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## *Editors' Summary*

Currency crises are paramount but extremely perplexing problems in today's international economy. Initially erupting in a country's financial markets, these crises typically spread throughout a country's economy and beyond—often with devastating consequences for real economic activity. The resultant reductions in domestic living standards can be severe and long lasting. Why do such crises continue to erupt? Can the growing number of past experiences enable us to better understand current crises, mitigate their impact, and prevent additional crises from occurring in the future?

*Brookings Trade Forum 2002* brought together experts on the two most recent crises—in Argentina and Turkey—as well as economists and policy-makers who have studied currency crises more broadly. The result was a lively and informed debate, conducted in three sessions. One session focused on the ongoing crisis in Argentina. The two papers presented in this session provide quite different assessments of what went wrong and what might have been done differently to prevent the crisis. A second session focused on the recent experience in Turkey. The third session, a discussion launched by three panelists, provided an open-ended discussion of the lessons to be drawn for the future.

The fifth annual conference of the Brookings Trade Forum was held in Washington on May 2, 2002. This volume contains the papers, panelist remarks, invited commentary, and general discussions from that conference.

In the first paper, Andrew Powell argues that the Argentine crisis was not inevitable and could have been avoided. While the currency was overvalued by conventional measures, especially after the devaluation of the Brazilian real, he finds that Argentina's current account had more or less adjusted by the end of 2000. And while Argentina did need a fiscal adjustment, he argues that until the end of 2000, and perhaps even until the second quarter of 2001,

the magnitude of the required adjustment was relatively small. In actuality Argentina accomplished virtually no fiscal adjustment whatsoever.

Powell argues that the root of Argentina's crisis was, therefore, the interaction of four factors. First, the country suffered from bad luck, including a significant decline in its terms of trade and a recession in Brazil, its main trading partner. Second, fiscal adjustment, though moderate, was required. Third, the current account adjustment process was very slow, involving both deflation and recession. Finally, and very important, Argentina's politics were extremely messy—hence its inability to reduce national spending without creating enormous political uncertainty. Powell presents the interaction of these factors as a vicious, self-enforcing cycle, potentially implying multiple equilibria, both for the economic variables and between the economic and political outcomes.

Powell's paper opens with a brief description of the events beginning in the late 1990s. The paper then uses vector autoregression (VAR) analysis to study the linkages between these variables. Powell finds significant interrelations between key economic and political indicators. In particular, political risk fed through to worsened economic fundamentals, and these fed back to increased political risk. Low fiscal revenues and lower imports fed through to higher spreads on Argentina's international bonds, which in turn fed back to both lower imports and budgetary difficulties instead of fiscal revenues. The results support the view that politics and fiscal variables were key drivers of Argentina's problems.

Different authors have criticized the role of the International Monetary Fund (IMF) in Argentina. Powell argues that the International Monetary Fund was in an impossible position. Although the IMF became increasingly uncomfortable with Argentina's policies, it also recognized that withdrawal of its support would likely create the conditions for a private sector run that would end in default and probable devaluation. The IMF was thus caught between its growing concern about moral hazard and the possibility of a run. Powell argues that this dilemma is likely to characterize future IMF relations with countries in a crisis.

The lack of support for the March 2001 Lopez-Murphy plan marked a watershed, which can be seen as identifying the limits of the adjustment in government spending that was politically feasible under the de la Rúa government. With bond spreads over 1,000 basis points, it can be argued that the IMF had to make a decision to either assist Argentina strongly or withdraw. However, the IMF did neither. Powell develops a more formal game theoretic

analysis to study the behavior of both sides in this episode. Perhaps surprisingly, this model suggests that Argentina's action ("deviation to more risky play") and the IMF's vacillation may in fact be part of rational "equilibrium" play.

In summarizing the situation as of July 2002, Powell notes that the tension between moral hazard and private sector confidence continues. Unfortunately, the "cooperative solution" may only become available when the IMF's threat of removing support again becomes meaningful. He concludes that under its current modus operandi, the IMF becomes largely irrelevant to a country in a crisis as deep as Argentina's.

Powell also uses his model of Argentina-IMF relations to motivate a broader discussion about the need for a more efficient crisis resolution process—what is now typically called reforms to the international financial architecture. In particular, Powell stresses the need to reduce the incentives for countries to pursue riskier policies as default becomes more likely. He suggests that a bankruptcy procedure for sovereigns might provide a solution. He also suggests that his analysis may help to put some bounds on how attractive or painful such a procedure may need to be so as to provide more appropriate incentives.

Ricardo Hausmann and Andrés Velasco present an analysis of Argentina's crisis that is quite similar to Powell's in some respects, but strikingly different in others. They begin by pointing out that Argentina's was not a crisis that caught people by surprise. Instead it was a protracted affair, attracting the attention of some of the best minds in Washington, Wall Street, and Buenos Aires. Many well-trained economists proposed various diagnostics and innovative policy initiatives. The country's much-maligned politicians and parties supported austerity policies. And, until late in the game, the international community provided financial support. Yet the catastrophe proved "impossible to avoid."

