Lessons from a comparative analysis of financial crises[1]

Roberto Frenkel[2]

Introduction

The paper is presented in two parts. The first part presents a comparative analysis of a set of financial crises that occurred in the period of financial globalization, which lasted from the late 60s of past century up to present times. The second part focuses on the recent Argentine experience of crisis, foreign debt default and recovery (late 1990s and early 2000s).

1. Comparing financial crises in the globalization period

Taxonomy is the activity of grouping individuals into species, arranging species into larger groups, and giving those groups names, thus producing a classification. We can apply this methodology to a set of financial crises that took place in second period of financial globalization which lasted from the late 60s of the XX century up to present days. The set comprises the many crises experienced by emerging market economies (EMEs) as from the early 80s, the recent US crisis with global repercussions and the crises that Eurozone economies (EZEs) are suffering nowadays. Instead of the form or shape of the individuals recorded by the naturalists the classification looks at the stylized facts of the critical processes.

The set of crises

In the last three decades of last century (expanded to include the first two years of the 2000s) there were two waves of financial crises in EMEs. The first was the tsunami that swept almost the entire Latin American region in the early years of the eighties. The second wave began with the 1995 Mexican crisis, which was followed in Latin America (LA) by the Brazilian crisis in 1998 and the crises in Argentina and

[1] Presentation prepared for the workshop "The Euro: manage it or leave it! The economics, social and political costs of crisis exit strategies" June 22-23, Faculty of Economics, Gabriele d'Annunzio University, Pescara, Italy.

[2] Principal Research Associate at CEDES and Professor at the Buenos Aires and Torcuato Di Tella Universities.

Uruguay in 2001-2002. Between the mentioned Mexican and Brazilian crises five economies in East Asia and Russia experienced crises in 1997-98. The Asian and Russian episodes had important financial spillovers and real impacts in LA and helped trigger the mentioned Brazilian and Argentine crises. Each wave of crisis was preceded by booms of capital inflows to developing countries.

The crises in the Eurozone were triggered by the US crisis. The initial impacts of the contagion were proportional to the degree of exposure of the national financial systems to toxic assets in the US, irrespective of their balance of payments situations. For instance, the initial impact was greater in Germany, which showed a current account surplus, than in other EZEs showing current account deficits but less exposure to US assets. We are particularly interested in the further development of the critical processes in the peripheral EZEs (Greece, Ireland and Portugal), Spain and Italy (GIIPS). In these countries a second surge of critical developments led by Greece started around April 2010.

The Minskyan cycle

The first stylized fact I would like to point out is shared by all the episodes in the set. In all cases, the crises were preceded by a macroeconomic cyclical dynamics, with an initial phase of expansion, followed by growing financial fragility and finally, ending up in financial crises (in all cases) and in currency crises (in the EMEs).

This cyclical dynamics is clearly related to the work of Hyman Minsky. Minsky stressed that unregulated market economies are systems cyclical in nature, in which crises are not unusual events. A key element of this cyclical pattern is the endogenous behavior of agents' risk perception and expectations. In the development of the boom phase, optimism spreads and confidence increases. Optimism and confidence tend to reduce the perception of risk and agents – savers and intermediaries – take riskier positions. Asset price bubbles that support the financial expansion inflate in the process. In the booming phase, the balance sheets become increasingly fragile. At some point a negative episode draws people´s attention to the high degree of risk exposure and a period of distress begins. Concern about the exposure to risk leads many players to prefer liquidity and undo positions. Bubbles deflate and many agents are forced to assume wealth losses. Pessimism replaces the previous optimism while the contraction process feedbacks. The development of the downturn leads to the systemic crisis.

It was impressive to realize how accurately the Minskyan cycle described the pattern followed by the American economy in the period preceding Lehman Brothers bankruptcy. Minsky´s insights were broadly recognized and this helped to bring them back from the intellectual exile where they had been relegated.

Actually, the Misnkyan cycle is observed everywhere. The processes that led to financial crises in the EMEs and the EZEs exhibited Minskyan features similar to those verified in the US economy in the 2000s. Crises were always preceded by booming periods in which financial activity expanded and risk taking increased. Analysis of the range suggests that these crises emerged as the culmination of the same processes that caused a growing optimism and encouraged greater risks taking in the boom phase. With regard this stylized fact, the set of crises in the post-Bretton Woods period complements the collection of financial crises studied by Charles Kindleberger illustrating the general explanatory power of Minsky's model.

Stylized facts shared by the crises in EMEs and EZEs

Besides the above-mentioned cyclical dynamics, the comparative analysis of the set of EMEs and EZEs crises reveals other common stylized facts:

First, the booming phase in EMEs was generated by relatively drastic changes in macroeconomic policies and regulations, which typically included the liberalization of the capital account of the balance of payments and local financial markets jointly with the implementation of some sort of exchange rate fixation (pegs or active crawling - pegs). The implementation of new regulations and macroeconomic arrangements operated as an exogenous shock on the financial system, which quickly established incentives for arbitraging between domestic and foreign assets and led to booming phases.

