

NBER WORKING PAPER SERIES

BETWEEN MELTDOWN AND MORAL HAZARD:  
THE INTERNATIONAL MONETARY AND FINANCIAL POLICIES OF THE CLINTON  
ADMINISTRATION

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Working Paper 8443  
<http://www.nber.org/papers/w8443>

NATIONAL BUREAU OF ECONOMIC RESEARCH  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
August 2001

Prepared for the conference on the Economic Policies of the Clinton Administration, Kennedy School of Government, 26-29 June. Sam Saddigh and Salah Mattoo provided valuable research assistance. We thank, without implicating, Caroline Atkinson, Fred Bergsten, Stanley Fischer, Jeffrey Frankel, Jeff Frieden, Timothy Geithner, Peter Kenen, David Lipton, Sherman Robinson, Dani Rodrik, Jeffrey Shafer, Larry Summers, Dan Tarullo, Ted Truman, and Janet Yellen. The views expressed herein are those of the authors and not necessarily those of the National Bureau of Economic Research.

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NBER Working Paper No. 8443  
August 2001  
JEL No. F3

**ABSTRACT**

We review and analyze the monetary and financial policies of the Clinton administration with a focus on the strong dollar policy, the Mexican rescue, the response to the Asian crisis, and the debate over reform of the international financial architecture. While we consider the role of ideas, interests and institutions in the formulation of policy, our emphasis here is on institutions, and specifically on how personnel and administrative arrangements allowed the Treasury department to exercise an unusually important influence in the development of these policies. This allowed a set of ideas imported by Treasury from academia and the markets to strongly influence the formulation of the international monetary and financial policies during the Clinton years.

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# **Between Meltdown and Moral Hazard:**

## **The International Monetary and Financial Policies of the Clinton Administration<sup>1</sup>**

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**July 2001**

### **I. Introduction**

There was no reason at the outset for thinking that international monetary and financial questions would feature so prominently in the activities of the Clinton administration. They had absorbed far less time and attention during the presidency of George Herbert Walker Bush than the budget deficit, the trade deficit, the 1990-1 recession, and any number of other strictly economic problems.<sup>2</sup> International monetary and financial issues were hardly mentioned in a campaign whose final months coincided with an episode of serious currency-market instability in Europe. Yet, the Mexican rescue, the Asian crisis, and reform of the international financial system turned out to be major preoccupations of the new president and his advisors.

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<sup>2</sup>Not to mention Operation Desert Storm, German reunification, and the collapse of the Soviet Union.

It has been suggested that there is a regular cycle in the term of a political leader in countries like the United States.<sup>3</sup> First is the naive phase in which international monetary and financial concerns (and perhaps also trade) are essentially ignored because the leader has typically won his office by courting exclusively domestic constituencies and is not fully aware of the connections between domestic and international issues (including the constraints imposed on his domestic ambitions by international factors). There then follows the more mature phase, as the leader becomes more aware of international economic relations and international diplomacy offers a useful diversion of popular attention from domestic conflicts. In the case of the Clinton administration, although the president and his staff wanted to focus on health care, welfare, public investment, education, and the information superhighway, in its first two years the Clinton White House failed to win the support of a divided Senate for major domestic initiatives other than the 1993 Clinton-Mitchell-Foley deficit-reduction package. And following the loss of Democratic control of the Congress in 1994, all ambitious domestic initiatives were obviously dead in the water. If this didn't exactly create a political vacuum and a demand for newspaper headlines that could only be filled by international events, it at least facilitated the efforts of Treasury and other economic agencies to bring these issues to the attention of the president and his core political advisors.

But there were also fundamental structural reasons for this within administration shift, notably the growing importance of international financial markets. Portfolio capital flows to emerging-market countries had begun growing explosively, reflecting the effects of the Brady Plan restructurings in clearing away problem debts and the progress of economic reform in Latin

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<sup>3</sup>See Bergsten (1986) and Frankel (1994).

America, at about the same time the Democratic candidates started spending significant amounts of time and money in New Hampshire (see Figure 1). The information and communications revolution that would become the subject of so much attention and hubris was already quietly underway; among its effects was to greatly reduce the cost, and thereby stimulate the volume, of foreign-exchange trading and cross-border financial flows generally.<sup>4</sup> Moreover, domestic deregulation in many countries had already made it more difficult to halt capital flows at the border by opening up new channels for response and evasion by financial institutions. And the recognition in the 1980s that capital controls were better at redistributing wealth to friends of the ruling party than at allocating scarce foreign currency to the most developmentally-productive uses had undermined support for their utilization. Reflecting both the fact and the ethos of financial liberalization, controls on capital flows in both advanced-industrial and developing countries were already on their way out.<sup>5</sup> As video terminals displaying real-time financial information began popping up on the desks of senior political staff all over Washington, international financial problems acquired a political salience that they had not possessed in many years.

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<sup>4</sup>The Bank for International Settlements, in its triannual survey of the level of foreign exchange turnover, estimated that the volume of foreign exchange trading worldwide rose by 42 per cent between 1989 and 1992, by a further 48 per cent between 1992 and 1995, and by a slower but still substantial 25 percent between 1995 and 1998.

<sup>5</sup>Naturally, this shift first became evident in the advanced-industrial countries. There, the turning point was the Single European Act of 1986, which required its signatories to dismantle their remaining capital controls in order to forge a single financial market, something they did in the run-up to 1992. In developing countries, the prevalence of capital controls, multiple exchange rates and export surrender requirements reached a local maximum in 1991 before declining sharply and monotonically thereafter. See Eichengreen and Mussa et al. (1998), Figure 7.

