THE SUSTAINABILITY OF SERBIA’S EXTERNAL POSITION: THE IMPACT OF FISCAL ADJUSTMENT AND EXTERNAL SHOCKS

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ABSTRACT: This paper studies the impact of fiscal policy and external shocks on the sustainability of Serbia’s external position. The key determinants of Serbia’s current account balance are identified using model averaging techniques and are compared with estimates obtained for other small open economies (Poland, Georgia, Morocco, Ukraine, and Estonia). The paper uses estimated influences of macro-variables on the current account balance to generate a rich set of possible outcomes for the external position of the country. The results suggest the importance of fiscal policy for the reduction of external imbalances in all countries in our sample. In particular, credible and sustained fiscal adjustment can reduce current account deficit and stabilize Serbia’s external position close to its current level over the medium term. The analysis also warns that lack of success in fiscal consolidation coupled with external shocks may easily push the external position onto an unsustainable path.

KEY WORDS: Current account determinants, External sustainability, Model averaging, Transition countries, Fiscal policy, External shocks

JEL CLASSIFICATION: F32, F37, F39

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1. INTRODUCTION

External imbalances have been extensively studied by both academics and policymakers because of their important implications for future economic conditions. Large external imbalances are not necessarily a source of concern. A deficit caused by a reduction in savings is likely to be more dangerous than one fuelled by an investment boom that contributes to future growth and a country’s ability to repay the accumulated debt. Indeed, many countries at a similar development stage to Serbia, in the process of catching up with higher levels of income, typically invest beyond their savings possibilities, thus borrowing from the rest of the world. On the other hand, current account (CA) imbalances may also arise as the result of unsustainable policies. For example, when, fiscal expenditures rise and public debt mounts as a consequence, international investors will want to be compensated for the increased risk with higher interest rates. Increases in the cost of international borrowing have a direct impact on public finances and, on firms’ balance sheets, as they will need to pay higher rates to finance their investment projects and their working capital, and on households, which will pay higher rates for their mortgages and other loans. Large external imbalances also increase the perception of uncertainty surrounding the key relative prices such as the exchange rate and the interest rate, which in turn depresses economic activity due to reduced credit and the postponement of investment decisions, with severe implications for growth and job creation. Many authors also argue that the build-up of external imbalances prior to the crisis represented one of the most important channels for the propagation of negative global shocks in the post-crisis period (see discussion in Obstfeld, 2012). Although some early papers discussed the initial resilience of capital inflows in Central and Eastern European countries during the global financial crisis (see Berglof et al. 2009, among others), more recent empirical evidence suggests that their excessive external imbalances contributed to the severity of the crisis and its prolonged effects (see Lane and Milesi-Ferretti 2011, Lane and Pels 2012, among others). For these reasons the management of external imbalances has attracted policymakers’ attention. The discussion has focused on measures aimed to avoid build-up of excessive imbalances in the future. In particular, the European Commission (EC) has extended its macroeconomic imbalances procedure with criteria related to external imbalances, while the IMF and G20 launched a consultative process to discuss the issue of global imbalances.

Large external imbalances, widening fiscal deficits, and mounting public debt currently pose a major macroeconomic risk for Serbia. Over the last decade the country has been running systematic and sizable CA deficits, which have led to
a build-up of the negative external position. Although Serbia has the lowest net international investment positions (NIIP) in Europe (-89.3% of GDP in 2013, significantly below the EC criterion of -35% of GDP), the issue of its sustainability has not been discussed in the literature to date. Widening of the fiscal deficits, which was particularly strong after the crisis, had negative effects on the external position. As discussed above, this policy’s induced increase of external imbalances hampers the country’s growth prospects through higher borrowing costs, lower capital inflows, and increased exposure to global shocks. To address the issue the government has recently reached an arrangement with the International Monetary Fund (IMF) to support consolidation of public finances. Consolidation measures should reduce risks related to fiscal imbalances, but the question of their effect on external position sustainability remains an open one.

In order to fill the gap in the literature, this paper analyses the sustainability of Serbia’s external position. We assess the impact of fiscal adjustment on external imbalances over the mid-term and analyse the risks that arise from alternative fiscal policies and shocks to key CA determinants. To do so, we adopt the approach proposed by Cusolito and Nedeljkovic (2013), and by not imposing any steady-state assumption on the evolution of the economy we generate a rich set of possible outcomes for Serbia’s external position. In this way we are focusing on the front part of the sustainability horizon and, in line with the recent literature on global financial adjustment (see Gourinchas and Ray 2007 and Evans and Fuertes 2010), we look at the other side of the sustainability coin, i.e., the evolution of the international investment position. In particular, we build on the idea that the CA may be sustainable as long as other countries are willing to finance it, which is ultimately connected to the accumulated level of NIIP. In order to make the simulation exercise possible we identify the influence of key macroeconomic variables on CA using the model averaging methodology proposed by Hansen and Racine (2012) and applied in the CA context by Urošević et al (2012). It allows us to estimate the impact of all relevant CA determinants while focusing on individual country data only. Once the influences are obtained and compared with the estimates for selected small open economies with flexible (Poland and Georgia) and fixed (Estonia, Ukraine and Morocco) exchange rate, the sensitivities of future CA balances and NIIP to changes in the fiscal and selected external shocks are examined.

The results of model averaging suggest that fiscal policy plays an important role in the reduction of the external imbalances in all countries in our sample. In particular, fiscal adjustment is the main driver of the improvement of Serbia’s external position over the medium term. The analysis also warns that lack of
success in the consolidation, coupled with external shocks, may easily push the external position onto an unsustainable path.

The rest of the paper is organized as follows. The next section outlines the methodology used to estimate key CA determinants and to derive alternative scenarios for the external position. The data used in the estimation are described in section III. Section IV presents results from model averaging estimation for Serbia and selected small open economies. Section V contains a discussion of the alternative future paths of Serbia’s external position under different fiscal scenarios for other key CA drivers. The final section concludes and provides some policy implications.

2. THE METHODOLOGY FOR EXTERNAL SUSTAINABILITY ASSESSMENT

This section begins with a brief summary of the econometric techniques used in the estimation of CA determinants and discusses their potential influence. The second subsection provides a short literature survey and details on the methodology used in the sustainability exercise.