The initial booming phase in the EZEs also resulted from a drastic change in macroeconomic policies. The introduction of the common currency operated as a shock on the national financial systems, which established stronger incentives for arbitraging between core and peripheral countries assets and led to the booming phase in the periphery of the Eurozone.

Second, the regulation of local financial market was weak both in the EMEs and the EZEs. In the EMEs cases it may have been because local financial markets had been recently liberalized or because the expansion of financial intermediation during the

boom exceeded the existing regulatory capacity. In the EZEs cases, the introduction of the common currency, by increasing the incentives to international capital flows, generated renewed risks without a contemporaneous reinforcement in financial regulation.

Third, international capital movements played a crucial role in the boom and the contracting phase in both the EMEs and the EZEs.

These three elements gave rise to the following stylized cyclical dynamics. The combination of credibly fixed (or predetermined) exchange rate and capital account liberalization generated important arbitrage opportunities by exploiting significant spreads between the yields of foreign and domestic assets. Capital inflows expanded liquidity and credit in the economy and fed bubbles in financial and real assets. As a result, output and employment growth accelerated. The expansion of aggregate demand led to non-tradable price increases, which under fixed (or predetermined) exchange rate regimes provoked an appreciation of the real exchange rate. The real appreciation trend reinforced capital inflows seeking to obtain capital gains by holding domestic assets. This in turn feeds back into the real economy, accelerating the expansion of credit and output growth. In this context, domestic agents' financial positions became increasingly fragile (in Minsky's sense). Simultaneously, the combined effect of the real exchange rate appreciation and economic growth stimulated the demand for imports, while exports tended to weaken. The worsening of the trade balance together with the increase in the interest and dividend payments turned the current account into deficit. A steady increase in current account deficit was typically observed. Since, initially, capital inflows were higher than the absolute value of current account deficits, foreign exchange reserves accumulated during the booming phase in the EMEs. At some point, however, current account deficit became larger than capital inflows, turning negative the balance of payments result and inducing a contraction of liquidity and credit in an already fragile financial system. This is the beginning of the contracting phase. Asset prices bubbles gradually began to deflate and episodes of illiquidity and insolvency emerged, first as isolated cases and then as a systemic financial crisis. In the case of EMEs, financial tensions or even crises tended to precede currency crises.

Stylized facts exclusive to the EMEs' crises

I have presented so far the similar roles that the evolution of current account and capital flows played in EMEs and EZEs crises. Beyond this common stylized fact, the critical processes took different paths in the EMEs and the EZEs. A key differential factor relates to the existence or not of a lender of last resort (LOLR) able to dissipate the default risk on the debts in international currency issued during the booming phase. In the EMEs case, given the absence of a LOLR in foreign currency, exchange risk and country risk are key determinants of the critical processes, as we explain below. Before that, let us briefly discuss the consequences of the inexistence of an international currency LOLR in the EMEs cases.

Country risk and its price – the country risk premium – are central to the analysis of foreign debt sustainability in EMEs. These debts have a specific default risk associated with the currency in which the debt is nominated. The default risk of the debts issued in foreign currency affects both public and private debts. A private debtor may be liquid in domestic currency and able to service its debt without difficulty at the current exchange rate. However, if liquidity in foreign currency becomes insufficient to serve all international debts, the government could appeal to convertibility suspension in order to avoid the depletion of reserves, forcing the private agents to default on their debts. On the other hand, if sufficient liquidity in foreign currency is available, it is highly unlikely that the public sector fails to fulfill its commitments in that currency due to the lack of liquidity in domestic currency. Therefore, only insufficient liquidity in foreign currency can force a default on public debt issued in that currency. Consequently, public debt is the lower risk between the debts in foreign currency issued by domestic agents. This is why country risk premium is typically indicated by the sovereign risk premium, and measured as the difference between the yield on a sovereign bond in US dollar and the equivalent yield on the US bond, which is taken as the risk-free asset.

It is not difficult to understand why the state and expected evolution of the balance of payments are crucial in the assessment of sovereign (country) risk in EMEs. The debtor country has financing needs in foreign currency, consisting of the sum of the current account deficit plus the foreign debt capital payments. A crucial point is that the possibilities of adjusting the balance of payments are not unlimited, even after devaluing the domestic currency. Consequently, in EMEs default risk is closely associated to the possibility that the country does not get all the foreign currency liquidity needed to meet its obligations. I would like to emphasize that this risk would

disappear if EMEs had a lender of last resort able to provide the country with the needed foreign currency liquidity.

Under conditions of high foreign debt in an EME, a large proportion of the financing needs must necessarily be covered with funds from capital markets, even after adjustments have been made in the external sector. The assessment of the future path of the debt and its sustainability depends on the interest rate faced by the debtor and thereby on the risk premium determined in capital markets. Multiple-equilibria scenarios are not uncommon. In their assessments of debt sustainability, each investor has to guess the behavior of the rest of the market participants. The predominance of optimistic assessments may result in a relatively low risk premium and sustainable debt projections. On the contrary, predominantly pessimistic perceptions may result in high risk-premium and unsustainable debt projections. Via the determination of risk premiums, market participants determine whether debt is sustainable or not in a standard self-fulfilling behavior. I discuss this issue more in depth below.

