**The National Bureau of Economic Research**

**Program on Exchange Rate Crises in Emerging Markets**
**Martin Feldstein and Jeffrey Frankel, Directors**

# The Argentina Crisis

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**Sebastian Edwards and Jeffrey Frankel, Organizers**

**Report: Romi Bandura and Anne Le Brun**

## Introduction

The most recent of NBER's country sessions on exchange rate crises in emerging markets was held in Cambridge, on July 17th, 2002. With Argentina still reeling from the impact of the devaluation and the default, and with its recovery path still undecided, the meeting took a certain sense of urgency. Many of the themes that dominated the discussion at previous country meetings reappeared in the case of Argentina—the roles of the fixed exchange rate, a weakened banking system, politically-driven policy decisions, and fiscal irresponsibility. But the Argentina crisis also sparked a new debate, on the viability of an exchange rate regime previously broadly lauded, the currency board.

The meeting drew a large number of high-ranking former Argentine government officials, including the architect of the currency board, Domingo Cavallo, members of the current U.S. government, officials from international organizations, including the IMF's First Deputy Managing Director, Anne Krueger, financial market participants and academics focused on the field international financial markets. The conference was divided into four sessions. The first three sessions aimed at understanding the causes of and the lessons to be learned from the crisis, from three different perspectives: 1) the banking sector, 2) the hard peg, and 3) debt. A final panel considered 'desperation remedies' that were adopted or discussed during 2000-2002, and attempted to look forward.  Each session started with comments from four distinguished panelists, followed by a general discussion and closing with responses from the panelists to the debate.

## Session 1: Banking

**Chair**
*Jeffrey Frankel*

**Panelists**
*Guillermo Mondino, Formerly Secretary of Finance, Argentina*
*Miguel Sebastian, Grupo BBVA*
*Allan Meltzer, Carnegie Mellon and American Enterprise Institute*
*Eduardo Levy-Yeyati, Formerly Central Bank of Argentina*

**Guillermo Mondino** opened the session by stressing that in 2000, the Argentine banking sector was a model for emerging markets, as a result of the great strides of the 1990's, namely in the area of prudential regulation. With the recognition that the strength of the banking sector is in direct correlation to the strength of its debtors, Mondino stated that the regulators' efforts to reform the Central Bank charter in 2002 centered on the topic of restoring credit. In Mondino's view the following four major threats to the system were recognized neither by Argentine regulators nor by the international community:

- The magnitude of balance sheet effects arising from devaluation and debt deflation in a highly dollarized financial sector. Mondino pointed to Nouriel Roubini's year-end 2001 paper as one of the first to bring this topic to public discussion (please refer to http://www.nber.org/~confer/2002/argentina02/roubini.pdf for the full paper).
- The treatment of government securities as risk-free instruments.
- The false sense of security produced by foreign banks in local investors. Mondino remarked that the foreign banks appear to have been more procyclical in lending, quicker to reduce their exposure to international credit lines, and less willing or able to raise liquidity and remain engaged in preserving the payments system. The lesson was that no emerging market should go out of its way to attract foreign banks and that the capital strength and liquidity of important financial players, whether domestic or foreign, should be carefully supervised.
- The absence of an efficient payments system, which could withstand regulator intervention in a group of weak banks.

In conclusion, Mondino argued that these four threats were grains of sand in comparison to the mountain of atrocities related to asymmetric pesification and political maneuvers against banks, but it is from these grains of sand that other emerging markets with dollarized financial systems can learn lessons.

**Miguel Sebastian** followed with a more forward looking presentation. His statements centered on the idea that the choice of exchange rate regime going forward will to a great extent dictate the type of reforms necessary in the banking sector. He urged more decisiveness from the government in choosing an exchange rate regime, and outlined three main dimensions along which reform of the banking sector ought to be considered, namely:

- Property rights. First, property needs to be well defined: pesification did not confiscate people's deposits, but rather the gains to people from the devaluation.

Second, property needs to be sustainable – in Argentina, real wages and pension benefits could not be maintained. Finally, given that the banking system was long in dollars before the devaluation, Sebastian wondered if Argentina should be clamoring for its supposed gain from the devaluation in that respect.

- The role of foreign banks. If foreign banks are asked to act as lenders of last resort, this will signify the end of foreign investment in the Argentine financial sector.
- The Room that exists now for money creation. Sebastian pointed to the fact that at 16%, the ratio of M3 to GDP has dropped back to 1996 levels. Thus, in Sebastian's view, there is no excess money creation today, rather there is room for money creation

With these three topics in mind, Sebastian suggested that a plan to save the banking system should combine Central Bank facilities to inject fresh money into the economy and lift the corralito on saving and checking deposits, while instituting a compulsory swap for time deposits. To address the solvency question, the banking system needs three compensatory bonds (1. for asymmetric pesification, 2. to compensate for legal action procedures and 3. to compensate asymmetric indexation to inflation).

To conclude, Sebastian argued that the FX regime that would beset underpin the banking system reforms would be a float with a restored lender of last resort function, complete pesification, and an independent Central Bank. To convince the audience that there is hope of demand for pesos, Sebastian pointed to the high demand for high interest rate peso notes, and the preference in the market, for "Mickey mouse money" versus pesos.

**Allan Meltzer,** less convinced about the demand for pesos, focused his remarks on the issue of transition from instability to stability, namely through the Meltzer/Lerrick proposal (please see http://www.carnegie-rochester.rochester.edu/April02-Pdfs/Blueprint_after_Comments.pdf for full paper). In his introduction, Meltzer noted that the banking system worked well until de la Rua/Cavallo "stuffed government bonds" into banks and defaulted. The subsequent asymmetric revaluation of bank assets and liabilities, and recent efforts by the government and the IMF to impose a bond swap on depositors, has worsened matters. Meltzer stated that the government today blames foreigners and/or the IMF for Argentina's troubles, and echoed Cavallo's previous evening dinner comments in saying that Argentines want to hold dollars.
Against this backdrop, Meltzer brought up in four points his and Adam Lerrick's December 2001 deposit receipts proposal, as a consistent, coherent, "homegrown" plan for Argentina's transition:

1) During the transition, the public should not be allowed to withdraw deposits, but should be able to obtain transferable deposit receipts, which would act as currency, exchangeable into dollars at a market FX, and which would enable the money stock to be maintained.
2) The Central Bank should not finance deficits. Eventually, a stable or later a floating exchange rate could be established but during the transition base money should only be allowed to rise by the amount of the interest payments received on

banks' CD investments. In Meltzer's view, the Peronistas' original plan for a dual exchange rate was aimed to open opportunities for corruption and favoritism.

3) The Government budget would have to be balanced at all levels.
4) The banking system's net worth would have to be restored somehow. Meltzer argued that to date, the efforts on this front have discriminated against foreigners by planning to offer Central Bank funding to local banks on the one hand, but to tell foreign owners that they will just have to put in more capital. In Meltzer's view, this approach would raise serious questions in the minds of foreign investors about the desirability of investing in Argentina, even under favorable market circumstances, pointing as it would to a weak legal system.

Meltzer concluded that after the transition, whether the government chooses to fix or float, it would have to accommodate what Cavallo accurately perceived as Argentines' wish to hold dollars.

**Eduardo Levy-Yeyati**, more in support of strengthening the use of the peso rather than falling back on the dollarization option, emphasized a currency-growth-debt trap story, with the root of the Argentine crisis lying in the convertibility system. To his mind, the currency board of 1991 was a shortcut through which important vulnerabilities were downplayed. Thus precautionary fiscal and financial measures that should have been taken in the boom years were wrongly postponed. Levy-Yeyati mentioned two vulnerabilities in particular: the lack of flexibility of a currency board to adjust to external shocks, and the currency imbalance generated by financial dollarization. Given the close link between the borrowed credibility of the currency board, and its exit costs (directly linked to the costs of devaluation on public and private solvency), it was not surprising that if exit was decided, or if the public suspected an exit intent, the banking sector would fall, and default would come.

Turning to the future, Levy-Yeyati pointed to the need to act on two fronts:

- Banking crisis resolution, through for example a process of securitization of outstanding deposits.
- Banking sector re-design. In this arena, Levy-Yeyati advocated conventional approaches, rather than the creative alternatives that Argentina has in the past seemed to inspire in economists. After the crisis, only the functions of asset management and payments system will remain, and the big question will be how to generate domestic credit. Levy-Yeyati argued that the payments system could be structured around the peso, as Argentina historically suffered an asset but not a currency substitution process, and displayed a sizeable transactional demand for the local currency even in the midst of the crisis. On the other hand, he expressed skepticism at the ability of re-dollarization to erase some of the ills that resulted from pesification and facilitate long-term onshore financial contracts.

Finally, Levy-Yeyati discarded both offshore and narrow banking as options that would not answer the question of generating domestic credit. Levy-Yeyati closed by insisting on the need to strengthen the peso by strengthening monetary and financial institutions, and on the uselessness of departing from the universal banking scheme if the country is to choose the peso as its currency for financial intermediation.

## General Discussion

**Jeffrey Frankel** opened the discussion by posing what he viewed as the two central questions for this topic:

1) There was a tendency to think that the domestic participation of foreign banks would allow Argentina to dispense with the lender of last resort function; was that a mistake? And what have we learned about the implications for banking in countries that give up their currencies?
2) Was it necessary to freeze deposits, and how can Argentina get out of this situation now?