In this paper we analyze how it was that this potential for salience became actual, review the efforts of the Clinton administration to grapple with the monetary and financial consequences, and assess the results of its policies. It is often said that this was an administration that thrived on or even was defined by crises. It is thus no surprise that our analysis of its international monetary and financial policies should focus on the Mexican peso crisis, the Asian financial crisis, and the crisis of confidence and legitimacy of the international monetary and financial system.<sup>6</sup>

There was also a broader context, however, for the decisions taken in response to these events. That context was an economic and political strategy that emphasized private investment as the engine for U.S. economic growth. (See Figure 2.) Both components of this term, "private" and "investment," had implications for the administration's international economic strategy. From the point of view of investment, it was important that international events not pressure on the Federal Reserve to raise interest rates, since this would have curtailed capital formation and vitiated the effects of the administration's signature achievement: deficit reduction. A strong dollar -- or rather a dollar that was not expected to weaken -- was a key component of a policy which aimed at keeping the Fed comfortable with low interest rates. In addition, it was important to create a demand for the goods and services generated by this additional productive capacity. To the extent that this demand resided abroad, administration officials saw it as important that the process of increasing international integration, of both trade

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<sup>6</sup>Space constraints require us to be selective about the issues we consider. Thus, we do not consider a variety of additional topics and episodes ranging from support for Russian reform at the start of the decade to the Turkish crisis at its end.

and finance, move forward for the interest of economic development in emerging markets and therefore in support of U.S. economic growth.<sup>7</sup>

This was all part of a "New Democratic" agenda that placed more faith in and emphasis on the private sector -- on market forces -- than had been true of previous 20<sup>th</sup> century Democratic administrations. In an era of financial liberalization, this in turn meant relying on financial markets. Symbolic of this commitment was the President's reliance on Robert Rubin, an individual possessing long experience in those markets, first as head of his National Economic Council and then as his Treasury Secretary. Rubin's experience in the markets informed the administration's support for financial liberalization, capital account liberalization as well as domestic financial liberalization, which extended to emerging markets as well as the United States.

Indisputably, the policy of moving forward with the liberalization of domestic and international financial transactions, even though corporate governance and prudential supervision remained underdeveloped in many of the emerging markets participating in this trend, comprised part of the setting for the financial crises that so disrupted the 1990s. While the U.S. was not solely responsible for the adoption of these policies, which also reflected the operation of the deeper forces described above, the administration at least acquiesced to their pursuit. At the same time, Rubin's long experience in the markets had rendered him somewhat skeptical of their efficiency. In his view, markets reach for yield and are prone to excess (Rubin

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<sup>7</sup> "Open markets work. Open societies are resilient and just. And together they offer the best hope for lifting people's lives," as Secretary of State Madeline Albright put it during the Asian crisis. *South China Morning Post* (29 July 1998), <http://special.scmp.com/AsianCrisis/>

2002), tendencies which render periodic crises all but inevitable.<sup>8</sup> This view that markets provided the best approach to economic development, but that they still succumb to crises from time to time, informed the Clinton Treasury's approach to crisis management and shaped its efforts to strengthen the international financial architecture.

Before proceeding, it behooves us to make a few comments on methodology. The literature on the political economy of policy making is organized around the tripartite distinction between ideas, institutions, and interests. It asks whether policy choices are shaped mainly by intellectual outlook and ideological predisposition, by institutional and bureaucratic constraints, or by the lobbying efforts of special interest groups. Given the difficulty of measuring the influence, quantifying the importance, and testing the significance of these factors, scholars generally attribute some role to each. For better or for worse, our analysis is subject to these same limitations and, predictably, adopts this same synthetic posture. But, relative to other historical analyses of the same events (once they come to exist), we place disproportionate emphasis on the first two of the three "i's" (ideas and institutions). Try as we may, we find it hard to frame our discussion of the international monetary and financial policies of the Clinton administration as a response to special interest politics -- to tell the story of exchange rate politics in terms of lobbying by export and importing-competing interests or the story of bailouts as a response to the pressure applied by self-interested investment and commercial banks. On many of the policy issues under review here, otherwise cohesive lobbies were divided. And the

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<sup>8</sup>This is very similar to the view of Alan Greenspan, another individual whose views strongly informed and shaped the economic policies of the 1990s (as described in Gregory Mankiw's chapter in this volume).



technical nature of nature of financial issues -- in contrast to trade, for example -- provided those responsible for policy with a degree of natural insulation.<sup>9</sup>

It is tempting to dismiss our emphasis on the role of ideas as the predictable preoccupation of academics who habitually exaggerate the importance of the scribbling of defunct economists.<sup>10</sup> That said, the Clinton administrative was distinctive for the participation, at the highest levels, of academics who had helped to shape the scholarly literature and were in turn receptive to the arguments of the academic community. This was an administration and an issue area where ideas mattered more than most.

But the overarching theme of our paper, if it has one, is the role of institutional constraints in shaping the Clinton administration's international monetary and financial policies. In any administration the Treasury Department, as the listening post for Wall Street and the agency vested with responsibility for U.S. exchange-rate policy, will play a prominent role in the formulation of international monetary and financial policies. It will possess both agenda-setting and veto powers. But what was distinctive about the Clinton administration was Treasury's

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<sup>9</sup> To be sure, that insulation was less than complete. An example is administration initiatives to see that the private sector was "bailed in" rather than "bailed out" when officials came to the rescue of crisis countries. Evaluating the influence of "Wall Street" on the administration's stance on this question is difficult. On the one hand, Treasury was constantly at odds (one insider characterizes it as "at war") with the Institute of International Finance (IIF), the organization that spoke for the banks. Treasury viewed the IIF's analyses as underdeveloped and obstructionist. On the other hand, Treasury backed away from its initial enthusiasm for mandating changes in contractual arrangements in favor of the voluntary approach preferred by the IIF, and in the end there was a strong similarity between Treasury's views and those of the various IIF working group reports. Whether this reflected common intellectual influences or the pressure applied to the official sector by financial interests is hard for outsiders to say. We describe the evolution of this policy in more detail in Section 5.

<sup>10</sup> As Keynes went on to say in the same famous passage we paraphrase, "I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas."

disproportionate influence. In part this reflected the growing importance of market sentiment in an era of financial liberalization. No policy was workable that would not be favorably received by the markets; consequently, a Treasury department attuned to market sentiment, led by much of the period by a Secretary with long experience in the markets, had more agenda-setting and veto power than most. In addition, analytical capacity, when it came to international monetary matters, was heavily concentrated at 1500 Pennsylvania Avenue. The White House lacked the staff and rival departments lacked the expertise to develop ideas sufficiently to argue them persuasively.<sup>11</sup> Treasury could thus exercise its veto simply by demanding a full-blown, coherent proposal, knowing that one would not be forthcoming. Among other things, our story thus illustrates how policy is affected when an administration allows one agency to become so disproportionately powerful.