Given the absence of a LOLR in foreign currency, exchange risk and country risk are key determinants of the critical processes in the EMEs. The evolution of external accounts and foreign exchange reserves reflect one aspect of the Minskyan cycle in these economies. As already mentioned, there is a steady increase in the current account deficit in the first phase of the cycle. Initially, capital inflows are higher than the absolute value of current account deficits and reserves accumulate. At some point the current account deficit becomes larger than the capital inflows. The stock of international reserves reaches a maximum and then contracts, inducing the contraction of money and credit.

The portfolio decisions of domestic and foreign agents – regarding the portion of the portfolio exposed to country and currency risks – are affected by the evolution of the balance of payments. The evolution of domestic interest rates reflects the financial aspects of the cycle in the EMEs. The local interest rate tends to decline in the first phase and to increase in the second. As exchange rate policy initially enjoys credibility, arbitrage between domestic and foreign assets leads to a reduction of domestic interest rates. Low interest rates contribute to the real and financial expansion. In the second phase the interest rates rise. The increase in nominal and real interest rates in the second phase is also explained by the arbitrage between domestic and foreign assets. The sum of the exchange risk premium plus the country risk premium – the added price of devaluation and default risks – sets a floor for local real interest rates and is the main

variable that drives their increase. The persistent increase in the current account deficit – and from a certain point the contraction trend in international reserves – reduces the credibility of the exchange rate rule, on the one hand, while increasing, on the other hand, the probability of default of the debt issued in international currency.

The maintenance of the exchange rate rule and the regular service of external obligations require increasing capital inflows. Therefore risk premiums tend to increase. Higher risk premiums and consequently higher interest rates are required to balance the portfolios and attract foreign capital. The economic activity contracts and episodes of illiquidity and insolvency further contribute to reducing the credibility of the exchange rate policy. At the end of the process there is no interest rate high enough to sustain the demand for local financial assets. There are runs on central bank foreign exchange reserves, which ultimately lead to the collapse of exchange rate regime.

Stylized facts exclusive to the EZEs' crises

In contrast to EMEs, neither private debts nor public debts in the EZEs have an additional risk of default associated to the potential lack of foreign currency liquidity at the national aggregate level. This is so because the Eurozone payments system warrants the availability of liquidity to fulfill all international payments. On the other hand, European Central Bank (ECB) has performed the role of LOLR of commercial banks (and indirectly to firms) located in the EZEs.

In association with the different settings, the critical processes have evolved differently in the EMEs and the EZEs. In the EMEs' crises, as was already mentioned, the evolution of external accounts and international reserves feed back negatively in the second phase of the Minskyan cycle throughout their effects on the exchange rate risk and the specific default risk of international currency debts, public and private. This stylized fact is absent in EZEs' crises. In the EZEs, the exchange rate risk has played no role in the portfolio decisions leading to capital outflows (at least until recently, when the possibility of Greece abandoning the euro and issuing a new currency became visible). Neither have capital flows been directly influenced by the evolution of the external accounts. Eurozone countries do not carry stocks of international reserves whose evolution could indicate risks of devaluation and default. The Eurozone payments system warrants the availability of liquidity to fulfill all international payments. The EZEs balance of payments results (the sum of current and capital

account results) are approximately recorded in the Target2 balances of the ECB and do not seem to have significant influence in the countries' risk assessments.

On the other hand, public debts in the EZEs do have a specific liquidity risk of default similar to that of public debts in EMEs issued in foreign currency. This is so because governments in the Eurozone do not have a (highly credible) LOLR able to dissipate this risk (the ECB have played this role to some extent in the GIIPS crises, but the rhetoric and weakness of its interventions did not eradicate the fears and uncertainties associated to the possibility of default on public debts).

The debtor government in the EZEs has some financing needs, made up by its current account deficit (the primary deficit plus interests) plus the principal maturities. The possibilities of adjusting public finances are not unlimited. Consequently, there is a risk that the debtor does not count with sufficient liquidity to cover its financing needs and be forced to default on their obligations. The role of the default risk premium in the sustainability of public debts in the Eurozone is similar to the role it plays in the sustainability of foreign currency debts (public and private) in EMEs. As in the EMEs cases, a large proportion of the financing needs of the GIIPS governments must necessarily be covered with funds from the market, even after adjustments have been made in the public accounts. The process that follows is also similar to the experience of EMEs with their national foreign currency debts. The markets' assessments of risks tend to place the countries in financial traps with increasing public debt ratios and risk premiums.