**Andrés Velasco (Harvard University, NBER)** recalled his and Chang's four year old paper which states that a currency board precludes the lender of last resort function (please see http://papers.nber.org/papers/W6606 for abstract and link to complete paper). Rudiger Dornbusch at the time had countered that in fact capital markets were the lender of last resort. More recently, the view has emerged that banks are actually the suckers of last resort, and finally, Velasco pointed to Sebastian's comment that suggested that in fact foreign banks never intended to be the lenders of last resort. Which of these three views, Velasco wondered, could be true?

**Mike Dooley (UC Santa Cruz, NBER)**, agreeing with Sebastian, commented that the fundamental reform problem is that it is impossible to enforce property rights when there's no property. Dooley commented on the impossibility of a loss allocation function from a political point of view and suggested that the only way out of the dead end was to find an outside agency with money to "bribe" various interest groups to accept their losses.

**Larry Kotlikoff (Boston University, NBER)** defended the existence of offshore banks as a way to promote domestic credit creation: if everyone held an offshore account at a major bank ensured by a reputable government, currency and banking risk would be eliminated, and country risk significantly lowered. Banking runs would effectively be eliminated. Interest in investing in Argentina would rise. Kotlikoff supported Dornbusch's insistence on importing institutions from abroad, and echoed Dooley's call for solving the property problem through outside help.

**Kristin Forbes (MIT, NBER)** commented on one solution to the failed voluntary swap that none of the panelists had suggested, namely a graduated tax on deposit withdrawals, steeply declining over time. This alternative would return some degree of choice and freedom to individuals, would increase people's willingness to wait to have access to their accounts, would leave money in accounts and therefore reduce pressure on the banking system, and would provide the government with tax revenues.

**Sebastian Edwards (UCLA, NBER)** wondered, if the original bank run centered only on three state banks and one private one, why the administration did not focus early action (such as privatization) on those banks, rather than apply a system-wide corralito, which created an automatic collapse in demand for money. Edwards went on to agree with Dooley on the need for an outside actor. He however noted that no such player with money exists, and that an equity swap needs to be developed which will entice Argentines to bring money back to the country.

**Peter Garber (Deutsche Bank, NBER)** echoed the idea that relying on foreign banks as lenders of last resort was doomed to fail. Garber then focused on the theoretical debate between branch banking versus subsidiaries. In one case, the government "rams a tank through the vault" of assets, in the other, the bank's capital is hit. Garber pointed out that this is a problem in many other countries in the region.

In line with Mondino's remarks, **Nouriel Roubini (New York University, NBER)** stated that supervision was of no help when, in the face of a real shock, a real depreciation was necessary, because at that point, households and firms went bankrupt, the banks that lent to them went bankrupt, and government-secured deposits were worthless. Once the banking sector is inevitably insolvent, the problem of loss allocation becomes a political one.

**Barry Eichengreen (UC, Berkeley, NBER)** noted that it was important to diagnose the cause of the banking crisis – did it come about because of the corralito and asymmetric pesification, or did the devaluation cause it?

Echoing Roubini's thoughts, **Michael Mussa (Institute for International Economics)** stressed the absence of the good collateral necessary for a lender of last resort function, even before the Duhalde regime. Thus, the fundamental problem, rather than the absence of a lender of last resort, was that the government was insolvent. Mussa then commented that offshore banks have an important role in facilitating business transactions in Argentina, and that the government would do well to legalize a practice that already takes place on a substantial scale today.

Touching on Edwards' differentiation of state banks and private banks, **Alan Taylor (UC Davis, NBER)** noted that Argentina has had a two century history of politicized lending (whether to the private or public sector), and this has allowed weak banks to persist in the system, rather than being closed or privatized, or restricted to narrow banking.

**Domingo Cavallo (former Economics Minister, Argentina)** stated that the Central Bank should have imposed restrictions on lending to the provinces in 1997-2000, because this credit expansion was at the source of the later "bond stuffing" referred to by Meltzer. Cavallo noted that his government regrettably did not have time to implement its plan for a regulation for provinces which would mirror the United States' Chapter Nine regulation for municipalities.

**Ricardo Lopez-Murphy** stressed that Argentina's key problem was the increase in debt-financed public spending and the regulations that allowed these excesses. Regulations inadequately accounted for the risk posed by rising debt because public debt was calculated using a very low exchange rate rather than one sustainable in the long run. In allusion to Mondino's presentation, Lopez Murphy argued that with a fixed exchange rate, money is demand-determined, and therefore, the Central Bank was incapable of cycle smoothing through the manipulation of liquidity requirements (one of the second order questions that Central Bank had been considering when the crisis erupted). Lopez-Murphy concluded by stating that very high liquidity requirements, in foreign financial systems, are necessary in an economy with dollarized banking liabilities.

**Anoop Singh (IMF)** stressed that until the public understands that real value has been eroded from deposits, the corralito issue will remain unresolved. Singh then made two points on banking reform: one – that the weakness of public sector banks needs to be addressed, and two – that the Central Bank must, in law and in practice, be truly independent.

**Edwards** echoed Singh's point and again asked for the political economy and economic reasons why the problems of the public banks were never tackled.

**Stanley Black (University of North Carolina)**, contested the suggestion that the drop in M3/GDP pointed to room for money growth, arguing instead that this pointed to lack of money demand, and that the real issue was finding a way to rebuild credibility for demand of some type of money.

**Pedro Pou** responded first to the statement that there was too much public debt to defaulted states, arguing that in fact, total public debt to total credit in the financial system stood at only 16% for most of the convertibility period, and that with very reasonable growth rate assumptions, the debt to GDP ratio could be maintained constant, thus negating the likelihood of a debt explosion. Second, responding to Eichengreen's comments on the depreciation of domestic credit, Pou pointed out that given that Argentina held more than double Basle's capital requirements, a devaluation would pose no problem. Indeed, considering the underlying assets, the banks had a net negative position in dollars, but even then a 40% devaluation would leave the banks at the Basle-required capital levels. Finally Pou agreed with Mussa on the impossibility of a broke government acting as a lender of last resort, mentioned that the intent was not to have foreign banks take the government's place here, and stated that in hindsight, it would have been better to require 100% liquidity in the payments system, but that politically, that would have impossible.

**Fernando de Santibañes (Liberty Foundation)** answered Edwards' public banks question by saying that on the one hand these banks were the lender of last resort (to the national and the Buenos Aires governments) and on the other, they made political deals with the private sector.

**Mario Blejer** stated that opening the corralito is the most pressing problem today. Alluding to Sebastian's comments on the acceptance of government bills recently, Blejer suggested this was due to control exerted on the exchange rate, absent which there would be no demand. The direct implication of this is that the corralito cannot be opened without dealing with the issue of exchange rate regime. Second, Blejer noted that the Central Bank had previously toyed with Meltzer's idea of deposit receipts, but the idea had been a non-starter, because the private (and some public) banks had showed loud opposition, on fears of the receipts trading at different levels for different banks.

Contrary to Edwards' suggestion that the corralito was an alternative to closing a few banks, **Dooley** argued that it was a way to defend the exchange rate in the face of capital flight. **Edwards** interjected that he had merely voiced the storyline Mondino had given him, and that it would be interesting to hear which of the two versions was true. **Cavallo** intervened at this point, clarifying that it is important to distinguish between the earlier and later corralitos. The January deposits freeze should clearly only apply to banks under restructuring, because the legislation makes such a freeze legal only on a bank by bank basis. The December corralito was a system-wide law because the demand for cash was a generalized phenomenon, not one confined to a few banks.

**Mondino** responded to the discussion on three fronts. The Pigouvian tax appeared politically unrealistic to Mondino as Forbes suggested it, but with lower rates and a Meltzer-type cleanup of the banks' balance sheets, Mondino viewed it as a good approach to regulatory reform. With regards to Eichengreen's question on the banks' ability to withstand devaluation, Mondino echoed Pou's thoughts on the high capitalization of the banks, and mention that it would have been less costly for the government to directly compensate some of the losers in the system, rather than to enter pesification, once the devaluation was decided. Finally, on the topic of selective intervention in banks, Mondino stated that the government knew that restructuring the public banks was important, but by November, the government's political strength was waning. When the implicit coup on the government originated in Buenos Aires, close to Banco Galicia, the solution was to go for an accelerated debt restructuring, but ex-post, it is clear that dealing with just these banks would have been easier.

**Sebastian** similarly touched on three issues raised by the discussion. Regarding the question of the interpretation of a drop in M3/GDP, Sebastian argued that if Argentina wants to float the currency freely, it will need to create demand for pesos. Second, on Eichengreen's point, Sebastian agreed with Pou that the banking system was ready to absorb a 40% devaluation, and the real problem was the way that the devaluation was conducted (the asymmetry, the fact that foreign banks were not even approached). Finally, Sebastian tied this in with Velasco's question on the lender of last resort, accepting that when assets are worth nothing, the lender of last resort function is impossible, but also noting that the bank run in Argentina was intensified by the broad media coverage that it was given.

**Meltzer** first agreed that Argentina had no lender of last resort function, although there were opportunities. For example, before the Tequila Crisis, the government created forward contracts – the lesson was to go to capital markets before the crisis hits (here, Meltzer mentioned Anna Schwartz's paper). Finally Meltzer brought up what in his view were important elements that were never raised in the discussion: some banks were already weak in June 2001, and were further weakened by the compulsory debt restructuring (notably with the falling value of the bonds over time). When it became clear that it would be politically impossible to close the deficit and an IMF bailout was not on the way, bond prices fell sharply as markets anticipated default. The deposit receipt proposal was well received by the public, and was in fact rejected by the foreign banks. There was a concern that the deposit receipts scheme would also require dealing first with the weak banks, but this would have been true of any proposal. Meltzer concluded by pointing to the increased competitiveness that Argentina now enjoys as a result of the devaluation, and by the incentive that his proposal would give people to get back into the economy, by supplying a medium of exchange.

