

## MUGUR ISĂRESCU

External deficit financing and macroeconomic adjustment during the financial crisis.

The case of Romania

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## EXCELENTÍSIMO SEÑOR PRESIDENTE, EXCELENTÍSIMOS SEÑORES ACADÉMICOS, SEÑORAS Y SEÑORES,

Que me permitan expresar el gran honor de estar presente en esta importante sesión, en la cual se hace el acto de mi recepción como Académico Correspondiente para Rumanía de la Real Academia de Doctors.

Agradeciéndoles, Excelentísimo Señor Presidente, por el destacado honor de sostener mi entrada en una de las mas honradas instituciones reales de España – seguidora de la celebra Junta de los Cien Sabios de España – quisiera asegurarles de mis sentimientos mas destacados de gratitud y, a la vez, sobre la mía intención de contribuir, por mis esfuerzos, al sostener el alcance de las altas objetivos de la institución real, más reconocida al mundo.

Agradezco a los excelentísimos señores académicos su generosa acogida y espero ser merecedor de tan gran honor.

#### 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 great deal of countries. Over the past few years, very many countries, Romania included, were faced with the 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 owes 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.

#### 1. 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 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 the countries of origin of 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.

### 2. Developments after the end of large capital inflow episodes – stylised facts

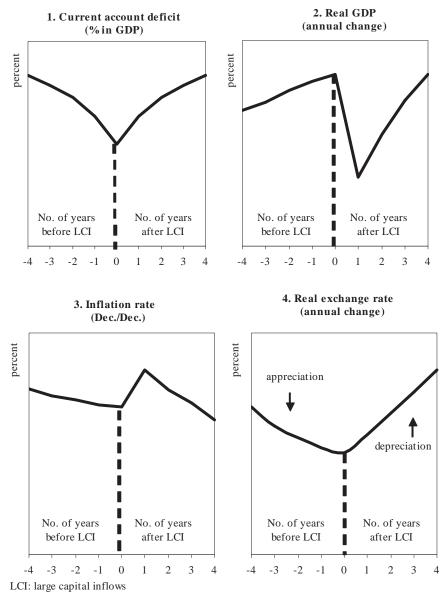
It goes without saying that each country has its own particular features and this is why each current account reversal, each episode of massive capital inflows, each sudden stop in capital inflows and each financial crisis has particular features. However, they do have some things in common, irrespective 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 abovementioned 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.





Source: Stylised facts based on the results shown in the professional literature. For the most recent empirical assessments, I resorted to Reinhart and Reinhart

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 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.

#### 3. Case study – Romania

#### 3.1. 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.

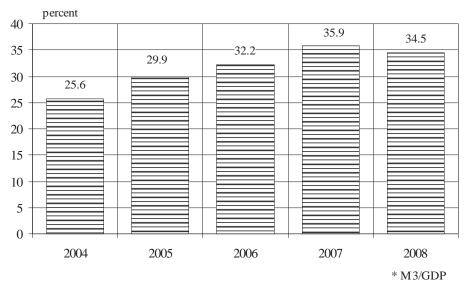
Chart 1

**Total External Debt MLT External Debt** percent of GDP percent of GDP 60 60 III ST debt S public and publicly 55 55 (majority private debt) guaranteed debt 50 50 🖸 private debt ⊟ MLT debt 45 45 40 40 ☑ deposits of non-residents 35 35 30 30 25 25 20 20 25.6 31.3 E30.9E 15 30.0 15 29.3 20.4 10 10 17.4 15.6 12.9 5 5 4.0 0 2 0 2005 2006 2008 2006 2004 2007 2004 2005 2007 2008

Source: National Bank of Romania, Ministry of Public Finance, National Institute of Statistics

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).