In the EZEs' crises, absent the influence of the exchange risk and the international liquidity risk in the portfolio decisions, the main source of negative feedback effects in the second phase of the cycle is the evolution of public debt ratios and sovereign risk premiums, throughout their effects on the portfolio decisions of the private sector. These effects would not occur if the Eurozone governments had a credible LOLR.

Another stylized fact share by the EZEs and the EMEs: pro-cyclical fiscal policies in the contraction phase of the cycle

So far we have pointed out stylized facts of the macroeconomic dynamics determined by the interaction between agents' behavior and the institutional settings. In addition, we could also consider as another stylized fact of the crises dynamics the pro-

cyclical fiscal policies implemented by the governments in the second phase of the cycle in order to gain credibility from the markets and revert the capital outflows and the recession trends. Actually, this stylized fact was observed in almost all EMEs' crises and on the other hand, pro-cyclical fiscal measures are presently a crucial ingredient in the development of the EZEs' crises. An obvious motivation of these policies is the conditionality imposed in exchange of financial support by the multilateral institutions. The IMF has imposed fiscal austerity in all cases in which its support programs were involved in the second phase of EMEs' crises. On the other hand, fiscal austerity is the main objective of the policy orientation of the EU and the main conditionality presently claimed by the European financial institutions to the support given to the Eurozone economies. In what follows, we want to discuss other motivations and objectives pursued by governments that implement pro-cyclical fiscal policies both in the EMEs and the EZEs, besides the conditionality imposed by international institutions.

The second phase of the cycle is currently in full development in the EZEs' crises. The turning point of the cycle could be dated in the summer of 2007, when the financial crisis started to develop in the US, or more clearly in September 2008, when the contagion of Lehman Brothers bankruptcy spread to the entire world. So, the second phase of the cycle in the EZEs' crises has lasted so far about four years.

In order to make a valid comparison with regard pro-cyclical fiscal policies between the crises in the EZEs and the EMEs, we should look at the EMEs' crises dynamics in the period between the turning point of the cycle and the abandoning of the fixed exchange rate. As was already mentioned, all the EMEs' crises ended up in devaluations (the only exception is Argentina in 1995, when the currency board exchange regime survived the financial crisis). The period between the turning point of the cycle and the devaluation has usually been relatively short in the EMEs. For instance, between one and two years in the LA crises in the early 1980s, one year in the 1995 Mexican crisis and also about one year in the East Asian crises. The Argentine crisis in 2001 is an exception in this regard because the turning point of the cycle occurred in mid-1998 while the devaluation took place at the end of 2001. The contraction phase was a prolonged depression that lasted three and a half years in which pro-cyclical fiscal policies were intensively implemented. This makes the Argentine case particularly relevant in the comparison with the EZEs crises because, both in Argentina and in the EZEs' crises, the second phase of the cycle has lasted much more

than in other cases, giving room for clear observations of the implementation and effects of the pro-cyclical fiscal policies.

In order to discuss the motivations and effects of pro-cyclical fiscal policies I take as a fact that they have direct contraction effects on private consumption and investment. The idea that a fiscal deficit reduction may have a net expansionary effect on output rests on the existence of indirect positive effects on private expenditures, throughout the impact of the policy on expectations and credibility. In an EME case, the potential effect of the policy on the domestic real interest rate, throughout the reduction of the country risk premium, points to a visible link between the policy and its hypothetical positive indirect effects. In the case of an EZE, the potential expansionary effect also rests on a reduction of the sovereign risk premium, but there is no visible link between the reduction of the risk premium and the hypothetical consequent increase in private expenditures. In this case, the indirect expansionary effects of a deficit reduction seem to rest on more ambiguous mechanisms than in an EME. However, beyond their hypothetical foundations, a bet on the indirect expansionary effects does not seem to be the main motivation of a government that pursues pro-cyclical fiscal policies in the contraction phase. Governments may or may not believe in indirect expansionary effects, but it seems clear that in all cases the debt sustainability is the main objective of those policies: the sustainability of both the aggregate external debt of the country and the public debt issued in international currency, in the case of an EME; and the sustainability of the public debt in the case of an EZE.

Sustainability means the ability of the debtors to fulfill its financial commitments as they are written in the involved contracts. Obviously, sustainability is not a guarantee that the contracts will actually be fulfilled. As other financial concepts, sustainability is an assessment about future uncertain events, based on present information and probable conjectures.

An investor has to evaluate both the prospects of the capital flows and the ability of the country to make necessary adjustments in the external accounts (in an EME case) and in the public accounts (in both EME and EZE cases). Domestic information can not provide a complete assessment of the risk. Even the quantitative components of the sustainability assessment depend on the behavior of the financial market. Present and expected risk premiums are necessary information to forecast the evolution of the debt burden and the future financing needs. This is one of the ways in which the sustainability assessment depends on the behavior of the market. Because of that, an

increase in the country risk premium caused, for example, by a contagion effect, can substantially change the assessments of debt sustainability.

Because the prospects of the country risk premium are essential components of the sustainability assessment, each of the investors has to conjecture the behavior of the rest of the market. Consequently, there is room for multiple equilibrium and self-fulfilling prophecies, as in most of financial markets.

