CREDIBILITY AND LIMITS OF EMISSION FOR EXTERNAL DEBT FROM THE ASPECT OF EXPORT CAPABILITIES OF THE REPUBLIC OF SERBIA AND ECONOMIC GROWTH ABROAD

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Abstract

The objective of this paper is to explore the possibility of an external debt of the Republic of Serbia in terms of its export potential. The regression analysis data was conducted for the period 2001-2012 years in two cases: (i) for evaluation equation of export demand and the evaluation equation interdependence of the GDP and (ii) the real effective exchange rate in the Republic of Serbia. The results show that, with real rates of economic growth in the country (ranging from -1.8 to 3%) and the real rates of economic growth in the countries where the Republic of Serbia exports (ranging from 0.2 to 2%), the external debt can be in the range between -0.43% for 2.09% per annum. This means that the share of foreign trade deficit in the GDP in the Republic of Serbia, with the rate of the GDP in these intervals, bold move between -0.43 to 2.09% per annum, and not to increase the share of external debt in the GDP.

Kew words: credibility, solvency, borrowing, export, GDP.

КРЕДИБИЛИТЕТ И ГРАНИЦЕ ЕМИСИЈЕ СПОЉНОГ ЗАДУЖИВАЊА СА АСПЕКТА ИЗВОЗНИХ МОГУЋНОСТИ РЕПУБЛИКЕ СРБИЈЕ И ПРИВРЕДНОГ РАСТА У ИНОСТРАНСТВУ

Сажетак

Циљ овог рада је да истражи могућност спољног задуживања Републике Србије с аспекта њених извозних потенцијала. Регресиона анализа података урађена је за период 2001–2012. године у два случаја: (1) за оцену једначине извозне тражње и (2) за оцену једначине међузависности БДП-а и реалног ефективног девизног курса у Републици Србији. Резултати показују да, уз реалне стопе привредног раста у земљи (од -1,8 до 3%) и реалне стопе привредног раста у земљама у које Република Србија извози (од -0,2 до 2%), спољна задуженост може да се

креће годишње у распону од -0,43% до 2,09%. То значи да би се удео спољнотрго-винског дефицита у БДП-у, уз стопе привредног раста у наведеним интервалима, смео кретати између -0,43 до 2,09% годишње, а да се не повећа удео спољне задужености у БДП-у.

Кључне речи: кредибилитет, солвентност, задуживање, извоз, БДП.

INTRODUCTION

The relevance of this topic is reflected in the presence of external debt of the Republic of Serbia, which ranged from 40.1% GDP in 2002 to 85.6% GDP in 2012, representing a trigger to internal as well as external imbalance. Given the high fiscal deficit of 6.7% in the year 2013, it is necessary for the government to commence with fiscal adjustments as soon as possible. If it were to increase public spending to stimulate production, the high deficits would be extended for another few years, which would further bring into question potential sources of funding. Given the limited abilities of the domestic financial markets, the result is the extrusion of state funding; this in turn means that the financing of the fiscal deficit will be neither easy nor cheap. The critical channel – through which an increase in public debt could lead to a debt and financial crisis in Serbia – is the growth of external debt. Since, the financing of future fiscal deficits is largely accomplished through external borrowing this will directly lead to an increase in external debt. On the other hand, Serbia's external debt is already high. The expereinces of transitional countries, or countries with medium income levels, such as Serbia, show that external debt exceeding 60% becomes critically high, meaning that it can lead to a debt crisis: the cessation of payments or reconstruction of debt. If the analysis also includes information about the ratio of external debt to export which at the end of 2012 was 175.4%, it is understandable why there are fears for the macroeconomic stability of the country in the years to come if there is no increase in export and no stop to the accelerated borrowing and domestic spending.

The Republic of Serbia, thoughout the years, has had a problem of the coexistence of the current deficit and fiscal deficit (i.e. the "twins" deficit). Main characteristic of the "twins" deficit is to significantly reduce the potential for sustainable economic growth. If the state were to depend more heavily on financing from abroad, it would bring into question its ability to finance the repayment of a foreign debt. With that, the state would jeopardize the possibility of further borrowing from abroad, in other words, the credibility of the country would be jeopardized. All this would lead to a shock in the balance of payments, changes in the exchange rate with additional adverse consequences to economic stability. The fiscal deficit in Serbia at 2012 amounted to 7.6% GDP and was financed by additional external borrowing. In the same year, the current deficit of the Republic of

Serbia amounted to 11.5% GDP. Hence, the question that is the upper limit of the increase of external debt in terms of foreign sustainability.