**Levy-Yeyati** stated, with reference to the distinct roles of the corralito, that Argentina suffered a currency run, not a bank run, and that therefore, to focus too much on the problems of the public banks and Banco Galicia was fruitless. He closed by agreeing with Mussa that offshore banking facilitates transactions between residents outside the borders, but countered that these illegal deposits are attractive because they are tax free. For this reason, and because it fails to address the issue of credit creation, offshore banking cannot be very helpful.

## Session 2: The Hard Peg

**Chair**
*Andrés Velasco*

**Panelists**
*Pedro Pou, Former Head of Central Bank of Argentina*
*Alberto Ades, Goldman Sachs*
*Edwin Truman, Institute for International Economics*
*Kristin Forbes, MIT and NBER*

Session chair Velasco opened the session by posing two main questions: 1- Was the exchange rate an issue or not? And 2- What type of exchange rate regime should be in place now?

The main thrust of **Pedro Pou**'s presentation was that convertibility was a success, and that Argentina ended up in a crisis because in a multiple equilibrium scenario, political strains brought about a bad equilibrium. On convertibility, Pou suggested that it provided a stabilizing link to American institutions and thus allowed Argentina to focus on important reforms (such as privatization, trade opening, independence of Central Bank, consolidation and improvement of the fiscal situation), although Pou recognizes that several reforms were not completed (namely in labor markets, in tax sharing, and in the judicial domain).

1999 was the turning point. Pou suggested that much as had been the case in the Tequila and Russia crises, it initially looked like Argentina could recovery from significant external shocks. Growth and industrial production began to recover, EMBI spreads and the forward rate of the peso dropped again. Thus, Argentina was on a good path, but Pou argues that the country's vulnerability to a change in market confidence and to political shocks brought it down. With a public debt summing to 43% of GDP and a private debt equivalent to 12% of GDP, alongside a fiscal deficit of 2.6%, fears of debt unsustainability grew, at the same time that the new de la Rua administration showed it did not have control over the Alianza and the Radical party (the UCR, his own party). As a result, the country moved from a good equilibrium to a bad one.

In answer to Velasco's second question, **Alberto Ades** stated that dollarization in Argentina is almost inevitable. Ades could not imagine the prompt development of prudent fiscal and monetary policies, trade liberalization and other measures necessary to restore confidence and create the conditions for the adoption of the peso as a store of value and vehicle for sovereign and corporate borrowing. If the government insisted on a floating peso, the resulting mismatch in sovereign and corporate balance sheets would be very hard to live with. And if the government continued to de-dolarize the economy, the financial system would never recover. Such a trade-off made the adoption of the US dollar a reasonable compromise.

Ades then alluded to Velasco's first question by stating that even though he believed dollarization almost inevitable, this question should not be at the center of discussion. In Ades' view, the great failures in Argentina were neither convertibility or the pro-cyclical fiscal policies supported and financed by the IMF, but rather the model of closed-economy, rent-seeking capitalism, combined with a feudal political establishment where decisions are taken by the president and a bunch of governors, endorsed by Congress and acquiesced by the judiciary. This description of Argentina explains the repeated bailout of entrepreneurs by the government, and the inability of the country to breed a pro-business, pro-capitalism political party.

Ades argued that as long as such type of economic organization existed, the name of the game in Argentina will continue to be who to bribe or influence in exchange for rents. In such an environment, the choice of exchange rate regime is of little importance. Ades closed with a proposal for three main reforms: 1) trade liberalization, 2) co- participation reform to align taxing and spending decisions, and 3) political reform to increase competition in the election market.

**Edwin Truman** addressed four questions in turn.

1) Was the currency board a success? In Truman's opinion it was, but it was not a magic solution. Although it was initially sold as a tough mechanical monetary policy, policy was never actually run that way, and thus the system provided a false sense of security. It was not a real hard peg.

2) Has the approach been discredited? In short, yes. Truman, never a proponent of the strong peg end of the bipolar view, believes hard pegs do not eliminate currency or credit risk, and wondered how well the constituent members of the Euro will withstand its current strengthening trend.

3) Truman acknowledged that dollarization was and is always an option, but asked whether it is an option that would have and will solve the country's problems. By 2001, Truman believes it was too late in the game for dollarization to have helped in any way to resolve Argentina's problems; it would not have changed the political calculus that was required to put in place the tough measures that would have been required to sustain either the currency board or dollarization. Turning to the future, it is a possible alternative if all else fails, but it is not one that is politically or economically best suited for Argentina in the long run on the assumption that Argentina can reasonably successfully operate under a more flexible system.4) Would a basket peg have been better? Probably, but the decision to adopt a basket peg would not have been straightforward, because it was a choice that involved politics too. It would had to occur much earlier than 2001, and it also would not have offered a magic solution to Argentina's economic challenges.

Truman ended by agreeing that the exchange rate regime is in any case but one of many reforms that need to happen now and the choice should not be viewed in isolation from other important choices for Argentina..

**Kristin Forbes**, noted that speakers on this panel were arranged according to the spectrum of possible exchange rate regimes: the panel opened with a pro-dollarization argument from Pou, and now it was closing with her pro-floating stance. Like Truman, she focused on four questions:

1) What does Argentina teach us about the successes and failures of currency boards? The currency board was initially a success in achieving price stability and in rebuilding confidence in the economy. Over time, however, the currency board helped generate an overvalued exchange rate, partially responsible for the large current account deficits that needed to be financed from abroad and increased the likelihood of a crisis (see the Calvo, Izquierdo and Talvi paper). Most important, Argentina's experience with a currency board showed that this exchange rate arrangement will not prevent bank runs, or impose fiscal restraint—a key macroeconomic imbalance causing the crisis.
2) Could dollarization have helped to avoid a crisis? Not in Forbes' opinion. Some argue that earlier dollarization would have brought fiscal restraint, but recent Argentine behavior, namely printing quasi-currencies, suggests that dollarization before the crisis would have been dealt with in a similar manner. Dollarization would also not have provided a lender-of-last resort to avoid the bank runs, and would have only had a minimal impact on sovereign spreads (since the majority of risk was default risk rather than currency risk). Forbes pointed to Ecuador as a

prime example that dollarization can not avoid a crisis if the government does not adopt responsible fiscal management

3) Is dollarization feasible? Before the devaluation, there were not enough reserves to dollarize. Now dollarization would be possible, because existing reserves cover the depreciated currency in circulation, including the quasi-currencies, although this would leave little reserves for economic management. (Dollarization would not be possible if the government also wanted to cover bank deposits).
4) Is dollarization desirable? In Forbes' view, no. While it would deliver some benefits (such as lower interest rates and improved price stability), in the long run, it does not best suit Argentina's interests. It would void the possibility of a lender of last resort to help rebuild the banking system; it would decrease the country's ability to adjust to external shocks; it would not necessarily address Argentina's lack of fiscal restraint; and it does not satisfy any of the traditional Mundell Fleming criteria for Optimum Currency Areas. A flexible exchange rate will be crucial in providing Argentina with the flexibility to maintain export competitiveness and adjust to external shocks—two factors critical to support growth over the long run.

In conclusion Forbes stressed her view that Argentina should float with a credible monetary policy. In any case, she hoped the country would avoid devaluation and then dollarization, as to do both would provide the country with devaluation's negative short run effects (balance-sheet effects, destruction of property rights, etc), and dollarization's negative long run effects (such as a loss of flexibility).

## General Discussion

**Andrés Velasco**, opening up the floor for discussion commented that 1997/98 was a good moment to exit the peg, but because "the people" did not want to exit the currency board, nothing was done. The subsequent crisis proved the dangers of listening to the mob. Should Argentina now dollarize simply because "the people" want it?

**Federico Sturzenegger (Universidad Torcuato di Tella)** started with a different perspective on the issue of competitiveness. If economies are competitive because of labor costs, capital costs and property costs, then the devaluation which lowered Argentina's labor costs does nothing to enhance competitiveness if property rights are no longer respected. Sturzenegger contrasted today's situation to the post Tequila period, when capital flowed to Argentina because of the enhanced competitiveness that secure property rights at that time implied. Sturzenegger then drew another contrast: in May of last year, recognizing the difficulties behind changing the exchange rate without a strong fiscal anchor, the government proposed the zero deficit rule, in order to inspire confidence in the peso. Now, there are not many options left. Argentina has no credibility to return to convertibility. Agreeing with Forbes, Sturzenegger discarded dollarization, and argued that the country must give the peso a try, with a clear focus on the fiscal issue.

**Michael Bordo (Rutgers University, NBER)** reminded participants of a Financial Times article which he had written last year with Roberto Chang which likened the situation in Argentina to that of countries on the gold standard during the Great depression. In 1933 after 4 years of depression, Franklin Roosevelt cut the link with gold, devalued the dollar and abrogated the gold clauses. We advocated that Argentina do the same thing. We also compared Argentina's experience to that of France and other members of the gold bloc after the UK and US had left the gold standard. Like Argentina, they clung to gold in the face of massive deflation and depression. Bordo stated that the only solution for large countries, such as Argentina, is to float and to develop institutions that would foster stable monetary and fiscal policies.