2.1. Identification of key current account drivers: Econometric methodology and discussion of key determinants

We begin with the notion that, according to the national accounting identity, the CA balance reveals the difference between national savings (private and public) and investments (private and public). Therefore, to identify the underlying drivers of the CA balance, we relate it to the determinants of national savings, investment, and trade competitiveness-related factors that may affect it directly:

\[ CA(X_{CA}) = S_p(X_s) - I_p(X_I) + S_G + I_G \]  

where \( X_s \) are private consumption/savings determinants, \( X_I \) denotes factors that affect private investment, and \( X_{CA} \) denotes factors that may influence the CA directly (e.g., past FDI inflows). Assuming exogeneity of the trade drivers \( X_{CA} \), the CA balance is defined as:

\[ CA = g(X_s, X_I, S_G, I_G, X_{CA}) \]

and the function \( g(\cdot) \) is assumed to be linear.
By focusing on the underlying determinants of savings and investments, the above specification is partially related to the intertemporal approach to the CA (Sachs et al. 1981, Obstfeld and Rogoff 1996). Moreover, as the idea is to include all potential influences on the CA using a large number of variables in empirical analysis, the reduced-form specification (2) is also related to a vast empirical literature which uses various econometric techniques to identify the relationships between the CA and a set of macro and socio-economic variables (see Beidas-Strom and Cashin 2011 for a survey of the increasingly expanding literature). The majority of these empirical studies of the medium-term CA drivers employ panel estimation techniques. This is reasonable, since the idea is to include many different variables, while relatively short samples are available for most of the emerging and developing countries. However, the significance of potential determinants may differ across a large number of countries and this heterogeneity may bias the resulting parameter estimates for individual countries. This poses a potential limitation, especially if we want to derive future paths for individual countries’ external position to assess its sustainability.

Therefore, the estimation of the above specification is based on the jackknife model averaging (JMA) techniques proposed by Hansen and Racine (2012) and previously applied to study CA determinants by Urošević et al. (2012). In spite of the short samples available, the methodology allows us to include all relevant CA determinants in the analysis while focusing on the individual country’s data, which is crucial for our simulation exercise. In particular, let \( y_t \) denote the CA to GDP ratio (the dependent variable), while \( X_t \) is the \( d \)-dimensional vector of the explanatory variables (described below). We are interested in estimating the following simple regression model:

\[
y_t = \beta X_t + u_t
\]  

(3)

where \( u_t \) is a random term that is allowed to be heteroscedastic and no assumption is imposed on the distribution of the error term. Let \( M \) be the number of models where each model \( m=1,...,M \) represents a particular subset of the explanatory variables \( X_{t,m} \) whose dimension is smaller than \( d \). The averaging estimator for the full regression model is:

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1  The intertemporal model treats CA as an outcome of consumption and investment decisions made over a long-term horizon under forward-looking expectations. More concretely, with an infinitely lived representative agent who smooths consumption by lending or borrowing abroad, the standard intertemporal model implies that the movements in the CA should reflect factors that affect the country’s underlying savings and investment positions.
where $\tilde{\beta}$ is a simple OLS estimate and weights $w_m$ are assumed to be non-negative and to sum-up to one. The JMA estimator selects the weights $w_m$ by minimizing a leave-one-out cross-validation criterion, which, as shown by Hansen and Racine (2012), attains the lowest average squared error among all feasible weight vectors.

The explanatory variables and their relationship with the CA balance are outlined below.

At an annual frequency, CA balances tend to show high persistence, associated with habit formation in consumption (Gruber 2004) or agglomeration effects in investment.

NIIP (lagged) can affect the CA balance in two ways. A large stock of foreign liabilities can put a constraint on future capital inflows and the country will have to run CA surpluses to pay accumulated liabilities. In a cross-country study of external crises, Catao and Milesi-Ferretti (2013) recently documented that crisis risk increases with net foreign liabilities, particularly when these exceed 50% of GDP or 20% of their historical mean value, which limits the investors’ willingness to finance large imbalances. On the other hand, large negative NIIP will generate income outflows, which will worsen the CA balance.

In line with the permanent income hypothesis, a positive terms-of-trade (ToT) shock can improve the CA via increased savings due to larger current income relative to permanent income (the Harberger-Laursen-Metzler effect). Alternatively, ToT shocks can also affect the optimal capital stock and change investment plans, leading to higher investment and lower CA balance. The greater the persistence of the shock, the more dominant the investment effect. For an oil importer, an increase in oil prices directly worsens the oil import bill and thus the CA.

Rising government expenditures will increase aggregate demand and depress national savings if the Ricardian equivalence does not hold. This effect is more pronounced in developing countries where the share of non-Ricardian agents is higher. Therefore, a positive sign is expected.

Trade openness has ambiguous effects on the CA balance. Less open economies may import less, which may reduce the CA deficit. However, the same countries
may have difficulties servicing external liabilities, resulting in higher debt service costs and a greater CA imbalance. On the other hand, greater openness typically allows countries to undertake more investment and to finance the resulting CA deficits with capital flows from abroad. Also, international trade is an important conduit for the transfer of technology, leading in the long run to economic development and thereby improving the CA balance.

According to the standard intertemporal CA model (see e.g., Bergin and Sheffrin 2000) real effective exchange rate (REER) may have two opposite effects on CA balance. When real exchange rate appreciates relative to its trend, the price of traded goods is temporarily lower compared to non-traded goods. This leads to a shift in consumption towards traded goods and worsening of the CA balance. But if the real exchange rate appreciates above the trend, agents expect its depreciation and thus an increase in the costs related to debt repayment (denominated in foreign currency). Rational behaviour implies that they increase current savings, which will improve the CA balance. Empirical studies typically find that the first effect predominates (see Beidas-Strom and Cashin 2011). In our empirical analysis this variable is lagged by one year in line with existing evidence on the J-curve effect (see Petrovic and Gligoric 2010, among others).

Foreign direct investment (FDI) has ambiguous effects on private domestic investment and the CA. First, it can crowd out domestic investment when local and offshore firms compete for scarce domestic resources (e.g., labour or finance). On the other hand, FDI may also generate local spillovers that ‘crowd in’ domestic investment. Gross FDI may also worsen the CA, depending on import content, the amount of profits repatriated, and their export orientation.