In this part of the paper we econometrically determine the possible growth rates of external debt for the Republic of Serbia in terms of its export abilities and economic growth rates abroad, for the period 2002-2012. The first part gives an overview of the empirical literature on this subject. The second part provides information on the data and methodology used, and the third part systematizes the empirical results. The final part concludes.

REVIEW OF RELEVANT LITERATURE

The relationship of the fiscal deficit, public debt and net exports can be explained by the following mechanism: increasing the fiscal deficit units, of the reduced national savings, must state the conditions of full employment, or cause decrease in domestic investment, or a reduction in net exports. The decrease in net exports is due to the appreciation of the domestic currency. The appreciation of the rise in interest rates on government bonds, as a direct consequence of the fiscal deficit, increases the demand of foreigners in government bonds, and thus the local currency.

Studies of this mechanism in the transition countries have shown that there is a positive relationship between current and fiscal deficit, and that it is important when the GDP is above its potential (Ali Abbas, et al., 2010). Also, the aforementioned mechanism includes incorporating the effects of trade openness of the country. The openness country to trade increases the exposure of countries to external shocks, regardless of whether this is due to natural openness and openness caused by trade policy. This in turn increases the negative impact on the balance of payments. In addition, trade openness has a direct impact on the fiscal balance. Contrary to the case of natural openness, trade policy induced openness is improving fiscal balance, though governments often resist the liberalization of its trade regime, claiming that their situation is already difficult in the budget and that the reduction in tariffs causes an increase in the fiscal deficit (Combes, Saadi-Sedik, 2006, p. 15). And the effectiveness of fiscal stimulus packages during the last global economic crisis has significantly affected the balance of payments. The fiscal deficit has worrying consequences for the trade balance if it turns out that the ongoing fiscal stimulus packages. In the short term, these fiscal measures causing the deterioration of the balance of payments by about 50% increase in the fiscal deficit. The non-current, deteriorating the balance of payments amounted to almost 75% increase in fiscal deficits in the developed economies and nearly 100% increase in the fiscal deficit in small and open economies (Kumhof, Laxton, 2009, pp.23-24).

Indicators of borrowing from abroad are solvency and credibility.

Solvency is defined as the ability to repay debt. Solvency depends on the balance of payments, real interest rates and its relation to the rate of GDP growth, as well as the initial level of debt. The country is solvent if its external debt is growing at a rate lower than the interest rate on that debt (van der Kwaak, van Wijnbergen, 2013). Such assessment shows that in most of today's overdebted countries solvency is not threatened. The problem of insolvency occurs when the real rate of economic growth is negative, with any positive real interest rate on public debt.

However, even when solvency is not a constraint, the constraint can be credibility. Credibility depends on the perception of belief in the ability and readiness of a country to repay the debt. Inadequate credibility as a constraint on borrowing consists of the fact that it is very difficult to precisely determine the limits of borrowing it imposes. According to Cohen and Villemot (2011), a country has not yet stopped paying its debt, if according to its assessment the cost of not paying the debt is lower than the current cost of debt repayment. The benefit of not repaying the debt and the harm brought on by the cost of repaying the country's debt is concluded on the basis of the debt load, which can be determined by placing the size of the debt in relation to some accepted reference value. This, a reasonable borrowing strategy is that in which the burden of debt repayment never exceeds the current level of debt repayment. This also implies that the mere fact that the country achieves a trade surplus does not also mean that the country leads a reasonable borrowing policy (Švaljek, 2003, p.137).

THE ECONOMETRIC METHODOLOGY AND DATA

Data

In the case of the assessment equation of export, the demand export is used as a dependent variable, while import and the real exchange are used as independent variables. The study examines the export demand in the period from 2001Q1 to 2012Q4 (48 quarterly observations). The export demand equation is assessed in several variants, in order to obtain truer partial elasticity values necessary for the calculation of the potential level of external indebtedness. Imports and the gross domestic product of the importing countries appear as an alternative to export demand variables. For importing countries we have taken Bosnia and Herzegovina, Russian Federation and the EU-28, as an important export region of the Republic of Serbia. In addition, the index of the real effective exchange rate of the dinar appears as an explanatory variable.