**Guillermo Perry (World Bank)** noted that the peg concealed the severity of the fiscal problem and masked the weaknesses in the financial sector, thereby contributing to the delay in taking corrective actions. Indeed, the large currency overvaluation accumulated by end 2000 (around 40% according to his paper with Serven), implied that public debt/GDP ratios were undervalued by a similar percentage and that many apparently healthy households and firms in the non tradable sectors with dollar debts were actually broke. The nominal devaluation in early 2002 just revealed these hidden problems (and exacerbated them due to the overshoot). Perry also wondered how it was possible that a country with very weak fiscal and monetary institutions thought that there was a viable short cut to its credibility problems by adopting a regime (the convertibility law) that would require stronger than usual (fiscal and prudential) institutions to succeed. The exit from the currency board should have indeed taken place in 1996-97, but who wants to leave the party at its best?

**Roberto Chang (Rutgers University)** repeated the theme that the exchange rate regime is not the only important choice, stating that his and Velasco's intent was to argue that the currency board merely increased the vulnerability of the banking system, and the liabilities of the government. Chang questioned the premise of the discussion – was convertibility really a success in 1991? Peru, through fiscal efforts, brought matters under control, from the 1990's to today, without a currency board.

**Steve Radelet**, following up on Perry's questions asked 1) what we have learned about exit strategies, and 2) how Velasco's dilemma could be resolved, namely how could one get out of a system which was a short term success?

**Larry Kotlikoff** disagreed with Forbes, arguing that Argentina's long history of institutional weakening was impossible to overcome, and that dollarization and euroization would at least skirt this issue – the idea being that if the government cannot have healthy institutions, it should minimize the number of institutions it needs to function. If the country then encouraged offshore banking, it would avoid bank run concerns, thereby leading to a significant drop in country risk. Kotlikoff rejected the notion that this is merely a fiscal problem.

**Linda Goldberg (Federal Reserve Bank of New York and NBER)** returned to the question of exit strategies – if hard pegs are inherently unsustainable in the long run, but in the short and medium run they provide a forum for reform, how does the country devise an exit strategy, when fiscal reform has not yet taken place, short of a crisis?

**Ernesto Schargrodsky (Universidad Torcuato di Tella)** wondered whether after the Brazil elections, a Mercosur monetary union would provide more credibility and thus stability.

**Barry Eichengreen** argued against exchange rate-based stabilization plans overall. He disagreed that the problem with convertibility was not exiting the plan earlier, and mentioned that he could only point to two countries, Poland and Israel, where exit had been smooth. Argentina provides a clear example not just of the economic but also political difficulties of achieving a smooth exit. Furthermore, Eichengreen disputed the idea that exchange rate-based stabilization promotes fiscal reform, and mentioned that Stan Fischer's belief that disinflation can in this manner be achieved at a lower cost may be wrong, because the costs may merely be pushed out to the long run.

**Stanley Black** made two points. First, he expressed surprise at Pou's statement that the currency board had achieved Central Bank independence – it was certainly dependent on the balance of payments. Second, Black downplayed the relevance of Kotlikoff's proposal as only relevant to the elites, who already have offshore accounts, and pointed to a seeming bias of all solutions in favor of the elites.

**Ricardo Hausmann**, much in line with Eichengreen, interjected that it was wrong for the participants to assume that merely because there was a problem there would be a solution – perhaps there was no exit strategy in 1996-97. In 1997, with 70% of deposits in dollars, 100% of public debt in dollars, and all lending in dollars, would devaluation have worked even then?

**Domingo Cavallo** emphasized that convertibility was just the formal recognition of what was already in Argentines' consciousness: before 1991, people already transacted and saved in dollars. Only inflation was registered in terms of australes, and it was high, because there was no demand for australes. It was only when the peso was linked to the dollar that demand for pesos was born. Thus, today, there has to be a local currency to calculate inflation, but it must be linked to a credible basket of currencies. This local means of exchange can float, but only between bands, so that it is never weaker than the weakest currency in the basket. Cavallo reiterated that the idea behind his proposal for a dollar and euro basket had precisely wanted to address the problem that Argentina cannot have any credible monetary policy.

**Pedro Pou** started his response to the discussion by differentiating between two roles for dollarization – on the one hand, it can serve to lock in political reforms, as was the case in El Salvador, and was an option for Argentina in the 1998-2001 period, and on the other hand, it can serve as an instrument for crisis resolution, as in Ecuador. The problem with speaking about exit strategies in the case of Argentina is that one is implicitly then assuming that convertibility was a stabilization policy, rather than an institution-building tool, which promoted property rights, as Sturzenegger pointed out.
Finally, with regards to the issue of a 40% devaluation on the banking sector, Pou recognized that the banks had weaknesses that were off-balance sheet, but even when Pou

took account of the assets underlying the loans, it would take a 70% devaluation to wipe out the existing capital.

**Alberto Ades** reframed Argentina's problem today as one of constrained optimization: given the constraints in Argentina, and based on the country's history and people's tastes, is it right to impose as currency the peso, like the current administration is doing? Ades then suggested that Sturzenegger's comments on competitiveness carried very much weight, as the share of labor in exports is only 8%, and in fact, in 2001 private sector wages fell, so that the issue of wages was one that was much more relevant for the public sector. Ades, in a further effort to convince participants of the importance of openness, alluded to Hausmann's and Velasco's, and Calvo's and Talvi's work in proving that with an open capital account, exchange rate adjustment to shocks will be all the more difficult without an open current account. Finally, Ades reacted to the idea of offshore accounts as an elite-biased solution by arguing that non-elites already have their money under the mattress, and barring offshore accounts in no way promotes the return of funds to the banking system.

**Edwin Truman** made three main comments on the discussion. First, the choice of exchange rate regime, or the promotion of an independent Central bank, only solves part of the monetary question. Simple solutions are not enough; policies must be consistent and coherent. Second, alluding to Radelet's exit strategy questions, Truman noted that while 10 years ago an exchange rate-based stabilization strategy was deemed feasible, the recent track record is not encouraging: Truman mentioned only one recent successful example, Colombia, and noted that countries such as Turkey failed to succeed, despite a pre-announced exit strategy. In response to the idea of a Mercosur monetary union, Truman joked that it reminded him of two drunks walking down the road, holding on to each other for mutual support.

**Kristin Forbes** closed the session by first recognizing that there is no easy answer on how to "exit when the party is still good," then arguing that pegging to a basket would only undermine Argentina in the future, as it would not provide fiscal or exchange rate credibility. Forbes pointed to the circularity that fiscal restraint is closely linked to monetary and exchange rate credibility, and Argentina showed us that fiscal credibility is crucial in order to be able to peg successfully. So if a country has already attained the fiscal (and therefore related monetary and exchange rate stability) necessary to peg, why is pegging necessary? In contrast to Ades, Forbes argued that Argentina needs to stop focusing solely on short-term, quick fixes and instead transition to thinking about what is best for long-run economic recovery.

## Lunchtime Address, Anne Kruger, First Deputy Managing Director, IMF

**First Deputy Krueger** broke her lunchtime presentation into three main parts: she first sketched a diagnosis of what went wrong in Argentina, then turned to the lessons that can be drawn for the IMF, and finally closed with comments action steps that can help Argentina get "back on track" now.

To answer what went wrong, Krueger pointed to the IMF's opinion that a fixed exchange rate leaves a government with fewer options on the fiscal and monetary fronts in the event of an external shock. The mounting overvaluation, the strong dollar, the lack of policy flexibility thus left Argentina quite vulnerable. Furthermore, Argentina ran fiscal deficits as of 1994, even during the boom years of 1996 and 1997, due in large part to the provinces' irresponsibility. During the early 1990s' the country got into the bad habit of funding increasing personnel expenditures through privatization receipts, with public sector personnel expenditures rising to a very high percentage of GDP.
In Krueger's view, although a debt to GDP ratio of 41% is by no mean exorbitant, especially in relation to Maastricht guidelines of 60%, if a country is developing, has a fixed exchange rate and low revenue generating capacity, and its debt is mostly foreign currency denominated, a debt ratio even of 41% of GDP can be a dangerous level.

In asking what the IMF did wrong, Krueger acknowledged that the Fund should have been more forceful on pushing reforms during the good years, but stressed that it is difficult to impose "good advice" when a country, in a boom year, is benefiting from significant capital inflows. As far as the appropriate exit time for convertibility is concerned, Krueger suggested that while it is easy to say that an appropriate time might have been three years after its establishment, once credibility was gained, or in 1996-97, she agreed that it is much easier to comment ex-post than to act ex-ante.
Krueger stressed that each IMF member country chooses its own exchange rate regime, but the IMF only supports those with "reasonable chances of success." When things went wrong in 1999, the Fund had the option of refusing to lend absent fiscal reforms, but the feeling was that in doing that, the Fund was setting itself up to be blamed when the country inevitably defaulted. Thus, arguing that it had reasons for optimism in Argentina, the Fund gave the country a package. Krueger interpreted what went wrong then as a combination of factors: lax fiscal policy, unfavorable external shocks, overvaluation, and an unsustainable debt problem. From this, the IMF has learned some key lessons: 1) the Fund should have focused more on debt dynamics, 2) currency bands are not as durable as one may think, especially if unaccompanied by good policy, 3) emerging markets may need to be more conservative with external debt than previously thought and 4) the international community needs to make it easier to exit from unsustainable debt dynamics.

Summing up the lesson for the IMF, Krueger stressed that it is important that the Fund become more persuasive with its policy advice even in years when member countries do not need to borrow. Perhaps more importantly, the IMF needs to look at how far it should go in supporting a government firmly committed to something for which the chances for success are not convincing, and at what probability for success is required for the Fund to be comfortable in its support of a policy.

