

CURRENCY CRISES AND SOME THEORETICAL APPROACHES. EVOLUTION OF THE CURRENCY CRISES IN ROMANIA

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Abstract

The evolution of financial-currency phenomena after the `90s and, in particular, in the last decade, has disrupted the financial-currency relationships with serious consequences on the monetary-currency balance in a series of countries with extension at regional or international level, as well as on the economic balance. The discussion of theories regarding the currency crises in their evolution is one of the matters designed to clarify the causes of such crises, the implications in the financial-banking, economic environment, as well as the possible ways to limit the negative effects disrupting the financial and economic balance in the given countries, as well as at regional and international.

Keywords: financial crisis: currency, banking and external debt; Twin Crisis; models of financial crisis; self-fulfilling crisis; moral hazard; common lender effect

JEL Classification: G01

Introduction

The prevention of systemic crises (and in particular of currency crises) has started to raise a growing interest, especially in the last decade of the last century, following the crises of the European Monetary System (1992), Mexico (1994), in the countries of South-Eastern Asia, as well as in Thailand, Malaysia, Indonesia, Philippines, South Korea (1997) or in Russia (1998).

The economic literature distinguishes between three patterns of financial crises: currency, banking and external debt crises. However, in practice there are no pure forms of crises. A special concept in the economic theory in this respect is that of Twin Crises – the currency and the banking sector crises. The crises in Asia (1997), Russia (1998) or Turkey (2000) are good examples. Other forms of complex crises are the currency and fiscal crises: Brazil (1999) or currency and external debt crises: Mexico (1994), Argentina (2001), USA (2007), and Europe (2009).

1. Theoretical approaches

It is difficult to formulate a clear and precise definition of currency crises. An approximate definition could be the loss of confidence in the national currency, expressed by increased demand to exchange the domestic currency for a foreign currency, which leads

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either to the strong devaluation/depreciation of the national currency, or to the decrease in currency reserves or restrictions on capital movements [1].

(A) In the economic literature, financial crises are categorized into three generations of models. Opinions are divided as regards this classification: some authors, such as Krugman (1998), consider only two generations of models: the speculative financial crises are included in the last type of models. The first generation of models was introduced by Krugman (1979) [2] and subsequently developed by Flood and Garber (1984). According to this type of models, in the context of a fixed exchange rate, an expansion of excess credit in relation to the increase in money demand leads to a gradual, but persistent, loss of international reserves, and eventually to a speculative attack on the exchange rate. Companies realize they will record losses if they hold domestic currency and, consequently, they sell it right when the so-called shadow exchange rate is equal to the fixed exchange-rate („shadow exchange rate” is the exchange rate that would exist if the exchange rate was not fixed), reserves are exhausted and the authorities are forced to abandon the parity. This model characterizes times of crisis as times when the currency reserves of authorities decrease persistently, and internal credit increases more rapidly than the money demand. If the excess supply of money is the result of the need to finance the public sector, then the large fiscal deficits and the credit to the public sector may serve as crisis indicators.

Agenor, Bhandari and Flood (1992) [3], suggest that, according to this crisis version, variables of external nature, such as the real exchange rate, may serve as crisis indicators as well. For instance, the deterioration of the trade balance and the current account may be the result of expansionary fiscal and/or credit policies, which may lead to an increase in demand for import goods and for a part of the previously exported goods. Moreover, the relative price of services increases, due to the fact that expansionary policies lead to an increase in related demand. Consequently, the price level is high, which leads to a real appreciation of currency. Thus, variations in the real exchange rate may be considered crisis indicators.

More recent models suggest that the authorities abandon parity not only due to the decrease in reserves, but also following the evolution of other variables.

Ozkan and Sutherland (1995) [4] highlight that the authorities have an objective that depends positively on maintaining the nominal fixed exchange rate and negatively on the deviations of production in relation to a given target level. Thus, in case of a fixed exchange rate, an increase in international interest rates leads to higher domestic interest rates and to a lower production level, decreasing the cost of maintaining parity. According to this argument, the evolution of interest rates at domestic and international level, as well as the GDP variations may be considered crisis indicators. Extending the reasoning, other variables affecting the objective-function of the authorities may be considered crisis indicators. High interest rates lead to increased financing costs to the central administration. Thus, an important public debt will show a greater inclination to abandon the peg.

Moreover, high interest rates may generate vulnerabilities in the banking sector, and authorities would rather devalue the currency than risk a collapse of the banking system, associated with much higher costs due to the guarantees offered on the liabilities side of the banks, respectively for guaranteeing deposits. Thus, indicators such as the level of nonperforming loans, credit facilities granted to banks by the central bank, reduced deposits, may indicate financial crises.

