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Reforming the global financial system

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## Reforming the Global Financial System by Joshua Aizenman<sup>1</sup>

### Overview

The global financial market has been shaken throughout the nineties by a series of major financial crises. Attempts to stabilize the global system have led to large bailouts. This system cannot survive indefinitely. The willingness of taxpayers in the industrialized (OECD) countries to engage in continuing bailouts is approaching its limits. Recent proposals for the “New International Financial Architecture” have focused on reform either by reducing the probability of a crisis, or by inducing more orderly resolution if it occurs. There are good reasons to support both reforms: more effective crisis management and more prudent allocation of credit before a crisis.

Simple plans for reforming the global financial system, however, are unlikely to survive changes in incentives during a crisis and the need for adequate information. Only reforms that offer practical solutions will pass the market test and will endure the political process needed to implement them. Regulatory enhancements that use existing institutions have a greater chance of adoption. Such enhancements could include:

- regulations and supervision like that undertaken by central banks in the context of domestic banking, such as, a more stringent application of capital and reserve requirements;
- a greater role for the Bank of International Settlements and the International Monetary Fund in coordinating these regulations across countries;
- reforms dealing with better coordination among creditors, and with the formation of international bankruptcy procedures.



Thousands of demonstrators march near Buenos Aires' Congress March 15, 2002 hoping to call attention to rising poverty and joblessness after a January devaluation. (AP Photo/Eduardo Di Baia)

### Introduction

This paper has two goals. First, it briefly summarizes the evidence that financial crises may be induced by opening up developing countries to short-term capital inflows. Second, it appraises the various proposals made for mitigating the severity of financial crises. We argue that there is solid evidence that financial opening increases the chance of financial crises. There is more tenuous evidence that financial opening contributes positively to long-run growth. Hence, there may be a complex trade-off between the

adverse intermediate run and the beneficial long run effects of financial opening. These findings impose a challenge to policy makers – how to supplement financial opening with policies that would improve this trade-off between long-run growth and short term crisis. The literature abounds with proposals aimed at reducing the costs of financial crises. Yet, there has been limited progress in designing credible reforms to deal with these challenges.

The recent literature dealing with welfare effects of financial opening added to the earlier studies by modeling the process of financial intermediation. A key difference between the earlier literature and the one dealing with financial intermediation is the switch in focus, from the commercial to the financial aspects of opening up. This matters, as the adjustment of finan-

### Causes, costs, and consequences of financial crises

The causes of financial crises are very complicated, but it is clear that financial opening often precedes such crises. Key causal suspects include:

**I Declining fundamentals**, in circumstances where the use of fixed exchange rate delayed the adjustment. The list of the fundamentals may include the greater competition from the ‘new tigers’ (China, etc.), diminishing productivity of capital, deterioration in the terms of trade, weak demand from Japan, etc.

**II Moral hazard:** excessive risk undertaking by entrepreneur, anticipating that the tax payers would bail them out. This process would be magnified if international institutions (like the IMF and the World Bank) are expected to participate in the bail out.

**III Self-fulfilling expectations.** Accordingly, reversal of international capital flows, potentially due to extraneous reasons, would trigger a crisis.

However, it is also clear that the costs of these crises can rival that of the Great Depression (see page 3 and the Box on page 4). And this therefore necessitates the study of proposed reforms.

**Financial opening:** Relaxation of controls on capital movement allowing domestic consumers to buy foreign assets, foreigners to buy domestic assets and foreign banks to operate in the economy. Examples: Korea and Argentina in the early 1990s.

cial markets to news and policies is much faster than that of commercial flows of goods and services. A by-product of this switch is the focus of the new literature on conditions leading to the instantaneous reversal in the flow of financial assets, generating financial crises.

This literature has led to a spirited debate concerning the wisdom of unrestricted capital mobility between the OECD and emerging markets. Various studies have identified circumstances in which unlimited capital mobility may be sub-optimal (see Table 1 for a summary of some of these studies). Notwithstanding the above debate, the strongest argument for financial opening is the pragmatic one. Like it or not, greater trade integration erodes the effectiveness of restrictions on capital mobility. Hence, for successful emerging markets that engage in trade integration, financial opening is not a question of if, but of when and how.