Data on the GDP of Bosnia and Herzegovina (GDP_1) and imports ($IMPORT_1$) are taken from the website of Agency for Statistics of BiH. Data on the GDP in the Russian Federation (GDP_2) and its imports ($IMPORT_2$) are taken from the OECD database. The GDP data for export Regions of the European Union EU-28 (GDP_3) and imports of the region ($IMPORT_3$) are taken from the Eurostat website. Data on exports of the Republic of Serbia ($EXPORT_{rs}$) and GDP (GDP_{rs}) were downloaded from Statistical Office of Republic of Serbia. The index of the real effective exchange rate of the dinar on the basis of prices of industrial products (REAL EXC RATE) is taken from the website of the National Bank of Serbia. Quarterly data were used, seasonally adjusted, expressed in millions of USD and in constant prices, base Year is 2005.

The dependent variable in the case of unit assessments interdependence of the GDP of the Republic of Serbia and the real effective exchange rate is the gross domestic product of the Republic of Serbia (GDP_{RS}), while the explanatory variable is the real exchange rate (REAL EXC RATE).

Estimation of Data Appropriateness

Before making an appropriate model, we analyzed the time series data that were considered to be relevant in this case.We examine whether the observed data series are stationary or non-stationary using the Augmented Dickey-Fuller unit root test (*ADF*). The results are shown in Table 1. Testing has shown that most of the series are non-stationary series, i.e. series of the first order of integration.

Table 1. Test unit root, the period 2001 - 2014

Variable	Level		First difference	
	Prob.	*t-stat.*	*Prob.*	*t-stat.*
EXPORT RS	-2.32	0.27	-2.90	0.06
GDP_1	-2.75	0.08	-2.24	0.19
GDP_2	-1.29	0.62	-3.53	0.01
GDP_3	-1.83	0.36	-3.28	0.02
$IMPORT_1$	-3.36	0.02	-1.80	0.37
$IMPORT_2$	-1.69	0.42	-3.86	0.01
IMPORT3	-1.97	0.29	-3.26	0.03
REAL EXC. RATE	-3.85	0.01	-4.76	0.00
GDP_{RS}	-4.08	0.00	-5.22	0.00

Source: autors.

Table 2 presents the basic statistical parameters of time series.

Table 2. Basic statistical parameters of the series during the observed period

	EXPORT RS	GDP$_1$	GDP$_2$	GDP$_3$	REAL. EX.R.	IMPORT$_1$	IMPORT$_2$	IMPORT$_3$	GDP$_{RS}$
Mediam	2.88	3.68	6.30	3.49	2.00	2.94	5.72	3.08	99.89
Maximum	3.02	3.76	6.34	3.51	2.06	3.13	5.88	3.15	113.73
Minimum	2.32	3.57	6.19	3.42	1.97	2.60	5.47	2.94	93.15
Std.Dev.	0.19	0.05	0.45	0.03	0.03	0.14	6.12	0.06	5.57
Skewness	-0.89	-0.04	-0.63	-0.69	0.42	-0.45	-0.37	-0.48	0.62
Kurtosis	2.79	1.97	2.14	2.36	2.12	2.35	1.99	2.12	2.57
Jarque-Bera	4.77	1.61	3.53	3.49	1.92	1.88	2.32	2.55	2.59
Probability	0.09	0.45	0.17	0.17	0.38	0.39	0.31	0.28	0.27
Sum	101.16	132.07	226.27	125.21	62.17	105.20	205.28	110.47	3646.07
Sum Sq.Dev.	1.25	0.11	0.07	0.03	0.02	0.68	0.49	0.12	1087.54
Observations	36	36	36	36	31	36	36	36	36

Source: autors.

Model

Following Švaljek (2003), we analyzed the possibility of the repayment of external debt can be by linear combination of exports and the GDP, which can not be changed due to the changes in the real exchange rate. This can be represented by the following equation (Švaljek, 2003, p.129)

$$R^* = \gamma X^* + (1 - \gamma)Y^*, \qquad (1)$$

where: X^* − is value of exports; Y^* − is value of the domestic GDP expressed in units of foreign goods, ie. $X^* = X/e$, $Y^* = Y/e$; R^* − is measure of the ability to service a foreign debt.