Hausmann and Velasco examine what they see as the three main theories put forward as the crisis deepened. First, some analysts have argued that the problem had a fiscal origin and required a fiscal response. For others, it was a multiple equilibria story, in which self-fulfilling pessimism kept interest rates too high and growth too low for the numbers to add up. The third group of analysts blamed the exchange rate, arguing that the real value of the currency had moved in the wrong direction.

Hausmann and Velasco then argue that none of these stories on its own makes sense. In spite of the strong temptation to blame everything on irresponsible politicians, they argue that a simple fiscal explanation is inadequate. They find no evidence of a spending boom in Argentina—as a share of GDP,

primary government expenditures remained roughly constant in the 1993–2001 period. Public debt did grow rapidly. But they argue that this debt accumulation was not driven by a lack of adjustment effort, but instead to a significant extent by the transition costs of the Social Security system, the recession, and the recognition of preexisting debts.

Although Hausmann and Velasco agree that there were elements of self-fulfilling pessimism in the Argentine debacle, they find it hard to make the case that multiple equilibria alone were to blame. Given the difficulties of changing relative prices, they find that reestablishing enough confidence to assure moderate growth would have required maintaining a current account deficit in excess of 5 percent of GDP and accumulating an additional \$20 billion in external debt between 1998 and 2001. While possibly feasible in an idealized world with perfect capital markets, they conclude that such a path was an extremely unlikely bet in a more realistic setting with sovereign risk and imperfect commitment to repay.

In contrast, they argue that to make sense of what went wrong one must focus on the interaction between two factors: Argentina's misaligned real exchange rate and its capacity to borrow abroad, which went from ample in the early 1990s to nil by 2001. To highlight these issues, Hausmann and Velasco develop a framework in which export prospects determine the access of financially constrained countries to external resources. Starting in 1999, expectations of Argentina's future export growth arguably declined sharply: expected returns to capital in this sector fell, along with low export prices and an appreciating real multilateral exchange rate. The drastic tightening of the financing constraint explains the onset of Argentina's investment decline and recession. Thereafter negative factors fed on each other: higher risk premiums and smaller capital flows meant less demand for domestic investment, which in turn depressed aggregate demand and output, further curtailing creditworthiness and Argentina's ability to borrow.

The authors note that other countries in the region suffered similar capital account shocks and were forced to undertake rapid current account reversals. But those countries, especially Chile and Brazil, could rely on sharp changes in relative prices to help speed up the adjustment. Those countries were also much less dollarized than Argentina, reducing the negative balance sheet effects. Since relative prices could not adjust quickly in Argentina (deflation did its painful job, but very slowly), quantities had to. The economy began contracting sharply in 1999 and has remained on that course ever since. In this

sense, Argentina's financial crisis was a growth crisis: if incomes keep dropping, at some point debts become impossible to pay.

Hausmann and Velasco conclude that this situation presented policymakers with an unusually nasty menu of options. Standard fiscal contraction ran the risk of further contracting an already depressed economy, while having a highly uncertain impact on expectations, investment, and future growth. Using the exchange rate, as textbooks recommend, was no easier. Argentina clearly suffered from exchange rate overvaluation. But given the large stock of dollar-denominated debt, both private and public, devaluation by itself would have most likely made matters worse. Arguably a devaluation accompanied by a symmetric pesification of financial claims might have resolved the overvaluation while minimizing the negative balance sheet effect.

An extensive discussion about Argentina followed presentation of these two papers. Many participants, including the invited discussants, argued that Hausmann and Velasco's analysis underestimated the size and relevance of Argentina's fiscal problem. The participants emphasized the importance of the provinces, and the need for fuller analysis of the budgetary implications of both Social Security reform and privatization. Some speakers stressed the view that Argentina's deflation is an important factor that has received insufficient attention. There was also discussion of the extent to which Argentina's economic performance had differed from that of other economies in the region since 1999, and why its crisis became so severe after mid-2001.

In the third paper, Fatih Özatay and Güven Sak examine the 2000–01 crisis in Turkey. This experience is perhaps less well known, but also raises both puzzling issues and some potential lessons. They point out that the Turkish economy has been hit by two crises in the past decade. The first one occurred at the beginning of 1994, when the country was maintaining a managed float. The second and more severe crisis was preceded by turmoil in domestic financial markets that burst in the second half of November 2000—in the midst of an IMF-supported exchange rate–based stabilization program. Under this plan, the Turkish central bank implemented a crawling peg exchange rate regime under strict currency board rules. Not only was the rate of crawl predetermined, but the timing and method for transitioning to a floating exchange rate were publicly announced at the outset.