The effect of relative GDP growth on the CA balance depends on agents’ expectations about the implications of growth for future income. If agents consider it permanent, saving rates could decline, increasing the CA deficit. If instead it is perceived as temporary, saving will increase and the CA balance will improve. Obstfeld and Rogoff (1996) argue that the ability to run CA deficits or surpluses depends on the relationship between a country’s growth rate and the world’s growth rate.

Faster trading partners’ growth boosts demand for exports, shrinking the CA deficit. In addition, if the main trading partners are also the host countries for migrant workers, then their faster growth also boosts remittance inflows (Rahman 2008).
Credit activity proxies both financial deepening and aggregate demand. Relaxed borrowing constraints can increase private consumption and lower CA balance.

Small, developing economies will run CA deficits, while they accumulate capital goods and converge towards a higher level of income. Eventually, as the country’s growth potential diminishes, it will pay its debts by running CA surpluses (Engel and Rogers 2006). Therefore, increase in relative income should have a positive impact on CA.

According to the buffer stock theory (Zeldes 1989), domestic macroeconomic uncertainty is expected to increase saving and reduce investments. Similarly, an increase in global uncertainty (measured by VIX) can put a constraint on CA financing, which will lead to improvement of the CA balance.

Asset price dynamics may have a significant effect on savings and investment and consequently on the CA balance (Adam et al. 2014). A rise in equity or housing prices (in particular if it is expected to be permanent) increases the value of collateral and thus households’ and firms’ capacity to borrow, which stimulates consumption and investment.

2.2. External position sustainability: Literature survey and empirical methodology

Although there is no universally accepted definition, CA sustainability is commonly defined as a state in which the continuation of current government policy stance and private sector behaviour does not result in rapid future policy shifts and/or substantial changes in other economic variables (e.g., exchange rate, see Razin and Milessi-Ferretti 1996). However, this common definition does not provide a clear criterion for assessing a country’s external sustainability, as it incorporates the agent’s expectations of future policies rather than the policies themselves. This has influenced the empirical literature to move in several directions.

Following the idea that the CA is sustainable if the economy is able to satisfy its long-run intertemporal budget constraint, much of the literature examined the statistical properties of the CA balance time series (Trehan and Walsh 1991). As the underlying idea is that CA stationarity is a sufficient condition for the intertemporal budget constraint to hold, expanding research applied a wide variety of unit root and cointegration tests to check the stationarity of CA, the external position, the debt, and their components (see the survey of recent literature in Chen 2014). However, a seminal paper by Bohn (2007) has showed
that the evidence of non-stationarity does not imply that the intertemporal constraint does not hold. Additionally, as the existence of unit root is an in-sample phenomenon, this type of analysis does not have out-of-sample implications, which limits its application in the present context.

The second strand of the literature tried to derive CA norms, i.e., the appropriate level of CA balance given the previously defined criterion. The papers that followed the idea can be differentiated according to the criterion used to derive a norm. The first line of research beginning with Milesi-Ferretti and Razin (1996) derives a CA norm that would stabilize external debt or the net international investment position at the current level (Lane and Milesi-Ferretti 2007). An alternative approach promoted by Lee et al. (2006) and Phillips et al. (2013) employs panel econometric techniques to estimate determinants of the CA balances in a large sample of countries. Once the estimates are obtained they are used along with forecasts of identified CA determinants to derive norms for each individual country. In both approaches the difference between the actual or projected CA balance and a norm is considered as a measure of imbalance. This strand of literature also has several shortcomings. First, the way the norms are obtained is subject to criticism. The underlying assumption of the accounting framework that a country has reached its steady state and thus it is reasonable to stabilize the debt to NFA ratio at the current level is too strong for the economies in the catching-up phase of development or for highly indebted countries. On the other hand, panel estimates obtained on the large sample of heterogeneous countries do not take into account potential differences between them (i.e., the derived norm is not “country-specific”). Second, neither approach takes into account valuation effects, which may be a significant component of changes in the NIIP of a country (see Tille 2008).

Since Serbia is still in the catching-up phase of development, none of the aforementioned approaches seems to be suitable for the assessment of its external sustainability. Thus, instead of testing statistical properties of the CA series or defining a “benchmark” for its CA deficit, this paper implements the approach proposed by Cusolito and Nedeljkovic (2013). By not imposing any steady-state assumption on the evolution of the economy, we generate a rich set of possible outcomes for the external position of the country, which allows us to analyse the impact of different government policies and other shocks on the external position. As the external position is sustainable as long as other countries are willing to finance it, the idea is to look at the other side of the sustainability coin – the accumulated level of NIIP.
The procedure proposed by Cusolito and Nedeljkovic (2013) consists of four steps. First, using the estimated coefficients from the CA determinants analysis outlined in section IV and the projected values of determinants we generate year-end projections of the CA balance. Second, given the CA projection, current stock of foreign assets and liabilities, projections of the relative movements in capital inflows and outflows, and expected rates of return on foreign equity assets and liabilities we generate the year-end stock of the NIIP. Then the first two steps are recursively repeated, generating the paths of the CA and the NIIP. Finally, different projections of the selected variables are alternated to obtain the range of potential scenarios and assess the risk implications.

The change in NIIP is the sum of CA, capital account transfers, errors and omissions, and valuation effects. If \( B_t \) denote the NIIP, then the change in NIIP at time \( t \) can be expressed as:

\[
B_t - B_{t-1} = CA_t + KG_t + E_t
\]

where \( CA_t \) is the CA balance, \( KG_t \) is the capital gain or loss on NIIP (valuation effects), and \( E_t \) is the residual which captures the difference between the CA and net capital inflows, consisting of capital account transfers and errors and omissions.