This first generation of models clearly describes the crises of the 8th and 9th decades of 20th century in the countries of Latin America, such as Argentina, Brazil and Chile. Fixed exchange regimes were introduced as a result of stabilization programs in order to reduce inflation and to control the budget deficit. In most cases, they ended in one of the ways

described above: the fixed exchange rate was abandoned due to the rapid growth of domestic credit (generally following the bankruptcy of commercial banks) and a significant reduction of international reserves of the central bank.

The self-fulfilling crises are the main characteristic of the second generation models [5]. This type of models is characterized by the possibility of the existence of multiple balances, while the economy may vary between them without a significant change in real variables.

For instance, the existence of exchange rate collapse expectations leads to higher interest rates. This generates additional costs for authorities, which may decide to abandon the peg, thus validating the initial expectations. Also, they do not necessarily imply the existence of negative aspects at the level of the real sector.

A sudden worsening of expectations alone is sufficient to generate the abandoning of the peg and the transfer to another balance with a flexible exchange rate. The problem that remains is related to the causes generating the sudden change of expectations and the extent to which such causes are correlated to the existence of deficits in the real sector.

This approach involves the idea that the prediction of currency crises is extremely difficult, due to the inexistence of a clear connection between the real variables and the occurrence of crises. In the absence of perfect information, Moris and Shin (1998) [6] show that real variables matter in the occurrence of a crisis when they deteriorate below a certain value.

(B) Second generation models explain a series of crises, such as the one in the ERM (Exchange Rate Mechanism) applied to the European Monetary System since the beginning of last decade. In this case, the unification of Germany generated a great shock of demand in this country, which led to higher interest rates in the other Member States. Since labour markets are very rigid at European level, the effect was an increase in unemployment, likely to generate an attack on the currency. Moreover, these expectations increased interest rates, raising again the costs of authorities associated with maintaining a fixed exchange regime and generating a series of speculative attacks, which forced the authorities to abandon the peg.

(C) The third generation of models combines the first two and introduces a series of microeconomic elements into the analysis, such as variables related to the banking sector. The development of these models increased after the Asian crisis. The Southeast Asian countries did not have extremely expansionary monetary or fiscal policies. Inflation and unemployment rates were low. There were problems with banks and companies, and their outbreak led to the crisis. In particular, the moral hazard issues, the liquidity crunch and contagion elements represented the essential components of the crisis.

Firstly, moral hazard comes from a close connection of financial institutions with the governments in the region, which induced the idea of the existence of implied governmental guarantees in relation to financing. This generated, on the one hand, over-indebtedness (especially external), and on the other hand, suboptimal investment decisions. Thus, a shock, even low, at the level of asset prices generated a significant deterioration of the banks' portfolios. Authorities were forced to intervene by inflationist measures in order to save the banking sector. This leads to a crisis in the balance of payments [7]. According to this type of models, the level of asset prices may serve as a good indicator to detect currency crisis.

Secondly, the liquidity crunch starts from diminished confidence in the banking system, which leads to increased withdrawals from the system, reducing the liquidity of banks, thus generating a crisis of the banking sector and, subsequently, a currency crisis. According to this argument, the main factors that may affect the liquidity of the banking

sector may serve as crisis indicators: short-term external debt at banking level, on the one hand, and long-term capital inflows, on the other hand [8].

Finally, the contagion effect involves the spreading of currency crises across borders and their transmission to other countries. This may be the result of a devaluation or depreciation based on competitiveness problems of the external sector or what is known as the common lender effect, according to which, when an investor suffers losses in one country, it liquidates its investments in another country as well. There is also the possibility of an irrational behaviour generated by the herding behaviour.

Kaminsky, Lizondo and Reinhart (1998) [9] examined 28 empirical studies regarding currency crises and organized the 46 used variables into 10 categories: (1) capital account; (2) debt profile; (3) current account; (4) international variables; (5) financial liberalization indicators; (6) other financial variables; (7) real sector; (8) fiscal sector; (9) political variables; (10) institutional factors.

The authors characterized the explanation degree of variables by examining the number of studies in which the given variables had a significant degree of relevance in explaining the crises. Thus, the factors that had a high degree of explanation were: currency reserves, real exchange rate, increase of nongovernmental credit, level of credit to the public sector and inflation. Other indicators proposed to be considered, with a relatively good degree of predicting crises, are: trade balance, performance at the level of exports, increase of monetary supply, M2/reserves, increase of real GDP and fiscal deficit. The influence of political and institutional variables is difficult to assess, due to their presence in only a few studies.

On the contrary, the variables associated with the external debt profile and the current account balance had very poor performances, which was most likely due to the inclusion of information provided by these indicators in the developments of the indicator related to the real exchange rate.