The measure of ability (R^*) is defined to be any improvement of relations between debt and the GDP, which occurs as a result of the appreciation of the real, equal and compensates the negative impact of the real appreciation of the relationship between debt and exports.

The equation to ponder γ (Švaljek, 2003, p.130):

$$\gamma = \frac{-\varepsilon_{j^*,e}}{(\varphi_x \varepsilon_{x^*,e} - \varepsilon_{j^*,e})} \quad , \qquad (2)$$

where: $\varepsilon_{j^*,e}$ is elasticity of the GDP with respect to the change in the real exchange rate, $\varepsilon_{x^*,e}$ is the elasticity of exports with respect to the change in the real exchange rate, and φ is the share of goods exports in a foreign currency.

The possibility of repayment of external debt (R) is reflected in the rate of increase in funds for the repayment of public debt ($R*$), which is marked with n_R (Švaljek, 2003, p.130):

$$n_R = \frac{\varphi_X \gamma n_{x*}}{(\varphi_X \gamma + (1-\gamma))} + \frac{(1-\gamma)n_{Y*}}{(\varphi_X \gamma + (1-\gamma))} \tag{3}$$

where: n_{x*} is the export growth rate ($dX*/X*$), and n_{Y*} is the growth rate of the GDP ($dY*/Y*$). Rate n_{x*} may be linked to the rate of the GDP growth in the countries to be exported. The growth rate of the GDP in the countries where exports marked with n* (Švaljek, 2003, p.130):

$$n_{x*} = \varepsilon_{x*,Y*}\, n^* \tag{4}$$

Here $\varepsilon_{x*,Y*}$ is export elasticity (in foreign currency) due to the GDP countries to be exported. When you take into account that the share of debt funds ($R*$) should not be changed to the borrowing strategy to be considered acceptable, we get the following equation for the allowable level of accumulation of foreign debt expressed as a percent of the GDP (Švaljek, 2003, p.130):

$$\frac{e\Delta L^N}{Y} = \frac{eL^N}{Y} = n_R \tag{5}$$

THE ECONOMETRIC RESULTS

In order to determine the elasticity of domestic export with respect to foreign demand and exchange rate, first it is necessary to evaluate the function of export demand. Econometric evaluation of the function of export demand of the Republic of Serbia is carried out by using the conventional model in which the variables are explanatory: the level of income in the regions, potential imports and price levels of exported goods as well as price level of imperfect substitutes for the exported goods in the importing market. Discouraged by these problems, some researchers brought into question the possibility of conducting these types of analyses, as well as any results arising from the econometric evaluation of export function in the Republic of Serbia. In this part of the paper, the export demand function by the Republic of Serbia was evaluated using the conventional model of regression analysis.

As an evaluation of the equation with the best properties we can choose model (5), in Table 3, which has the following shape:

$$\text{LogEXPORT\_RS} = -22.31 + 3.77 \log\text{GDP2} + 0.70 \log\text{REAL\_EXC\_RATE} \tag{6}$$
$$(1.47) \quad (0.21) \quad (0.28)$$
$$R^2 = 0.92;\ R\ Kor^2 = 0.91;\ F = 16.29;\ DW = 1.56$$

Table 3. Estimates of export demand function

Model		1	2	3	4	5	6
Depend variable: logEXPORT							
Independ variable							
C		1,34	-4,83	-4,41	-4,11	-22,31	-19,3
	(t-stat)	(0.86)	(-4.66)	(-3.13)	(-2.18)	-1,47	(-0,41)
	p-value	0,4	0	0	0,04	0	0
log IMPORT1		0,82					
	(t-stat)	(4.36)					
	p-value	0					
log IMPORT2			1,31				
	(t-stat)		(-11.39)				
	p-value		0				
log IMPORT3				2,47			
	(t-stat)			(7.71)			
	p-value			0			
log GDP1					1,94		
	(t-stat)				-5,12		
	p-value				0		
log GDP2						3,77	
	(t-stat)					-0,21	
	p-value					0	
log GDP3							6,23
	(t-stat)						-12,69
	p-value						0
log REAL EX. RATE		-0,44	0,1	-0,09	-0,08	0,7	0,2
	(t-stat)	(-0.56)	(0.24)	(-0.11)	(-0,11)	-0,28	-0,56
	p-value	0,58	0,81	0,91	0,91	0	0,57
R-squared		0,41	0,82	0,68	0,49	0,92	0,85
Adjusted R-squared		0,36	0,81	0,66	0,45	0,91	0,84
S.E. of regression		0,11	0,06	0,08	0,1	0,03	0,05
N		31	31	31	31	31	31
F-statistic		9,61	65,3	29,99	13,25	16,29	80,99
Durbin-Watson stat		0,24	0,64	0,56	0,82	1,57	0,86