Consequently, the pragmatic approach to the problem should recognize that there is no quick fix to the exposure to financial crises induced by financial opening. Instead, the challenge is to reduce the depth and the frequency of the crises. The core of the problem is that we deal with incomplete financial markets, exposing the creditors to sovereign risk and moral hazard. As there are fundamental reasons for the incompleteness of these markets, one doubts whether there exists a smart fix that will prevent future crises. Instead, the hope is that new policies and improved coordination will reduce the severity of financial crises, thereby improving the odds of a positive long-run welfare effect of financial opening.

Section 1 starts with a review of recent findings. Section 2 describes the various proposals attempting to reform the global financial system. Section 3 provides an appraisal of the various proposals made for preventing financial crises. This appraisal suggests that a better understanding of the structural characteristics, the make-up and the composition of the economy, leading

to crises is the key for designing a successful restructuring of the capital market. A reform that would not deal with these structural factors runs the risk of leading to disappointing welfare gains at best, and to crises in the worst case. Some of the reforms may fall short of success due to coordination failure: they may be effective only if adopted comprehensively by all the relevant financial centers. Finally, some of the proposals may be too optimistic, ignoring the time inconsistency and political economy considerations that would challenge the practicality of the best-intended reforms, as well as in presuming the ability to verify unambiguously the quality of macroeconomic adjustment.

**Sovereign risk:** Risk that a government could partially default on its foreign debt. Example: The sovereign risk of Korea has been much lower than that of Argentina, so interest rates on dollar borrowing by Argentinians was higher than for Koreans.

**Moral hazard:** incentives for individuals to act in ways that impose costs on others. Example: Portfolio investors believing that a default by Russia would induce a bailout by the IMF bought Russian bonds, disregarding the exposure to risk of default.

**Incomplete markets:** some potential markets do not exist, implying that individuals are unable to buy and sell in these markets

**Financial intermediation:** The channeling of consumers' saving to finance entrepreneurs' investment in tangible capital. Most intermediation in developing countries is done by banks, so savings are financing the loans granted to investors.

## 1. Financial opening and financial crises: the evidence

Recent research has two common themes: it supports the assertion 'Good-bye financial repression, hello financial crash.' (Diaz-Alejandro (1985)). Yet, it also finds some evidence that financial liberalization tends to increase growth over time. Both observations suggest a trade-off over time. In the short-run, the fragility induced by financial opening leads frequently to crises. Yet, if these



Indonesian President Habibie greets farm families from Tempuran village in Kerawang, West Java, June 19, 1998 to ask about the conditions of the farmers and how rice production could be increased as Indonesia weathers its worst financial crisis in decades. (AP Photo/Muchtar Zakaria)

crises force the country to deal with its structural deficiencies, financial opening may induce a higher growth rate in the long-run.

Here, we summarize some findings from recent literature:

Problems in the banking sector, often preceded by financial liberalization, typically precede a currency crisis, and a currency crisis deepens the banking crisis, activating a vicious spiral (Kaminsky and Reinhart, 1999; Glick and Hutchison, 1999).

*The costs of financial crises are substantial.* Currency crisis, on average, leads to a cost of 8% of pre crisis GDP. Simultaneous currency and banking crises reduce the pre crisis GDP by 18% (World Bank, 1998; Caprio and Honohan, 1999).

A study of 53 countries during 1980-95 found that banking crises are more likely to occur in liberalized financial systems. The impact of financial liberalization on the fragility of banks is weaker, however, when the institutional environment (respect for the rule of law, low level of corruption, good contract enforcement) is strong [Demirgüç-Kunt and Detragiache (1998)].

Sequencing of liberalization matters: Capital account liberalization appears to have positive effects on growth only in countries that have already opened more generally. But there are significant prerequi-





Union Bank of Bangkok above, which is to be merged with Krungthai Thanakit, a state-owned finance company, after the Bank of Thailand announced its package to rescue the country's tottering financial sector in Aug. 1998. (AP Photo/Sakchai Lalit)

sites for opening, including a reduction of trade barriers and an ability to eliminate macroeconomic imbalances. [Arteta, Eichengreen, and Wyplosz, (2001); Edwards 2001)].