Dividing each variable of equation (5) by nominal GDP and denoting the obtained ratios by lower-case letters, it can be written as:

\[
b_t - b_{t-1} = c a_t + k g_t + e_t - \frac{g_t}{1 + g_t} b_{t-1}
\]

\[
b_t = \frac{1}{1 + g_t} b_{t-1} + c a_t + k g_t + e_t
\]

where \( g_t \) is the nominal GDP growth rate. The equation (6) explains the evolution of the aggregate NIIP position. As capital gains on reserves, other investment assets, and other investment liabilities enter the CA, the methodology relates capital gains, \( k g_t \), to FDI and portfolio investment valuation effects, such that:

\[
k g_t = q_t^{FDI,L} \frac{F D I_{t-1}^L}{Y_t} + q_t^{Equity,L} \frac{P E_{t-1}^L}{Y_t}
\]

where \( q_t^{FDI,L} \) and \( q_t^{Equity,L} \) are the growth rate of FDI and equity prices in the home country (subscript L denotes that this is the liability side), respectively, and \( F D I_{t-1}^L \) and \( P E_{t-1}^L \) are the stock of foreign direct investment and portfolio investment inflows in the previous period, respectively. Overall stock market
behaviour can proxy growth rate of equity prices. Estimation of the growth rate of FDI prices requires some additional assumptions. Following Tille (2008), we can assume that portfolio equity and FDI have equal capital gains:

\[ q^{fdi} = reinv + q^{equity} \]

where \( reinv \) is reinvested earnings. No arbitrage condition implies that in the steady state all assets have equal return. Therefore, the nominal interest rate on government bonds \( i \) should equal the total return on FDI, i.e., the sum of dividend (\( dist \)) and price increase (\( q^{fdi} \)):

\[
 i = q^{equity} + dist = q^{fdi} + dist + reinv = q^{fdi} + dist \left[ 1 + \frac{reinv}{dist} \right]
\]

From the above equation we can write \( q^{fdi} \) as:

\[
 q^{fdi} = q^{equity} - \left( i - q^{equity} \right) \frac{reinv}{dist} \quad (7)
\]

where \( \frac{reinv}{dist} \) is the ratio of reinvested to distributed earnings on FDI. Similar specification is applied to capital gains on the NIIP asset side. The only difference is that it uses the stock of foreign direct investment outflows and portfolio investment.

3. DATA DESCRIPTION

The sample size and the choice of variables reflect the availability of the data. For compatibility reasons most of the data comes from the International Monetary Fund’s IFS database and the World Bank’s WDI database. Relative variables (income and openness) are defined in terms of the deviation from the weighted average of main trading partners. The weights for trading partners are based on the average importance of each country as an export destination for all countries in the sample and the weights are calculated using the COMTRADE data for the 2002-04 and 2007-09 periods. The final weights include the 20 largest trading partners, which constitute around 80% of the value of overall exports. The analysis is conducted on the sample of annual data. The longest time period for which all the data are available is 1992-2012 in the case of Morocco. The sample for Georgia covers the 1998-2012 period, 2000-2012 for Serbia, and for Poland and Estonia 1995-2012.

\[ 2 \quad \text{Demographic variables are not included in the analysis as their impact is expected to materialize over a longer time span, which requires a longer sample or use of long-term averages.} \]
4. CURRENT ACCOUNT DETERMINANTS IN SERBIA AND SELECTED SMALL OPEN ECONOMIES

Before applying model averaging to study the determinants of CA movements we check the order of integration of the individual series, as the methodology is valid only in the case of stationary variables. Table 1 presents the results from the Kwiatkowski et al. (KPSS 1992) test of a null hypothesis that an observable time series is stationary. A careful examination of the series for which KPSS rejects the null of stationarity suggests the presence of structural breaks. To control for structural breaks we implement Zivot and Andrews (1992) test and find the stationarity of all series (see Table 1). Although the length of the sample is relatively short, the stationarity of the CA series gives some support for the (in sample) CA sustainability.

Figure 1 shows that the estimated models perform well on average in all countries: the difference between the three-year averages of the predicted CA deficit implied by the model and the observed CA is small throughout the period.

Table 1. KPSS and Zivot-Andrews unit root test results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Serbia</th>
<th>Georgia</th>
<th>Poland</th>
<th>Estonia</th>
<th>Ukraine</th>
<th>Morocco</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current account</td>
<td>0.299 (2)</td>
<td>0.221 (2)</td>
<td>0.227 (1)</td>
<td>0.186 (2)</td>
<td>0.333 (2)</td>
<td>0.234 (3)</td>
</tr>
<tr>
<td>NFA</td>
<td>0.187 (2)</td>
<td>0.092 (1)</td>
<td>0.454* (4)</td>
<td>0.341 (7)</td>
<td>0.160 (2)</td>
<td>0.343 (3)</td>
</tr>
<tr>
<td>Fiscal balance</td>
<td>0.421* (2)</td>
<td>0.017**</td>
<td>0.266 (1)</td>
<td>0.336 (7)</td>
<td>0.328 (2)</td>
<td>0.113 (3)</td>
</tr>
<tr>
<td>Government expenditures</td>
<td>0.339 (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output gap</td>
<td>0.235 (2)</td>
<td>0.253 (7)</td>
<td>0.083 (2)</td>
<td>0.132 (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real GDP growth</td>
<td>0.194 (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit growth</td>
<td>0.156 (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.332 (1)</td>
</tr>
<tr>
<td>Credit change (% GDP)</td>
<td>0.080 (1)</td>
<td>0.228 (2)</td>
<td>0.161 (2)</td>
<td>0.103 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative income</td>
<td>0.159* (1)</td>
<td>0.026**</td>
<td>0.115 (2)</td>
<td>0.137** (5)</td>
<td>0.117 (2)</td>
<td>0.118 (0)</td>
</tr>
<tr>
<td>Main trading partners’ GDP growth</td>
<td>0.026 (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terms of trade (change)</td>
<td>0.179 (1)</td>
<td>0.094 (2)</td>
<td></td>
<td>0.211 (0)</td>
<td>0.156 (5)</td>
<td>0.210 (4)</td>
</tr>
<tr>
<td>Oil price (change)</td>
<td>0.098 (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative openness</td>
<td>0.119 (0)</td>
<td>0.118 (1)</td>
<td>0.137 (2)</td>
<td>0.086 (3)</td>
<td>0.340 (2)</td>
<td>0.319 (3)</td>
</tr>
<tr>
<td>FDI</td>
<td>0.235 (2)</td>
<td>0.275 (2)</td>
<td>0.236 (1)</td>
<td>0.151 (0)</td>
<td>0.339 (4)</td>
<td>0.281 (4)</td>
</tr>
<tr>
<td>Stock market capitalization</td>
<td>0.402* (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(change, % GDP)</td>
<td>0.093 (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REER change</td>
<td>0.254 (6)</td>
<td>0.335 (3)</td>
<td></td>
<td>0.325 (1)</td>
<td>0.186 (4)</td>
<td>0.340 (4)</td>
</tr>
<tr>
<td>Macroeconomic uncertainty</td>
<td>0.287 (2)</td>
<td>0.212 (0)</td>
<td>0.349 (8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global uncertainty (VXO)</td>
<td>0.107 (1)</td>
<td></td>
<td></td>
<td>0.349 (8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political uncertainty (ln, ICRG index)</td>
<td>0.105 (2)</td>
<td></td>
<td></td>
<td>0.449 (5)*</td>
<td>0.041**</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 presents estimated CA determinants in Serbia and the selected small open economies of Poland, Georgia, Morocco, Ukraine, and Estonia. Different coefficient signs and magnitudes indicate heterogeneity between countries, providing empirical support for the use of country-level determinants in the sustainability exercise (as opposed to panel estimates used by Lee et al. 2006 and Phillips et al. 2013). For each country the first and second columns in Table 2 report the estimated coefficient along with its standard errors. The third column reports the standardized estimates, which express the change in the CA balance measured in standard deviations, induced by a change in one standard deviation of the explanatory variable. The main findings can be outlined as follows:

