German Economic Team Moldova

Technical Note [TN/01/2013]

Current Account Sustainability in Moldova: Empirical Results

Robert Kirchner, Enzo Weber, Ricardo Giucci

Berlin/Chisinău, February 2013

About the German Economic Team Moldova ("GET Moldova")

The German Economic Team Moldova ("GET Moldova"), which is active in Moldova since 2010, advises the Moldovan government and other state authorities such as the National Bank of Moldova on a wide range of economic policy issues and on financial sector development. Our analytical work is presented and discussed during regular meetings with high-level decision makers. GET Moldova is financed by the German Federal Foreign Office.

German Economic Team Moldova ("GET Moldova")
c/o BE Berlin Economics GmbH
Schillerstr. 59
D-10627 Berlin
Tel: +49 30 / 20 61 34 64 0
Fax: +49 30 / 20 61 34 64 9
info@get-moldau.de
www.get-moldau.de

Current Account Sustainability in Moldova: Empirical Results

Authors

Robert Kirchner   kirchner@berlin-economics.com   +49 30 / 20 61 34 64 2

Enzo Weber   Enzo.Weber@wiwi.uni-regensburg.de   +49 941 / 943 19 52

Ricardo Giucci   giucci@berlin-economics.com   +49 30 / 20 61 34 64 0

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1. Introduction

The sustainability of the external position of a country is of prime concern to policy makers around the globe. In this respect, the current account balance is a major factor when assessing external sustainability, as the associated built-up of external liabilities may threaten the macroeconomic stability of the country. This discussion is especially relevant for Moldova, which has shown high and persistent current account deficits in the past, as figure 1 demonstrates:

Figure 1

Current account balance in Moldova (1996Q1:2012Q3)
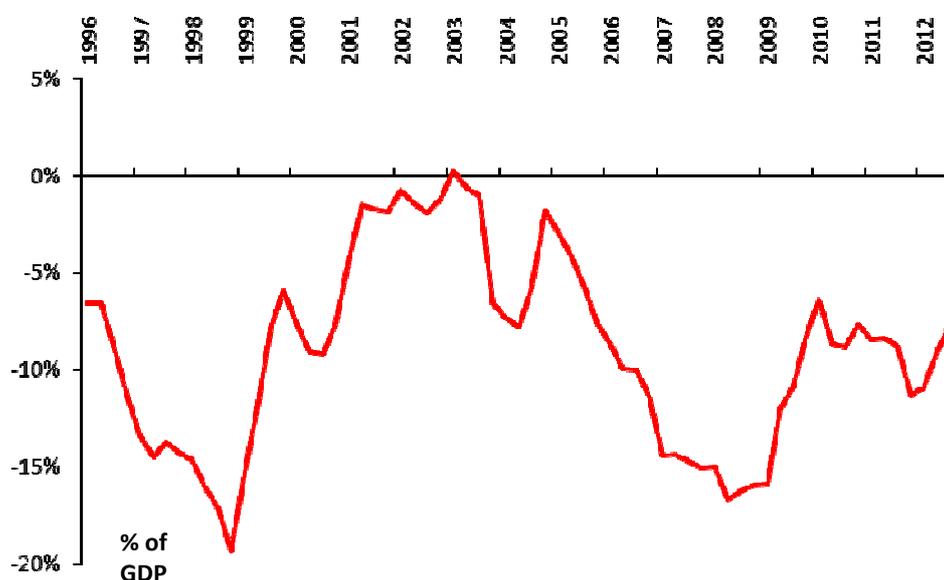
Source: National Bank of Moldova
Note: Graph shows 4-quarter trailing current account balance/GDP ratio

The latest observation of the current account deficit of **7.7% of GDP** (2012Q3) points to a still significant deficit, even though a narrowing has been observed after peaking at −16.7% of GDP in 2008Q2.

Still, the key question is if the current account deficit is at a sustainable level that can be kept in the medium-to long run without leading to a balance of payments crisis or a sudden and drastic policy shift. The literature frequently mentions that a current account deficit of more than 5% of GDP is considered as not sustainable for a transition country in the medium- to long run (Aristovnik 2006, Josic/Josic 2012). In this technical note, we provide an empirical assessment for Moldova using 3 different accounting frameworks.