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<sup>11</sup>How this situation came about is properly regarded as the subject of another paper. But we cannot resist a few words. In part, the creation of the National Economic Council defined the natural counterweight to Treasury within the executive branch, but one that, as it happened, was grossly understaffed particularly on the international financial side. The NEC's occasional Treasury detailees provided no solution to this problem given their knowledge that they would not get good assignments back at the Treasury if they were too tough on their home agency during their detail to the White House. And rivalry between the NEC and the Council of Economic Advisors prevented the latter from providing the needed input. Treasury, for its part, had little interest in addressing this problem. While Treasury staff had a high regard for NEC staff, they also knew that the Clinton NEC staff were more interested in the substance of policy than the typical staffer belonging to the White House Office of Policy Development. Treasury staff feared what would happen under some future administration if the White House staff's voice in international economic policy was amplified. They had only to look to the relationship between the State Department and the National Security Council. The half-century-long bureaucratic war between State and the NSC had led to some notable foreign policy disasters as underbriefed NSC staff shut State department expertise out of the policy-planning process. Consider for example the U.S. tilt toward the genocidal dictator Yahya Khan when he decided to kill everyone with a college education in what was then East Pakistan or the transfer of weapons to Iran in the 1980s.

## 2. The Strong Dollar Policy

When President-Elect Clinton assembled a star-studded cast of experts in Little Rock during the interregnum between the election and the inauguration, he did not question them about the problem of managing capital flows and averting threats to international financial stability.<sup>12</sup> His concerns, indicative of the times, were rather with the trade and budget deficits, and his predispositions, unsurprisingly for a Democrat, were activist. One prominent academic well known to this audience won no points with the President Elect when he responded to a question about what should be done about the trade deficit by saying, in essence, "nothing." Clinton's eventual choice to head the Council of Economic Advisors, Laura Tyson of the University of California, Berkeley, arrived in Washington with a reputation for advocating the aggressive use of trade policy to pry open foreign markets with the goal of bringing down the trade deficit.

There were impediments, of course, to the aggressive use of trade policy.<sup>13</sup> The United States had already concluded a major free trade agreement with Canada. It had its GATT commitments. The promise of closer trade relations were an obvious way of supporting economic liberalization and democratization in Latin America and the former Soviet bloc. Candidate Clinton had already opted to support NAFTA and the Uruguay Round during the 1992 campaign out of a conviction that the economy had to move forward and not backward (where "forward" in part meant embracing globalization) and in order to define himself as a New

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<sup>12</sup>Although there was one prominent exchange over the dollar, as we describe below.

<sup>13</sup>Trade policy is properly the subject of the chapter by Robert Lawrence in this volume. We touch on it here it provides part of the context for the subject of this section, namely, the evolution of the strong dollar policy.

Democrat (thereby distinguishing his views from those of the then-prevailing Congressional Democratic position). The traditional constituency for protection, the import-competing manufacturing belt, figured less importantly in the U.S. economy and therefore in the political debate than it had a decade before, while U.S. exporters of goods and services, financial services in particular, had gained additional voice and were unlikely to look sympathetically on the use of trade-unfriendly measures. Although the administration made use of anti-dumping measures, both those to which it was entitled under the General Agreement on Tariffs and Trade and unilateral measures such as Super 301 (Section 301 of the 1988 Omnibus Trade and Competitiveness Act), its commitment to free trade was never in doubt.<sup>14</sup>

The one instrument obviously available for addressing the trade deficit and the concerns of import-competing producers was the level of the dollar. There were several reasons for thinking that the new administration might try to talk or push down the dollar. This had been the observed behavior, or at least the imputed temptation, of previous incoming Democratic Presidents: Franklin D. Roosevelt had depreciated the dollar to deal with the macroeconomic problems he inherited, and it was widely (but mistakenly) thought that John F. Kennedy would do the same when he took office in 1961. Treasury secretaries hailing from Texas (James Baker and John Connolly), closer to the country's commodity-producing heartland than its financial center, had a record of favoring a weak dollar; thus, Clinton's selection of Lloyd Bentsen as his treasury secretary was taken in some circles as a signal of the administration's prospective approach to the exchange rate.

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<sup>14</sup>The incidence of antidumping actions fluctuated with the level of the dollar, falling between 1992 and 1995, along with the currency, and rising thereafter (Knetter and Prusa 2000).

Nor can it be argued that anything that could remotely be called a "strong-dollar policy" was in place in the early Clinton years. The dollar declined from Y125 when Clinton took office to Y80 two years later, an exceptionally sharp swing in a short period even by the standards of the 1970s and 1980s.<sup>15</sup> (See Figure 3.) The "economic populists" in the White House (George Stephanopoulos, for example) saw a weaker dollar as useful for enhancing U.S. international competitiveness. Secretary Bentsen saw it as potentially helpful for solving the trade-deficit problem.<sup>16</sup> U.S. Trade Representative Mickey Kantor saw a weaker dollar as giving him leverage in trade negotiations, since he could argue that it was Japan's "unfair advantage" due to barriers to imports of automobiles and parts that was responsible for the weak currency that found disfavor among foreign governments.

That said, there were several causes for concern over the weakness of the dollar. The currency's decline hurt rather than helped with the trade deficit in the short run due to the J-Curve effect (that is, the tendency for import prices to rise before import volumes began to fall). Its slide threatened to fan inflation. Fears of inflation and about the sustainability of the external deficit combined to raise the specter of higher interest rates, which unsettled the financial markets.<sup>17</sup> The dollar's continued decline created financial volatility and increased the cost of

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<sup>15</sup>While the dollar strengthened against the Mexican peso and the Canadian dollar, moderating the decline in the (trade-weighted) effective exchange rate, it was the yen-dollar rate that drew the attention of financial-market participants and the concern of policy makers.

<sup>16</sup>Bentsen's reputation for favoring a weaker dollar resulted from an off-hand response to a reporter's question about whether he would like to see the dollar fall, to which he responded that he wouldn't mind seeing the yen rise. Seeing how such comments could be interpreted, Bentsen then shifted course and made every effort to cultivate the image of a strong-money man. But the damage was done.