**CA persistence matters.** Conceptually, as mentioned above, evidence of persistence may be related to habit formation in consumption and saving, and suggests a certain degree of inertia in the CA. The results indicate relatively higher persistence of the CA balances in Ukraine and Morocco (0.59 and 0.46, respectively, similar to panel estimates obtained by Lee et al. 2006, and Bems and
De Carvlaho 2009), compared to the estimates for Serbia, Poland, and Georgia, countries with a flexible exchange rate. In particular, the size of the persistence effect in Serbia (0.21) is of smaller magnitude, which implies a relatively faster adjustment of the CA to transitory shocks. The estimates also provide further evidence on the stationarity of the CA balance.

The size of the NIIP stock seems to be posing a borrowing constraint for most of the analysed countries. The negative coefficient may be related to the fact that the high net foreign liabilities faced by Serbia (close to 90% of GDP in 2013), Georgia, Morocco, and Estonia require large future CA surpluses to pay them off. Since the worsening NIIP has been strong in these countries over the past decade, this finding implies that reaching higher negative levels of foreign exposure imposes a (more binding) constraint on worsening of the trade balance and a stimulus for the CA improvements. Positive and zero coefficients on NIIP in Poland and Ukraine, respectively, are not surprising given the relatively low levels of external position in the two countries (especially Ukraine).

Fiscal policy has contributed to the widening of the external imbalances in all countries in our sample. The absence of Ricardian equivalence is particularly evident in the countries with a fixed exchange rate, Ukraine and Estonia, where more than half of the fiscal deficit is transmitted to the CA deficit. The direct impact of the fiscal balance is somewhat lower in Morocco (0.29), but government subsidies for oil imports are found to have an almost one-to-one effect on CA balance. The estimates also support the “twin deficit” hypothesis in Serbia. The coefficient of 0.48 is in the upper range of the estimates obtained in other studies (which range from 0.15, Chinn and Ito 2007, to 0.58, Arzeki and Hasanov 2013). According to our results, rapid expansion of fiscal deficit in Serbia after 2008 contributed to a widening of the external imbalance. The impact of fiscal policy was lower in the other countries that have a flexible exchange rate.

In line with the evidence on pro-cyclical CA movements (Freund 2005) and basic predictions of the intertemporal CA approach, real GDP growth contributes negatively to CA in all countries except for Ukraine. In the case of Serbia, results suggest that every 1-percentage point increase in the output gap leads to a CA that is lower by 0.24% of GDP.

Financial development, measured by the change in private sector credit to GDP, is one of the most important CA determinants that had a negative effect on CA balances in all countries. By fuelling aggregate demand, increases in private sector credit put downward pressure on saving rates and stimulate demand for
all goods, including imports, especially in the pre-crisis period. The effect was more pronounced in European countries that experienced larger credit activity expansion. This finding is in line with the existing evidence on CEE countries (Rahman 2008 and Urosevic et al. 2012). In addition to credit activity, change in stock market capitalization, a proxy for financial market development, contributed negatively to CA balance in Poland.

We find a significant positive impact of relative income, measured by the difference in real GDP per capita in PPP terms, on CA balance in all countries except Morocco. The CA deficits in the past were therefore partially explained by the accumulation of capital goods and the process of convergence. A higher ‘catching-up’ effect over the past two decades led to larger contributions to the dynamics of the CA in Georgia and Estonia (see standardized coefficients).

The impact of ToT on CA balance varies across the countries. Positive changes in ToT had a negative impact on CA in Estonia, Georgia, and Morocco, which points to the dominance of the investment effect. On the other hand, in line with Serbia’s dependence on oil imports, its CA appears to be very sensitive to changes in oil prices (as evident from the size of the standardized coefficient). The estimated influence suggests that a 10% increase in the price of oil leads to a CA that is lower by 1.05% of GDP.

Trade openness tends to worsen CA balance in the countries with a fixed exchange rate, Morocco and Estonia. The magnitude of the effect is relatively small, but similar to that found by Arezki and Hasanov (2013). On the other hand, in other countries the effect is positive, which implies that increased trade integration is beneficial for the reduction of the external imbalance. The magnitude of the positive effect is in line with findings of Gruber and Kamin (2007) and Chinn and Ito (2007).

The impact of FDI on the CA varies across the countries in line with international experience that shows that the effects of FDI inflows on the CA balance depend on their composition. FDI inflows from the previous period had a sizable negative effect on the CA balance in Georgia, Ukraine, and especially Serbia. Our finding may be related to Serbia’s unfavourable FDI structure, as most of the inflows targeted the non-tradable sector and included high imports of intermediates and equipment. On the other hand, in Poland, Estonia, and Morocco, past FDI inflows had a positive impact on the CA balance.
### Table 2. Estimated coefficients

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<td>0.0012</td>
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* actual coefficient multiplied by the ratio of variances of independent and dependent variable.
REER appreciation contributes negatively to the CA in all countries. This effect is higher in countries with a fixed exchange rate, indicating stronger effects of real appreciation to CA deterioration in these countries. In Serbia the estimated coefficient of -0.08 suggests that 1% of real depreciation improves the CA balance by 0.08% of GDP.

Overall uncertainty contributed positively to the CA balance in Serbia, Estonia, and Ukraine in line with the buffer stock theory, according to which agents faced with macroeconomic uncertainty tend to increase their precautionary saving. Higher global uncertainty, measured by the lagged VXO index, had a negative effect on the CA balance in Poland. This finding indicates that negative global shocks tend to stimulate capital flows in Poland due to robust economic performance (Poland is one of the few countries that did not record negative GDP growth during the recent global financial crisis) and large size of the home market.

