

Foreign Trade is a trade of one of the national economies with its environment, i.e. with one or more of the other national economies. Foreign trade involves business operations with institutions with an international element, i.e. foreign trade operations.

There is also a foreign element (trade policy) that can be defined in two ways.

By Holiness (2009, p. 29) trade policy is part of the state regulation of internal economic relations. In practice, any policy oscillates between two extreme principles: protectionism (protectionistic); and liberalism (freedom of trade). In addition, there are bilateral and multilateral trade policies. Trade policy includes a set of tools with which governments regulate foreign trade. Majerová (2011, p. 180) states that international trade policy amounts to the sum of the foreign trade policies of a country which are trying to regulate the foreign trade interests of the national economy. Foreign trade policy is influenced by the overall economic policy of the state and the state's foreign policy.

Foreign trade policy of the state is a national behavior towards foreign trade. It contains a set of objectives and instruments with which the government directly or indirectly regulates the scope and structure of foreign trade. The foreign trade policy of a state is a part of its economic policy, as well as a part of its foreign policy. This double bond can become a source of some tension when economic policies come into conflict with the foreign political orientation of a country (Majerová, p. 192). By (Štěrbová 2013, p. 99-100) the trade policies of a state are the summary of its objectives, strategies, policies, measures, instruments, agreements and institutions, conceived and generated at the governmental level, but put upon domestic and foreign business entities. Trade policy is a system that is the upper part of a whole which has vertical and horizontal linkages with other policies both inside the country, as well as with the policies of other states which act as business partners. This is an integral aspect of all state policies through which the government manages the state's foreign relations, as well as the economic and social development of the country. It is therefore a subsystem of a state's economic policy and how the system applies to either a single state or a representational integration. An example of how this applies to such an integration is how common principles of trade policy are applied by the European Union.

By Legen (2013), "High balance surpluses are not the result of sharp rises in export performance, but rather subdued imports." May 2013 ended in a balance, according to the Statistical Office of the SR, with the historically highest monthly surplus of 664.1 million euros. Surpluses in 2013 grew from month to month and were mainly the result of subdued imports. In the fifth month of the year growth in exports, according to preliminary data, slowed down to 3.6 percent and reached 5.6 billion euros. Imports in May 2013 fell from the previous year by 1.1 percent. In April, imports jumped by 4.5 percent. Analysis by UCB stated several reasons for the decline of imports: low domestic consumption; oil prices; and less demand by industry.

Weak domestic demand reduces upward pressure on consumer and investment imports. After the first five months of 2013, the accumulated surplus of foreign trade climbed to 2.5 billion euros, or 6.4 percent of economic output. Exports grew by 4.2 percent and imports by a modest 0.3 percent. The National Bank of Slovakia in recent forecasts assumes that the foreign trade surplus this year will rise to 5.8 percent of gross domestic product, greater than last year's 5.1 percent. In the next two years its share in the performance of the economy should be even higher.

DEVELOPMENT IMPORT INTENSITY AND EXPORT PERFORMANCE

Functional openness is given by the sum of exports and imports to total gross domestic product. Export performance is given by the share of exports in the gross domestic product. Import intensity is given by import share of the total gross domestic product. Development of the overall export performance versus overall import intensity in percentages for the Slovak Republic is shown in Figure 3

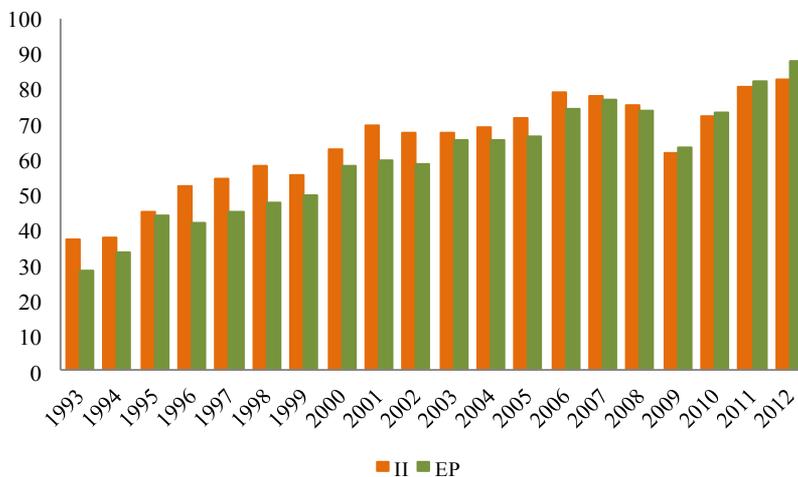


Figure 3 Development of Import Intensity and Export Performance
Source: own processing based on data from state budget