Monetisation of economy\*

Chart 2

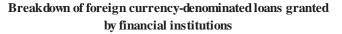
Source: National Bank of Romania, National Institute of Statistics

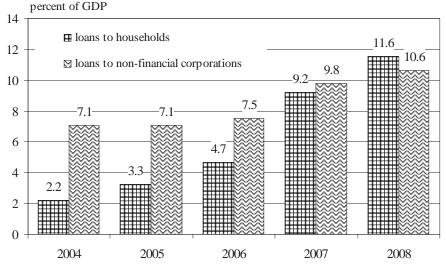
The exchange rate appreciated in both real and nominal terms. The domestic currency appreciated in nominal terms from nearly RON/EUR 4.1 in January 2004 to RON/EUR 3.1 in July 2007 (about 24 percent). Along with the relatively high fiscal dominance and the net debtor position of the National Bank of 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). Overall, financial intermediation (loans to the private sector/GDP) increased from 16.6 percent in 2004 to 39.3 percent in 2008 (Chart 4).

Chart 3

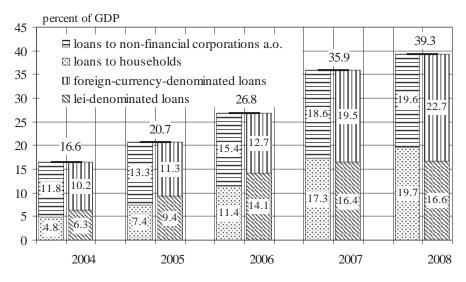




Source: National Bank of Romania

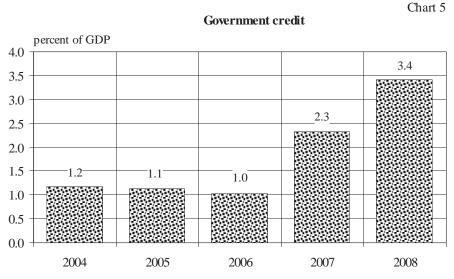
#### Chart 4

#### Breakdown of loans to the private sector



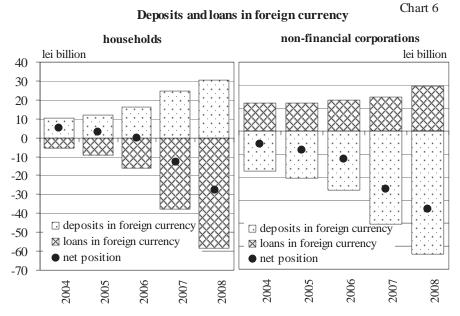
Source: National Bank of Romania, National Institute of Statistics

Government credit hovered around relatively low levels during the period under review (Chart 5).



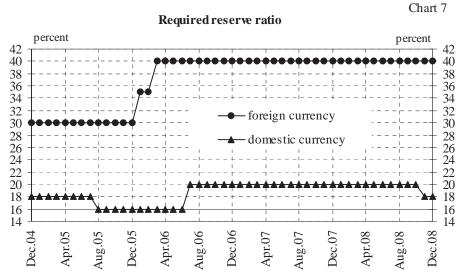
Source: National Bank of Romania, National Institute of Statistics

Banks came to rely heavily on external financing, while the mismatch between foreign currency-denominated assets and forex liabilities of both companies and households widened. In 2004, the difference between forex-denominated deposits and loans in the corporate sector stood at around lei -5 billion, increasing sevenfold by March 2009, i.e. lei -34 billion. As for households, the differences stood at lei +5 billion and lei -28 billion respectively (Chart 6). These imbalances stand out as one of the most serious vulnerabilities faced by the domestic economy, as they are the main channels whereby the potential halt in external financing feeds through into exchange rate depreciation.