Notes: All equations were estimated by using the method of ordinary least squares. The logarithm transformation was carried out so that regression coefficients can be interpreted as partial elasticities.
Source: Calculations performed by the authors.

The determination coefficient and determination coefficient adjusted with the degrees of freedom show that with changes to the listed explanatory variables we can explain more than 92%, or 91% of the variance in the export done by the Republic of Serbia. All reviews of the coefficient in the examined demand equation have an expected direction, and indicators of *students' distribution* are coefficient values significantly different from zero at the probability level of 99%. The calculated *F* statistic is 16.29 and it indicates that a relationship exists between dependent and explanatory variables, because it is greater than the table value that at the level of significance at 5% equals 2.49. The *Durbin Watson's* statistic shows that with a probability of 5% we can accept the hypothesis of no autocorrelation of residuals, since with that level of probability the value of d_l is 0.86.

On the basis of this equation (6) we come to the required partial elasticity's of export with respect to the exchange rate and with respect to demand in the importing countries. According to the assessed equation of export demand, the elasticity of the export in the Republic of Serbia with respect to the real effective exchange rate, $E_{x,e}$ is 3.77. This means that an increase in the real effective exchange rate index by 1%, which is equal to the real appreciation of the dinar by 1%, leads to an increase in the exports expressed in U.S. Dollars, by 3.77%, with the remaining unchanged conditions. In addition to the calculations presented thus far, in order to calculate the measure of possible foreign borrowing, it is necessary to also establish the elasticity of the real domestic GDP with regard to the relative effective exchange rate. That elasticity is obtained by evaluating the relationship between the domestic GDP and the real effective exchange rate using the *OLS* method. Evaluated equation states:

$$\log\text{GDP}_{RS} = 91.3 - 0.02 \log \text{REAL\_EXC\_RATE} \qquad (7)$$
$$(2.89)\ (0.03)$$
$$R2 = 0.95;\ \text{RKOR-} = 0.73;\ DW = 2.30;\ F=4.33$$

This evaluation has a satisfactory ability to explain the variation of the dependent variable. The *students' indicators* show that the hypothesis cannot be accepted if the parameters do not significantly differ from zero. The *Durbin Watson's* statistic shows that a problem of autocorrelation of residuals does not exist. Since the model requires that the gross domestic product be in a foreign currency (U.S. Dollars), due to the unavailability of this data at the quarterly level for the Republic of Serbia, in this evaluation, as a dependent variable the gross domestic product in dinars is used instead, in constant prices, divided by the exchange rate of the dinar against the dollar. The sought elasticity of the real domestic production with respect to the real effective exchange rate, $E_{y,e}$ amounts to -0.02. The coefficient with the real effective exchange rate is a negative sign, which corresponds with the assumption of the model, by which the domestic production is import-dependent, this import-dependence leads to a negative relationship between the exchange rate and the gross domestic product (Cohen, Valadier, 2015).

With the help of calculated elasticity's, $E_{x,e} = 0.70$, $E_{x,y}= 3.77$, and $E_{y,e} = -0.02$, the application of equation (2), it has been calculated that the value of the coefficient γ is $\gamma=0.33$. This value shows that a measure of resources with which the value of unpaid external debt should be compared, and which is invariable in respect to changes in the real effective exchange rate, can be obtained as a linear combination of 33% export value and 77% gross domestic product value of the Republic of Serbia. As a relevant part of export in the gross domestic product, a share of 29% is chosen which amounts to the share of merchandise export by the Republic of Serbia in the gross domestic product established in the year 2012, so $\varphi = 0.29$). Along with the calculated coefficients and the coefficients γ i φ

all the input data required to calculate the possible growth rate of the external debt of the Republic of Serbia has been obtained, along with the given growth rate of export and the rate of economic growth abroad. Export growth rates are, in accordance with the equation (2) calculated as the product of the elasticity of exports of the Republic of Serbia with regard to the GDP of the importing country, and the various rates of economic growth in the Republic of Serbia.