The empirical literature frequently relies on multicountry comparison. Thus, it provides little guidance in evaluating the net welfare effects of financial opening. For example, it remains hard to gauge if Korea would have been better off by refraining from financial opening in the early nineties, or if Chile would have benefited by retaining financial repression in the eighties-nineties (see Box). The answers to these questions depend crucially on when the analysis is done, as well as on the evaluation of what might have happened without financial opening, both issues to which there are no satisfactory answers.

### U-turn on a dime: the Asian Financial Crisis of 1997-2000

The first crisis arose in Thailand, July 1997. Initially, the Thai government promised to defend the value of the currency. Then it gave up. Similar patterns occurred in Korea, Indonesia, and Malaysia. In July 1998, the Thai baht, the Korean won, and the Malaysian ringgit were down to 60% of their January 1997 levels. The crisis led to the collapse of output, at rates comparable to the great depression in the 1930's. For example, Thailand's output growth fell from 7.5%, for the period 1970-96, to -7% in 1998. Korea's growth fell from 6.8%, in 1970-96, to -15.5% in 1998.

Unlike the great depression, however, several countries managed to accomplish a 'U turn on a dime,' renewing robust growth within two years. Korea is the best example for such rapid adjustment, a pattern that was dubbed 'a V shape adjustment' (similar adjustment occurred in Mexico, in the aftermath of the 1994-5 crisis). Yet, even in the few 'successful' adjustments, the aggregate growth recovery is masking major changes in the distribution of income, and the pain associated with the abrupt policy changes. Frequently, the resumed growth favored the outward oriented, exporting sectors, whereas non traded services and domestically oriented sectors lagged behind, going through prolonged recessions.

In some countries, notably Indonesia, the crisis triggered the melt down of the financial and the political system, leading to violent ethnic riots, and a sharp increase in the incidences of poverty and stagnation.

## 2. Proposals for preventing financial crises induced by financial opening

This section provides a brief summary of the various proposals.<sup>2</sup> These reforms can be classified along several dimensions. First, proposals differ in the weight given to reforming the incentives facing creditors,

debtors, or the interaction between the two groups. Second, proposals differ in the weight given to risk reduction before a financial crisis, versus orderly management and resolution of actual crises. Third, proposals differ in the depth of the reform. Some deal with upgrading regulations within the existing institutional environment, whereas others suggest bolder steps, envisioning the creation of new institutions. Table 2 summarizes the main proposals.

One line of reform, exemplified by the Melzer Committee (1998), focuses on the possibility that, by

**Welfare:** a measure of well-being, a generalization of measures like income per capita

subsidizing government borrowing, the involvement of institutions may exacerbate the problem, inducing moral hazard. For example, the belief that the IMF, World Bank and banking deposit insurances schemes will bail out creditors generates over borrowing, end-

**Table 1 Does opening capital markets improve well-being?**

The Welfare effect of financial opening	Explanation
Potentially large benefits.	Financial opening may lead to large benefits, stemming from better risk pooling, information collection and maturity transformation, providing thereby deeper liquidity [Greenwood and Jovanovic (1990), Obstfeld (1994), Acemoglu and Zilibotti (1998)].
Positive but small benefits from financial opening.	Second order magnitude gains from international diversification of output risk [Cole and Obstfeld (1991)].
Ambiguous welfare effects.	<ul style="list-style-type: none"> <li>- If production does involve learning by doing, opening capital markets does not necessarily improve welfare for the nation or for the world as a whole because local skills and production are replaced by foreign production [Kohn and Marion (1991)].</li> <li>- Overborrowing due to moral hazard and euphoric expectations, leading to crises [McKinnon and Pill (1996); Corsetti, Pesenti and Roubini (1999)].</li> <li>- Overborrowing due to congestion externalities, where atomistic agents do not internalize the full effects of marginal borrowing on future welfare [Aizenman (1989)]; Overborrowing due to free rider problems in economies short of international collateral, generated by imperfections of the domestic capital market [Caballero and Krishnamurthy (2001)].</li> <li>- Emerging markets are more prone to financial crashes. This happens when financial market capitalization depends on the expectations of agents regarding aggregate investment in their economy. This gives rise to potential coordination failures, which may be exacerbated for low income countries by financial globalization [Martin and Rey (2001)].</li> </ul>

ing with more frequent and deeper crises, at the taxpayers' expense. The profound reform of the IMF, suggested by the Meltzer committee (1998), would restrict the IMF's role to helping countries that had accepted conditions before the crisis [see also Jeanne (2001)]. Another radical approach calls for the formation of a global lender of last resort [see Soros (1998)], an approach that would institutionalize a global type of the FDIC arrangement. All these proposals share the concern of minimizing ex-post bailouts that were not pre-approved at the lending stage.