<sup>17</sup>See for example "Weaker Greenback Campaign Heats Up," *Capital Markets Report*, Dow Jones News Service, 10 December 1996.

credit by inflicting losses on financial firms (hedge funds, among others) that had shorted the yen and deutsche mark in late 1993 and early 1994.<sup>18</sup>

At a deeper level, the strong dollar policy was part and parcel with the administration's overall fiscal and monetary strategy. Clinton had fought the election on the basis of a middle-class tax cut and additional public spending on infrastructure and skill formation, but his administration inherited an exploding budget deficit that left little room for such initiatives. The only hope was that deficit reduction would bring down interest rates and create an environment conducive to faster economic growth and therefore to the shared prosperity that the candidate had promised the middle and working classes. As a result of a series of internal struggles (colorfully recounted by Woodward 1994 and Reich 1997), the decision was made to eschew substantial new spending programs and middle-class tax cuts and to focus instead on fiscal consolidation in order to create a financial environment conducive to investment and growth.

How was the level of the dollar related to this choice? Reducing the interest rates on which investment depended was the key to stimulating faster growth.<sup>19</sup> The Federal Open Market Committee, it was hoped, would see fiscal consolidation as implying a reduction in inflationary pressure and respond by cutting rates. Its members were most likely to do so if the financial markets perceived things the same way -- that is, if bond prices responded positively. From this perspective, a weak exchange rate was a danger. In a world of international mobile

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<sup>18</sup>See International Monetary Fund (1994).

<sup>19</sup>Within two years of the President's inauguration, the Council of Economic Advisors was highlighting the close connection between investment and productivity growth, thus suggesting that the lower interest rates needed to boost investment were the key to faster growth. Council of Economic Advisors (1995), pp.27-28. Lower interest rates also had the ancillary advantage of addressing the problem of chronic budget deficits by reducing debt-servicing costs.

capital, U.S. interest rates would inevitably exceed foreign interest rates to the extent that the dollar was expected to fall (by virtue of the arbitrage condition known as interest parity). Moreover, since expectations of higher import prices were something to which the Federal Reserve looked when forecasting inflation, the prospect of a falling dollar fanned fears among financial-market participants of rising Federal Reserve discount rates.

For these and other reasons, the belief that the administration might push the dollar down, perhaps in response to pressures emanating from domestic auto and steel producers, had to be vanquished in order to reap the full benefits of deficit reduction and to implement its investment-led growth strategy. The President himself appears to have instinctually understood the connections between the stability of the dollar and his administration's fiscal-cum-growth strategy, as the press noted when covering the Economic Summit held in Little Rock during the Interregnum.<sup>20</sup> Under Secretary Summers saw the linkage between exchange rate policy and interest rate policy from his arrival at Treasury and was the main opponent in these early days of arguments in favor of pushing down the dollar.<sup>21</sup> Deputy Secretary Roger Altman gave these

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<sup>20</sup>“A strong dollar and a relatively conservative fiscal policy seem likely to form a central part of the Clinton administration's strategy for improving long-term economic performance, the *Financial Times* led its story covering the economic conference on December 16, 1992. “I'm for a strong dollar,' declared president-elect Bill Clinton during a debate about exchange rate policy at the economic conference...Mr. Clinton, however, added the proviso that the dollar could be strong in the long term only if supported by 'the underlying competitive reality of our economy'....Mr. Clinton's remarks on the dollar were a response to Professor Rudi Dornbusch of the Massachusetts Institute of Technology, who urged a substantial devaluation of the dollar against Asian currencies over the next three years. Mr. Dornbusch said financial markets were likely to anticipate a stronger dollar as the US economy recovered but that 'we cannot afford that'.”

<sup>21</sup>Summers reportedly clashed with U.S. Trade Representative Kantor and Commerce Secretary Ronald Brown in a closed-door meeting, after they had mused publicly that a weaker exchange rate might not be so bad. *Business Week* (March 20, 1995, p.45). Summers publicly stated as early as August 1993 that a strong yen (a more convenient name to attach to the phenomenon, in

arguments a name -- the strong dollar policy -- at a meeting in Summers' office in the summer of 1994. The relative strength of the Treasury Department vis-à-vis Commerce and others within the Clinton administration also played a role, as the standard arguments put forth in every administration by Treasury staff and principals had greater weight in the 1990s.

Bold public advocacy of a strong-dollar policy was inaugurated by the transition from Secretary Bentsen to Secretary Rubin at Treasury at the beginning of 1995.<sup>22</sup> Rubin, while head of the National Economic Council, had been central to the campaign for lower interest rates as a way of energizing U.S. economic growth, and Summers' analytical arguments against pushing down the dollar coincided with Rubin's instincts honed by years of experience in financial markets and with the views of Treasury staff. In his confirmation hearings before the Senate Finance committee, Rubin stated that a strong dollar was in the best interest of the U.S. economy and warned that the exchange rate should not be used as an instrument of U.S. trade policy.

The new approach acquired prominence as a result of three events in the spring of 1995. First, there was the prime-time news conference on April 19<sup>th</sup> during which Clinton stated that the U.S. "wants a strong dollar" and that it "has an interest over the long run in a strong currency." Second, there was the extraordinary statement on April 25<sup>th</sup> by G-7 finance ministers,

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the tradition of Bentsen, than a weak dollar) was not in the interest of the U.S. economy. All this makes it peculiar that Summers' commitment to the policy was questioned when he succeeded Rubin as Treasury Secretary in 1999.

<sup>22</sup>Bentsen had asserted in a July 1994 speech in New York that the administration favored "a stronger dollar," but any impact on the markets was offset by the President's statement at the G-7 summit in Naples a few days later that "it is important not to overreact" to the currency's weakness. Combined with Bentsen's jawboning of the Fed not to raise interest rates, the impression, according to financial commentary, was that the administration still favored a weaker dollar. See *Wall Street Journal Europe* (July 12, 1994), p.10; *Economist* (July 16, 1994), p.74.



meeting under Rubin's chairmanship, who overcame their normal reticence about addressing such delicate matters and declared that a reversal of the decline of the dollar against the yen was now desirable. Finally there was prominent intervention in the foreign exchange market by the U.S. and Japan, with the cooperation of Germany and other G-7 countries, to support the currency, starting in March and April of 1995 (accompanied by comments by Rubin that the intervention reflects "a shared commitment to a stronger dollar" and a common view that a stronger dollar "is in the most general interest of the economies of the world").<sup>23</sup>

By August the dollar had reversed course.<sup>24</sup> The Federal Reserve began lowering interest rates in a trend that similarly dates from the summer of that year.<sup>25</sup> That the administration preferred a strong dollar became the regular mantra of officials, and discipline was imposed to ensure that pronouncements about the currency would be made by the Treasury alone. Still, it took a surprising amount of time for the existence of a new policy to be recognized. Figure 4, which shows the number of Nexis-Lexis hits on "strong dollar" and "strong-dollar policy," suggests that while this realization first dawned in 1996 (leading the National Association of Manufacturers and U.S. auto producers to complain that currency appreciation was hurting their exports), it took hold only two years later.