In the model, the rate of economic growth in the domestic economy and abroad appears as exogenous variables. For this reason to achieve the rate of possible growth of external debt it is necessary to anticipate attainable rates domestically and abroad. For such purposes, data about the GDP growth rate in Serbia and its import countries, for comparability, have been taken from the World Economic Outlook database, International Monetary Fund, in April of 2013. The predicted growth rates for Serbia are from 2 to 3%. With these growth rates in the country, and the existing export elasticity of Serbia with regard to the production of importing countries, export growth rates ranging from -0.91% to 7.41% have been obtained. Due to an already achieved high level of economic activity of import countries real economic growth rates will be somewhat lower, they will be in the interval between 0 and 2%. With these assumptions, resource growth rates have been calculated R, (n_r), in the Republic of Serbia, using equation (3). The results of that calculation have been presented in Table 4.

Table 4. Possible growth rate of foreign debt of the Republic of Serbia

	Year		2011	2012	2013	2014	2015	2016	2017	2018
	growth rate in Serbia	Growth rate in the EU countries	1.6	-0.24	0.004	1.282	1.67	1.843	1.906	1.966
Year										
2011	1.6		1.60375	-0.010657	0.20285	1.27441	1.660624	1.812002	1.86713	1.91963
2012	-1.8		1.18014	-0.434269	-0.2208	0.89751	1.237012	1.38839	1.44352	1.49602
2013	2.0		1.65371	0.039304	0.25281	1.36444	1.710586	1.861963	1.91709	1.96959
2014	2.0		1.65358	0.03918	0.25268	1.37095	1.710461	1.861839	1.91696	1.96947
2015	2.2		1.6785	0.064098	0.2776	1.39587	1.735379	1.886757	1.94188	1.99438
2016	2.5		1.75839	0.101476	0.31498	1.43325	1.772757	1.924135	1.97926	2.03176
2017	2.8		1.74703	0.132624	0.34613	1.4644	1.803905	1.955283	2.01041	2.06291
2018	3.0		1.77818	0.163772	0.37728	1.49555	1.835053	1.986431	2.04156	2.09406

Source: Calculations performed by the authors.

In the permissible strategy, borrowing is considered that manner of borrowing with which the credibility of the country at least remains unchanged, or that indebtedness with which the ratio of the external debt and resources available for financing external debt does not increase. As shown in the equation (5) the deficit (in this case the current deficit) equals the change in the debt level (here external debt), which is obtained

by multiplying the rate of growth of debt and debt in the previous period. Hence, the possible growth rate of external debt can, in accordance with the equation (5), be interpreted as acceptable shares of current deficit in the GDP in the Republic of Serbia, given the rate of economic growth in the country and abroad.

CONCLUDING REMARKS

Therefore, Table 3 shows that with real economic growth rates in a developing country ranging from -1.8 to 3%, and with real predicted growth rates in the import countries, ranging from 0.2 to 2%, the indebtedness of the Republic of Serbia can grow abroad between -0.43% and 2.09% annually. This means that a part of the foreign trade deficit in the GDP of the Republic of Serbia, with the economic growth rates in the mentioned intervals, can move between -0.43 to 2.09% annually, without increasing the share of external debt of the Republic of Serbia in the GDP, which is otherwise invariant to the changes of the real effective exchange rate. For instance, we observe the projection for the year 2018, a combination of an economic growth rate of 3% in the Republic of Serbia, and an economic growth rate of 2% in the countries to which the Republic of Serbia exports, the external debt of the Republic of Serbia could grow at a rate of 2.09%.

It can be seen that the evaluated equations for export demand and the interdependence of the GDP on the real effective exchange rate in the Republic of Serbia has shown that the space available for a possible increase in borrowing is very restricted, and that even a small growth of 3% of indebtedness can lead to a destruction of the credibility of the Republic of Serbia abroad. If the analysis includes the last few years, it can be noticed that the external debt of the Republic of Serbia in the year 2011 has increased by 39.37% in relation to 2010, and in 2012 a decrease in indebtedness of 0.59% in relation to the year 2011 has been recorded, however due to the depreciation of the dinar and a fall in the dollar value of export there is a worsening of the share between the external debt and GDP, or export or a combination of the GDP and export. If the indicators of external debt keep increasing, it is evident that the credibility of the Republic of Serbia will worsen, which can seriously threaten the possibility of obtaining a loan from abroad. This empirical study alarmingly suggests the necessity of a shift in the macroeconomic policy and putting a stop to the trend of relying the function of the national economy on foreign savings.