A less aggressive approach to provide greater stability is the imposition of reserve requirements on lenders and/or borrowers, as well as the possibility of capital adequacy requirements that are linked to the bank's portfolio risk. The Basle committee [as well as Chairman Alan Greenspan (1998)] advocates this approach. The rationale for the reserve requirements is

#### **Korea and Chile – better crisis now than protracted depression later**

The financial crisis in 1997 impacted Korea's welfare adversely. One may argue, however, that it prevented a much deeper and longer calamity, akin to Japan's recession in the last ten years. Arguably, had Korea continued with financial repression, a Japanese type of a correction would have hit Korea later. Korea's development path resembles that of Japan -- its domestic banks accumulated over time large non-performing loans. These loans were the heritage of the earlier development strategy, where large corporations had selective access to preferential lines of credit. According to this argument, the crisis of 1997 prevented a larger buildup of these loans, saving Korea from a much deeper correction.

Similar ambiguities apply to Chile, which has been the best performing Latin American country in recent years, and is credited with a sound banking system. Yet, Chile experienced a massive banking crisis in the eighties, following earlier financial opening. Arguably, one may credit the superior recent performance of Chile to the painful earlier reforms, reforms that were triggered by the crises of the early eighties.

provided by the presence of various externalities. On the lender's side, the anticipation of bailouts is introducing an externality, where marginal lending impacts adversely the taxpayer. On the borrower's side, as long as partial defaults are costly, marginal borrowing affects all agents by increasing the probability of a costly default that would impact all [see Aizenman and

*I doubt there is a smart fix that will prevent future crises. But new policies and improved coordination could reduce the severity of financial crises...*

Turnovsky (2002)]. Alternatively, emerging markets may enact similar policies aimed at curbing short-term financial flows, akin to the Chilean system in the nineties [see Eichengreen (1999)].

In evaluating Chile's experience, one should keep in mind that Chile has been the best performing country in Latin America in recent years. Hence, Chile's experience may provide limited inference about the potential benefits of controls on inflows to countries with more fragile financial systems.

A different tack of reforms has focused on the resolution of crises. One approach advocates institutionalizing before any crisis the possibility of credit relief in bad times. This may be accomplished by attaching to all foreign currency liabilities the option entitling the borrowers to extend the debt for a specified period, at a mandatory penalty rate [see Buiter and Sibert (1999)]. In order to facilitate the coordination among large numbers of diffused lenders, various proposals advocate deeper institutional changes. The adoption of a modified version of domestic bankruptcy procedure has been frequently advocated [see Sachs (1995), Miller and Zhang (2000) and Kreuger (2001)]. Specifically, such an "international workout mechanism" would aim at minimizing the cost of protracted negotiations. It would allow the debtor the continuation of export and production with minimal disturbances. It would also serve to coordinate among the diffused creditors, allowing smoother and faster resolution of the standoff between the involved parties.