Krueger listed eight immediate challenges facing Argentina now:

- there is no indication of GDP recovery
- inflation summed to 30% in the first six months of 2002 (as measured by the CPI)

- liquidity is a problem (year over year currency issuance is up from 20% last December to 26% in the first six months of the year)
- a 4% fiscal deficit
- the current account is in surplus, but reserves stand at only $9.3-9.4 billion
- debt workout agreements are needed
- authorities must put in place an orderly bilateral agreement process

Krueger closed by noting that the IMF has rolled over $1 billion worth of debt, but will not enter an agreement until two key issues are resolved:

1) a sustainable monetary anchor is developed (the incoming foreign advisory group of "wise men" should help in this respect)
2) the banking sector is strengthened (namely on the liquidity front and as concerns the public banks)

## Session 3: Debt

**Chair**
*Sebastian Edwards*

**Panelists**
*Roque Fernandez, former Finance Minister, Argentina*
*Ricardo Hausmann, Harvard University*
*Arturo Porzecanski, ABN AMRO*
*Michael Mussa, Institute for International Economics*

**Roque Fernandez** used a powerpoint presentation to describe the fiscal position of Argentina. He began his presentation with the fiscal deficit numbers for 1991-2001. He mentioned his fiscal deficit numbers slightly differed from the ones Anne Krueger presented at lunch. The numbers he presented are higher as they measure the deficit as an increase in indebtedness (all the fiscal data can be found in www.mecon.gov.ar). According to Fernandez up until 2000, Argentina was not an outlier amongst the developing nations in terms of the fiscal deficit. Although Argentina could have done better in terms of fiscal performance, the deficit was not an enormous problem. Fernandez continued his presentation showing the government expenditure and debt figures. He pointed out that the consolidated public spending in pesos (which, includes the provinces) as a percentage of GDP had been increasing but it remained less than 35% per year. Regarding total consolidated debt, even if the pension reform was not taken into account, the fiscal picture would not change significantly. He pointed out that during 1998-1999 the debt of the province of Buenos Aires increased a lot being this an electoral period highlighting that the province provides almost 50% of GDP of the country. Fernandez made the point that Argentina in the past decades had only been in default when total debt (including province) rose above 40%. So that number should be used as a base during the debt negotiation.

The chart that Fernandez gave the most attention to was net private capital flows and country risk. He stressed capital flows as a very important mechanism for triggering the crisis in Argentina. A strong relationship between capital flows and country risk is observed. There is a clear leading movement going from country risk (in term of basis points over Treasuries) and total capital flows. Analyzing the Tequila crisis, the basis points increase and capital inflows slow down. The same process can be seen with the average maturity and basic points over treasuries. During the Tequila Crisis, an important increase in country risk (about 400 bps over Treasuries) was observed and then there was a tremendous improvement (up to 1997) in the maturity of debt. The subsequent Asian crisis shortened the maturity dramatically.

Fernandez concluded the presentation saying that Argentina had been able to manage the Russian and Tequila crises but after 1999, the mismanagement of the economy and the lack of continuity of policies were the main triggers for the crisis rather than the exchange rate regime or the fiscal situation.

**Ricardo Hausmann** started his presentation with three statements on the fiscal policy. He considers that the fiscal policy 1) was not that bad 2) was not central and 3) was not the solution. He explained the three points as follows:

1) Looking at the fiscal numbers, there is no "fiscal party"; there was not a large fiscal deterioration. The debt service during 1994-2000 increased by 2-2.5% of GDP and the social security reform worsened fiscal accounts by about 2-2.5% of GDP. There was an improvement in ex-social security primary surplus of 2.5% to 3.5% of GDP and there was a primary deficit in the provinces of 0.5% of GDP. In fact, what he found remarkable was that the private sector experienced booms and busts but the government expenditure stabilized.
2) He reported on simulations that find that if a 3% GDP annual growth is assumed, the debt/GDP ratio would have stabilized. Thus, the fiscal problem can be viewed as a consequence of the collapse of growth.
3) Fiscal policy is not a solution: if additional adjustments had been done, the results would have been worse that is, adjustments would hurt growth.

Hausmann does not believe that the fiscal situation caused the crisis. For him, the main cause of the crisis was constrained external lending, essentially, a shock in the capital account. Argentina could not continue to run the current account deficit it wanted. Argentina was faced with constrained lending because of the Russian crisis but also because the market assessed that the expected growth of future exports had deteriorated (the real exchange rate had appreciated relative to its equilibrium value - due to the strengthening of the dollar vis-à-vis the euro, the fall of the Real, the decline in commodity prices and the increase in interest rates. If exports act as collateral or guarantee then all these factors affected the capacity to borrow in the present and hence caused the collapse in capital inflows. He explained that the more closed an economy is, the larger the required exchange rate movement in order to adjust the current account. But this large relative price adjustment would interact with the large dollarization of liabilities, generating a large balance sheet effect. Thus, for Hausmann the fiscal issue was secondary in the process. In the paper with Velasco they show that fiscal was not the solution as the fiscal response would have been limited in its effectiveness. (Please refer to www.nber.org/crisis/argentina_bg.html for the complete paper).

He continued his presentation on the issue of multiple equilibria. Everybody had thought that for a long time that Argentina was a case of multiple equilibria. He believes Argentina had no multiple equilibria, there was only one bad equilibrium. The good equilibrium (low interest rates, high output, and high tax collection) was done away by the financing constraint: the external financing had dried up for Argentina. He mentioned that the lengthening of the debt maturity helped as it provided the Argentine authorities time to react so market pressures on the fiscal aspect were subdued. He pointed out that an important lesson from the Argentine case was the problem created by making implicit obligations explicit (pension reform). Making an implicit debt explicit makes it more expensive and less state contingent: it becomes more expensive in bad times when countries have less ability to address it. He invited the audience to reflect on the pre-conditions for social security reform.

For Hausmann, the central tragedy for Argentina and more generally for the rest of the emerging markets is financial integration in a world where the country cannot borrow internationally in its own currency ("the original sin problem"). The gross liabilities have to be in dollars so if the countries cannot raise more financing or their relative prices change then the balance sheet effect makes the adjustment worse. He pointed out that this is more central than the choice of exchange rate regime as these ingredients are present today in Brazil and in Turkey, two countries with floating regimes.

**Arturo Porzecanski** started his presentation pointing out that the fiscal situation in Argentina certainly had added vulnerability to the economy. The country would have been a lot less vulnerable to a confidence crisis if the government had achieved a fiscal surplus and if the public debt had fallen instead of grown. He then reminded the audience that, however, Chile and Uruguay in the 80's and the Asian countries in the 90's showed that countries can experience significant economic, political and financial turmoil even if their governments had a fiscal surplus and were paying down their debt. So, he is not in the "It's Mostly Fiscal (IMF)" camp with regards to Argentina. In his view the fiscal situation does not explain the Argentine tragedy. But why is this so?

1- There was no major increase in primary spending at the federal, state and local levels relative to GDP in the 90's. However, given the exchange regime, external shocks and the mounting public debt it would have been prudent to have held primary spending constant in nominal terms or to have cut it in absolute terms. The downsizing of primary government spending was a missed opportunity.
2- There was a significant increase in non-primary government spending relative to GDP, namely, interest payments on the public debt. Interest payments went up as low-coupon and capitalizing bonds matured, privatization income dried up and residual liabilities had to be dealt with. These increases in the interest bill were quite predictable and should have been offset through a larger primary budget surplus.

3- Tax revenues stagnated. Tax revenues to GDP peaked in 1994 and never recovered no matter what rate hikes and other measures were imposed. One reason was the pension reform which drained funds from the Treasury, and this was also predictable. Moreover, tax evasion grew as competitiveness declined after 1998, because companies used tax evasion as a way to cut costs. Individuals also evaded taxes as tax paying jobs in the formal economy were destroyed and job creation occurred mainly in the informal economy (i.e. which does not pay taxes). With disposable income shrinking, people had two choices: either pay taxes or pay the rent. They usually opted for the latter.

He pointed out two perverse connections in the economy:

1) The exchange rate and the fiscal accounts: the fixed exchange rate undermined the government's revenue base by encouraging tax evasion.
2) The exchange rate and the government debt: the 1-to-1 exchange rate encouraged the government and the private sector to take on foreign–currency-denominated debt. In fact, by the end of 2001, only 3% of the public debt of Argentina was denominated in pesos. This created a huge potential liability.

How could a government that could not even print pesos (because of the Convertibility regime) and had all its revenues in pesos have 97% of its liabilities in foreign currency? And yet, he never heard any criticism of this irresponsible currency mismatch either in Washington or anywhere else. Any change in the exchange rate was bound to render the public sector instantly insolvent. All the academic and IMF talk at the time was about the public debt creeping up – not about this potentially explosive currency mismatch problem.