Table 1 Regression Statistics

Multiple R	0,896684299
R Square	0,804042732
Adjusted R Square	0,793156217
Standard Error	6,186713589
Observations	20

ANOVA

	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression	1	2826,898929	2826,899	73,85676	8,70829E-08		
Residual	18	688,9576505	38,27543				
Total	19	3515,85658					
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	
Intercept	42,320210	2,8739232	14,725	1,75E-11	36,282322	48,35809	
X Variable 1	2,0617894	0,23991046	8,5939	8,7E-08	1,557756	2,565822	

Source: Own processing in Excel

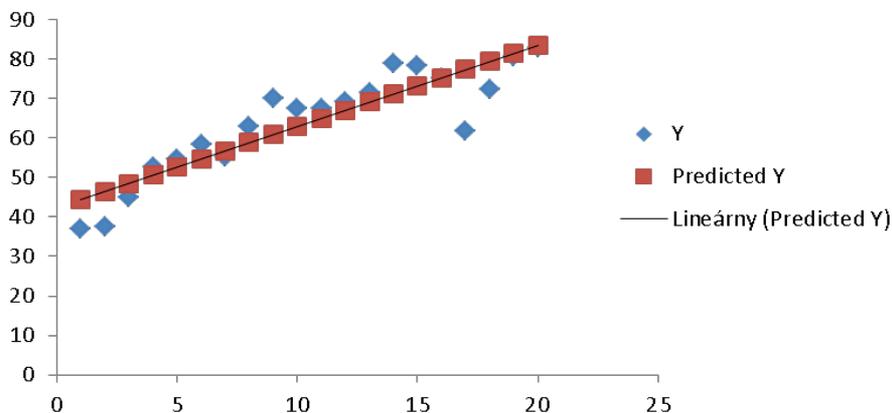


Figure 4 Prognosis Import Intensity
Source: Own processing

Table 2 Regression Statistics

Multiple R	0,956199595
R Square	0,914317665
Adjusted R Square	0,909557535
Standard Error	4,897799103
Observations	20

ANOVA

	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression	1	4607,65820	4607,6	192,07	4,805E-11		
Residual	18	431,791848	23,988				
Total	19	5039,45005					

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	32,234736	2,27518174	14,16	3,4E-11	27,454757	37,014716
X Variable 1	2,6322631	0,18992850	13,85	4,81E-11	2,233238	3,0312881