**Table 2 Overview of proposals**

Proposed by	Emphasis on	Key features
Meltzer Committee Report	Before crisis steps to reduce the moral hazard induced by institutional bailouts	IMF to provide unconditional short-term credit only to pre-approved countries. Restrict IMF's ability to allocate credit after the crisis, and remove IMF support from governments lacking fiscal and monetary discipline.
Basle Committee [supported by Chairman Greenspan]	Before crisis risk management by creditors	Adjustment of minimum capital standards to the risk exposure of banks, including an adjustment for sovereign risk, to mitigate moral hazard induced by deposit insurance, due to the 'Too big to fail' systemic risk doctrine.
Eichengreen (1999)	Before crisis risk management by debtors	Chilean-style capital-inflow taxes as the only effective solution to the dangers of an open capital account when risk management is inadequate, supervision and regulation are not effective, and there is a culture of explicit guarantees.
Sachs (1995) Miller & Zhang (2000) Portes (2000) Kreuger (2001)	Post crisis resolution	<p>International procedures like bankruptcy – offers debtor country legal protection from creditors that stand in the way of restructuring, in exchange debtor is obliged to negotiate with its creditors in good faith and to enact policies to prevent a similar problem in the future.</p> <p>For a market-based solution, collective action clauses are needed in IMF loan agreements and the standing bondholders committees should be established.</p>
Buiter and Sibert (1999)	Crisis mitigation and resolution	Attaching to all foreign currency liabilities the option entitling the borrowers to extend the debt for a specified period, at a mandatory penalty rate.
Soros (1998) Jeanne (2001)	Before crisis insurance against default.	<p>Insurance by a global authority, akin to a global FDIC.</p> <p>Borrowers pay the premium. International monitors (like the IMF or the BIS) set borrowing ceilings, and no bailouts would be enforced on non-insured loans. Crisis insurance fund bails out countries conditional on the payment of risk premium and on making fiscal adjustments.</p>
Rogoff (1999) Kaminsky, Lizondo and Reinhart (1998)	Steps to reduce incidence of crises	<p>Shifting financing from debt to equity. This would be facilitated by mitigating the factors contributing to the bias towards debt [like a deposit insurance which subsidizes bank intermediation; underdeveloped equity markets in emerging markets, etc.].</p> <p>A warning system for crises, taking into account a broad variety of indicators.</p>



### 3. Reforming the financial system: the challenges

The growing list of proposed reforms is indicative of the emerging consensus that the present financial architecture needs a major overhaul. While it is easy to point out the flaws of the existing system, any fundamental reform will confront a host of challenges. We review briefly some of the general issues involved, and illustrate their relevance in understanding the limitations of various proposals.

#### The Lucas Critique; Political economy and coordination failure

Any significant reform will change agents' behavior in ways that are hard to predict without understanding the fundamental forces explaining sovereign borrowing and default. Some of the relevant fundamentals are determined by the political economy characterization of emerging markets, and by the challenges confronting attempts to deal with coordination failures. A version of the Lucas critique applies --short of a fuller understanding of the fundamental forces leading to exposure and crises, suggested reforms may lead to disappointing results at best, and welfare reduction at worst.. We illustrate these considerations by analyzing the potential pitfalls in several proposed reforms.

#### 3.1 Debt maturity structure

Jeanne (2001) illustrates the importance of understanding the forces leading to vulnerability as a necessary condition for evaluating the welfare effects of changing the international financial architecture. Specifically, he focused on understanding the maturity structure (the relative weight of short- and long-term debt) of countries' external liabilities as the solution to an incentives problem. He considered a country attempting to borrow when there is uncertainty about its solvency due to shocks beyond the control of the government. The country can enhance its solvency by implementing a costly fiscal adjustment, and it can borrow on a short term or a long-term basis. This situation imposes a trade off --when government's solvency deteriorates; short-term debt becomes less expensive or more accessible than long-term debt. This comes with a cost: the government is under more pressure to restore the fiscal situ-



South Korean workers protest against the International Monetary Fund (IMF) in Seoul, Dec. 17, 1997. The currency had lost more than half of its value that year. About half the loss had come since the IMF extended a record \$57 billion bailout on Dec. 3. (AP Photo/Yun Jai-hyung)

ation if its debt has a shorter maturity, because it is more vulnerable to a crisis in which creditors do not roll over their claims. This is due to the observation that short-term debt opens the door to self-fulfilling crises, in which creditors stop rolling over their loans for an extraneous reason unrelated to the fundamentals. There is a tension, thus, between the disciplinary benefits of short-term debt and the risk of unwarranted rollover crises.

In this context, Jeanne investigates the welfare effect of institutions that facilitate an orderly workout of debt crises, (e.g., an international bankruptcy court and officially sanctioned standstills); and of international lender of last resort. These measures are shown to improve welfare, but to fall short of the first-best. The first best in Jeanne's model is achieved by a "crisis insurance fund" which bails out countries after a crisis if they had undertaken required fiscal adjustment before the crisis, and had paid a risk premium.