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<sup>23</sup>*Wall Street Journal* (April 6, 1995), p.C11. The published history of U.S. intervention suggests that the U.S. was buying dollars already in 1993, although the prominence of the spring 1995 interventions was what drew so much attention to the policy.

<sup>24</sup>It then moved up to nearly Y120 (a 42 month high) by the time of the November 1996 election.

<sup>25</sup>The strong dollar and the anti-inflation effects of its appreciation were only one factor behind the adjustment of monetary policy; more important surely were signs of distress in financial markets and worries about an economic downturn.

Expectations of a stable or strengthening dollar were key to the Clinton Administration's entire macroeconomic strategy. The rising dollar helped to keep inflation subdued. By encouraging the Fed to maintain low interest rates, it helped create a favorable climate for the investment that fueled a decade of rapid growth. This explains how the administration was able to sustain a posture of benign neglect toward the trade deficit through its two terms: if the deficit reflected a high level of productive investment rather than simply a low level of saving, then it was not a problem -- the rapid productivity growth and economic growth generally financed by foreign capital inflows, which were the flip side of the trade deficit, would enable those foreign obligations to be easily financed. If the trade deficit cum capital inflow reflected the attractiveness of investing in the United States, then there was little reason to worry.<sup>26</sup>

If there was a downside to the strategy, it was the competitive pressure that was felt by emerging markets that pegged to the dollar, de facto or de jure. As the dollar rose against the yen, Asian countries that pegged to the U.S. currency found their exports priced out of third markets, notably Japan's, and their profit margins squeezed.<sup>27</sup> But, in fact, the first instance of this phenomenon was in Mexico in the first half of 1994, when a modest rise in the dollar brought to the fore that country's competitiveness problems.

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<sup>26</sup>This was the so-called Lawson doctrine -- that a current account deficit was not a problem if it reflected the attractiveness of investment, an argument associated with one-time British Chancellor of the Exchequer Nigel Lawson. It rears its head again in our discussion of the Mexican and Thai current account deficits (below).

<sup>27</sup>This is not a criticism of the U.S. policy or its architects, since they were not responsible for the decision by other governments to peg their currencies to the dollar, although some have argued that the U.S. might have done more to alert other countries to the potential adverse consequences.

### 3. The Mexican Rescue

The context for the Mexican crisis was the successful conclusion of the North American Free Trade Agreement (NAFTA), negotiated and signed by the Salinas and the Bush administrations in 1992 and amended and implemented by the Salinas and Clinton administrations in 1993. NAFTA offered Mexico two major benefits. It guaranteed that U.S. protectionism would not disrupt Mexican growth.<sup>28</sup> And, by tying reform to an international agreement, it reduced the odds that Mexico would abandon efforts to restructure its economy.

But there was also a third, unintended benefit. The violence of the political fight over NAFTA, and thus the status of the agreement as one of the Clinton administration's two significant accomplishments of 1993, meant that the administration had a considerable investment in NAFTA's success and thus in Mexico's. Winning approval for NAFTA was supposed to be easy -- resistance was supposed to be minimal and pro-forma -- yet somehow opposition caught fire.<sup>29</sup> The political fight to ratify the agreement was bitter and close. In the aftermath of the ratification vote, the White House found that it had acquired a strong political interest in seeing that the policy was a success.

The start of 1994 saw a rise in political risk. The January 1994 uprising in Chiapas, scattered incidents of terrorism in Mexico City, the forthcoming Mexican presidential election in

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<sup>28</sup>Ironically, NAFTA did not offer any significant increase in access to the U.S. market, since the U.S. market was already almost completely open to imports from Mexico.

<sup>29</sup>Raising the minimum wage, restricting the use of replacement workers, health care reform, better ways to look for jobs, and programs to subsidize education and training each promised to do more to boost the standard of living of union members than whatever minimal Stolper-Samuelson-driven reduction in U.S. working-class wages would follow from additional competition from Mexican workers. In any case, objections missed the essential point that Mexico was dismantling far higher barriers against U.S. goods than vice versa.

August, and rumblings that the cadres of the then-ruling Institutional Revolutionary Party (PRI) were unhappy with the dismantlement of Mexico's corporatist system and sought a reversal of reform caused observers to wonder whether Mexico's economic future was as bright as commonly suggested. GDP growth in 1993 turned out to be a deeply disappointing 0.4 per cent. Still, there were few signs of significant capital flight in early 1994, although the peso did weaken by about eight percent in the first two months of the year. When Secretary Bentsen visited Mexico City in mid-February, he gave no public indication of concern, telling reporters that Mexico's economic policies had "become an example for all of Latin America."<sup>30</sup> Mexico's economic fundamentals -- a balanced federal budget, a successful privatization campaign, and financial liberalization among them -- were strong enough to similarly elicit a strong endorsement of the country's economic management by the IMF in the spring. In neither case were the principals being more optimistic than their staffs: both Treasury and IMF staff were optimistic about the sustainability of Mexican economic reform and economic growth.

March saw the assassination of the PRI's designated presidential candidate, Luis Donaldo Colosio. The announcement of a special \$6 billion foreign currency swap agreement with the U.S. Treasury and the Fed and the rapid naming of Ernesto Zedillo to replace Colosio limited the market impact.<sup>31</sup> The American financial press still wrote that political risk was limited:

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<sup>30</sup>*Washington Post* (February 13, 1995, p.A1).

<sup>31</sup>This bilateral arrangement employed the model of the U.S. portion of a multilateral contingency facility established the previous November to deal with trouble if the NAFTA vote had gone wrong. Treasury and Fed officials had also begun to discuss the need for a standing consultative mechanism to anticipate exchange rate problems within the North American free trade area already in late 1993, allowing them to launch the North American Framework Agreement and North American Financial Group with Canada in April 1994. Another multilateral contingency arrangement was put in place in July and August in anticipation of possible post-election troubles (but never activated, as we describe below).