To conclude his presentation, Porzecanski pointed to the artificial exchange rate regime as the root cause of the ills afflicting Argentina today. He ended the presentation with the following provocative observation: "The greatest failure of our profession in the second half of the 20$^{th}$ century was not to realize that, back in the 70's, the collapse of the Bretton Woods regime and the exponential growth of capital flows put all the economies with fixed exchange regimes at great peril. These regimes were bound to be ruinous in a globalizing world: too much foreign-currency-denominated debt is taken in the good years of artificial currency stability, only to render countries instantly bankrupt during the bad years of currency depreciation. We could have prevented the debt and currency crises of the 80s and the debt and currency crises of the 90's. Even in 1991 there were more dollarized countries than Argentina (such as next-door Bolivia and Peru), and they were able to abolish hyperinflation without relying on the exchange as an artificial anchor. If Argentina had relied on capped government spending or on a ceiling on the public debt as the nominal anchors in 1991, today we would be celebrating rather than lamenting the country's fate."
Please refer to the complete text version in www.nber.org/crisis/argentina_bg.html

**Michael Mussa** began his presentation by asking if the fiscal performance was adequate given Argentina's history and situation. At the end, Argentina defaulted undermining the viability of the banking system and the sustainability of the currency board. The important point he mentioned is that fiscal numbers were dangerously high given Argentina's situation. Anne Krueger in her lunch presentation detailed a number of reasons why Argentina had a vulnerable fiscal situation. But Mussa, pointed out that even in the period when Argentina was performing well (1993-98, when the real GDP was growing 4.5% p.a.) the public debt to GDP rose 12 percentage points (from 29% to 41%). So even in good times with pension reform, privatization revenues and an interest rate deferral on Brady bonds, the government could not keep its finances healthy.

Mussa continued his presentation describing the external environment. The external context turned against Argentina: the crisis in Russia and Brazil coupled with the appreciation of the US dollar. Domestically there was also turmoil due to a new weak government. The fiscal performance in Argentina had been bad for decades so the investors started wondering if the situation was sustainable. With a spread of 500-600 bps over Treasuries a primary surplus of 2-3% of GDP was needed to stabilize the Debt to GDP ratio. But Mussa says that the primary surplus was not near that level. Once private investors started losing confidence and the spread went over 1000 bps a primary surplus of 7-8% of GDP was needed which was economically and politically unachievable. In his view Argentina crossed that borderline at the beginning of 2000. However, he pointed out that a better fiscal performance of 2% of GDP on average during the 90's would have made the debt dynamics a lot more sustainable. He stressed that imprudent fiscal policy was the key, avoidable policy mistake.

The exchange rate was also a problem for a variety of reasons. In 2001 the exchange rate was substantially overvalued, partly due to the US dollar revaluation. He realizes that Argentina had survived the Tequila with an appreciated peso but the appreciation was not such as in 2001 because the dollar was weaker in 1995 than 2001. In conclusion he believes that the fiscal was the key avoidable area: a catastrophe could have been avoided if this issue was better managed.

## General Discussion

**Sebastian Edwards (UC, Los Angeles and NBER)** began the discussion commenting on Michael Mussa's presentation. Edwards mentioned that when talking about avoidable mistakes one needs to focus on particular points of time. He pointed out to the audience that two particular events developed in late 1999 and early 2000. First, there was an increase in taxes (*impuestazo*) which a lot of people claim killed the recovery of the economy. Then at the beginning of 2000 the government established a floor in the transfer of money to the provinces of 1.34 billion per month and according to Edwards this provided one more degree of inflexibility to an already inflexible economy.

**Miguel Sebastian (BBVA)** posed several questions for the panelists. He asked Ricardo Hausmann if Argentina should put restrictions for borrowing in US dollars and for depositing US dollars. He also challenged Michael Mussa saying that Argentina might have been better off if it had not survived the Tequila crisis. Lastly following Porzecanski's arguments Sebastian stated that he disliked the Peruvian scheme because it is a mix that does not work. He said that a flexible exchange rate does not isolate a country from external shocks; there is still the balance sheet effect. He put forward the example of the Asian crisis: Argentina suffered an external shock but because of the balance sheet effect it became a domestic shock. He ended his intervention saying that though against dollarization, he preferred dollarization to the Peruvian model.

**Federico Sturzenegger (Universidad Torcuato Di Tella)** made comments to two of the panelists. He pointed out to Michael Mussa than in 2001 the fiscal adjustment was unique for Argentinean standards and unique by emerging markets standards in the postwar period. Argentina had not done an accounting trick: spending was cut by 13% that delivered 1.5% of GDP in a single stroke.

Taking into account Arturo Porzecanski's presentation, he advised caution when calculating the assets and liabilities of the government. He pointed out that the devaluation improved the solvency of the government (because the present value of wages and pensions are more important than the value of the debt) though it worsened its liquidity.

**Jeffrey Shafer (Salomon Smith Barney)** centered his argument on the severity of the crisis. He invited the participants to reflect on why Argentina was having a crisis deeper and more protracted than any other country of comparable level of development. He challenged the audience by asking why the investors had gotten scared if we assume the fiscal situation was not the main problem. He agreed with Michael Dooley that "the politics" is a lot more complicated than "the economics". He made a comparison between the Argentine political class and the American CEOs. In the long term, the aim of both groups should be wealth creation but in reality their incentives make for a short-term focus. In the case of Argentine politicians it is the elections and in the case of American CEOs it is option-based compensation. In both cases reality gets distorted: bookkeeping for American CEOs and in the case of Argentina trying to operate on an artificial exchange rate with unstable debt dynamics. He concluded that in both cases the problems were being pushed down the road until no options are left. He acknowledged that in good times it is hard to correct the process. In his view outside intervention cannot correct this process unless there is a political culture that stems from the public to run businesses in a different way. A way to start changing the system would be for the general population to have a deeper understanding of the costs of policy mistakes.

Continuing with the political theme raised by Jeffrey Shafer, **Caroline Atkinson (Council on Foreign Relations)** questioned whether the fiscal problem was the key "avoidable," as Michael Mussa had stated. She wondered if there is an equilibrium between the politically feasible and the economically necessary.

She disagreed with the suggestion made by Michael Dooley that someone from the outside had to allocate the losses. She believes it had to be a product from the domestic political system. Outsiders could offer advice but domestics would have to solve the problem.

Earlier on Anne Krueger had mentioned that when making a loan an assessment on the probabilities of success should be made. Caroline Atkinson suggested including the costs of failure, which in the case of Argentina were huge. The costs of a later correction are greater than those done early.

**Peter Garber (Deutsche Bank and NBER)** commented on Arturo Porzecanski's criticism of the fixed exchange regimes. He pointed out that the speculative attacks models started as a result of the Bretton Woods collapse, so it was well known in the profession what the fragilities were in a system of fixed exchange rates and capital mobility. He continued his argument by saying that policy makers knew the constraints in a fixed exchange regime, so if these regimes were implemented imperfectly, the problem laid on the policy makers not in the economics profession.

Contrary to Ricardo Hausmann's view, **Luisa Lambertini** raised the question on the economic effects of fiscal adjustments. She pointed out that some countries have had fiscal consolidations (for example slashing public wages and transfers) that have been expansionary. So she wondered why a fiscal contraction would make the situation worse in Argentina.

**Allan Meltzer (Carnegie Mellon University)** emphasized that it would be useful to focus on the future instead of arguing about the past. He suggested that there are two measures that can be taken. The first one would be adopting his previously mentioned Lerrick/Meltzer debt proposal. He explained that it would take the overhang of the debt of $45 billion and at most the holders would come out with $9 billion. Against that, the IMF would have to put a floor at 80% of the price at which debt is likely to transact, that would be a total guarantee of $7 billion. At that point the debt would be sustainable. The second measure that he mentioned is that the IMF should leave Argentina to work out its internal political and economic problems once the debt has been exchanged. Its obligation is not to manage Argentina but to stabilize the International Financial System.

**Alberto Ades (Goldman Sachs)** said that shared Ricardo Haussman's hypothesis that the capital account shock led to the crisis. He wondered what Argentina could have done after the Tequila to deal with a capital account shock and what policies would have made the adjustment easier. The questions he raised could be relevant to other emerging markets, especially to Brazil. He disagreed with Anne Krueger that Brazil's external debt numbers were better than Argentina's and that Brazil's ability of Brazil withstand a shock was correspondingly greater.

Following the discussion of capital account shocks **Sebastian Edwards** referred to Guillermo Calvo's paper on sudden stops. In the paper, they have calculated that in order to close the current account deficit the real exchange rate would have to adjust by 42%. He lamented that Argentina did not adjust in 1996-97 as the country would not have been forced to go to a zero deficit.

In the fiscal camp, **Ricardo Lopez Murphy's** views of the crisis were in line with Michael Mussa's. According to Lopez Murphy Argentina's main mistake was fiscal policy because the other parameters could not be changed, they were given. The only degree of freedom that Argentina had was fiscal policy. He mentioned that from the beginning of 1991 to 2000 the increase in current public expenditures was 150% while the increase in GDP was 40%. Adding to the fiscal argument he also mentioned the problem of measurement (the numeraire) and using the GDP deflator. He continued by noting that Argentina was undercapitalized in the 80s so investments were desperately needed in the 90's to enhance productivity and create employment. However, Argentina used funds to finance deficit and not productive investment. To conclude he made three final remarks. First, Argentina did not fulfill the Maastricht requirements: the only one it failed is country risk. Second he mentioned the problem of creative accounting in the debt measurement and lastly he asked the audience where would Argentina exit to as devaluations had been tried before and they never worked.

**Andrés Velasco (Harvard University and NBER)** alluded to Robert Barro's principle that in bad times a country should run deficits and in good times it should run surpluses. However, Argentina could not follow this principle and he offered three explanations as to why. He also supported Ricardo Hausmann's view that in Argentina fiscal contraction was not expansionary, answering Luisa Lambertini's question.

**Edwin Truman (Institute for International Economics)** disagreed with Hausmann's contention that recognizing implicit fiscal obligations is a bad idea. As professional economists we should always favor transparent accounting.