Source: National Bank of Romania

These developments reinforced each other, so that during 2005-2007 there were periods when inflation expectations coexisted with a markedly stronger domestic currency. Under the circumstances, the central bank was faced with a serious dilemma in terms of the newly-adopted monetary policy regime. Policy rate hikes, required for bringing expectations in line with the inflation target, attracted further foreign capital, which entailed the appreciation of the leu. Along with policy rate changes given the coexistence of upward pressures on the domestic currency and inflationary pressures, the central bank also increased required reserves in order to dampen capital inflows. Required reserves for foreign currency-denominated liabilities were gradually raised from 20 percent at the onset of 2002 to 40 percent in early 2006 (Chart 7). The measure failed to deter capital inflows, which managed to find ways of circumventing the restriction. Despite higher required reserves, commercial banks' foreign-currency-denominated liabilities advanced EUR 4.8 billion in 2006, then EUR 7.8 billion in 2007 and a further EUR 5.8 billion in 2008. Nearly 75 percent of the increase in foreign banks' liabilities during 2005-2008 occurred after required reserves had been raised to 40 percent.



Source: National Bank of Romania

The constraint deriving from the large capital inflows was severe enough for the NBR to opt for maintaining a managed float regime of the domestic currency. This led to criticism by some analysts who claimed that the inflation targeting strategy adopted in 2005 involved the free float of the domestic currency in order to avoid potentially conflicting targets. The NBR explained that it would not target a particular exchange rate, but rather seek to deter its movements towards unsustainable levels. Consequently, during 2005-2008 the NBR did not refrain from making discreet forex market interventions by purchasing considerable amounts of foreign currency so as to preclude the fast overappreciation of the leu, which was likely to cause a dangerous erosion of the Romanian economy's external competitiveness and to lead to a fall in inflation, yet in an unsustainable manner.

At this juncture, I should bring to the fore other arguments in favour of a managed float policy for the Romanian currency. The major reason underlying the NBR's purchases of foreign currency consisted in the fact that the leu strengthened in both nominal and real terms, concurrently with an extremely loose wage policy in 2006 and especially in 2007. During those years, pay rises overtook productivity gains, thus reducing the previously accumulated competitiveness gains and contributing definitely to the worsening of the balance of payments current account.

Another argument I would like to point out is of a precautionary nature. As it has been noticed in practice, the end of cycles of synchronous large capital inflows coincide with somewhat abrupt depreciation episodes, which can be avoided provided sufficient reserves are available.

The pro-cyclical conduct of fiscal policy that added to the vulnerabilities associated with the widening of the current account deficit during 2004-2008 also underpinned the NBR's purchases of foreign currency. In principle, fiscal policy may either cushion or magnify the undesired effects of large capital inflows. Such effects are intensified because the cyclical components of GDP, large net capital inflows and higher budget outlays in real terms boost one another. From this perspective, but also judging by the fact that large capital inflows are associated with financial crises, Romania opted for an imprudent fiscal policy during 2004-2008. There were two reasons for this and both are fully explained in the literature. The first reason was that policymakers believed "good times" would be

permanent, which obviously meant that the spending spree could last forever. The second reason relates to 2008 being an election year, which pushed up budget expenditures further. The loose fiscal policy laid the groundwork for an involuntary fiscal contraction in the event of an economic downturn.

Next, I will now focus on the pattern displayed by developments in certain indicators once the episode of large capital inflows has ended.

# 3.2. Macroeconomic adjustment following the end of large capital inflow episodes

The slope curve, which illustrates adjustments, relies directly on foreign investors' expectations and decisions relative to macroeconomic and structural policies. In 2008, the global financial crisis induced a general lack of trust and fuelled markedly investor aversion to risk. Romania has become a risky destination for investors due to the size of its current account deficit, banks' hinging on external financing, the relatively large foreign borrowing requirements and the high ratio of foreign currency-denominated loans to foreign currency-denominated deposits. Estimations showed that Romania's deficit financing for 2009 could have ranged between EUR 7.5 billion and EUR 16 billion, dependent upon foreign investors' sentiment and their willingness to roll over the credit lines extended to banks and private companies. This gloomy sentiment was reflected in the weakening of the leu during October 2008 – February 2009. In this context, the authorities have decided to implement policies aimed at ensuring minimum cuts in Romania's foreign financing.