5. ANALYSIS OF THE SUSTAINABILITY OF SERBIA’S EXTERNAL POSITION

Over the last decade Serbia has been running systematic and sizable CA deficits that have led to a build-up of external imbalances. The problem of external and fiscal imbalances constitutes an important policy question, highlighted both by rating agencies and the European Commission’s macroeconomic imbalances procedure. Although the crisis and export-oriented investment have narrowed the external gap in recent years, the issue of external sustainability is enforced by expanding fiscal deficits, which, as shown in the previous section, greatly contributed to the external imbalance after 2008. The government recently reached an arrangement with the IMF with the aim of consolidating public finances and putting public debt on a decreasing path. The consolidation measures should reduce risks related to fiscal imbalances, but the question of their effect on external position sustainability remains open. Therefore this section measures the impact of fiscal adjustment on the mid-term evolution of both CA balance and NIIP. Once the baseline scenario is derived and its implications have been discussed, the analysis assesses the risks of the external position. We ask what will happen to the future evolution of CA balance and NIIP if key determinants continue along their current trend or if they deteriorate. Finally, this section simulates the impact of alternative fiscal policies on future CA and NIIP dynamics.

To project CA balances and NIIP over the medium term, we combine projections for the CA determinants with the estimated sensitivities of the CA balance with respect to each of these determinants, and with assumptions made on
valuation effects of foreign assets and liabilities. At the end of 2013, portfolio equity and foreign direct investment liabilities constituted 47.3% of Serbia’s total international investment position liabilities. That highlights the importance of taking into account the composition of NIIP and differences in returns when analysing the country’s external sustainability.

The set of scenarios is calibrated based on different projections for the variables influenced by domestic policy (fiscal balance, credit growth), identified short and medium-run drivers (output gap, real effective exchange rate), and external shocks (oil prices). The projections for other variables are set as follows. The data for relative openness, relative income, and gross FDI inflows are obtained from the IMF’s WEO forecast data. Macroeconomic uncertainty is measured as the first principal component of inflation, unemployment, and global uncertainty (proxied by VIX). The forecast data for the two former series come from the IMF’s WEO forecast data, while we used the assumption of a gradual increase in VIX in line with expected changes in the business cycle and monetary policy in developed countries. In addition, in order to generate estimates of the stock of NIIP at the end of each year, the following assumptions are used:

- The nominal GDP growth rate for each year 2014-2019 is obtained from the IMF database, allowing for the (realistic) possibility that the economy will not have reached a steady state and hence a constant nominal GDP growth rate.3
- The initial (end of 2013) stock of each component is taken from the International Investment Position report of the National Bank of Serbia.
- The projected capital account transfers and projected errors and omissions (relative to the CA balance) are obtained from the IMF WEO database and deducted from the simulated CA balance to compute the estimate of the financial account balance.
- No capital gain on reserves, other investment assets and liabilities, and portfolio debt assets and liabilities is assumed, since their returns enter the CA directly. Given the past 3-year average return on the S&P emerging market core index and Dow Jones Stoxx Broad Europe, adjusted for nominal GDP growth we set the growth rate of prices on portfolio equity liabilities and assets as equal to 4.4% and 3.0%, respectively. The growth rate of FDI prices is calibrated following Tille (2008), assuming a nominal interest rate of 6.5% for the liabilities side and 3.0% on the assets side, and a ratio of reinvested to distributed earnings on FDI equal to 0.75, in line with the average yield on long-run government bonds and the observed income outflows, respectively.

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3 According to the IMF data, nominal GDP is expected to grow 0.2% in 2014, 2.2% in 2015, 5.7% in 2016, 6.2% in 2017, and 7.6% in 2018 and 2019.
5.1. Fiscal policy baseline and the impact of external shocks

We begin by presenting the baseline assumptions and forecasts of the CA deficit and the NIIP. As one of the main goals of the paper is to discuss the implications of fiscal adjustment for external sustainability, we assume a gradual reduction in the fiscal deficit from 7.9% of GDP in 2014 to 2.9% of GDP in 2019, in line with the IMF adjustment scenario (see Table 3 below). Serbia is the country with the lowest average GDP growth rate among its regional peers in the post-crisis period (2009-2013). Short post-crisis boom-bust cycles contributed to the weak annual average GDP growth rate of 0.1%. The short-term outlook is also weak. In 2014 and 2015 GDP growth is expected to be negative, -2% and -0.5%, due to one-off negative of energy production and fiscal consolidation measures, respectively. In line with the IMF estimates the pace of economic growth is expected to pick up from 2016 (1.5%) and reach 3.5% by 2019. Given these growth rates (which come from the IMF adjustment scenario), the output gap is calculated over the 2000-19 period using a Hodrick-Prescott filter. Our baseline scenario assumes that the negative gap closes and becomes positive from 2018. Like other CEE countries, Serbia saw strong credit growth in the pre-crisis period. However, a negative economic cycle, a high level of non-performing loans, and bank deleveraging contributed to a fall in credit activity over the 2013. Therefore, in line with the expected economic recovery, our baseline scenario assumes gradual recovery in nominal credit growth, i.e., -5% in 2014, -2% in 2015, 4% in 2016, 6% in 2017, and 8% afterwards. After a moderate depreciation in 2014 the REER is expected to appreciate by 1% in real terms each year in line with price convergence and moderate loss of competitiveness. Finally, IMF commodity price outlook is used to set the baseline dynamics for oil prices. The scenario implies that after a sharp drop in 2014 (below $70 per barrel) the oil price will fluctuate around that level.