Thus far, research has ignored the need of the private sector to borrow from abroad, so the obtained data reflect only the possible level of indebtedness by the public sector. If the private sector is also included in the analysis it is evident that room for borrowing from abroad becomes even smaller. Namely, if all sectors of the Republic of Serbia can get indebted maximally up to 0.5% of the GDP so that the share of the

external debt in resources does not get worse, and if there is the need for the private sector to get indebted up to 1%, the public sector can only borrow the remaining modest 1.09% of the GDP.

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КРЕДИБИЛИТЕТ И ГРАНИЦЕ ЕМИСИЈЕ СПОЉНОГ ЗАДУЖИВАЊА СА АСПЕКТА ИЗВОЗНИХ МОГУЋНОСТИ РЕПУБЛИКЕ СРБИЈЕ И ПРИВРЕДНОГ РАСТА У ИНОСТРАНСТВУ

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Резиме

Србија се суочава са проблемом раста спољног дуга, који се кретао од 40,1% БДП-а у 2002. години до чак 85,6% БДП-а у 2012. години. Поред тога, Србија већ годинама има проблем истовременог постојања спољнотрговинског дефицита и фискалног дефицита (тзв. дефицит „близанаца"). Фискални дефицит у Републици Србији је на крају 2012. године износио 7,6% БДП-а и финансиран је додатним спољним задуживањем. Исте године, спољнотрговински дефицит Републике Србије износио је 11,5% БДП-а. Отуда се поставља питање која је горња граница пораста спољног дуга с аспекта спољнотрговинске одрживости. Циљ овог рада је да истражи могућност спољног задуживања Републике Србије с аспекта њених извозних потенцијала. Регресиона анализа података (OLS метод) урађена је за период 2001–2012. године у два случаја: (1) за оцену једначине извозне тражње и (2) за оцену једначине међузависности БДП-а и реалног ефективног девизног курса у Републици Србији. Резултати показују да, уз реалне стопе привредног раста у земљи (од -1,8 до 3%) и реалне стопе привредног раста у земљама у које Република Србија извози (од -0,2 до 2%), спољна задуженост може да се креће годишње у распону од -0,43% до 2,09%. То значи да би се удео спољнотрговинског дефицита у БДП-у, уз стопе привредног раста у наведеним интервалима, смео кретати између -0,43 до 2,09% годишње, а да се не повећа удео спољне задужености у БДП-у. Уочава се да су оцењене једначине извозне тражње и међузависности БДП-а од реалног ефективног курса у Републици Србији показале да је простор могућег пораста задуживања врло скучен и да је чак врло низак. Пораст задужености од 3% може довести до нарушавања иностране кредибилности Републике Србије. Уколико се показатељи спољне задужености и даље буду повећавали, очигледно је да ће се кредибилност Републике Србије погоршати. Ово емпиријско истраживање алармантпо указује на неопходност заокрета у макроекономској политици и заустављање тренда ослањања функционисања домаће привреде на инострану штедњу. У досадашњем истраживању занемарена је потреба задуживања приватног сектора у иностранству, тако да су се добијени подаци односили само на могући ниво задуживања јавног сектора. Уколико се укључи

и приватни сектор у анализу, примећује се да је простор за задуживање државе у иностранству још мањи. Наиме, уколико се сви сектори Републике Србије у иностранству могу задужити максимално у висини 2,09% БДП-а како се удео спољног дуга у средствима не би погоршавао и уколико постоји потреба да се приватни сектор задужи у висини 1%, јавни сектор ће се моћи задужити тек у висини преосталих скромних 1,09% БДП-а. Основни закључак је да се без спољнотрговинских и фискалних прилагођавања не може остварити привредни раст. Република Србија има додатну неповољност да за финансирање својих спољнотрговинских дефицита мора додатно да плаћа и камату због слабог прилива страног капитала. Већи прилив страног капитала омогућује бескаматно сервисирање спољнотрговинског дефицита.