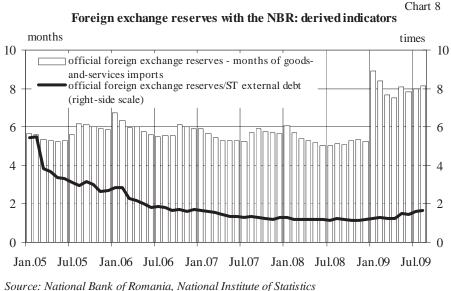
As early as December 2008, the economic programme was envisaged to focus on narrowing the external deficit of both public and private sectors, containing the impact of recession, averting a currency crisis as well as on easing inflationary pressures. Attaining these objectives required the design of adjustment measures meant to bring the economy onto a sustainable path with minimal losses, including in terms of employment.

Given the sudden stop of the massive capital inflow episode, the leu's exchange rate developments posed serious challenges. While in the past foreign currency inflows generated the overappreciation of the leu well above the level indicated by exchange rate fundamentals, the reduction in external financing and the degree of uncertainty tended to result in the unwarranted depreciation of the leu.

The challenges were all the more so great that, despite the heavy foreign currency purchases performed during 2005-2007, the NBR only managed to contain the unsustainable appreciation of the leu, instead of completely avoiding it. Moreover, foreign-currency-denominated loans (Chart 6) posted a fast-paced growth and any rapid and excessive depreciation of the domestic currency would have generated negative chain reactions across the banking system. Hence, the central bank's policy on forex market intervention was further steered in this new environment by the philosophy that a high volatility of the exchange rate is detrimental to the inflation target as well as to the financial soundness of the real and financial sectors. A small emerging economy with a significant openness is exposed on an ongoing basis to the threat of capital movements likely to adversely affect the stability of the financial market, the foreign exchange market in particular.

Firstly, the NBR's interventions in the foreign exchange market were meant to avoid an excessive weakening of the domestic currency, while also linking the level and the pace of the depreciation to the progress in the current account adjustment. With this goal in mind, the central bank monitored the developments in the real effective exchange rate of the domestic currency, along with the pressures on external competitiveness stemming from wage bargaining.

Secondly, foreign exchange market interventions were calibrated in line with developments in foreign currency reserves. The foreign currency reserves resulting from market interventions during the overappreciation period, to which added the funds received under the financing arrangement concluded with the IMF, the EU and other international financial institutions, enabled the central bank to support the domestic currency; despite these interventions, official reserves stood constantly at safety level. The central bank monitors not only the absolute value of forex reserves, but also the derived indicators: foreign currency reserves expressed in months of imports of goods and services and the ratio of forex reserves to short-term debt remained unchanged or improved (Chart 8).

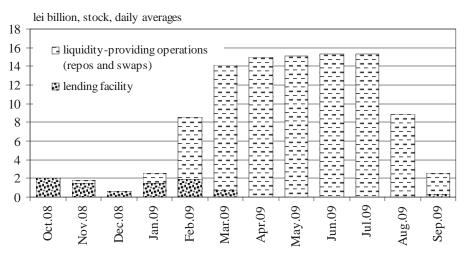


Source. Hunonai Bank of Romana, Hunonai Insuine of Sunsues

Thirdly, the magnitude and the timing of forex market interventions were also related to money market liquidity management, given that public deficit was financed, over certain periods, by resorting chiefly to the funds released under the arrangement signed with the EU, the IMF and other international financial institutions. The NBR provided banks with liquidity by way of open-market operations (Chart 9), while in the prior years, amid excess liquidity due to massive capital inflows, the central bank held the position of a net debtor position vis-à-vis the banking system. The rationale behind the forex market intervention in the above-mentioned context was the attempt to fend off temporary reversals in the NBR's creditor position vis-à-vis the banking system, which could have jeopardised the monetary policy transmission mechanism.