A more recent study on the empirical research regarding currency crises is the one made by Michael Chui (2002) [10]. The study has greater relevance also due to the fact that the summary made by Kaminsky, Lizondo and Reinhart (1998) [11] contained only events that occurred until the end of the year 1997. In addition to the indicators present in the previous studies as well (overvaluation of the real exchange rate, increase of real GDP, exports and fiscal deficit), a series of new indicators (related to the Asian crisis, the crises in Russia, Brazil) connected to the weaknesses seen in the banking sector, such as the increased dependence of financial systems on the authorities, acquire great relevance.

2. Forms of currency crisis and evolution of the banking system in Romania

Starting with the years 1997-1999, the financial-currency system in Romania has dealt with a system crisis, in which the financial-currency crisis manifested in hard forms, which are also maintained at present.

During the above-mentioned period, the RON devaluated by more than 100%, thus reaching an annual average of over 15,000 RON for one dollar in 1999, as compared to an average of almost 9,000 RON for one dollar in 1998 and 7,000 RON for one dollar in 1997. During 2009-2012, the RON devaluation resumed (only in the first 10 months of the year 2012, the RON devaluation to the euro was 5%).

If we make a comparison between the current crisis and 1997-1999, the banking system suffered drastic mutilations, with over 10 banks disappearing, among which Bancorex (the biggest bank in the country) and the Agricultural Bank, the reason being the large volume

of financing, especially in foreign currency, granted to state companies, which were strongly affected by the crisis at that time. Of course, if we compare the current crisis and the 1997 crisis, a common point is the macroeconomic imbalance. At that time, the strong devaluation of the national currency contributed to the massive increase of inflation, which was around 150%, but also to the increase of interests, which had reached 30-50% for credits and even over 100%.

Since 2009, the financial-currency and banking industry, not only in Romania but in the whole world, has been at an historical crossroad in its development. The reason why we got here is the strong erosion of trust in this industry. It is known that a financial-currency and banking system cannot exist without trust, since there is a close connection between trust, ethics and the carrying out of financial-currency and banking services. The strong devaluation of euro is relevant in this respect, especially as a result of the sovereign debts of some countries in Europe (Greece, Island, Portugal, Spain, Italy), which exceeded by much the 100% share of the given countries' GDPs, a situation that also influenced the evolution of the RON/euro exchange rate. At the beginning of October 2012, the RON devaluation of over 5% in relation to the euro (4.60 RON for one euro) as compared to the end of the year 2011 and the RON devaluation of over 15% in relation to the dollar (3.63 RON for one dollar in 2012 as compared to 3.33 RON for one dollar at the end of the year 2011). The situation of this exchange rate is also a consequence of the political disputes in Romania.

The National Bank of Romania assures us that the evolution of this exchange rate is similar to that of the zloty, the Czech crown or the forint, as can also be seen in the graphs attached (the daily nominal exchange rate) [12]. Like any currency with a controlled floating exchange rate, the central bank has the possibility to act directly in the market, by selling or buying foreign currency, or indirectly, by monetary policies.

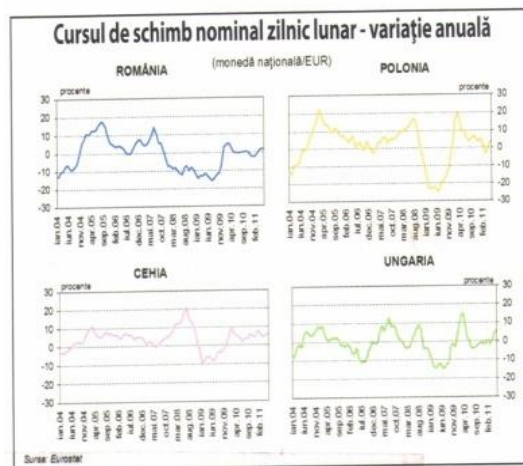
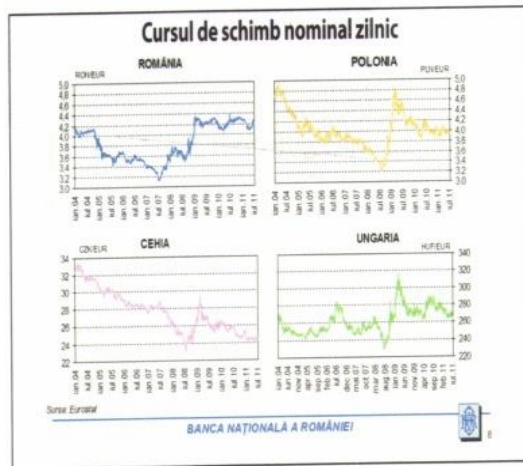


Fig.1 Evolution of the nominal exchange rate in Romania, Poland, the Czech Republic and Hungary

If we examine the graphs with the evolution of the annual variation, we see large amplitudes, the champion at his chapter, in 2011, being the Polish zloty, which came closest to what the economic theory calls free floating.