"modernization in Mexico has developed its own momentum," Zedillo "shares the reformist vision," and the PRI would not "reverse...[its] commitment to a more open social and economic structure."<sup>32</sup> But following a poor showing by Zedillo in a nationally televised campaign debate, the Bank of Mexico, notwithstanding the statutory independence it had gained on April 1st, stepped up the rate of credit creation in order to "pump up the economy and ensure a PRI victory."<sup>33</sup> As the peso drifted toward the lower edge of its trading band, the Bank was forced to undo its previous expansionary initiative, boosting short-term interest rates to 18 percent in order to prevent the currency from falling further.

Already in 1993 the Congressional Budget Office issued a warning about the Mexican economy.<sup>34</sup> The Federal Reserve Board was monitoring conditions south of the border, and warned incoming administration officials that they were likely to face a crisis on their watch.<sup>35</sup> Now prominent economists such as Rudiger Dornbusch, Alejandro Werner, Guillermo Calvo, Leo Leiderman, and Carmen Reinhart chimed in.<sup>36</sup> They warned that while the Mexican government was doing most things right -- the budget deficit had been wound down, businesses were being privatized, and tariffs were being reduced -- growth remained disappointingly slow.

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<sup>32</sup>David Asman (1994), "Zedillo Follows Salinas Model for Mexico," *Wall Street Journal* (March 30, 1994). In contrast, a classified estimate by the National Intelligence Council, circulated in mid-summer, gauged the probability of a smooth election and orderly transition as less than 50 per cent.

<sup>33</sup>*Washington Post* (February 13, 1995, p.A1). Allan Meltzer, in testimony to the Senate Committee on Banking Housing and Urban Affairs (on March 9<sup>th</sup>, 1995), traced the roots of this monetary expansion back to 1993. U.S. Senate Banking Committee (1995), p.220.

<sup>34</sup>See CBO (1993).

<sup>35</sup>The reader may wonder how we have access to so much inside information about the Mexican crisis. Much of this information was unearthed and published in the course of the subsequent Congressional investigation.

<sup>36</sup>In Dornbusch and Werner (1994) and Calvo, Leiderman and Reinhart (1994).

Dornbusch and Werner blamed the nearly fixed peso-dollar exchange rate, coupled with persistent inflation, which had saddled the country with a currency overvalued in real terms. Their remedy was to devalue the peso by 20 percent and to then allow it to drift down even more, to the extent that Mexican inflation continued to exceed U.S. inflation. The counterargument was that the slowly-crawling band within which the peso was allowed to fluctuate was critical for the success of Mexico's disinflation program. To suddenly abandon the nominal exchange rate anchor, even with good reason, might revive doubts about policy credibility and rekindle inflationary expectations.

Dornbusch and Werner presented their arguments to heavily-attended seminars at the Federal Reserve Board and elsewhere around town in the spring, summer and fall of 1994. The reaction in administration circles was: "Perhaps." An internal June 1994 Federal Reserve Board staff memorandum concluded that a peso devaluation of around 20 per cent was "quite likely within the next several years -- but is not...necessarily imminent."<sup>37</sup> Although Mexican inflation was outrunning U.S. inflation, so too might productivity growth, assuming that the government followed through on reform.<sup>38</sup> This held out the promise of lower inflation in the future. That no acceleration in productivity growth was evident yet was not necessarily disturbing, since such things took time. The fundamental value of the peso was that at which Mexico's trade deficit was equal to desired long-term net investment in Mexico. To the extent that markets were

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<sup>37</sup>*Wall Street Journal* (July 6, 1995), p.A1.

<sup>38</sup>The skeptics of Dornbusch and Warner's thesis also argued fast productivity growth in Mexico might also help to reconcile relatively fast inflation there with the pegged rate of the peso through the operation of the Balassa-Samuelson effect (which predicts that the price of nontradables, and therefore the overall inflation rate, will rise faster in more rapidly growing countries, even in equilibrium). The problem was that, by most measures, the rate of increase of traded goods prices in Mexico was also running well in excess of comparable U.S. rates.

expecting reform to continue and productivity to pick up, desired long-term net investment in Mexico might be large, and the true fundamental value of the peso might be high. It followed that there was no necessary reason to worry about the country's considerable current account deficit, which reached 8 per cent of GDP in 1994, to the extent that this gap reflected an excess of investment over savings, reflecting in turn the attractions of investment in a country with considerable upside productivity potential.<sup>39</sup>

To be sure, if the current account reflected booming consumption as much as investment, and if the productivity payoff of the latter was still uncertain, there was more reason for concern.<sup>40</sup> But "uncertain" is the operative word; in the absence of stronger evidence it was not prudent for Treasury to urge a risky devaluation on a foreign sovereign, especially one so dependent on market confidence. Treasury issued warnings of "greater urgency as the year progressed," then-Under Secretary Summers later told a Senate panel.<sup>41</sup> But warnings were,

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<sup>39</sup>The Lawson doctrine was emphasized by Mexican Finance Minister Pedro Aspe in his discussions with U.S. officials. *Wall Street Journal* (July 6, 1995, p.A1).

<sup>40</sup>The validity of the general point, whether or not it applied to Mexico, is evident in the fact that current account deficits have only a weak ability to predict currency crises (Edwards 2001). From this point of view it is not surprising that alarm over the size of Mexico's external deficit was less than universal. One wonders whether U.S. officials, encouraged to dismiss the dangers of their own deficit by the Lawson Doctrine, were led by analogical reasoning to underestimate the risks implicit in the Mexican deficit.

<sup>41</sup>In particular, Summers discussed his concerns over the magnitude of the current account with Aspe's deputy, Guillermo Ortiz. Secretary Bentsen raised the issue with a number of Mexican officials. *Wall Street Journal* (July 6, 1995, p.A1). "Senator, there were many conversations between Treasury officials and Mexican officials, Treasury officials at all levels and their counterparts in the Mexican government, and between U.S. central bank officials and the Mexican central bank," Summers later told Senator D'Amato in testimony before the Senate Banking Committee. "Those conversations by the fall emphasized that Mexico's policy path was in our judgment unsustainable; that unless they were prepared to take some other substantial policy action, that it would be necessary for them to devalue, but that it was possible that with other substantial policy action, a devaluation might not be necessary." Federal News Service (March 10, 1995), p.4.

understandably, not demands. The "policies that Mexico pursued...were Mexico's," as Summers put it in his testimony.