**Roberto Chang (Rutgers University)** intervened to defend the Peruvian model. He commented that no exchange rate regime could avoid external shocks. The balance sheet effect would still be there.

**Guillermo Perry (The World Bank)** argued that Argentina did not run a countercyclical fiscal policy because in good times political pressures always led to expenditure increases, and thus there was no room for expansionary fiscal policies in bad times. What countries need are institutions that tie the hands of politicians to overspend in booms, so as to be able to generate surpluses in those periods, as the Chileans have done. He suggested that international institutions and private markets could help the emerging countries by basing their analysis and programs on cyclically adjusted goals, as is normal practice for OECD countries.

Supplementing Miguel Sebastian's question, **Eduardo Fernandez-Arias (Inter-American Development Bank)** asked Ricardo Hausmann what should be done with dollar deposits if dollar liabilities are to be discouraged. He noted that if dollar deposits are also discouraged then Argentina would have capital flight as the public wants to save in dollars.

**Roque Fernandez** made three final comments. He mentioned that in the discussion the question of the long run real exchange rate was not addressed. He also sided with Jeffrey Shafer on the politics issue and the way to use economic institutions to manage politics. Finally on offshore accounts he said that if people have decided to have an offshore currency (dollars) then it is natural that they will have offshore deposits. It will be a popular pressure pushing for offshore accounts, not a technical one.

**Ricardo Hausmann** made the point on the types of regimes with imperfect international financial integration and answered Michael Mussa's challenge on the fiscal performance. He agreed that if the fiscal numbers would have been better Argentina would have been better but not in a significant way.

In an effort to get out something positive out of the crisis, **Arturo Porzecanski** concluded that this might have been the last significant country that had to exit in this messy way with an artificial exchange rate regime that was not supported by fiscal and regulatory policies. He also lamented that a lot of Latin American countries accumulated debt under these artificial regimes so once they float it might have been too late.

Finally, **Michael Mussa** raised several points. First, he reiterated that the fiscal issue was important. Second he disagreed with Miguel Sebastian's conjecture that Argentina might have been better off if it had not survived the Tequila crisis, but added that the current crisis could have been better handled. Banking and confidence were destroyed unnecessarily, and that will have long run effects. Third, regarding Allan Meltzer's plan he insisted that the country needs a credible program before talking about debt restructuring. Fourth, he pointed out (to Alberto Ades) that there was no solution for Argentina in 2001-02. Fifth, responding to Federico Sturzenegger's comment on the fiscal cuts, Mussa stated that Argentina by mid 2001 was not fiscally sustainable.

## Session 4. Desperation Remedies

**Chair**
*Martin Feldstein*

**Panelists**
*Ricardo Lopez Murphy, Former Economics Minister, Argentina*
*Randall Kroszner, US Council of Economic Advisors*
*Anoop Singh, IMF*
*Mario Blejer, Former head of the Central Bank of Argentina*

**Ricardo Lopez Murphy** said that Argentina had few choices left in 2001 and the only way to proceed was to maintain confidence at any cost under the rules of the game, i.e. the currency board. As the cost of leaving the rules would be very high, he was convinced that the way to address the problem was to reduce public expenditure, which had risen in the ten years of the convertibility plan. Any other attempt or procedure would create a crisis of confidence. He noted that the political class and the public opinion were against following the rules: they were thinking all the time of marvelous shortcuts.

He continued the presentation acknowledging that during 2001 several mistakes were made such as affecting the central bank authority and letting provinces issue funny currencies. The former weakened the institutional setting while the latter created the false idea that the provinces had no budget constraints so they had some room to maneuver using a third money. But the main problem he observed was a general view in the country that rules should not be followed. These elements affected the general confidence in the economy.

The public opinion was looking for another "model". There was an overwhelming idea that the failure was due to globalization, privatization or convertibility. If the public opinion is on the other side, dealing with this would be difficult. The best way for the government to proceed was by defending the system, but the wrong road was taken and in the end Argentina failed.

He believes Argentina could have been saved by the year 2000. The IMF package ("blindaje") was good but the government did not fulfill the program: it failed to deliver the counterpart of the international support. The government in the first quarter of 2001 was not able to fulfill any of the requirements. Thus, he concluded that the responsibility of the crisis was not the IMF's but of Argentina.

Regarding the role of the IMF, he said it should be judged in an emerging markets context. The IMF was trying to reduce the risk to other countries – to stop spillover or contagion. So, the yardstick to judge the IMF is not the same as the yardstick to judge the Argentine government. In conclusion he suggested that the right question to ask is if the timing of the IMF to avoid contagion was appropriate.

**Randall Kroszner** opened with a historic perspective. He suggested analyzing what other countries had done in desperate times. As an example he focused on the US experience during the Great Depression. He pointed out that "pesification" may be regarded as very shocking and unorthodox but a similar policy was carried out in the US in 1930. All government and part of the private debt was indexed to gold. The US devalued by 69% and went off gold standard. Then the government announced that contracts would be honored in current dollar terms only, not in terms of gold as they were originally negotiated. There was a Supreme Court decision and actually the markets reacted positively, which is contrary to what happened in Argentina. He pointed out some differences between the Argentine "pesification" and the US "dollarization":

1. The pesification was asymmetric, that is, both sides of the balance sheet of banks were not pesified the same way so it allocated losses to the banking system.
2. There were fewer foreign bond holders in the case of the US.

He also mentioned the use of funny money as a desperation move to provide liquidity. In the US in 1907 the clearing houses issued their own funny money because they had liquidity problems. So this measure may not be absurd if there is illiquidity. However, he commented that the "money" issued by the US clearing houses was rapidly taken back and extinguished, but in Argentina this has not been the case. He concluded that the measure may be good in times of illiquidity but also warned about the danger of financing government operations with funny currencies.

Regarding the fear of high inflation, he commented that hyperinflation has not happened yet because there is currency competition. Seigniorage revenue cannot be easily raised when people can switch so easily between quasi currencies, so these quasi currencies are a good offsetting pressure to inflation.

Regarding the role of the IMF in the crisis he believes the existence of the IMF puts off the day of reckoning. The creditors and debtors do not get together as soon as they would if the IMF did not exist making the problems more costly. The issue in Argentina was that the presence of the IMF delayed solving the problems so certain actions should be taken to reduce these risks going forward.

**Anoop Singh** focused his remarks on what could be done in Argentina, the current state of the IMF talks with the Argentine government and the kind of program that is needed. He mentioned that a credible program should include three minimal components:

1. Stop hyperinflation urgently.
2. Design a strategy for the banking sector.
3. Build a fiscal framework.

He first developed the point on the fiscal framework. He stressed that the budget of 2003 had to be prepared. This included outlining the fiscal objectives, financing the deficit and building up a foundation for the future. Some down payment would have to be made to convince the skeptics that the turnaround had begun. He recognized that Argentina is having a bad combination of high unemployment, low growth, high income inequality and electoral politics which makes it even more difficult to sustain primary surpluses. He also mentioned that the IMF was looking for a coherent framework that included the provinces. He urged the provinces to stop issuing quasi moneys and establishing a system of incentives and penalties over their budgets.

Regarding banking, he said Argentina needed to respect the legal framework. Safeguards against government interference in the practices of the central bank should be placed. He advised that the banking strategy had to have a private orientation and the public banks had to be restructured.

He ended his intervention by saying that the present monetary system in Argentina is not sustainable if hyperinflation wants to be avoided. The government must find a solution to stop the deposits' outflow and has to explain to the people that the real value of deposits has been eroded. However, this has to be worked out in Argentina; it has to come from Argentina.

**Mario Blejer** began his intervention with the issue of currency boards. He said that the eventual failure of the Argentine currency board does not say anything about the general usefulness of currency boards: it just confirms that a country needs fiscal, structural and monetary consistency. He said that the exchange rate should not be made into a religion or a cult, so that abandoning it is like breaking the most important social contract in the economy. One cannot elude adjustment and redistribution costs of exit but the goal should be to minimize the political and social costs. However, Argentina did the opposite.

In his view, the crisis has been so catastrophic because of the structure of the financial system which resulted in a multiple confidence crisis. The futile attempt to avoid default in last two years collapsed the system. When the country lost its external financing, the government proceeded to abuse the financial sector. The financial sector was forced to accumulate public bonds, people perceived the government would default and so there was a bank run.

According to Blejer the policies that followed devaluation made the situation worse. However, in his view it was unavoidable to exit the currency board in anything but an extreme manner. The measures that accompanied the devaluation were a failure but attempted to decrease the social and political cost of adjustment. These were desperate attempts. The violation of property rights and contracts was ruinous but once the currency board was violated, the other measures followed. Ironically he mentioned that a lot of politicians and academics of the international community were advising to exit the currency board so essentially they were saying to violate all contracts. However, these same people now say that the problem in Argentina is that the government violated the contracts.

Looking into the future he advised the undoing of the measures taken: the "corralito" has to be eliminated, the collapse of banks should be avoided, the monetary overhang has to be eliminated and confidence restored. In a certain sense, he concluded, Argentina has to go back.

## General Discussion

**Domingo Cavallo (former Economics Minister, Argentina)** began his intervention commenting on the fiscal performance of Argentina. He emphasized that in 2001 the primary expenditure of the federal government was at the same level as in 1996. The two years of the government of De la Rúa had reversed the 1996-99 increase. However, in the provinces the adjustment of primary spending was not that significant: spending increased from $29 bn in 1996 to $35 bn and then fell to $34 bn in 2001. There was a fiscal adjustment in 2001 but to reverse huge expenditures a lot of political capital was used. A coalition is hard to keep in bad times not in good times when money is around. He explained why he and his team aimed to restructure the debt. The reason was that interest payments had to be drastically reduced in order to balance the budget and live without external credit.