2. Theoretical and Empirical Framework

a) Simple Benchmark Approach

Idea: The basic idea of the simple benchmark approach is a full coverage of the current account deficit by net FDI inflows, which are perceived as long-term and stable in nature, and not as easy to liquidate as for instance portfolio flows. The target value for the current account deficit is simply the current net FDI/GDP ratio (with opposite sign). An alternative expression would be that the current sum of net FDI inflows and the current account deficit is zero (or positive).

b) Intertemporal Solvency Approach

Idea: A commonly used approach to assess the gross external position of a country was developed by Milesi-Feretti/Razin, 1996. In this approach, "sustainability" is related to the concept of "intertemporal solvency"[1], and describes a situation where the external debt to GDP ratio is stable.

Apart from real economic growth, a key variable influencing the analysis is the real interest rate payable on external debt. Moldova's nominal effective interest rate on external debt amounts to only 1.6%[2], as a significant part of its external debt is at concessional terms[3]. Consequently, we adjusted this rate to compare it to a standard country of Moldova's sovereign foreign currency rating peer group ("B3"). Thus, we assume that Moldova's borrowing costs go up in the medium-term to levels of countries with similar sovereign rating; the nominal effective interest rate on external debt used in our calculation amounts to 3.2%.

Furthermore, we use an extension of the standard intertemporal solvency approach, which explicitly considers the fact that a significant part of external financing is done by non-debt creating instruments like FDI. Consequently, we apply an adjustment for net FDI inflows when calculating the sustainable level of the current account balance. All numerical assumptions, including comments, can be found in Appendix A.

The time-horizon of this approach is medium-term.

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[1] "Intertemporal solvency" means that the country meets its intertemporal budget constraint, which holds if the present value of future surpluses in the trade balance is equal or higher than the present value of external debt. The county can thus repay its external liabilities.

[2] Moldova's external debt amounts to USD 5.4 bn and interest payments to USD 85 m yearly.

[3] This comes in addition to the significant amount of current transfers by foreign donors, which are recorded in the current account, and not the financial account.

c) Portfolio Approach

Idea: The basic approach by Milesi-Feretti/Razin, 1996 has been adjusted by other researchers, notably by Reisen, 1998. In his standard portfolio approach to the current account, the economy in question prefers to hold a certain level of desired foreign exchange (FX) reserves in addition to the previously discussed factors. This level of desired FX reserves is usually expressed in terms of imports or external debt. Thus, we will consider 2 variants of this approach, variant I with a constant FX reserve/import ratio and variant II with a full FX reserve coverage of short term external debt. Furthermore, the long-run tendency of transition countries' currencies to appreciate in real terms, which influences debt dynamics, is also taken into account in this approach. All numerical assumptions, including comments, can be found in Appendix B.

The time-horizon of this approach is long-term.

3. Estimation Results

In the following part, we will present the results of the empirical assessment. For each method, we will show the calculated target value for the current account deficit (CAD), compare this with the most recent observable deficit, and draw our conclusions.

a) Simple Benchmark Approach

Target Value for CAD: -1.5% (latest net FDI/GDP during 2011Q4-2012Q3)

Recent Value of CAD: -7.7%

Assessment: **Negative**

The most recent value of the current account deficit is significantly below the target value according to the simple benchmark approach. Since FDI performance is currently quite disappointing, the approach suggests a need for a significant compression in the current account deficit.

The development of the net FDI coverage of the current account deficit is shown in Figure 2 below:

Figure 2

Current account balance and net FDI in Moldova (1996Q1:2012Q3)
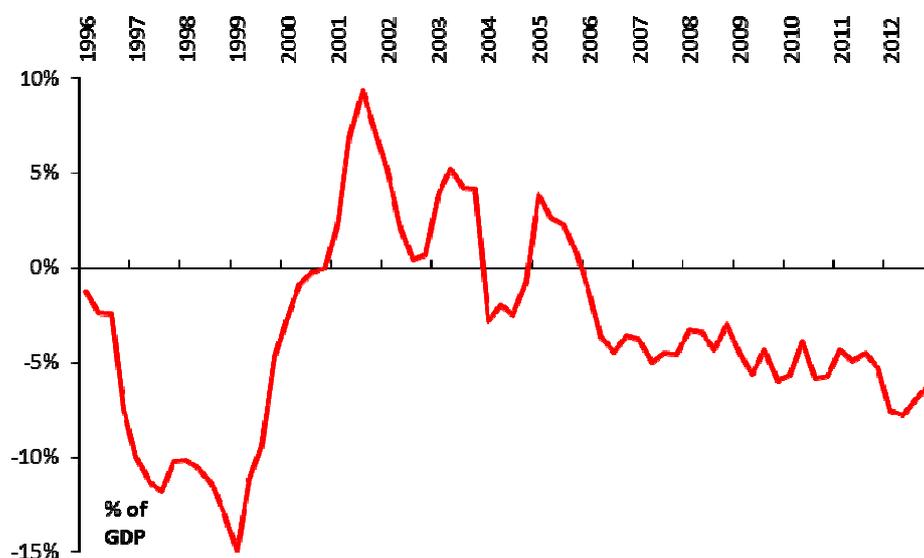
Source: National Bank of Moldova