In fact, the regime collapsed four months before the planned exit date. At the end of December 2000, average interest rates were almost four times higher than they had been at the beginning of November and more than five

times higher than the preannounced year-end depreciation rate of the Turkish lira. This unsustainable situation ended on February 19, 2001, when the prime minister announced that there was a severe political crisis. Three days later the exchange rate system collapsed, and Turkey declared that it would implement a floating exchange rate.

In this paper, Özatay and Sak analyze the reasons behind this second crisis. In the process, they provide a wealth of facts and figures about economic policy and performance during the relevant period. Their main conclusion is that the root cause of the crisis was an increasingly fragile banking sector and a set of triggering factors that made this fragility very evident.

The authors begin by examining the evolution of key economic variables. They show that Turkey's macroeconomic fundamentals were quite weak during the 1999–2000 period (including budget and current account deficits and an overvalued exchange rate). However, they argue that this episode does not fit the pattern of what has been called a first-generation crisis. Specifically, the budget was financed by issuance of domestic debt, not money creation. And perhaps because of the IMF standby agreement signed in December 1999, the situation was improving in 2000, not deteriorating. There was no gradual depletion of foreign exchange reserves, nor was there a gradual rise in interest rates. Instead, these changes occurred suddenly and dramatically when the crisis erupted.

Özatay and Sak argue that the Turkish experience also does not fit the story underlying a so-called second-generation crisis, in which speculation arises from expectations regarding government policy in the aftermath of a crisis. They point out that postcrisis policies have not, in fact, been expansionary. A new IMF agreement was signed, and the primary budget surplus was substantially increased.

Instead, Özatay and Sak build the case that the main underlying problem revolved around the interaction between debt finance and Turkish banks. They argue that the banking system fragility was caused by Turkey's high public sector borrowing requirement and the way it was financed. To support this view, they analyze the structural characteristics of the Turkish banking system and provide a detailed discussion of the mechanics of the crisis process that unfolded. They provide evidence regarding the accumulation of risk in the banking system in the period preceding the crisis, including the increasing mismatches in currency and maturity and the rising volume of nonperforming loans. The authors show that the source of risk differed significantly between

private and state banks. They also document substantial variation in exposure among private banks.

Hence the banking system was highly vulnerable to capital reversals. Delays in implementing structural reforms (especially related to banking supervision), as well as political uncertainties, contributed to the vulnerable financial environment. The crisis exploded after key banks lost their credit lines, making it difficult for the government to roll over debt instruments, thus raising interest rates and prompting concerns about the sustainability of the debt.

There was considerable interest in the details of what happened in Turkey's financial system prior to the collapse. However, Peter Garber argued that the paper makes too much of the differences among the alternative models of a currency crisis. In his view, the underlying issue is how to cover the financial hole in the government. He also discussed the reasons why external banks continued to lend actively to Turkey. Atish Ghosh suggested that the authors should pay more attention to an alternative explanation of what happened. He argued that Turkey's crisis may simply be another example of a failed exchange rate-based program to stabilize inflation. This generated some discussion of whether the stabilization program, with its preannounced exit date, had been a credible and sensible strategy at the outset.

The third session of the Trade Forum was a panel discussion. Three experts were invited to discuss their views regarding currency crises more generally, including causes and appropriate policy responses.

Morris Goldstein focused his remarks on the lessons to be learned regarding currency regimes and debt problems in emerging economies. He argued that a country's currency regime matters a lot, both for reducing vulnerability to crises and for improving macroeconomic performance. Based on his reading of the evidence, he concludes that adjustable and crawling pegs are prone to currency mismatch and particularly vulnerable to crises. Further, it appears very difficult to engineer a noncrisis transition to more flexibility. Currency boards, while perhaps less fragile, are still vulnerable to speculative attack and significantly limit policy responses to recession. And nonindustrial economies appear to have a "fear of floating," so that most floats are more *de jure* than *de facto*. In this context, he makes the case of an exchange rate regime he calls managed floating plus. This enables countries to maintain some monetary independence while actively targeting inflation and taking measures to reduce currency mismatch. He cites Chile, Brazil, and Mexico as examples of countries that have recently done well pursuing this type of regime. However, he cautions that no exchange rate regime should be viewed as a panacea.

Goldstein also argued that standard analyses of debt sustainability are likely to be overly optimistic. In his view, these analyses typically pay inadequate attention to a country's ability to generate foreign exchange. They fail to capture the potential for vicious cycles arising from interactions among fiscal tightening, higher interest rates, slower growth, and lower tax receipts. Further, current interest rate spreads may be poor predictors of the spread that markets will require in the future to meet a country's financing needs as domestic and external conditions evolve. Thus Goldstein concluded that more conservative approaches are warranted for estimating whether a country's debt is sustainable. He also strongly supported measures to make debt restructuring more timely and orderly. In this context, he ended his commentary with a discussion of the main initiatives that have been proposed recently.