The composition of the present and forecasted financing needs provides information about the proportion that should inescapably be backed by new lending in the market, even after adjustment policy measures have been taken. When the debt burden makes up for the bulk of the present and projected financing needs, the effects of current domestic policy measures on the financing needs are relatively small. Consequently, the assessment of sustainability depends in this case mostly on conjectures about the behavior of the rest of the financial market (and also on conjectures about the behavior of the international institutions).

Sustainability is then a self-fulfilling prophecy of the average opinion of the market. The average opinion can suddenly change from sustainable to unsustainable. The changes can be triggered by relatively small variations in the risk premium or other news affecting the fundamentals. Or the change can be caused by domestic or international news less connected with the fundamentals. The sufficient condition for that to happen is a conventional opinion shared by most of the market participants. Consequently, sustainability is more vulnerable to contagion effects or other sources of volatility, international or domestic.

The valuation of the assets issued by a country in the above situation is a neat example of the Keynesian beauty contest. What can the country do to make their financial assets look more beautiful? For the mentioned reasons, the government domestic policies have relatively little room for improving in the short run the fundamentals in which the sustainability assessments are based. But this does not mean that domestic policies are irrelevant. They are relevant, not because of their effect on the fundamentals, but as signals to the financial market. The signals should make the country look more beautiful at the eyes of the average beauty criteria of the market. Signals are intended to convince individual investors that the average opinion will be favorably influenced. So, they have to harmonize with the more generalized conventions of the market participants. Fiscal austerity measures are valuable signals if, as it is actually the case, generalized conventions see them always positively, even if an

independent analysis could easily show that they worsen the sustainability fundamentals. The effects of the announcements of pro-cyclical fiscal policies should be seen well before the adjustment measures objectively show their results on economic variables.

The country looses most of its policy degrees of freedom. The financing of the debt burden becomes the main focus of domestic policies because it is the most important and urgent government target. The default of the debt would impose a high political cost and consequently, the government perceives the loss of funding as the most important threat it faces. Policy signals to the market may be, and usually are, socially or politically problematic and may actually have negative impacts on the economic performance. Experience shows that governments choose to confront the domestic social and political conflicts and risk a worsening of the economic performance in order to give priority to the issuing of signals to the market. Governments always prefer to play for time. The threat of default is tangible, while the local effects of the signals are more uncertain, take more time to appear or simply are comparatively less costly for the government.

In no case in the EMEs crises the pro-cyclical fiscal policies have helped to stabilize the financial market, reduce the risk premiums and avoid the abandoning of the fixed exchange rates. The signals were not capable of turning the vicious circle of higher risk premiums and worsening debt ratios into virtuous circles of lower risk premiums and improving debt ratios, even in the case of Argentina, where the fiscal austerity announcements were effectively implemented along a period long enough to make fully observable their effects on output and the fiscal accounts.

In the EZEs crises pro-cyclical fiscal policies and signals are in full operation. So far, they have been incapable of turning the mentioned vicious circle into a virtuous one.

Lessons from the comparative analysis of crises

The above analysis mainly provides lessons about how to prevent the occurrence of crises.

In the first place, the crises in both developed and developing countries have highlighted the shortcomings of poorly regulated domestic financial systems. The

general lesson is that reinforcing and extending financial regulation is essential to avoid instability and crisis.

With regard the EMEs, a specific conclusion from the above comparative analysis is that the prevention of crisis in these economies involves elements that go beyond the regulation of the domestic financial systems. In EMEs, the conjunction of macroeconomic policies with the pattern of insertion into the international financial system plays a crucial role in the financial performance. In summary, the study of crises in EMEs suggests that in addition to strengthen and expand financial regulation, these countries should: 1) adopt exchange rate regimes that prevent speculation and provide flexibility to policymakers, 2) implement measures pointing to the regulation of capital flows and 3) implement policies that ensure the robustness of the external accounts, including the accumulation of foreign exchange reserves and the preservation of competitive (or non-appreciated) real exchange rates.

The EMEs seem to have taken advantage from those lessons. Significant changes took place in many countries in the 2000s with respect to the dominant features in the 90s and before. There were important changes in the patterns of insertion into the international financial system, in macroeconomic policy regimes and in the regulation of national financial systems. Many countries adopted managed floating exchange rate regimes, generated current account surpluses and accumulated considerable foreign exchange reserves. These changes are consistent with the preventive measures suggested by the study of EMEs' crises briefly presented above. So, it can be concluded that the robustness exhibited recently by developing economies can be seen as an a-posteriori confirmation of those recommendations.

Before the EZEs crises, our suggestions of preventive domestic policies were usually accompanied by initiatives that should be implemented at the international level. The building of an institution able to perform the role of LOLR in international currency for EMEs was one of the most often mentioned recommendations. In fact, some of the recommended domestic policies – for instance, the accumulation of large volumes of foreign exchange reserves – were mainly intended to play a substitute role for such an institution. The recent experience in the Eurozone shows us how far we are from the possibility of constructing a more rational and stable international financial architecture. The reason is simple: if governments' coordination to set up an efficient international arrangement to prevent and manage crises is so difficult in the European Union, what would be the possibility of such an arrangement at the global level?