Note: Graph shows 4-quarter trailing (current account balance + net FDI inflow)/GDP ratio

Having peaked at a comfortable surplus of around 10% of GDP in 2001Q2, a gradual deterioration of FDI coverage took place. Since 2005, the current account deficit was not covered by net FDI inflows anymore. This gap, which needs to be financed by other capital inflows, reached a local maximum at -7.8% of GDP in 2011Q1, before slightly retreating to its current value of **-6.2%** of GDP (2012Q3).

b) <u>Intertemporal Solvency Approach</u>

Target Value for CAD: -6.2%

Recent Value of CAD: -7.7%

Assessment: **Slightly Negative**

The most recent value of the current account deficit is somewhat below the target value according to the intertemporal solvency approach. Thus, a small need of adjustment towards a sustainable position is called for.

c) Portfolio Approach

Here, we distinguish 2 variants, one with a FX reserve target to imports (I) and one with a FX reserve target to short-term external debt (II).

Target Value for CAD (I):   -4.4%
Target Value for CAD (II): -5.2%

Recent Value of CAD: -7.7%

Assessment: **Negative**

The most recent value of the current account deficit is below the target values according to the portfolio approach. Following to this approach, a significant improvement in the current account in the order of 2.5-3.3% of GDP is needed.

4. Summary and Discussion

The 3 methods applied show a range of -**1.5% to -6.2% of GDP** as a target range for a sustainable current account balance. The current observable value of **-7.7% of GDP** falls outside this range; thus, policy makers should concentrate their attention on measures on how to reach a broadly sustainable position of the current account balance.[4]

The question which policy instruments to use for this adjustment, under what time horizon, and to what extent, warrants a further analysis beyond the simple and highly stylized sustainability analysis performed above. This requires further insights into the structure of the current account deficit, its drivers (consumption versus investment) and its financing sources. We plan to address this issue in a forthcoming policy paper.

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[4] While interpreting our results, policy makers should also understand the limits of the analysis performed. The calculated sustainability levels in both the intertemporal solvency approach and the portfolio approach depend on a number of necessary assumptions. Changing these assumptions implies another set of target values for the current account. Furthermore, liquidity constraints, which may affect the willingness of foreign investors to finance the deficit, are also important, but not included in the analysis. Thus, the analysis above does not intend to give a comprehensive picture of the external vulnerability of the country. In order to reach that objective, a more broad approach, involving many other economic and financial variables would be more appropriate.

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Annex

a) Intertemporal Solvency Approach - Technical Assumptions

Indicator	Value	Comment
real growth	4.00%	Medium-term assumption
real effective interest rate	1.20%	Own calculation based on peer rating group analysis and IMF assumptions (medium-term effective nominal interest rate of 3.2% and 2% global inflation)
REER appreciation	0%	Similar assumption to Aristovnik, 2006
equilibrium external debt / GDP	80.00%	Recent value assumed as target ratio
FDI / GDP	4.00%	Assumption based on adjusted sample average

b) Portfolio Approach –Technical assumptions

Indicator	Value	Comment		Comment
real growth	4.00%	Medium-term assumption		
real effective interest rate	1.20%	Own calculation based on peer rating group analysis and IMF assumptions (medium-term effective nominal interest rate of 3.20% and 2.00% global inflation)		
FDI / GDP	4.00%	Assumption based on adjusted sample average		
REER appreciation / unit of GDP growth	0.70%	Own calculation based on historical data, supported by Balassa-Samuelson		
	Variant 1		Variant 2	
desired FX reserves / GDP	25%	Coverage of 4 months of imports	30%	Full coverage of short-term external debt
proportional growth of desired reserves	14%	Real import growth 2000 – 2012 p.a.	15%	Sample growth of short-term external debt p.a.