Liquidity-providing operations

Chart 9



Source: National Bank of Romania

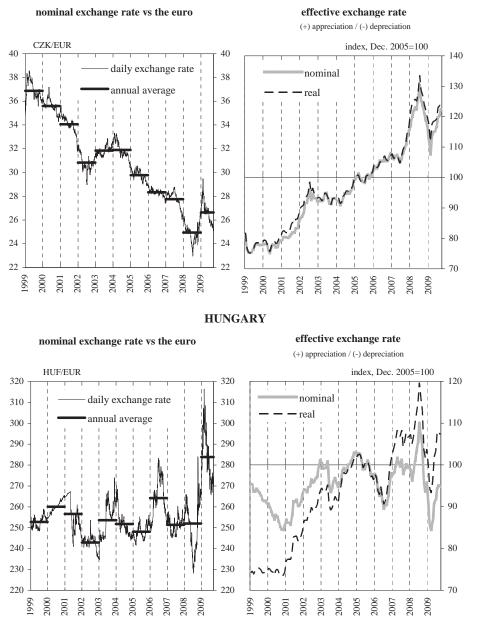
Therefore, it may be asserted that foreign exchange market interventions proved useful not only in keeping the exchange rate within a range consistent with macroeconomic fundamentals, but also in ensuring optimal money market liquidity management.

The National Bank of Romania was not the only central bank to opt for the managed float of the domestic currency. As regards forex market intervention as part of the instrument array used by central banks all over the world, it is noteworthy that the relevance of this tool increased after the onset of the financial turmoil. Central banks in Central and Eastern European countries that have in place a flexible exchange rate system (the Czech Republic, Poland, Romania and Hungary) issued in February 2009 a joint statement whereby they openly declared themselves against an excessive depreciation of local currencies which could not be substantiated by economic fundamentals and could produce a destabilisation, committing themselves to move towards fighting such a depreciation. The exchange rate developments of the said countries' currencies are presented in Figure II.

While the relatively high level of these countries' foreign liabilities makes an excessive depreciation undesirable, considering the threat this would pose to financial stability, in other economies the authorities welcome the depreciation given its favourable impact on external competitiveness. In 2009, the latter countries have been facing capital inflows generating appreciation pressures and many of them have chosen to intervene in order to counter these pressures. In this respect, it is worth mentioning the massive interventions of the Swiss National Bank and the devaluation of the Singapore dollar in the spring of 2009, the frequent interventions of the Bank of Israel and the joint interventions of the central banks in Thailand, South Korea, Singapore and the Philippines.

As for Romania's economy, some adjustments would have been very painful for want of external financial support. For instance, if the risk of a financing gap had materialised at the highest level expected for 2009, then the depreciation pressures on the leu would most likely have generated a currency crisis with a negative impact on inflation and, implicitly, on leudenominated financial assets of households. Other adjustments, such as the cut in public spending, wage cuts included, given that government expenditures had reached unsustainable levels during the massive capital inflow cycle, would have borne the hallmark of lesser credibility. In such an environment, the arrangement concluded with the IMF and the EU brought about two major advantages to Romania's economy: coverage of the external financing deficit and credibility.



