

EXTERNAL DEFICIT FINANCING
AND MACROECONOMIC
ADJUSTMENT
DURING THE FINANCIAL
CRISIS.
THE CASE OF ROMANIA

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1. INTRODUCTION

The issue of the financing-adjustment relation can be best described starting from the corporate level. Here, an adjustment programme may attract financing only if the envisaged changes are trustworthy. Corporations may raise the funds necessary to fulfil the new goals via capital increases made by owners, via taking out new bank loans or selling newly-issued corporate bonds to the public.

At macroeconomic level things are much the same, but instead of a company's balance sheet, we speak about a country's balance of payments with its two accounts, i.e. the capital account and the current account. These accounts register the continuous changes reflecting the country's foreign transactions. The direction of such changes may differ from one year to another. For this reason, not any change in the equilibrium of the two accounts may be defined as an adjustment. In order to describe an adjustment in the balance of payments, the key concepts are the improvement or the worsening in the balance of either account.

The improvement concept may apply, separately, both to the current account and the capital account. According to economic literature, a reversal in the current account occurs if, at the same time, the change in the balance is large relative to nominal gross domestic product (GDP) and lasts for more than one year (Milesi-Ferretti and Razin, 2000). Thus, an improvement in the current account occurs if, for several years, the current account deficit narrows significantly both in relative and absolute terms. An improvement in the capital account is indicative of substantial capital inflows. Since massive capital inflows are also associated with troubles, including a sizeable appreciation of the exchange rate, an improvement in the capital account is also referred to as "the capital inflows problem" (Calvo, Leiderman, Reinhart, 1993).

Conversely, a worsening of the current account is reflected by the twin deficits or by relatively wide deficits. Furthermore, a worsening of the capital account reflects the sudden stop in capital inflows, or even net outflows of capital. A sudden stop is defined as a sufficiently large reversal in capital inflows compared to the average for the previous years,

accompanied by a noticeable upsurge in capital cost (Calvo, Izquierdo and Mejia, 2004, and Calvo, Izquierdo and Loo-Kung, 2006).

The difference between quasi-individual adjustments and global adjustments in the balance of payments is useful in drafting economic policies. Quasi-individual adjustments emerge in cases where, due to specific conditions, one country alone faces relatively heavy capital inflows over a certain period, followed by a decrease in such inflows. Global adjustments are characterised by synchronous, large capital inflows in a great number of countries, followed by their relative reduction for the entire group. Usually, the number of countries facing large capital inflows simultaneously is relatively small. However, from time to time, simultaneous episodes of massive capital inflows occur in a relatively large number of countries. Over the past few years, a lot of countries, Romania included, were faced with the capital inflows problem. For this reason, I will refer to synchronous, large capital inflows.

As recently pointed out by Reinhart and Reinhart (2008), there may be a relationship between these synchronous, large capital inflows and external sovereign defaults, currency crashes, inflation crises and banking crises. The authors defined the crises for each of the above-mentioned components and constructed specific probabilities of crisis emergence for the 1960–2007 period in 66 countries. The probabilities were defined both conditional and unconditional on the episodes of heavy capital inflows. The final outcome is that, for low- or middle-income countries, the conditional probabilities for a crisis to emerge are significantly higher than unconditional ones.

In other words, the number of crises is higher around the episodes of large capital inflows. One may conclude, in practice, the ensuing magnitude of adjustments and financings is different from that seen in quasi-individual episodes of substantial capital inflows for a given period, followed by their reduction. This is due to the fact that, if synchronised crises occur in any of the cited components – sovereign debt, exchange rate, inflation and banking system –, synchronised recession episodes are likely to follow. Certainly, simultaneous resorting to external financing with a view to underpinning a great many anti-crisis programmes makes the resources to each country relatively less available and costlier than in the case where only a small number of countries use a given amount of resources. In addition, synchronised recession episodes could translate into greater individual recessions for the economies in which the export-oriented sector holds a sizeable share in GDP.

Against this background, the difficulty in adopting a package of reforms and in securing external funding is bigger in the context of the quasi-singular episodes when a large capital inflow cycle ends. Romania took this into account at the time of asking for financial assistance from

the EU, the IMF and other international financial institutions to cover the financing gap estimated for 2009 and 2010. I will get back to this topic in the concluding section of the paper.