The evolution of the RON exchange rate in the first 10 months of the year 2012 indicates a devaluation of over 5% as compared to the end of the year 2011.

The most significant devaluation took place in July 2012, when the exchange rate reached an historical level of 4.6997 RON/euro, namely 9.3% depreciation as compared to last year's exchange rate. The RON depreciated abruptly from the beginning of July 2012, by 4.2% by the end of the month, while the foreign currencies in the region recorded gains of up to 1.1%.

The strong depreciation of the RON also influenced the level of interests applied by the commercial banks, which, for one-day term deposits, amounted to 4.78%-5.26% per year. Also, one-week maturity yields dropped from 4.86%-5.34% to 4.83%-5.32% per year.

The governor of the Romanian National Bank of Romania specified that "The impact of the external evolution on the exchange rate has been minor until present. The exchange rate is also influenced by what comes from the outside. We see it first in the risk premium and then in the exchange rate. Until now, the impact has been minor and we see no reason for a greater impact".

Of course, such a depreciation of the RON increases the competitiveness of the Romanian products in the external markets and leads to economic growth. Under such circumstances, the exchange rate may be a valve only for the imbalances accumulated in the economy. However, you must have production overcapacity or rapid investments, or fields such as the agriculture, where increases of 10% can make the difference.

We should not forget that the devaluation of the national currency, as a result of vulnerable structures in the economy, such as the case of Romania, where a relatively high degree of exports (the exports to *Germany, Italy and France represent approximately 40% of total exports*) includes imports whose prices rise, makes an increase in the exchange rate to be felt in costs.

We can agree that, by the depreciation of the national currency, an opportunity is offered to the domestic producers to regain the domestic market by eliminating imports, but in this case as well, investments and the increase of production capacities are needed.

We should not omit the impact of the exchange rate depreciation on the level of interests.

It is worth mentioning that a strong depreciation of the national currency in relation to the main credit denomination currencies would have a positive impact on interest income. However, this would be counterbalanced by the much higher expenses related to the depreciation of the quality of financial assets, especially in the case of debtors natural persons. The currency risk manifested by the direct impact of the exchange rate variation on the financial situation of credit institutions is low. The maximum VAR value recorded during the 2010-2011 period, which involves a liquidation of uncovered positions within 10 working days, does not exceed 0.25 % of total equity.

One of the mechanisms for balancing the financial markets following depreciation of the exchange rate is available to the State.

Discussing the relationship between the State and the financial markets subject to imbalances, the Austrian professor Jorg Guido Hulsmann [13] mentioned that “one of the State’s mechanisms of intervention in the financial markets is the manipulation of prices in the financial markets”. The manipulation of prices can be achieved through numerous means, such as: the control of the inflation rate or the control of precious metals price”.

Conclusions

At present, in the academic environment, it is acknowledged that, at real level, the currency crises are a mixture of important elements belonging to the three above-mentioned categories. Anyway, in times of crisis, some aspects seem to hold a more important role than others. Having this description in theory, it is important to verify at empirical level whether the variables belonging to the real or banking sector may serve as indicators of crisis. On the other hand, if these variables are not convincing as indicators of crisis, the proper conclusion is that the given crises are a result of self-fulfilling expectations and of the herding behaviour at the level of companies.

The depreciation of the actual real exchange rate in Romania, starting with the second half of the year 2011, involved an improvement in external competitiveness with favourable effects on the future net exports. The nominal depreciation of the exchange rate in relation to the Euro and the US Dollar acted, mainly, in this respect. It occurred in the context of deterioration of the investors’ perception of the perspectives of economies in the region as a result of the uncertainty related to financing the public debt of Greece, Spain, Portugal, Italy,

and Ireland. The increase of the investors' aversion to risk was also reflected in the ascending quarterly dynamics of the credit default swap (CDS) spreads for a series of countries in the region, including Romania. In relation to the impulse transmitted through the net export channel, the developments of the exchange rate and the sovereign risk premium in the last quarters induce a restrictive effect on the future economic activity by increasing the cost of credit in foreign currency, a phenomenon that has manifested since early 2012.

In conclusion, even if, on short-term, the increase of the exchange rate helps the achievement of the budget deficit targets provided for in the agreement with the IMF, on medium and long-term, the impact on the economy is worrying. Bigger problems regarding the public debt (denominated in an important share in foreign currency), the increase of inflation (depreciation leads to the increase of inflation), the increase of the risk of default on bank loans, the increase of interests will certainly appear.

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