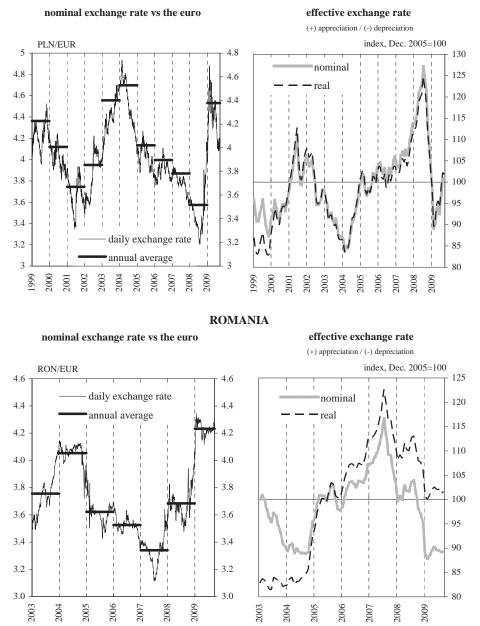


#### **CZECH REPUBLIC**

Source: ECB, BIS

#### Figure II (continued)

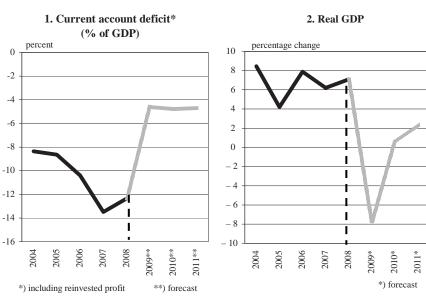




Source: ECB, BIS

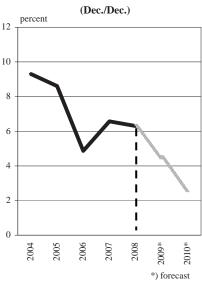
The credibility import from the EU and the IMF prevented some private financings from diminishing or at least made them diminish less. Therefore, the measures set forth in the said arrangements secured the financing of Romania's economy. This financing had a favourable impact in several areas: relatively larger investment compared to the case such arrangements would not have been concluded; slower depreciation and stabilisation of the leu against the euro and other currencies; the signing of the Vienna agreement based on which banks committed themselves to roll over the credit lines and to maintain capital adequacy ratios at safety levels. As for the future developments in the real effective exchange rate of the domestic currency, it is desirable that it stabilise around a level consistent with a current account deficit that may be safely covered via foreign direct investment.

Lower depreciation pressures on the leu and, implicitly, lower inflationary pressures *ceteris paribus* that emerge via the exchange rate channel, along with the fiscal consolidation efforts allowed the central bank to adopt a cautious easing of the monetary policy stance, which will make the descending slope of the GDP less sharp, without fuelling further inflationary pressures. The expected developments in GDP, inflation and the current account deficit presented in Figure III are similar to the profiles of the trajectories illustrated in Figure I.





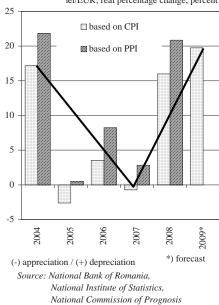
Source: National Bank of Romania, National Institute of Statistics, National Commission of Prognosis



3. Inflation rate

Source: National Institute of Statistics, National Commission of Prognosis

#### 4. Real exchange rate



lei/EUR; real percentage change, percent

Source: National Bank of Romania, National Institute of Statistics

#### References

Backé, Peter, Égert, Balasz, and Zumer, Tina

Bekaert, Geert, Harvey, Campbell R. and Lundblad, Christian

Calvo, Guillermo A., Leonardo, Leiderman, and Carmen, M. Reinhart

Calvo, Guillermo A., Alejandro, Izquierdo, and Meija, L.F.

Calvo, Guillermo A., Alejandro, Izquierdo, and Rudy, Loo-Kung

Dooley, Michael, Eduardo Fernandez-Arias, and Kenneth, Kletzer

Edwards, Sebastian

"Credit Growth in Central an Eastern Europe: New Overshooting Stars?", ECB Working Papers, No. 687, 2006.

"Does Financial Liberalization Spur Growth?", NBER Working Papers, No. 8245, 2001.

"Capital Inflows and Real Exchange Rate Appreciation in Latin America: The Role of External Factors", IMF Staff Papers, Vol. 40, No. 1, March 1993, pp. 108-151.

"On the Empirics of Sudden Stops: The Relevance of Balance Sheet Effects", NBER Working Papers, No. 10520, 2004.

*"Relative Price Volatility Under Sudden Stops: The Relevance of Balance Sheet Effects", Journal of International Economics 69(1), June 2006, pp. 231-254.* 

"Recent Private Capital Inflows to Developing Countries: Is the Debt Crisis History?", The World Bank Economic Review 10(1), January 1996, pp. 27-49.

"Thirty Years of Current Account Imbalances, Current Account Reversals, and Sudden Stops", IMF Staff Papers 51(2004): pp. 1-50.