Overall, the baseline results show (Figures 2 and 3) that fiscal consolidation will narrow the CA deficit below 4% of GDP and stabilize NIIP close to its 2013 level in the mid-term. Looking at the dynamics of the external position (Figure 4), fiscal policy is the main driver of CA improvement. Reduction of fiscal deficit coupled with a prolonged period of low commodity (oil) prices will contribute to the decline of the CA balance, which will fluctuate around 3.5% of GDP over the 2015-18 period. Once the positive fiscal effects wane, expected pick-up in domestic demand (positive output gap and growth in credit activity and FDI) will contribute to the widening of the deficit, which will reach 4% of GDP in 2019. After reaching its low in 2014, NIIP will improve towards its current level by 2019. NIIP reversal will occur in spite of future CA deficits and capital losses, as their negative effects will be offset by high nominal GDP growth rates.
The analysis shows that fiscal consolidation can reduce the CA deficit and stabilize the external position close to its current level. However, as we will see below, its success is dependent on future external shocks. To show this we analyse the impact that shocks in other variables have on external balances along the fiscal consolidation path. In order to assess the direction and the magnitude of the influence of each variable, we conduct the analysis by alternating different scenarios for one variable while keeping the others at their benchmark values, in addition to the aforementioned assumptions. We first present a scenario that implies a shock to a policy-malleable variable - credit growth. Then we present simulations for shocks to economic activity and real effective exchange rate. Finally, we discuss the impact of shocks to global oil prices.

**Figure 2.** Baseline scenario CA

**Figure 3.** Baseline scenario NIIP

**Figure 4.** Contributions to baseline changes in CA balance (in % of GDP)

According to permanent income hypothesis, agents try to smooth consumption when they face a temporary drop in income. If the drop in income that came
from fiscal consolidation is perceived as temporary, agents will try to smooth their consumption by borrowing. On the other hand, if the drop is seen as permanent, agents will adapt to the new, lower level of consumption. Increased uncertainty about future income will also make them reluctant to borrow. To take into account uncertainty over the agents’ response to fiscal measures we analyse the impact of alternative credit scenarios on external balance. Aside from the baseline, Figures 5 and 6 show the impact of four alternative scenarios that assume lower and higher credit growth (by 2pp and 4pp in both cases). The results suggest a small impact of credit activity on future CA balances and NIIP. The comparison between the scenario with strongest credit expansion and the one with lowest growth implies a cumulative difference in CA balance of 1.7% of GDP over the next six years (in 2019 the difference between NIIP under baseline and the one with 4pp higher credit growth is just 0.7% of GDP). As credit expansion stronger than assumed seems unlikely, the positive effects of fiscal consolidation on sustainability of external position will not be greatly affected by potential changes in borrowing.

The projected effects of economic activity (output gap) on the external position are large (Figures 7 and 8). The difference in output gap of 2pp between the best and worst growth scenarios implies a cumulative difference of 3.4% of GDP over the period 2014-2019 (3.1% of GDP in terms of NIIP at the end of 2019). But how likely is the assumed faster growth? Although the short-term outlook is weak, higher growth may come from increased investment in infrastructural projects or higher FDI inflow. According to IMF estimates, from 2018 GDP growth will be mainly driven by consumption, which will widen the external imbalance. Still, it seems unlikely that the country’s mid-term external sustainability will be hampered by the faster growth pace, as even in the worst-case scenario CA balance and NIIP are projected to remain above -4.5% of GDP and -91% of GDP, respectively.

**Figure 5. Credit scenarios CA**

**Figure 6. Credit scenarios NIIP**
The real exchange rate channel of external adjustment is operative and strong (Figures 9 and 10). The comparison of the impact of different real exchange rate scenarios on both the CA balance and NIIP reveal that the exchange rate plays an important role and suggests that increased exchange rate flexibility may facilitate the external adjustment. A large contribution to the out-sample dynamics of the CA and NIIP is in line with the existing evidence of a strong role for exchange rate policy in CEE countries (see Becker et al. 2010). Even a moderate depreciation can have a strong effect on CA. By 2019 the difference between the forecasted effects under scenarios of moderate depreciation (1% per year) and baseline (moderate appreciation of 1% per year) reaches 1.2 percentage points of the CA deficit and about 6.2 percentage points of improvement in the NIIP. A large difference between the scenarios, especially those with strong depreciation and appreciation pressures, suggests that increased exchange rate flexibility can accompany fiscal and structural measures to achieve a sustainable external position, especially if the country faces unfavourable external shocks.

The analysis of the sensitivity to changes in oil prices shows that global shocks may have a strong negative influence on the path of the future external position. A negative oil balance of 5.6% of GDP (in 2013) and the high standardized coefficient on oil prices discussed in section III point to the importance of oil prices to developments in Serbia’s CA balance. To assess the impact of oil price shocks on the external position, aside from the baseline, four scenarios are considered – two scenarios with an increase and two with a decline in oil price. Even a moderate drop in oil prices (close to 3% per year) can lead to NIIP that is lower by 4% of GDP compared to the baseline in 2019 (Figures 11 and 12). If the trend of declining oil prices continues over the mid-term, Serbia’s CA balance could improve to above -3% of GDP. However, a negative oil price trend would
have strong implications on the external imbalances. In particular, if oil prices start to grow once global economic growth picks up (strong growth scenario assumes annual growth of oil prices of 5.9% by 2019) CA balance will deteriorate to close to -5% of GDP, while NIIP will surpass -93% of GDP.

5.2. The impact of alternative fiscal policies

As shown by the analysis in the previous section, external shocks, especially those coming from global oil prices and REER, may have a sizeable negative effect on the external position. The analysis also showed that fiscal policy, i.e., gradual improvement of fiscal balance, is the most important driver of the reduction of CA deficit and of the improvement in NIIP. The success of the expected fiscal adjustment is to a large extent based on the implementation of structural reforms, as only a small portion of the necessary expenditure cuts comes from the envisaged reduction of wages, pensions, and subsidies (direct measures). Lack
of future commitment, insufficient success in reforms, and/or the postponement of future cuts in the public wage bill due to social pressures, for example, may push the fiscal balance above the target set by the adjustment programme issued as a baseline.

To assess the external position risks that arise from fiscal slippages, this section analyses the impact of alternative fiscal paths over the next six years. Four alternative fiscal adjustment scenarios are analysed (see Table 3). The worst-case scenario assumes that the government will have been able to reduce the deficit in 2015 by only 0.9pp, which is the assumed effect of direct measures (reduction of public wage and pension bill). In 2016 the assumed adjustment is 1.0pp, and 0.5pp for the following year. The second and third scenarios assume a higher fiscal deficit compared to the baseline by 1.0pp and 0.5pp per year, respectively. Finally, the best-case scenario assumes stronger consolidation. In particular, under this alternative the fiscal deficit would remain at its baseline level in 2015, but the adjustment would be 0.5pp higher compared to the baseline level at the end of the simulation period. This will only materialize if the government is successful in conducting structural reforms related to public enterprises and is willing to undergo future cuts in the wage and pension bill.