He described that in the first three months of his Ministry he worked towards exiting the old currency board. His idea was to enter a basket peg (Euro-dollar) when the US dollar and Euro were in parity so the peso would float in a Dollar-Euro band. However, he lamented that he could not convince anyone. He recognized that he overestimated the markets' ability to understand that it was the best way to introduce some flexibility, and then it would have been easier to float. If Argentina had flexibility then it would have been easier to exit.

In the second semester of 2001, Argentina had to live with a zero deficit as it was cutoff from external borrowing and had to begin the debt restructure. He regretted that the process was delayed: if the debt restructuring plan had come out in July and August then in September the implementation would have started and Argentina would have paid interest payments of $7 bn in 2002 not $14 bn. This would have avoided the tragedy. However, the implementation began in November and the rest is history.

People had suggested defaulting in July 2001 but he said it was pointless because it would have generated the same problems as Argentina is going through today. He insisted that the solution was to exit in an orderly way. However, Argentinean politics did not allow it. They used riots to force the resignation of the constitutional government and in place set up a Parliamentarian government. The current government is led by the governor that spent the most and borrowed the most from the banking system and is supported by the former president responsible for hyperinflation and policies in the 80s. Lamenting these events he concluded that in that political context, it would have been very difficult to make an orderly adjustment.

**Michael Mussa (Institute for International Economics)** raised the issue of the possibility of saving Argentina in 2000. He believes this is something nobody can answer. In the first half of 2000 Argentina still had access to international capital markets in relative favorable terms in comparison to other emerging market borrowers. Later in the year, the spreads began to rise and access was cut off. So, for Mussa if Argentina exited by the middle of 2000, it would not be well regarded. He commented on Randall Kroszner's concern that the IMF's presence delayed action, that the efforts of the IMF delayed creditors and debtors' negotiation. However he believes this issue relates to 2001 and not to late 2000.

He then questioned if it was right to have the IMF program in late 2000 and augment it in August 2001? These issues were much discussed in the official community before Argentina fell into crisis. There were numerous discussions about private sector involvement and what to do about it. By December 2000-January 2001, there still was a chance that fiscal program could have restored market credibility. By August 2001, this was no longer the case: an outcome without an aggressive sovereign debt restructuring (which of course was going to bring down the convertibility plan) would not be possible. According to Mussa the official community made a huge error. The mistake made was that the IMF was too late to force an orderly debt restructuring.

**Alberto Ades (Goldman Sachs)** posed several questions to the panelists. He asked Randall Kroszner who had held the US debt in the 30's and if it was linked to other assets. He also raised the question of the public banks in Argentina and asked Anoop Singh if a program to restructure the public sector banks would be a precondition of an agreement with the IMF. He also wondered whether the IMF had any advice to give Argentina on trade policy. Lastly, he told Mario Blejer that it is hard to argue that the pesification of deposits and debts was "socially" motivated. The powerful groups won with the pesification of their debts, while small depositors were struggling to recover their money.

**Anil Kashyap (University of Chicago and NBER)** addressed the issue of the basket peg mentioned by Domingo Cavallo. He commented that the market did not pay attention to it because the debt restructuring was the key issue at that time. He lamented that valuable time was lost with this matter. Regarding the desperation measures, he found strange that the government floated the peso and but has still lost billions of dollars trying to defend the exchange rate.

**Pablo Goldberg (Merril Lynch)** made two remarks, one criticism of the past and one suggestion for the future. He disagreed with Michael Mussa that the fiscal problem was the only avoidable mistake. He believes that the currency board should have also been understood as a fiscal instrument too. The most important social contract with convertibility was that there was not going to be an oversupply of pesos. Therefore, an exit from Convertibility could have been possible if Argentina had had a stronger fiscal anchor to secure the demand for currency. Going forward, he reminds the audience that property rights were broken and people will be affected. He suggested that economists together with politicians should work out how to minimize the losses of the crisis and a way to allocate them.

**Nouriel Roubini (New York University and NBER):** made the point that political motivated bailouts are more important now and he mentioned Turkey and Ukraine as examples. He said that there is a big gap between the official rhetoric of bailouts and the political underlying reasons.

**Martin Anidjar (JP Morgan & Co)** shared his view on the right way to exit the convertibility regime. He pointed out that changing convertibility is breaking the contracts. If convertibility is violated then the excess supply of money should be absorbed to avoid the worst consequences. People will not be willing to hold monetary aggregates after that violation so he believes that the only way to exit the Currency Board is to run a huge fiscal surplus.

**Jorge Braga de Macedo (OECD and NBER)** suggested bringing the European and OECD experience to the Argentine case. Many countries that had difficult situations have found that a comparison with countries close to them can help. He believes that a solution could be surveillance and peer pressure at the Mercosur level.

**John Williamson (Institute for International Economics)** suggested that Argentina has had a desperation remedy for the past ten years and that is the very idea of convertibility. He believes it is a desperation remedy because it solved the situation in the short run but then in the long run the costs had to be paid. He concluded that the best thing for Argentina would be to move to limit the right to transact in dollars.

Coming back to a point made by Michael Mussa, **Sebastian Edwards (UC, Los Angeles and NBER)** supported the IMF's package (the "blindaje") in late 2000. However, he believes the IMF made the mistake of allowing the government to present that program as being much more significant than it really was. Putting this into perspective, when this program was presented as a $40.5 bn package, everybody that had done the numbers believed that this was not the case. But, nobody spoke up and even the IMF did not say that was not the real number. The politicians took it as an opportunity to avoid reform or cuts. For Edwards the program was presented in a very irresponsible way.

Continuing with the discussion on desperation remedies **Michael Bordo (Rutgers University and NBER)** compared the situation of the losers of World War II and the political-economic devastation in Argentina. In WWII the physical capital was destroyed but the human capital prevailed. Argentina on the other hand has been experiencing a flight of human capital. Regarding politics, after WWII the political regimes toppled (Nazism, Fascism and the Japanese system) but in Argentina there has been only a rearrangement of the political class. Lastly, regarding reconstruction, Europe received the Marshall Plan. He ended his intervention by asking what would be the comparable institution that would act like a Marshall Plan in Argentina.

**Kasper Bartholdy (Credit Suisse First Boston)** asked Anoop Singh how the IMF would deal with the legal risks that would be associated with securitization of deposits in the design of the program. He asked if the IMF believed that new legislation would be able to safeguard effectively against the risk that Argentine courts would rule the securitization illegal.

**Stephen Cecchetti (Ohio State University and NBER)** addressed the issue of rebuilding the functions of the banking system and recapitalizing it. The banking system is a provider of both credit and payments services. He noted that the offshore banking solution solves the payments problem but it does not solve the issue of credit provision. The key issue is how to recapitalize the banks so that depositors will return and financial intermediation will start up again.

Challenging Randall Kroszner's comparison between the "dollarization" of 1930 and the "pesification" of 2002 **Guillermo Mondino (Former Secretary of Finance, Argentina)** pointed out big differences in these episodes: higher capital mobility today, a total lack of institutional credibility in Argentina, the US economy growing in 1933 while the Argentine economy shrinking today, the 365% movement in the dollar in Argentina and the fall of the purchasing power due to inflation. He asked how Argentina can attain financial stability given that both countries pursued policies that appear to be similar.

**Martin Feldstein (chair)** asked Anoop Singh that if there is an agreement between the IMF and Argentina what the money would be used for.

**Ricardo Lopez Murphy** came back to the issue of offshore banking. He said that the only purpose of offshore banking is to persuade people to visit the banking branch again. Fresh money is not being deposited in the Argentine banking system. For Lopez Murphy the key issue with offshore banking is to use it to regain public confidence on the banking system. He suggested a gradual approach, tell people to put 5% of their money in Argentina and the rest abroad, then 10% and so forth. Credibility has been destroyed so there has to be a way to rebuild the system and offshore banking may be useful.

**Randall Kroszner** answered Alberto Ades' question explaining that in the 30s, most of the US debt was held domestically and the majority of private debt had gold clauses. The French holders of debt guaranteed by the gold standard had lost a lot but the US refused them the right to go to the court of claims. This was very different to the high percentage of Argentine debt held by foreigners. Regarding Nouriel Roubini's comment he mentioned that he was not putting the blame in a particular group for the crisis and that the existence of the IMF changes the incentives of creditors and debtors to get together, not its particular policies.

**Anoop Singh** addressed four issues. First, the problem of public banks has to be part of the banking strategy. Second, the legal problems of depositors has to be solved. Third, trade is an important issue for Argentina and the region. He believes that growth in the next 5-10 years will come from trade. Finally, he said that any new money from the IMF will provide fiscal maneuvering.

Once more, the issue of pesification was brought up when **Mario Blejer** explained that the asymmetric pesification was not a move to redistribute income. It was an outcome of social and political pressures from interest groups, especially those with more power that would benefit from the pesification of their debt. He also pointed out that these are some of the groups that are also interested in creating a hyperinflation because it will erase most of their liabilities. Regarding intervention policies, at the beginning of the devaluation there was a dual exchange rate system and intervention was pointless. Now intervention serves for a monetary instrument. Finally, ending the session and the conference with a bit of humor, he talked about exit policies. During the conference it was mentioned that the currency board was like a marriage: you knew what the costs of exit were. However, at the time of the currency board, the following had been said: "Convertibility is like being married to Julia Roberts, there are simply no exit points".