The modern age of global finance saw several episodes of such synchronous, heavy capital inflows. In principle, once in a while, foreign investors find enough reasons to invest relatively large amounts of capital in emerging economies. Considering the time period that elapsed after World War I, one may assert that the pattern failed to repeat itself in the '30s, the '40s and the '50s.

The longest cycle of synchronous, massive capital inflows lasted from 1975 to 1982 and was followed by the debt crisis. The heavy capital inflows resurfaced during the 1990–1993 period and were followed by debt restructuring in the emerging economies. Starting in 2002, a large number of countries were faced with massive capital inflows. The end of the capital flow bonanza overlapped the onset of the financial turmoil in July 2007. In Romania, this episode became more manifest in 2004 and came to an end in 2008.

Next, I will elaborate on the causes generating synchronous, massive capital inflows in a relatively great number of countries and the key developments emerging when the countries are faced with heavy capital inflows. In so doing, I will show the stylised facts, as they can be elicited from literature (Calvo *et al.*, 1993). Then I will describe the case of Romania and the major challenges to economic policies. Finally, I will resort to the results described in the literature to present in a stylised manner the implications on some macroeconomic variables in the event of a capital account worsening. I will draw on these results to show that the provisions under the arrangement signed with the EU and the IMF are in line with the results described in the literature.

2. CAUSES AND EFFECTS OF MASSIVE CAPITAL INFLOWS

In recent years, one of the causes of massive capital inflows in emerging economies was excess liquidity. The liquidity surplus in developed economies caused the persistence of low interest rates and the reduction in volatility on financial markets. Moreover, despite excess liquidity, economic growth in advanced countries has slowed down in recent years, the profitability in several industries dropping to relatively low levels.

In this context, investors started the search for yield and profit opportunities in emerging economies. In such cases, interest rates acted via the portfolio channel (Calvo, Leiderman and Reinhart, 1993). In addition, low interest rates and portfolio diversification led to the improvement in debt default probabilities in emerging countries, implying the activation

of the channel suggested by Dooley *et al.* (1996). Gradually, investors were no longer wary of emerging economies so that large capital inflows were further recorded for several years. Reinhart and Reinhart (2008) showed that, during 1980–2008, the maximum period of massive capital inflows in 181 countries was of 3 years for more than 50 countries and 4 years for more than 30 countries. Nevertheless, in almost 20 countries that period lasted 5 years.

This does not necessarily imply that large capital inflows were recorded solely by emerging economies. They were relatively large in low-income countries, as well as in middle- and high-income countries, OECD members. For instance, capital inflows were relatively high in the US (2002–2007), in the United Kingdom and France (2005–2007), in Spain (2004–2007). In Romania, large capital inflows were recorded during 2004–2008.

The favourable economic outlook associated with the accession to an economic union was another major cause for synchronous capital inflows in several countries. It is the case of countries joining the European Union or NAFTA. Foreign investors acted on the assumption that the accession to a union is an anchor limiting exchange rate fluctuations, cutting capital costs by lowering risk spreads and maintaining share prices at satisfactory levels. Milesi-Ferretti and Lane (2006) provided a breakdown of sources of massive capital inflows in Central and Eastern European (CEE) countries. The euro area countries provided 73–95 percent of total foreign direct investment in CEE countries. In 2004, in most CEE countries, more than 50 percent of total portfolio investment on the stock exchange came from the euro area, which was also the main source of foreign assets in the banking systems of CEE countries as well as of debt-creating long-term investment.

The rise in prices of goods such as crude oil, copper, diamonds, a. o. (“hard” commodities) fostered capital inflows in countries exporting the aforementioned goods. Where capital inflows in countries exporting such commodities are due to low or negative real interest rates in countries of origin of the capital, then the prices for such goods come under the impact of the interest rate channel (Frankel, 2006). Nevertheless, the empirical assessments of Reinhart and Reinhart (2008) covering the 1967–2006 period do not clearly confirm the reverse correlation between real interest rates and the prices for the above-mentioned commodities.