And even if Dornbusch and Werner were right, it was not clear in the spring and summer of 1994 that dire consequences would follow. The peso might have to be devalued by 20 per cent, but there the story would end. Currency crises with devastating consequences for economies only happen -- or so economists thought back then -- when governments have allowed their macroeconomic policies to run out of control and lack the political wherewithal to change them fast enough when the speculative attack begins. The Mexican budget was not in significant deficit. (There were deficits hiding in the accounts of the development banks, but this was not known at the time.) The central bank was not frantically printing money.

With benefit of hindsight, we now know that this model neglected a key point: that financial sources of vulnerability can be every bit as important as macroeconomic ones in a world where domestic and international financial markets have been liberalized. Part of the Mexican government's strategy for coping with investor jitters had been to replace conventional short-term borrowing with the famous "tesobonos," short-term securities whose principal was indexed to the dollar, as a means of retaining the funds of investors who feared devaluation.<sup>42</sup>

Effectively, this was a double-or-nothing bet. While the policy succeeded in attracting and retaining some \$23 billion of financing, it meant that if devaluation did come it would be an order of magnitude more dangerous and destructive. In particular, it would greatly increase the burden of dollar-denominated public debt. Even if the public finances were otherwise sound, the

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<sup>42</sup>The Mexican government acted on the advice of the Weston Group, a New York-based group of financiers that specialized in peso investments.



fact that so much of the debt was dollar-linked meant that they would not remain sound if the currency crashed.<sup>43</sup> That this risk was inadequately appreciated is no surprise. In 1994 observers inside the U.S. government dismissed the possibility of a major financial crisis in Mexico by pointing to evidence from the recent record that major crises happened only when governments ran huge persistent deficits and pursued unsustainable policies. No one was preoccupied by the risk of issuing tesobonos, since everyone's worst-case scenario was a peso devaluation of 20 per cent, nowhere large enough for the balance-sheet effects to be seriously destabilizing.<sup>44</sup>

Only in the aftermath of the devaluation did it become clear that because Mexico had floated so much short-term debt, a major crisis could materialize out of thin air, and because so much of that short-term debt was dollar linked, the macroeconomic fallout could be severe. Thus large-scale foreign-currency borrowing robs exchange rate depreciation of its usefulness as a stabilization device. A standard reaction when a country suddenly finds that foreign demand for its current-account goods and services exports has fallen, or that foreign demand for its capital-account exports -- for investments located on its territory -- has fallen, is to allow the exchange rate to depreciate. When demand for a private business's products falls, one natural response is for the business to cut its prices. When demand for a country's products---and that is

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<sup>43</sup>This is an example of the logic behind so-called "second generation models" of balance-of payments crises, whose relevance to the case at hand was not fully appreciated before the fact.

<sup>44</sup>There had been discussion of Mexico's tesobono innovation at Treasury and the Federal Reserve Board already in July, but that discussion turned on how to interpret the willingness of investors to buy these assets (what this said about exchange rate expectations), more than whether the existence of these assets implied a more serious crisis in the event of a devaluation. As late as December 16<sup>th</sup> (four days prior to the devaluation), a group of nearly 50 U.S. intelligence analysts, Wall Street financiers and academic experts gathered at the State Department "for an unusual, closed-door discussion of the Mexican economy" concluded that the negative fallout would be minimal. *Washington Post* (February 13, 1995, p.A1).

what exports plus capital inflow are, demand for a country's products---falls, the natural response is for a country to cut its prices. And the easiest, simplest, and most straightforward way to accomplish this is through an exchange rate depreciation. But this is not the case if the country's banks and operating corporations have borrowed abroad in hard currencies. Then a depreciation writes up the home-currency value of their debts, erodes their entrepreneurial net worth, and sets in motion the debt-deflation process.

In a sense, then, the basic ingredients of the Asian crisis that erupted in 1997 were already evident in Mexico in 1994. In particular, how the current account deficit was financed later became a central consideration for those attempting to forecast crises in emerging markets. 1994 was the first time this variable appeared on official radar screens. Thus, it is not surprising that many of the reforms of the international financial system proposed by the Clinton Administration following the outbreak of the Asian crisis were already tabled in the wake of the Mexican crisis some three years earlier.<sup>45</sup> What is disappointing, in retrospect, is that more was not done after the Mexican crisis to implement those recommendations quickly and head off future crises of a very similar sort.

But this was not the view in the middle of 1994. Rather, the assumption was that while a modest exchange rate depreciation might be a political embarrassment, it hardly heralded an economic disaster. The problem was that among those ending up with red faces might be administration officials, since a visible change in the exchange rate would give additional ammunition to the opponents of NAFTA, who already argued that low Mexican wages meant unfair competition for American workers. Thus, it is hardly surprising that the administration

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<sup>45</sup>As described in Section 5 below.

did not place more pressure on the outgoing Salinas government to devalue.<sup>46</sup> Treasury did suggest that Mexico might wish to widen the band for the peso and allow the currency to fluctuate more widely in order to allow the loss of competitiveness to be made up. In other words, it might contemplate a "limited devaluation." But it was not clear that this could be done without disturbing investor confidence, since Mexico's entire disinflation strategy was anchored by the exchange rate peg. It was not clear that there existed such a thing as a "limited devaluation," in other words, in the 1990s world of high capital mobility. Not surprisingly, Treasury's prodding produced no concrete result. In a sense, Mexico was the first example of another problem that would become chronic as the 1990s progressed: the dangers of not having an exit strategy from an ostensibly temporary currency peg.

The summer of 1994 saw the beginnings of capital flight as nervous investors contemplated the aftermath of the August election. By the beginning of August, capital flight had reached perhaps \$150 million a week, depressing the exchange rate to 3.4 pesos per U.S. dollar. The fear was that Zedillo might win the election in dirty and unconvincing fashion, and that such a win would be followed by chaos. But as the election results came in and pointed to a solid and reasonably fair win, administration officials breathed a sigh of relief. The peso rose 4 per cent from the bottom of its trading band in the wake of the election. Forecasters raised their estimates of Mexican growth in 1994 to 3 per cent (and of future economic growth to 4 per cent), and the stock market jumped.<sup>47</sup> The Bank of Mexico signaled that short-term interest rates

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<sup>46</sup>In addition there was the fact that the White House was sponsoring Salinas to head the newly-created World Trade Organization and that an embarrassing devaluation might be seen as raising questions about his economic competence (although this probably did more to discourage Salinas from contemplating adjustment than the Treasury from pushing for it).