With regard the Eurozone, the comparative analysis shows that the establishment of the Euro resulted in a type of crisis with strong similarities with the EMEs crises. Both in EMEs and EZEs, the crises originated in the conjunction of fixed exchange rates, full capital mobility and weak financial regulation, i.e. in the conjunction of failures in macroeconomic policies and failures in financial regulations. In developed countries it had happened before, in the 1930s, when weak financial regulations, full international capital mobility and the Gold Standard rules led the whole world to a prolonged depression. But from Bretton Woods on, up to the adoption of the common currency in the Eurozone, this type of crisis were exclusive to developing countries.

A preventive lesson for Europe should be: do no adopt the common currency, but the lesson is irrelevant now. A more concrete and practical lesson refers to the negative feedback effects in the contraction phase of the Minskyan cycle. The main sources of these effects in the EZEs crises are the vicious circle dynamics of public debt ratios and risk premiums. These mechanisms could have been stopped by the operation of the ECB as a credible LOLR of the Eurozone governments, in the same way as did the central banks in US, UK and Japan after the financial crises burst in these countries. May be there is still time in Europe to do it.

Even if the ECB had performed from the beginning of the crises as a credible LOLR for governments and the negative feedback mechanisms had been consequently neutralized, the GIPPS countries would be anyway trapped in contexts of debt deflation and low international competitiveness. Has the experience of the EMEs something to teach us in this regard? As was already mentioned, all EMEs crises ended up in devaluations, and so, a more depreciated real exchange rate was the general condition for the following recovery processes. But devaluation was not a sufficient condition. For instance, the LA crises of the early 1980s were followed by big devaluations and a number of rounds of foreign debts restructurings. But none of the debt restructurings in the 1980s included substantial alleviation of the debt burdens. As a consequence, the biggest countries in the region experienced about eight years of stagnation, high inflation and hyperinflation: the stabilization and the recovery of growth were inconsistent with the fulfillment of the debt obligations. In other more successful crisis resolutions (for instance, Mexico in 1995 and the East Asian countries in 1998) the debts restructurings did not include significant haircuts, but were facilitated by massive international rescue packages led by the IMF. Almost in all cases the resolution of the crises in the EMEs comprised the bail out and deep restructuring of the domestic

financial systems, which included the refinancing of private debts in favorable terms (subsidized with fiscal resources) and involved significant fiscal costs.

The Argentine crisis in 2001 is a singular case. Argentina defaulted on its external debt, as did the LA countries suffering crisis in the early eighties, but then suspended debt payments to private creditors for about four years. Later on, in 2005, Argentina reached an agreement with creditors to restructure most of the debt with a haircut that at that time was an historical record. As in other cases, the crisis resolution involved a huge devaluation and the bail out and restructuring of the domestic financial system, with favorable refinancing terms for domestic private debts. The economy started to grow soon after the devaluation and sustained a very high rate of growth in the following years. This experience makes the Argentine case particularly interesting for people looking for lessons from crisis resolutions.

2. The Argentine crisis, debt default and recovery

The macroeconomic evolution in the nineties

The basic plot of the macroeconomic story of the late nineties was quite simple. The negative financial turnaround in the foreign environment experienced in 1997-1998, after the East Asian and Russian crises, found the Argentine economy with a significant and growing current account deficit, a considerably appreciated currency and a visible lack of policy instruments to deal with these problems, given the rigidities of the adopted macroeconomic policy rule. In these conditions the country-risk premium jumped upwards and the access to foreign funds became more and more problematic. The subsequently increased interest burden had a negative impact on all borrowers, including the public sector.

Because of the fixed exchange rate and dependence of monetary conditions on the balance of payments, fiscal policies had to bear the burden of the adjustment to the new situation. The government argued that furthering fiscal discipline would strengthen confidence, and consequently the risk premium would fall, bringing interest rates down. As a result, domestic expenditure would recover pushing the economy out of the recession. Lower interest rates and an increased output would, in turn, reestablish a balanced budget, thus closing a virtuous circle. Fernando de la Rúa's administration in

2000 borrowed this entire argument from Carlos Menem's administration which had preceded it, and the IMF gave its seal of approval. All of them failed.

The entire macroeconomic story of the late nineties is about this failure. Despite the strong adjustment in the primary balance of the public sector the virtuous circle was never attained. Even worse, the increases in taxes and the cuts in public expenditures reinforced the recessionary trend, thus feeding the negative expectations that prevented realizing the highly anticipated fall in the country-risk premium. Fiscal policy alone was impotent to compensate for the strong macroeconomic imbalances, which laid somewhere else, i.e., in the external sector of the economy. Under this self-destructive fiscal policy orientation, the economy got trapped into a vicious circle for several years, and suffered from the longest recession since the First World War.