Edwards, Sebastian	"Capital Flows and Economic Performance: Are Emerging Economies Different?", NBER Working Papers, No. 8076, 2004.
Eichengreen, Barry	<i>"Capital Account Liberalization: What Do the Cross-Country Studies Tell Us?"</i> , World Bank Economic Review, Vol. 15, No. 3, 2001.
Eichengreen, Barry, and Muge, Adalet	"Current Account Reversals: Always a Problem?", NBER Working Papers, No. 11634, September 2005.
Fernandez-Arias, Eduardo, and Peter, J. Montiel	<i>"The Surge in Capital Inflows to Developing Countries: An Analytical Overview",</i> The World Bank Economic Review 10, No. 1(1996): pp. 51-77.
Frankel, Jeffrey	"The Effect of Monetary Policy on Real Commodity Prices", in John Campbell (ed.) Asset Prices and Monetary Policy (Chicago: University of Chicago Press, 2006).
González-Páramo, José Manuel	"Progress towards a Framework for Financial Stability Assessment", speech entitled "Statistics, Knowledge and Policy" and delivered at the OECD World Forum, Istanbul, 28 June 2007.
Haugland, Kjersti, and Vikøren, Birger	<i>"Financial Stability and Monetary Policy – Theory and Practice"</i> , Norges Bank, Economic Bulletin, No. 1, 2006.
Isărescu, Mugur	<i>"Price Stability and Financial Stability"</i> dissertation on the occasion of being awarded degree of <i>Doctor</i> <i>Honoris Causa</i> by Piteşti University, 8 December 2006.
	<i>"Economic Reflections"</i> , Romanian Academy, Bucharest, 2007.

Isărescu, Mugur

"Monetary Policy Issues in an Emerging Economy. The Case of Romania", speech delivered on the occasion of being awarded the academic degree of Corresponding Member of the "Real Academia de Ciencias Económicas y Financieras" in Spain, Barcelona, 21 February 2008.

"International Financial Crisis and Challenges to the Monetary Policy in Romania", dissertation on the occasion of being awarded degree of Doctor Honoris Causa by Babes Bolyai University in Cluj-Napoca, 25 February 2009.

"Nine Lessons from the Current Financial Crisis", speech delivered during the session titled "What Lessons Can Be Learned from the Current Economic Crisis?", organised by the Economics, Legal and Sociology Department within the Romanian Academy, in co-operation with "Costin C. Kiritescu" National Institute of Economic Research and the "ESEN Reflection Group" Romanian National Committee, Romanian Academy, Bucharest, 14 April 2009.

"Financing and Adjustment in the Economy of Romania", dissertation on the occasion of being awarded degree of Doctor Honoris Causa by Alexandru Ioan Cuza University in Iași, May 2009.

"Current Account Reversals and Currency Crises: Empirical Regularities", in Paul Krugman (editor), Currency Crises, University of Chicago Press, 2000.

> "Keeping the Train on the Rails: How Countries in the Americas and Around the World Can Meet the Challenges of Globalization", speech delivered at the "International Economic Forum of the Americas Conference of Montreal", Canada, 18 June 2007b.

Milesi, Ferreti, Gian, Maria, and Assaf, Razin

Rato, Rodrigo

Reinhart, M. Carmen, and Reinhart, R. Vincent	"Capital Flow Bonanzas: An Encompassing View of the Past and Present", NBER Working Papers, No. 14321, September 2008.
Sebastian, Weber, and Wyplosz, Charles	<i>"Exchange Rates during the Crises"</i> , World Bank, Policy Research Working Papers, No. 5059, September 2009.
Solans, Eugenio Domingo	"How should Monetary Policy Makers Respond to the New Challenges of Global Economic Integration?", speech delivered at the "Global Economic Integration: Opportunities and Challenges" Symposium, Federal Reserve Bank of Kansas City, 2000.
Stiglitz, E. Joseph	"Capital Market Liberalization, Economic Growth and Instability", World Development, No. 98, 2000.