Large capital inflows had similar effects in emerging economies. A stylised assumption refers to a common pattern for developments in some variables and a relatively similar response model of economic policies. Hence, relatively large capital flows entered rather small and shallow markets. The discrepancy between the financial depth of emerging economies and the volume of capital inflows led to currency appreciation,

fast growth of asset prices and the rise in prices for “hard” commodities. The favourable price changes entailed further increases in capital inflows, which caused these growth rates to continue for relatively long periods. Favourable price developments led to the improvement in fiscal indicators and the reduction in the cost of foreign currency credit, thus fostering lending. The fast expansion of lending caused the widening of the structural weaknesses of the banking system, which became dependent on foreign capital inflows.

In terms of policies, the authorities’ response focused on several common areas, such as reserve purchase in order to prevent excessive appreciation. This process was more visible in the countries exporting energy resources. Another area, closely linked to the first one, envisaged the rise in required reserves, the levying of taxes on financial transactions, other administrative restrictions in order to alleviate capital inflows and reserve accumulation. Moreover, favourable price developments dampened the real need for structural adjustments, which were postponed. This was probably the most important implication for the respective economies since, in the long run, the delay in structural adjustments has a negative impact on external competitiveness.

3. DEVELOPMENTS AFTER THE END OF LARGE CAPITAL INFLOW EPISODES – STYLISTED FACTS

It goes without saying that each country has its own particular features and this is why each current account reversal, each episode of massive capital inflows, each sudden stop in capital inflows and each financial crisis has particular features. However, they do have some things in common, irrespective of the country or the period of occurrence. We show particular interest in such common features in terms of the dynamics of selected indicators, such as GDP, real exchange rate, inflation and current account both before and after the end of an episode of large capital inflows. Certain patterns relating to the dynamics of the aforementioned indicators can be identified based on the results described in the literature, the latest ones belonging to Reinhart and Reinhart (2008). Since the pattern of these dynamics during the episode of heavy capital inflows has been described both in general and in the particular case of Romania, the focus will be on a matter of utmost interest these days, namely the likely trajectory of the above-mentioned indicators after the cycle of large capital inflows ends. Following the methodology of various other works, Figure I sets out the developments in current account, GDP, exchange rate and inflation in a stylised manner four years ahead and four years after the end of the episode of large capital inflows.

Chart 1 in Figure I depicts the evolution of the current account deficit prior to the end of the episode of sizeable capital inflows ("0" on the horizontal axis). This depiction reflects the identity typical of the balance of payments, namely that the current account deteriorates during the episode of massive capital inflows. At the same time, the end of the episode of heavy capital inflows overlaps the initiation of current account adjustment towards levels seen in the run-up to the reversal. The V-shaped pattern of current account developments is sharper in low- and middle-income countries (Reinhart and Reinhart, 2008).

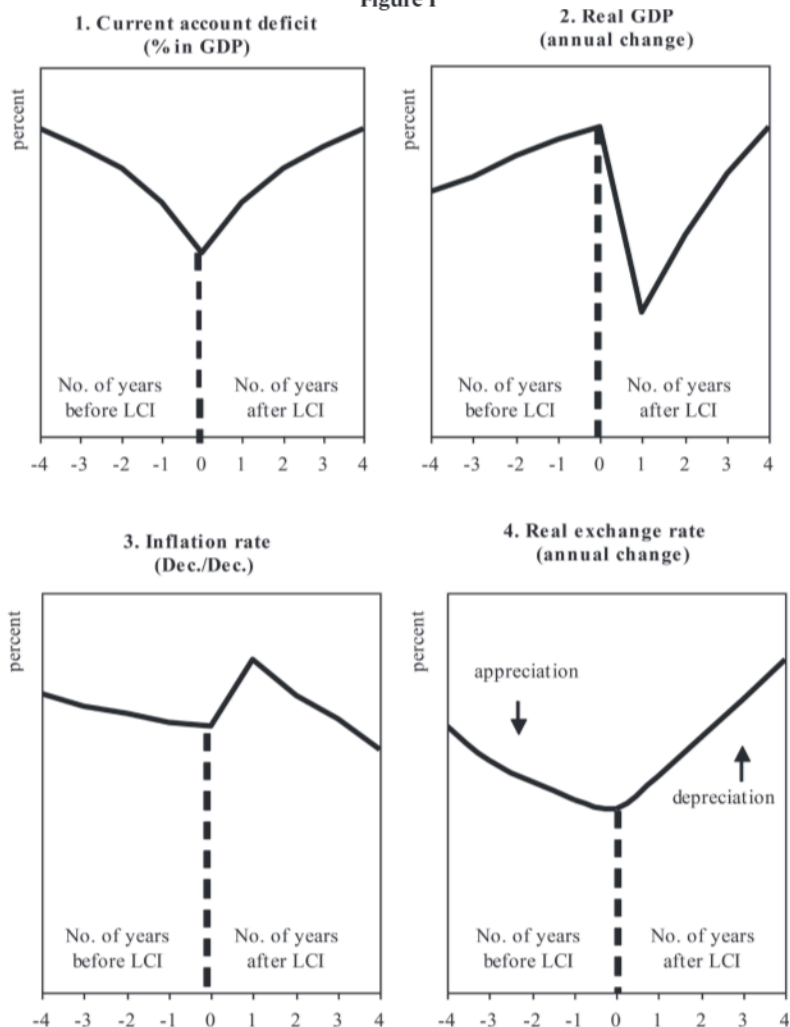
In line with expectations, real GDP growth is relatively high during a capital flow bonanza and is followed by a sudden drop in the year when the episode ends and a relatively fast recovery thereafter. In other words, subsequent to the end of the cycle of heavy capital inflows, the GDP trajectory is V-shaped, as illustrated in Chart 2, Figure I.