The Bailout of the Financial System

The suspension of the service payments on a part of the public debt was declared on December 24, 2001. The measure initially affected 61.8 billion dollars in public bonds and another 8 billion dollars in diverse liabilities, out of a total debt of 144.5 billion dollars. The rest—mainly debt with multilateral organizations (32.4 billion dollars) and recently issued guaranteed loans (42.3 billion dollars)—remained as performing debt.

The devaluation of the peso that followed had a strong impact on the economy, given the important dollarization of contracts inherited from the convertibility period. The government interventions beginning in early 2002 aimed both to reduce the wealth transfer from debtors to creditors and avoid the collapse that would have resulted from being unable to fulfill domestic contracts set in US dollars. The official intervention intended to manage the "distribution of losses". In many cases the intervention meant that parts of the losses were absorbed by the State by issuing new debt.

The main source of the new indebtedness came from the intervention in the financial system, which involved a 14.4 billion dollar rise in public debt. In February 2002, the government decided to compel the conversion of all foreign-currency bank deposits into pesos at a rate of 1.4 pesos per dollar. Bank credits denominated in foreign currency were converted into pesos at a rate of one peso per dollar. This measure was aimed at avoiding generalized bankruptcies in the private sector. The "asymmetric

pesification" of credits and deposits caused a significant loss in banks' net worth that was compensated by the government.

Considering the different measures and effects derived from the management of the convertibility collapse and the declaration of default, between December 2001 and December 2003 the gross public debt stock increased by about 28.2 billion dollars (23% of 2003 GDP). By the end of 2003, Argentina's total public debt reached 179 billion dollars (146% of 2003 GDP).

The Public Debt Swap

In the second half of 2003 the first official steps for the restructuring of the defaulted debt were taken. In September, after reaching an agreement with the IMF, the government took advantage of the annual meeting of the IMF and the World Bank in Dubai to make public the main guidelines and the agenda of their restructuring proposal.

The "Dubai proposal" established that Argentina would offer uniform treatment to every holder of its bonds issued up to December 2001, while still fully servicing its multilateral debt and the guaranteed loans issued in 2001. The government thus recognized a defaulted stock of bonds of about 87 billion dollars. This amount left aside an important volume of past due interest. A 75% haircut was to be imposed on the bonds, according to which new bonds would issued in a swap that would leave the equivalent of a maximum amount of bonds of about 21.8 billion dollars. Three bonds, called Par, Quasi-Par and Discount, were announced. Although the detailed characteristics of the instruments were not published at the time, their outlines were clear. The Par would preserve the nominal value of the original debt but would have longer maturity and a lower interest rate than the other two. The other two bonds would entail nominal haircuts. The haircut corresponding to the Discount bond would be higher than the haircut of the Quasi-Par. The new bonds would also incorporate mechanisms—which would be specified later on—to reward the bondholders with a coupon tied to the economic rate of growth. The sustainability of the proposal was said to be consistent with a target for the primary surplus that had been recently agreed upon with the IMF (2.4% of GDP for the central government and 3% for the consolidated public sector). The government announced that it expected to maintain that target in the long run.

In June 2004, a few months after the finance ministers of the Group of 7 manifested that Argentina should accelerate the restructuring process and issue "good faith" signals, the government made public a new proposal in Buenos Aires. It was a second offer that aimed to get closer to the creditors' positions. The eligible debt was the same as the one defined in Dubai, although it was now measured at 81.8 billion dollars. In exchange for that defaulted debt stock, new bonds would be issued for a total of 38.5 billion dollars, in case the level of acceptance of the swap was lower than 70%, and for 41.8 billion dollars in case the level of acceptance was higher than the 70% benchmark. This offer involved a substantial improvement if compared to the 21.8 billion dollars to be issued according to the Dubai proposal. The swap would comprise only the capital of the defaulted bonds while the past due interests would not be recognized; i.e. liabilities amounting to 81.8 billion dollars would be exchanged for new bonds amounting to 38.5 or 41.8 billion dollars, depending on the level of acceptance.

The swap started on January 14, 2005. Six weeks later, the restructuring operation was closed. On May 3, 2005, the government announced that acceptance of its offer had reached 76.15% of the debt in default. This meant that 62.3 billion dollars of the old bonds would be exchanged for about 35.3 billion dollars of new instruments plus the corresponding GDP growth-linked coupons. The maximum amount of the issuing would be 15 billion dollars in the case of the Par bonds, 8.33 billion dollars in the case of the Quasi-Par bonds and about 11.9 billion dollars in the case of the Discount bonds.

The government expressed satisfaction at the swap's outcome. The operation signified the reduction in the public debt stock by about 67.3 billion dollars and attenuated the public finances' exposure to the exchange risk, since around 44% of the new bonds were denominated in local currency.