Jose Luis Machinea, former minister of finance of Argentina, analyzes the period leading to Argentina's crisis from the perspective of a key decision-maker and in the context of existing literature on currency crises. The thrust of his argument is that Argentina's unique experience with convertibility poses new problems that challenge and improve upon conventional wisdom about the nature of these crises.

Machinea begins by reviewing the literature on currency crises, arguing that many of the lessons learned from the crises of the 1980s, such as the central importance of consistent monetary and fiscal policy decisions, are still relevant today. More recently, the magnitude of the crises in Mexico, Asia, and Russia has increased the focus on the link between currency crises and financial crises. Weak financial systems, short-term indebtedness of both the private and public sectors, and herding behavior among investors are seen as key causes of the meltdown in these countries. Machinea shows that according to these criteria the causes of Turkey's recent crisis were not ambiguous. Argentina's crisis, however, is somewhat exceptional, because the country was admired throughout the 1990s for high growth, low inflation, and a remarkably solid financial system.

Machinea focuses on the inflexible nature of the convertibility regime as central to Argentina's problems. He carefully weighs the criticisms of convertibility—that it was not sufficiently credible in the long run for investors, that it did not allow necessary procyclical fiscal policy and exaggerated external shocks, and that it was harmful to Argentina's competitiveness—against what he perceives to be the alternatives, and argues that it is unclear that a move to official dollarization or a more flexible regime would have been more effective. An alternative regime would not necessarily preserve low inflation and interest rate

premiums or change the fundamental problems of high government deficits or labor market rigidity. In fact, by the time he took office in December 1999, Machinea argues, it would have been economically devastating and politically impossible to abandon convertibility. He defends the government's decision for fiscal adjustment and an IMF loan, and blames political disagreement and the worsening global economic climate for its failure.

Machinea draws several lessons from this crisis that should better inform policymakers in the future. Foremost, while convertibility was an effective short-run monetary stabilization tool, he believes it should have been abandoned in the good times. For political reasons, this did not happen in Argentina. Thus the Argentine crisis highlights the centrality of political consensus to economic policymaking. Ultimately, the economy must be able to make adjustments in the event of an external shock, and this puts particular stress on hard peg regimes. Argentina shows that inflexibility does not necessarily lead to discipline.

Machinea also concludes that this crisis has implications for financial market policy. Unlike other countries that suffered currency crises, he characterizes Argentina's financial system as extremely solid, fettered only by the potential cost of devaluation due to high liability dollarization. Therefore, Machinea concludes that liability dollarization should be discouraged. He also believes that market instruments, such as the Argentine mega swap, cannot be used to solve liquidity problems in the middle of a crisis.

Yung Chul Park explores the strengths and weaknesses of the development model in East Asia. He asks whether the region should overhaul its entire development model in favor of the American style of free capitalism, or should instead concentrate on reforming the current model. He notes that the IMF reform programs in East Asia, which are based on free market capitalism, have not led to precrisis success levels. But the precrisis model may have had serious flaws that precluded its success in the new global economy.

When the East Asian economies were opened to capitalism and free trade they boomed, but then crisis set in. Park identifies four structural weaknesses of the precrisis model. These weaknesses are all related to the inability to adjust the corporate banking sector quickly enough to market liberalization: an inadequate governance mechanism over the private sector; the absence of mature financial infrastructure and a legal and regulatory system; a closed, nontransparent corporate sector; and the market distortions and monopolies arising from dependence on an export-led development strategy. However, Park concludes that these weaknesses are not enough to completely abandon the old

development model. The model's basic premise is still applicable, but its institutions must be reformed.

Updating the old model essentially amounts to building a new, mixed economy model combining the state and market to adjust to democratization, economic liberalization, and globalization. Different countries in East Asia will reform at different speeds and to different degrees, based on their individual situations and expectations. All of them would be smart to maintain the same growth policies: incentive schemes for saving and investment, encouraging investment in education along with research and development, upholding macroeconomic stability and market openness, and preserving the growth with an equitable social welfare strategy. The necessary reforms to the model include instituting a new democratic governance system, halting corruption in government, developing social welfare programs, providing for political participation for labor, regulating both market-based and bank-based financial systems, strengthening legal and judiciary oversight of industrial organization, implementing a managed floating exchange rate system, and improving regional integration and cooperation.

Thus Park suggests that reforming the precrisis East Asian development model so that it complies with the new requirements of open market capitalism and globalization will lead to more success than will simply imposing the American capitalist model on East Asia. He concludes that a gradual reform—sensitive to the realities of the region and flexible enough to adjust to societal, political, and economic changes—is the safest way to avoid further crises.