### 3.2 Transparency and the feasibility of a “Crisis insurance fund” conditional on a before-crisis adjustment effort.

It is non-controversial that a minimum level of transparency of financial positions and policies is a necessary condition for financial markets to exist and to operate. Yet, it’s not clear that greater transparency would eliminate the exposure to crises. Setting standards for transparency may encourage creative accounting, where each crisis exposes new loopholes, inducing a change in the required rules of the game. While “transparency creep” is unavoidable, putting too much faith in the importance of transparency may lead some investors to a false sense of security. Indeed, full information does not negate the possibility of crises induced by multiple equilibria.

One of the innovative proposals dealing with reforming the IMF is to insure countries against financial crises only if they meet crisis-avoidance criteria [see Jeanne (2001) and Meltzer (1998)]. A necessary condition for such a scheme is transparency. In practice, however, verification is costly and fuzzy. Frequently, it takes a major crisis to force the “real books” to open [see the case of Korea’s reserves in the 1997 crisis, and the recent Enron fiasco]. These practical considerations suggest that only in the aftermath of a crisis do we learn the degree to which the crisis avoidance criteria were met, as a crisis may reveal that some of these criteria were met only superficially. Hence, the applicability of this proposal is limited by the cost of monitoring and the impossibility of verifying the depth of the adjustment. In these circumstances, we are left with no clean solutions, and there may be no escape from the need to “muddle through” protracted negotiations in the aftermath of crises.

**Political economy** evaluates the interaction between groups that have political clout, studying the implications of political influence on the functioning of the economy and the distribution of income.

### 3.3 The use (and abuse) of International Reserves, and vulnerability indicators

A high short-term debt/International reserves ratio was found to be a vulnerability indicator, signifying exposure to crises [see Rodrik and Velasco (1999)]. Does it imply that emerging markets would benefit by increasing the cushion of international reserves, signaling thereby they’re being a safer borrower? Countries like Chile, Korea, and Taiwan have managed large stocks of international reserves. Does it follow that other countries will benefit from hoarding more international reserves in order to reduce the above vulnerability index? As the Lucas Critique would suggest, a deeper understanding of the economy is needed in order to answer this question.

A high short-term debt/reserve ratio may be a symptom of political instability. In these circumstances, a policy that will target a drop in the short-term debt/international reserves ratio without dealing with the political economy considerations that determine the prospect of future looting, is welfare reducing. Such a policy does not necessarily reduce vulnerability to crisis, and in fact it may increase the probability of a crisis.

This would be the case, for example, if the increase

#### People respond to changes in policy: the Lucas Critique

‘Lucas argued that, although economic agents may act in a certain way, you should not assume that they would continue to act in that way if you changed economic policy.’ Penguin Dictionary of Economics, online at: [www.xrefer.com](http://www.xrefer.com).

Changes in policies affect the incentives and the budget constraints facing economic agents. Hence, new policies would alter the behavior of agents, modifying thereby the observed correlations. If policy makers attempt to take advantage of past statistical relationships, effects operating through expectations and agents’ behavior may cause the relationships to break down [See Lucas (1976)].

in the stock of reserves triggered by policies increases the misguided expenditure of opportunistic administrations in the future. This effect is further magnified when the probability of the switch to the opportunistic administration increases with the resources available to such an administration, or when these resources trigger rent seeking behavior. This provides an illustration of the Lucas critique -- policies that are beneficial in the absence of opportunism, may backfire and reduce welfare in countries characterized by political polarization and instability.