Macroeconomic Policy and Performance after Devaluation and Default

The abrupt fall in output and employment that the economy was experiencing since mid-1998 continued after the end of the convertibility regime, but for only a very short period. Certainly, in opposition to most opinions and beliefs—including those of the IMF's officials—the traumatic episodes that brought the convertibility regime to an end were not followed by a deeper depression. Moreover, an extraordinary quick recovery started only one quarter after the devaluation and default. The GDP recovery

started soon after the exchange rate depreciation (around three months later, as can be seen in the available monthly activity indicators).

The recovery was precisely triggered by the sudden change in the relative prices in favor of the tradable goods sectors. In the beginning of this phase the recovery was led by the local production of previously imported goods. Apart from the shift in relative prices, the quick economic recovery that followed the crisis was also a consequence of a set of policies that, still with flaws and ambiguities, aimed at recovering the basic macroeconomic equilibria.

Many of the policies that played important roles in this stage faced opposition from the IMF. Firstly, the imposition of exchange controls: this measure compelled the exporters to liquidate in the local market a considerable part of the international currency generated by their exports and also restricted capital outflows. Secondly, the establishment of taxes on exports (retentions): this absorbed part of the devaluation's favorable effect on the exporters' incomes and significantly contributed to the recovery of fiscal equilibrium; it also attenuated the impact of the devaluation on domestic prices and, consequently, on real wages. Thirdly, a flexible monetary policy: this initially enabled assistance to banks in the crisis phase and afterwards contributed to the recovery of money demand, thus helping the recovery. Fourthly, when the foreign exchange market started to show an excess supply of international currency, exchange rate policy attempted to stop the peso from appreciating through the intervention of the Central Bank (and of the Treasury later on).

The IMF particularly insisted on a freely floating peso. For a short period the government adopted this regime. Once the exchange rate was free to float, however, the parity rose abruptly, reaching levels close to 4 pesos per dollar. Reintroduction of exchange controls followed, which was crucial to contain the exchange rate overshooting. The government managed to stabilize the nominal exchange rate by mid-2002 by compelling the exporters to liquidate the international currency in the local exchange market and by limiting the currency outflows.

Soon after, when the exchange rate was stabilized, the demand for pesos started to recover and the exchange market began to show an excess supply of dollars. The end of the exchange rate overshooting put a check on the rise in the domestic prices. The freezing of public utilities rates, as well as the high unemployment (which kept nominal wages from rising) also contributed to slow the rise in prices.

The improvement in the consolidated public sector global balance that took place between 2001 and 2004 was equivalent to 10 percentage points of GDP. This result passed from a global deficit of 5.6% of GDP in 2001 to a 4.5% surplus in 2004.

Which factors explain the adjustment in the fiscal cash flow results? Forty percent of it derives from an improvement in the provinces balances. This improvement comes from the increase in tax collection facilitated by the recovery and the rise in nominal prices, together with the restraint in expenditure. Meanwhile, 60% of the six-points-adjustment in the national public sector's budget is explained by the improvement in the primary balance (+3.7% of GDP). The contraction of interest payments, basically resulting from the default on the sovereign debt, accounts for the rest (-2.4% of GDP).

The rise in the national primary surplus is mainly explained by an improvement in tax revenues (+4.7% of GDP). It is interesting to observe that although the receipts from traditional taxes such as the VAT and the incomes tax rose significantly, they did not increase substantially when measured as a proportion of GDP. Between 2001 and 2004 they increased by 1.2% of GDP taken together. The tax on exports is the item that mostly explains the rise in tax revenues. The soy and derivatives industry generated almost one half of the taxes on exports.

Hence, the public sector absorbed part of the effect of the devaluation on the profitability of the tradable goods sector, and also benefited from the high prices reached by some of the exportable goods, such as soy and oil. The contribution made by the tax on financial operations established in 2001 was also very relevant. The increase in the collection of this tax explains 30% of the improvement in total tax receipts.

The interest payments on the public debt passed from representing almost 4% of GDP in 2001 to only 1.4% in 2004 (without taking into account the accrued interest on the debt in default).

However, the fiscal effects of the suspension of part of the debt service payments are significantly higher than what is shown in the mentioned account. It can be estimated that the amount of interest on the public debt—valued at the 2004 exchange rate—would have represented, in that year, between 9 and 11 percent of GDP. This is approximately equivalent to one half of the total tax collection of that year. Paying that amount would have certainly been incompatible with the economic recovery. As was pointed out above, a crucial aspect of the fiscal financial vulnerability derived from the extremely high proportion of debt in foreign currency, with the

consequent exposure to the impact of exchange rate variation. The substantial exchange rate depreciation in 2002 would have had a harsh impact on the public sector's financial equilibrium. Taking this into account, it can be said that the payment suspension and the following debt restructuring enabled a considerable amount of fiscal savings—either measured in domestic currency or as a proportion of GDP.

However, the most important effect of the default and the end of the convertibility regime was regaining the instruments of macroeconomic policy. This was of crucial importance in moving the economy out of the abysmal situation generated by the agony and the final collapse of the convertibility regime.