Source: Own processing in Excel

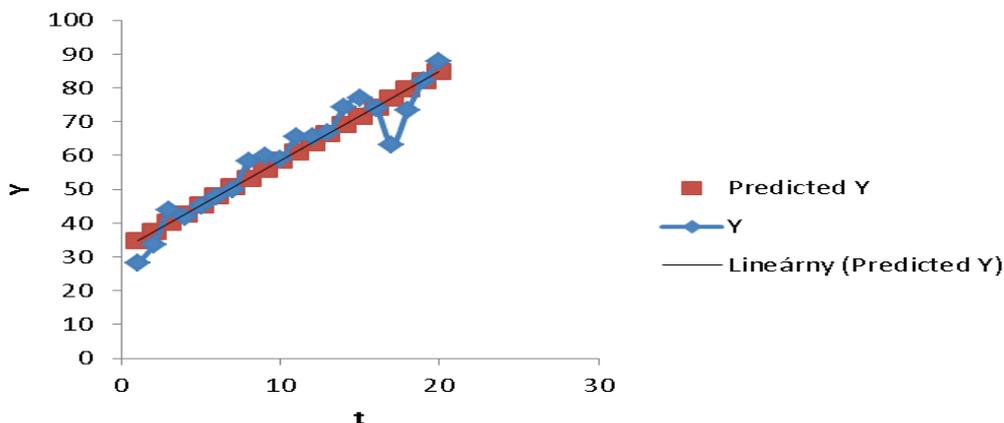


Figure 5 Forecast Export Performance

Source: Own processing

This linear model assumes a constant evaluation of the seasonal evolution of the phenomenon. Based on annual data on imports and gross domestic product from 1993 to 2012, the estimated prognosis of import intensity is displayed in the form of equations. The estimated regression line is $y = f(t) = 42.3202 + (2.0617 \times t)$. The estimated regression equation can be ingested on estimation and prediction. The coefficient of determination $R^2 = 80.402\%$, which quantifies the situation in which an 80.402%, change in the dependent variable is explained by the independent variables. In other words the estimated regression model explains about 0.804 of the variation values of the dependent variable. The correlation coefficient $R = 89.66\%$, with a significance level $\alpha = 0.05$; $p = 0.00$

Based on monthly data on exports from 1993 to 2012 the predicted prognosis of export performance is estimated by the equation $y = f(t) = 32.2347 + (2.6322 \times t)$. The coefficient of determination $R^2 = 91.43\%$. The correlation coefficient $R = 95.61\%$, with a significance level $\alpha = 0.05$; $p = 0.000$. The outcome of the test statistic is in the ANOVA table. The error value of regression = 2.27. Then the mean change in export performance in a unit increment estimate is the value 2.6322631. (regression coefficient β , directive selection of the regression line), $\beta < 2.233238$ 3.0312881. The test statistic is 13.85 and the p-value = 4,805. 10-11 test the statistical significance of regression coefficients, i.e. the linear statistical model is appropriate, since $p = 0.000$, the value is significantly smaller than α ($\alpha = 0.05$). For a comparison of countries in Table 3 of the export performance of the euro attributable to per capita income of the country.

Table 3 Export Performance (€ / Inhabitant)

Krajina	2000	2001	2002	2003	2004	2005	2006	2007	2008
Belgium	19931	20711	22184	21932	22509	25737	25737	29726	30094
Czech	3067	3616	3986	4225	5426	6145	7375	8696	9614
Danmark	10431	10785	11138	11394	12356	13401	13635	14301	14497
Finland	9652	9324	9191	9021	9482	10257	11714	12467	12377
Hungary	2984	3323	3589	3757	4421	4926	5958	6908	7350
Greece	1165	1171	1004	1082	1114	1254	1474	1539	1525

Slovakia	2379	2607	2830	3594	4126	4758	6189	7922	8926
Sweden	10643	9504	9663	10089	11048	11676	13020	13523	13573
Germany	7271	7759	7900	8050	8863	9459	10707	11712	11960
France	5857	5923	5711	5603	5834	5934	6246	6330	6389
Britain	5275	5162	5004	4546	4679	5146	5912	5272	5110
EU 27	5502	5699	5756	5742	6192	6662	7410	7873	8063

Source: Majerová, Nezval 2011, s. 249

CONCLUSION

Surplus is not the result of a sharp increase in export performance, but rather a subdued influx of imports. The share of exports in GDP of Slovakia confirms the dominance of foreign trade and production, as well as of our high dependence on external economic relations. From this, it naturally follows that an important aspect of any economic strategy of foreign policy, is that it be oriented to promote exports. Slovakia is, on the basis of its high export performance, on the verge of becoming an economy that will successfully engage in international trade, which will be a positive factor for the economic growth of the country.

In accordance with the EU-wide strategy, a tangible cardinal aim is to create a stable pillar to support its active foreign trade policy, in particular the development of Slovak exports and promoting the competitiveness of companies in Slovakia in international markets. Efforts are required to support the improvement of competitiveness and increase domestic production, which would reduce dependence on imports. The role of international trade requires good knowledge and information from the micro economic environment and the macroeconomic environment, as well as the presumption of the amenities of human capital and knowledge of the economy.

For faster growth of the Slovak economy in the second quarter of 2013, according to economic analysts net exports must increase. The same is the most significant factor in the increase in gross domestic product (GDP) in the second quarter by 0.9%. In the first quarter, while the country's economy grew by 0.6%, the foreign trade surplus in the second quarter of 2013 increased by 80%. Conversely, imports were subdued due to domestic consumption being almost stagnant.

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