**Table 3. Fiscal balance as a share of GDP in alternative scenarios**

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</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>-0.056</td>
<td>-0.079</td>
<td>-0.059</td>
<td>-0.046</td>
<td>-0.036</td>
<td>-0.030</td>
<td>-0.029</td>
</tr>
<tr>
<td>Worst case</td>
<td>-0.056</td>
<td>-0.079</td>
<td>-0.070</td>
<td>-0.060</td>
<td>-0.055</td>
<td>-0.050</td>
<td>-0.045</td>
</tr>
<tr>
<td>Weaker consolidation by 1.0pp</td>
<td>-0.056</td>
<td>-0.079</td>
<td>-0.069</td>
<td>-0.056</td>
<td>-0.046</td>
<td>-0.040</td>
<td>-0.039</td>
</tr>
<tr>
<td>Weaker consolidation by 0.5pp</td>
<td>-0.056</td>
<td>-0.079</td>
<td>-0.064</td>
<td>-0.051</td>
<td>-0.041</td>
<td>-0.035</td>
<td>-0.034</td>
</tr>
<tr>
<td>Best case</td>
<td>-0.056</td>
<td>-0.079</td>
<td>-0.059</td>
<td>-0.041</td>
<td>-0.031</td>
<td>-0.025</td>
<td>-0.024</td>
</tr>
</tbody>
</table>

Figures 13 and 14 show the forecasts of the CA deficit and of the NIIP, respectively, under different fiscal scenarios. Fiscal slippages, as assumed by the first three scenarios outlined above, would lead to an exacerbation of the CA deficit and further accumulation of foreign liabilities. The difference between the baseline and the worst-case scenario (Table 3) implies a lower CA deficit of about 1.0pp per year, and a stronger decrease in NIIP by 2019 (by 4% of GDP). Another two ‘lack of commitment’ scenarios also point to the importance of fiscal consolidation measures. Even the more moderate scenario (0.5pp lower fiscal balance compared to the baseline) leads to a non-negligible cumulative difference in CA and stock of NIIP by 2019, by 1.4% and 1.2% of GDP, respectively. But how likely is the assumed slippage? As fiscal revenues are expected to decline as a percentage of GDP over the mid-term, to achieve the fiscal adjustment outlined
by the baseline the government would need to reduce current expenditures, most notably wages, pensions, and subsidies. That could trigger social pressures and lead to the postponement of the needed adjustment. A slower pace of adjustment could easily push fiscal balance onto one of the paths discussed in the alternative scenarios. The best-case scenario would result in a CA deficit close to 3% of GDP and NIIP of -88% of GDP in the medium term.

Overall, the results suggest that successful fiscal consolidation can stabilize the external position around its current level. If followed by real depreciation and favourable oil price developments these measures may result in a CA deficit below 2% of GDP (see Figures 14 and 15). However, positive effects of consolidation may be offset by negative shocks in other key CA determinants. If these shocks are coupled with fiscal slippages they can easily put the external position on an unsustainable track: as the worst case scenario implies, the CA balance and NIIP would surpass 6% and 100% of GDP, respectively, in the event of stronger growth, REER appreciation, increase in oil prices, and slower pace of fiscal consolidation.
6. CONCLUSIONS AND POLICY IMPLICATIONS

This paper studies the impact of fiscal adjustment and external shocks on the sustainability of Serbia’s external position. First, the key determinants of Serbia’s current account balance are identified using model averaging techniques and are compared with estimates obtained for other small open economies (Poland, Georgia, Morocco, Ukraine, and Estonia). Then we used estimated influences of macro-variables on the CA balance to generate a rich set of possible outcomes for the external position of the country.

As shown by the analysis in the previous section, fiscal policy, i.e., gradual improvement of fiscal balance, is the most important driver of the reduction of CA deficit and improvement in NIIP. Credible and sustained fiscal adjustment would reduce CA deficit to below 4% of GDP and stabilize the external position close to its current level. If accompanied by a real depreciation and favourable oil price developments, these measures may result in further improvement of CA balance and NIIP. The analysis also warns that positive effects of consolidation may be offset by global commodity price shocks and REER appreciation. These shocks coupled with fiscal slippages can easily put the external position onto an unsustainable track.

The policy implications of these results are several. First, in addition to being a burden for future generations, the accumulation of a large and negative NIIP can pose a significant risk in terms of the sustainability of a large and persistent CA deficit. The analysis shows that credible and sustained fiscal consolidation can reduce the CA deficit and negative external position, which could create improved macroeconomic conditions and credit rating and lower borrowing costs for households, firms, and government. Lack of commitment coupled with external shocks can easily put CA and NIIP on an unsustainable path, which highlights the need for consistent implementation of the fiscal adjustment analysed under the baseline. Second, in the long run fiscal consolidation can be a powerful source of elimination of external vulnerabilities only if it is followed by structural reforms intended to enhance competitiveness and widen the export base in terms of both product diversity and destination. A related policy option is exchange rate management. The results show that real depreciation can narrow external imbalances. However, the changes in the exchange rate do not translate immediately into CA improvement and can only accompany the structural measures. Evaluation of the implications of subsequent depreciation should also be analysed from the financial stability perspective, given its influence on the external liabilities side of the economy through foreign-currency denominated liabilities.
Third, the (current) level of NIIP stock does not contribute significantly to CA balances in Serbia (see Table 2). However, given the accumulation of negative NIIP stocks over the past decade, and especially large foreign gross liabilities, this may have a potentially negative effect in the future through both the valuation channel and income outflows. Moreover, over the last years, high global liquidity and expanding public debt shifted the financing of the CA deficit to more volatile sources: portfolio bond flows. The increase in this type of inflow increases the vulnerability of Serbia’s external position to sudden changes in global investors’ sentiments, which, coupled with the increase in interest income outflows, again highlights the need for policy-induced external adjustment. Finally, the measures analysed are not sufficient to reduce NIIP to -35% of GDP, as proposed by the macroeconomic imbalances procedure of the EC. Even in the best-case scenario, which assumes positive external shocks along the fiscal consolidation path, the NIIP would remain below -80% of GDP (even though the CA balance would surpass the threshold set at -3% of GDP). This again points to the importance of structural policies to improve export competitiveness, since the bulk of the external adjustment will have to come from the merchandise trade balance.

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