Similar concerns may apply to the usefulness of vulnerability indicators. These indicators provide information on variables correlated with past crises. Attempts to encourage the dissemination and the use of these indicators in allocating global funds may have mixed results. These indicators may be ineffective in the future, when applied beyond the sample used to construct them. Quasi-official indicators may also

#### **Brazil and Argentina: resolving imbalance versus exchange rate fix**

These considerations are illustrated in the contrast of the policies undertaken by Brazil and Argentina in the last 15 years. In the eighties, both countries were characterized by similar fiscal deficiencies, stemming from their organization as a loose federal system, where the provincial states and municipalities had a significant bargaining power relative to the federal center. In the early nineties, both countries went through successful exchange rate based stabilizations. The nominal anchor provided by pegging the exchange rate, supported rapid disinflation in both countries. Argentina, however, put a much greater emphasis on the importance of a peg – it adopted a rigid currency board. In contrast, Brazil put greater emphasis on dealing with its fiscal imbalances, reducing thereby the relative power of the provincial states. In addition, Brazil moved over time from a fixed exchange rate regime towards discretionary exchange rate management, accommodating external adverse shocks with occasional depreciations. As the recent events have painfully illustrated, Brazil's choice allowed it to steer away from a deep crisis, whereas Argentina's choice has led over time to increased vulnerability, and to the ultimate recent crisis.

provide a false sense of security; market participants may attach too much value to these indicators, ignoring other relevant information. It may induce emerging markets to 'distort' the indicators in order to signal their relative soundness. As the previous discussion illustrated, short of deeper reforms, these signals may be misleading, and may not indicate a genuine reduction in vulnerability.



Anne Krueger, Deputy Manager Director of the IMF, addresses a news conference in Santiago, Chile, Jan. 2002, saying Argentina must present a sustainable and coherent economic plan in order to get assistance. (AP Photo/Santiago Llanquin)

### **3.4 Time inconsistency and political economy considerations – how important is the choice of exchange rate regimes?**

Crises are frequently the delayed manifestations of political economy factors. Casting the problem in terms of the “smart” choice of an exchange rate regime is potentially hazardous, as it obscures the need to challenge deeper fiscal deficiencies. Reforms that ignore political economy factors run the risk of inducing too optimistic an assessment of countries, leading over time to a large exposure, and ultimately to greater vulnerability. The literature on the optimal exchange rate regimes frequently attaches too much importance to the

choice of monetary policy. Beyond the short-run, monetary and fiscal policies are intertwined via the intertemporal budget constraints. Indeed, one may argue that a deficient fiscal system may lead to crises independently of the exchange rate regimes. In these circumstances, the choice of the exchange rate regime will only effect the timing of the ultimate crisis. After all, sovereign risk and exchange rate risks have different causes.

### 3.5 Multiple equilibria and the international lender of last resort

One possible justification for “bailing out” countries is the presence of multiple equilibria, which allow an economy to achieve stability in more than one set of conditions. Exposure to multiple equilibria is a by-product of the maturity transformation accomplished by financial intermediation, where short term deposits are used to finance longer term real project [Diamond and Dybvig (1983), Chang and Velasco (1999)]. In these circumstances, the presence of the lender of last resort is supposed to prevent the bad equilibrium. As Rogoff (1999) discussed, a lender of last resort comes with a hefty cost to the taxpayer.

There are fundamental challenges facing the multiple equilibria argument. Vulnerability to a crisis may depend on the flexibility of an economy to adjust to changing circumstances. This includes the ability of the fiscal system and the labor market to adjust to unforeseen events. More generally, country risk may be determined by the interaction between shocks, and the quality of the institutions of conflict management [see Rodrik (1999)].

One may rephrase the above discussion in terms of the rules versus discretion literature, where there are gains from delegating monetary policy to a conservative agent. As was illustrated in Rogoff’s (1985) seminal work, the optimal commitment to the conservative course depends on the stochastic structure (summary of the random shocks that could impact an economy). If the balance of shocks tilts over time towards adverse real shocks, a less conservative course is preferable. The success of Brazil and the failure of Argentina may be viewed as a vivid example of this principle. The success of the structural reform would require also challenging the fiscal deficiencies that determine, in the long run, the course on monetary policy. Hence, the relative success of Brazil is attributed to its success in curbing the bias

#### Argentina: multiple equilibria or failure to resolve fiscal deficits?

Some may view the fate of Argentina as an example of a country suffering from the adverse consequences of a switch to a bad equilibrium. Supporters of this view point out that conventional measures (current account, fiscal deficits, etc.) failed to indicate that Argentina was vulnerable in the 1990’s. Indeed, Argentina’s fiscal measures were comparable to those of ‘respected’ OECD countries. Can we infer from this that a lender of last resort would have prevented the Argentinean crisis?