The attempt at identifying a pattern on how inflation fared was the most difficult, because the data presented in the literature vary to a great extent, which could be an indication of the major role played by monetary policy both before and after the large capital inflows. I tend to believe that the end of the cycle of heavy capital inflows is followed by a short-term bout of inflation (basically on account of the exchange rate channel), while the subsequent decline in inflation is triggered by the recession and the downbeat expectations that are typical of the periods following capital flow bonanzas. This view may be explained by a relatively large nominal depreciation. However, over the following years, inflation reverts to levels more or less similar to those seen prior to the stop in the heavy capital inflow episode. The stylised profile is depicted in Chart 3, Figure I.

Chart 4, Figure I sets out the stylised trajectory of the exchange rate. If massive capital inflows span over several years, the real appreciation on an annual basis tends to be significant, so that the cumulated appreciation is also significant, leading to the downward path in the chart. Nevertheless, the end of the episode of large capital inflows results in a cumulated real depreciation even higher than the cumulated appreciation. The literature shows that in most cases real depreciation becomes manifest via a nominal depreciation of the currency. In the stylised trajectory shown in Chart 4, Figure I, real depreciation is driven by the drop in prices no earlier than the first year after the end of the episode.

Charts 1–4 in Figure I allow an overall view of what can be expected in terms of the developments in the aforementioned indicators after the episode of large capital inflows comes to an end. They are an indication of which curve profile cannot be precluded by a country after an episode of large capital inflows draws to an end. However, while the curve profiles are similar for most countries, the curve slopes both before and after the

Figure 1



LCI: large capital inflows

Source: Stylised facts based on the results shown in the professional literature.

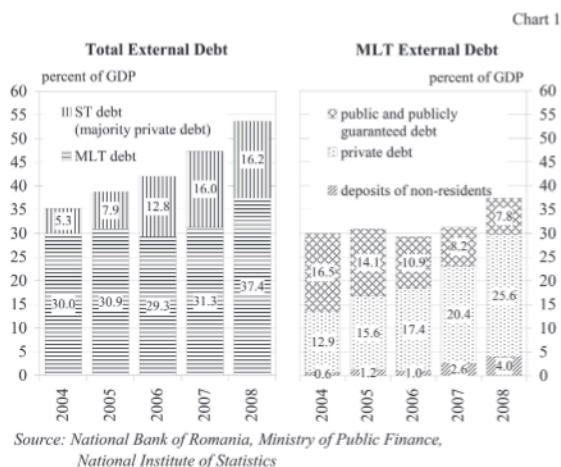
For the most recent empirical assessments, I resorted to Reinhart and Reinhart

end of an episode of large capital inflows may be sharper or less sharp. It is up to policy-makers to draft policy measures during such an episode in order to influence both the level where a U-turn occurs and the slopes following the end of an episode of sizeable capital inflows. I will show in the following section that the policies envisaged by the arrangement Romania signed with the EU and the IMF are aimed at smoothing out the slope of the trends of the above-mentioned indicators so that the necessary adjustments unwind at a reasonable pace, without destabilising the economy.