c) Balance of Payments of Moldova (2009 – 2012Q1-Q3)

Item, USD m	2009	2010	2011	2012 (Q1-Q3)
Current Account	**-446.70**	**-448.99**	**-790.37**	**-307.89**
Goods	-1,948.82	-2,219.52	-2,869.43	-2,078.25
- Exports total (FOB)	1,326.92	1,590.44	2,277.06	1,597.63
- Imports total (FOB)	-3,275.74	-3,809.96	-5,146.49	-3,675.88
Services	**-39.75**	**-63.51**	**-2.60**	**-28.91**
Income	**321.24**	**507.12**	**565.90**	**628.2**
Current transfers	**1,220.63**	**1,326.92**	**1,515.76**	**1,171.07**
Capital and financial account	**415.01**	**420.78**	**704.05**	**152.93**
Capital account	**-17.54**	**-28.36**	**-29.72**	**-26.25**
Financial account	**432.55**	**449.14**	**733.77**	**179.18**
Direct investment (FDI)	138.57	193.90	260.45	41.26
Portfolio investment	-5.82	5.64	4.74	14.36
Other investment	98.91	544.60	746.50	458.11
Reserve Assets	200.55	-294.37	-278.11	-334.4
Net errors and omissions	31.69	28.21	86.32	154.96

*Source: National Bank of Moldova*

d) Current Transfers breakdown (2009 – 2012Q1-Q3)

Item, USD m	2009	2010	2011	2012 (Q1-Q3)
Current transfers	**1,220.63**	**1,326.92**	**1,515.76**	**1,171.07**
- Inflow	1,323.99	1,416.32	1,615.99	1,246.59
- Outflow	-103.36	-89.40	-100.23	-75.52
General government	172.44	243.46	227.29	187.25
- Inflow	186.16	250.25	236.77	193.90
- Outflow	-13.72	-6.79	-9.48	-6.65
Workers' remittances	627.24	589.23	685.98	549.35
- Inflow	635.21	608.47	701.37	559.20
- Outflow	-7.97	-19.24	-15.39	-9.85
Other transfers	420.95	494.23	602.49	434.47
- Inflow	502.62	557.60	677.85	493.49
- Outflow	-81.67	-63.37	-75.36	-59.02

Source: National Bank of Moldova

e) Gross external debt to GDP ratios for chosen countries
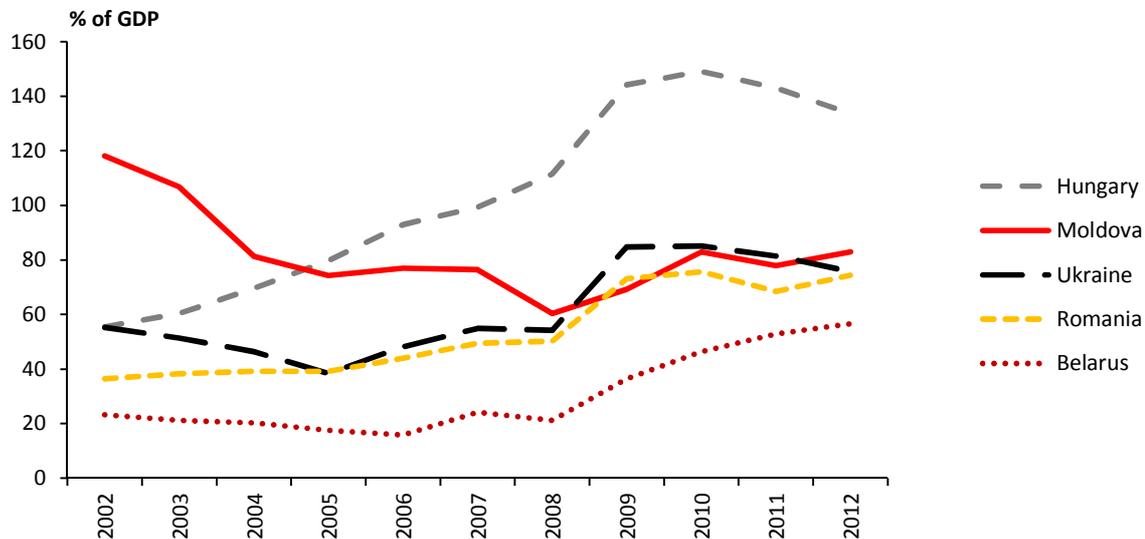
Source: World Bank, International Monetary Fund, European Central Bank