While it’s hard to test this assertion, the multiple equilibria interpretation is challenged by the view that Argentina is a quasi European style welfare state, standing on the shoulders of a very thin tax base. This situation is further exacerbated by the provincial states’ bias towards overspending. Hence, one may conclude that there are fundamental reasons to view Argentina as a risky destination for global capital; even if its fiscal deficits and current account deficits are comparable to OECD countries.

The insistence of the Argentinean authorities on preserving the currency board despite the growing strength of the dollar and the occasional real depreciations of Brazil may be viewed as a manifestation of these risks -- viewing the currency board as the main safeguard against inflation runs the hazard of providing a signal that the deeper fiscal problems are still there. Placing too much faith on the currency board as the mechanism for fiscal discipline overlooks the fact that the cost of changing the exchange rate regime (and more generally of monetary policy) is much lower than the cost of a fundamental fiscal reform. Hence, a country like Argentina runs the risk of being viewed as fiscally unstable, independently of the realized path of current account and fiscal deficits. In the long run, according to this view, the fiscal side will determine the strength of the system. Short of resolving fiscal deficiencies, a country like Argentina will find it hard to convince the market that it’s a prudent destination for capital.



towards provincial overspending, and in a more appropriate use of discretionary exchange rate and monetary policy.

### 3.6 Policies designed to impose discipline on the market - reserve and capital adequacy requirements

The introduction of reserve requirements by either borrowers or lenders may impose better discipline on the global financial market. Borrowing will decline, and so will default risk, reducing the necessity for continuing bailouts. The introduction of reserve requirements will improve welfare in both the lending and borrowing economies. But, the design of the optimal reserve requirements in a decentralized world is a delicate matter. Without proper coordination among all lenders, the reserve requirements will reallocate lending from high to low reserve countries, with few beneficial effects. Hence, the gains of such policies will be determined by the ability of international institutions (the Bank of International Settlements, IMF and others) to induce all lenders to apply similar policies.

## 4. Concluding remarks

Recent proposals for a “New International Financial Architecture” have focused on reducing the probability

of a crisis, and inducing more orderly resolution of a crisis. There are good reasons to support both and they should complement each other.

Greater global integration has increased the responsiveness of financial flows to news. This development is potentially beneficial in good times, but it has adverse consequences when things go wrong. Hence, the darker

*The darker side of globalization is that financial crises increase the scope for conflicts. Once the bad news hits the market, the key issue is not only the ultimate distribution of the burden of adjustment between the debtors and creditors, but also the length of time it will take to resolve the dispute.*

side of globalization is that financial crises increase the scope for conflicts -- the direct stakes are higher. Once the bad news hits the market, the key issue is not only the ultimate distribution of the burden of adjustment between the debtors and creditors, but also the length of time it would take to settle down the dispute. Uncertainty regarding the dispute resolution mechanism may undermine cooperation, as it exposes creditors to the hazards of long haggling over a shrinking pie. Protracted negotiations will prolong the period where both domestic and international agents refrain from new investments. This in turn will deepen the recession in the affected countries, increasing the social tension, further increasing losses. The net outcome may be greater temptation for the domestic authorities to embark on populist policies, leading towards autarky, a trend that will hurt further prospects of trade integration.

Hence, recent crises may be viewed as tests of the global dispute resolution mechanism. A slow and protracted resolution of the Argentina crisis, for example, will highlight the



A small child walks through debris March 2001, near her home in a south Jakarta slum, Indonesia. According to UNICEF the proportion of severely malnourished children in Indonesia has risen eight percent since the 1997 Asian financial crisis. (AP Photo/David Longstreath)



inability of the present system to deal efficiently with adverse shocks, thereby reducing future financial flows, and putting in jeopardy other vulnerable countries.

The urgency of these issues is illustrated by the willingness of top IMF executives to engage constructively in a debate concerning the future form of the global dispute resolution mechanism [see Krueger (2001)]. Practical reforms building on politically-, and financially-proven institutions are urgently required. They could include:

- a more stringent application of capital and reserve requirements;
- coordination of regulations across countries by the Bank of International Settlements and the International Monetary Fund;
- coordination among creditors, and the formation of international bankruptcy procedures.

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