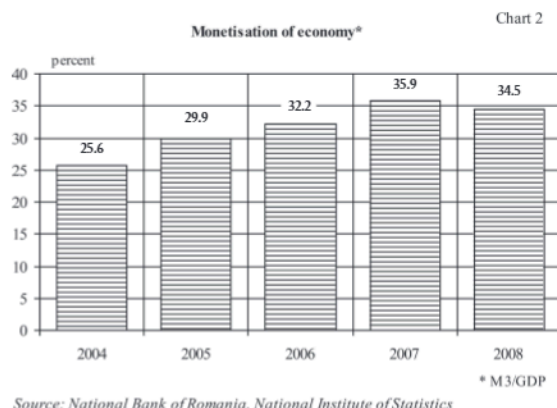
4. CASE STUDY – ROMANIA

4.1. The period of massive capital inflows

Foreign capital inflows in Romania have picked up since 2004. The current account deficit widened from 8.4 percent of GDP in 2004 to 13.5 percent of GDP in 2007 and to 12.3 percent of GDP in 2008. The medium- and long-term external debt of the private sector posted an almost twofold increase (Chart 1), from 12.9 percent of GDP in 2004 to 25.6 percent of GDP in 2008.



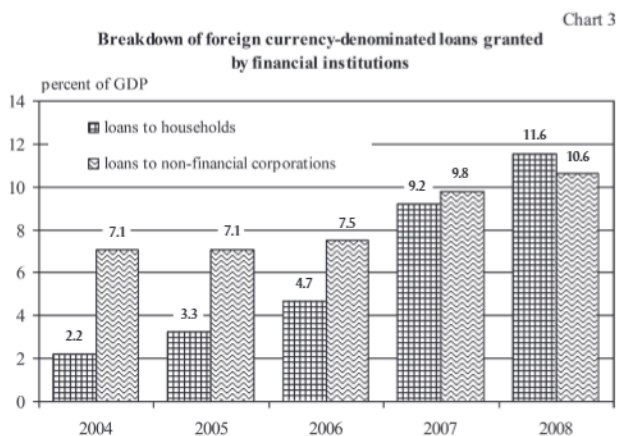
In 2004, the Romanian economy had little financial depth (measured as a ratio of M3 to GDP) of only 25.6 percent. The financial depth increased on the back of massive capital inflows, yet it remains relatively low by advanced economy standards (34.5 percent of GDP in 2008). Given the relatively little financial depth, the effects of capital inflows emerged fast and were significant (Chart 2).



The exchange rate appreciated in both real and nominal terms. The domestic currency appreciated in nominal terms from nearly RON/EUR 4.1 in January 2004 to RON/EUR 3.1 in July 2007 (about 24 percent). Along with the relatively high fiscal dominance and the net debtor position of the National Bank of Romania (NBR), heavy capital inflows became a serious matter of concern in terms of implementing inflation targeting, i.e. the new monetary policy strategy adopted in August 2005. While boosting disinflation, the domestic currency appreciation was so strong that it tended to affect the external competitiveness of Romania. To this added the episodes of high volatility on the foreign exchange market.

As in other CEE countries, foreign banks operating in Romania took funds from their euro area parent-banks. In 2004, nearly 72 percent of liabilities came from the euro area and 21 percent from the United Kingdom. During 2004–2008, foreign liabilities of the banks in Romania increased more than six times, from EUR 3.8 billion to EUR 24.5 billion. Such rises were reported across the entire maturity spectrum.

The surge in banks' foreign currency holdings and the appreciation of the domestic currency acted jointly towards boosting lending in foreign currency. Loans expanded for several successive years at annual growth rates ranging from 60 percent to 80 percent in real terms. The share of foreign currency-denominated loans to households grew more than five times, from 2.2 percent of GDP in December 2004 to 11.6 percent of GDP in 2008. Moreover, the share of foreign currency-denominated loans to the corporate sector picked up substantially (Chart 3).



Source: National Bank of Romania

Overall, financial intermediation (loans to the private sector/GDP) increased from 16.6 percent in 2004 to 39.3 percent in 2008 (Chart 4).