<sup>47</sup>Mexican export and GDP growth continued to be strong throughout the fall.

would decline, as observers awaited the arrival of "...the famous investments from the NAFTA that never came because of Chiapas and the Colosio assassination..."<sup>48</sup>

Then the situation deteriorated again. The assassination of senior PRI member Jose F. Ruiz Massieu in October seemed to demonstrate that Mexico still had a problem of political stability, and financial capital started hemorrhaging out of the country. This came as a surprise to official Washington, which had expected capital inflows to resume following the election.<sup>49</sup> Slowly the view that "limited adjustment" of the exchange rate was necessary gained adherents in Washington, along with the realization that simply urging the Mexican government to undertake it would not accomplish the task. Rather, the U.S. had to make clear its unwillingness to help sustain an unsustainable currency peg. In November, Under Secretary Summers memoed his treasury colleagues that Mexico should not be allowed to borrow from the U.S. to support an overvalued peso. Chairman Greenspan's staff reportedly reached the same conclusion.<sup>50</sup>

When the Federal Reserve raised interest rates by more than expected in November, the issue came to a head. The peso came under pressure, leading to a weekend of consultation between U.S. and Mexican officials. Bentsen told Pedro Aspe, the finance minister, that as far

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<sup>48</sup>Craig Torres (1994), "Mexico Could Post Its Strongest Growth in Five Years," *Wall Street Journal* (August 25, 1994).

<sup>49</sup>The unexpected nature of this event was one reason for the deer-frozen-in-the-headlights posture of the U.S. government in October and November. "As an official who participated in interagency meetings in Washington throughout this period recalled, 'I don't remember...any economic bells ringing.'" *Washington Post* (February 13, 1995, p.1). In addition, the administration was preoccupied by preparations for the lame-duck session of Congress at which approval of the Uruguay Round negotiation would be obtained. Zedillo met with Secretary of State Warren Christopher during a November 1994 visit to Washington, and Treasury Secretary Bentsen met with Zedillo in Mexico City following the election, but there was reportedly no State Department-Treasury Department joint meeting on Mexico until after the peso devaluation in December (*Ibid*).

<sup>50</sup>*Wall Street Journal* (July 6, 1995), p.A1.

as he could see Mexico had no choice but to adjust the exchange rate. Aspe rejected the advice, and Bentsen wished him "good luck."<sup>51</sup>

All this is consistent with the belief that the Mexican government unwisely put off the inevitable day of reckoning -- that it compounded the problem by waiting too long. From nearly \$30 billion before the assassination of Colosio, foreign exchange reserves had fallen to barely \$5 billion when the decision was taken to abandon the pegged rate against the U.S. dollar in December. At each stage the Mexican government, preoccupied with the election campaign, bet that the loss of reserves was temporary -- that it reflected a passing disturbance to market conditions rather than a permanent change in investor sentiment. But up until late summer it was hard to say with any conviction that the Salinas government was wrong. While inflows of foreign portfolio investment had stopped in the wake of political assassinations and the Chiapas rebellion, they had also stopped when the U.S. Congress looked ready to reject NAFTA, only to resume after the NAFTA implementation votes.

Could the administration have done more to force the issue? Did it compound the problem by issuing repeated public expressions of support and providing contingency finance in advance of the 1994 presidential election? Given the historical association of peso crises with Mexican elections, to make no financial contingency plans in 1994 would have been reckless, to say the least. Moreover, the conditions attached to the multilateral contingent credit line would have required Aspe to reconsider Mexico's exchange rate policy in the event that the finance was drawn (which it was not) and pressure on the peso failed to dissipate. It was the existence of this

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<sup>51</sup>*Washington Post* (March 3, 1995), p.A29. The role of a firm exchange rate anchor in Mexico's stabilization and adjustment program was personally associated with Aspe, who threatened to resign whenever the possibility of devaluation was raised in the interregnum between the election and the inauguration of the new government.

arrangement that provided a context in which U.S. officials could consult with their Mexican counterparts during the interregnum between the election and inauguration of the new government. But Mexico was a sovereign state; the U.S. could not force it to devalue. Nor was it appropriate for the U.S. government to attempt to compel it to do so. Public pressure would have destabilized the markets and been viewed as interfering first with the election and then with the transition. Bentsen's wishing Aspe "good luck" is about as blunt as such messages can get.

In December, after a year of political assassinations, a not-very-clean presidential election, and the appearance of an armed guerrilla movement in Chiapas, Mexico ran to the edge of its foreign exchange reserves. It was public knowledge that inflows of foreign portfolio capital had not resumed. Expectations of inflows gave way to expectations of outflows. In a pattern that would be repeated in the Asian crisis two years later, each investor feared that other investors would pull their money out, leaving the last investor standing would lose the greatest amount, through either near-hyperinflation (as the Mexican government frantically printed pesos to cover its peso-denominated debts), the imposition of capital controls (which would trap foreign money in the country for an indefinite period of time), or formal default (in a repeat of 1980s-style dealings with commercial banks).

A government possessing only \$5 billion in reserves to offset \$23 billion of tesebono liabilities had no good choices. If it pushed interest rates sky-high in an effort to keep capital in the country, the extraordinary cost of money would strangle investment and employment and repel inward foreign investment. If, finding itself unable to borrow, it began printing money at a rapid rate, hyperinflation would do the same. And if it defaulted, the hope of U.S. finance for Mexican economic development would be dashed.

None of this was preordained, of course. If investors had not interpreted the decision of Zedillo's newly appointed finance minister, Jaime Serra, to devalue the peso as a repudiation of Aspe's promise that the peso band was inviolate (and if Aspe had not repeated that promise in such unconditional terms in a series of private meetings that closely preceded the change of government), then the reaction might not have been so violent. If investors had been willing to roll over the country's short-term debts, contractionary policies and a moderate devaluation to reduce imports and encourage exports would have sufficed to cover the Mexican government's foreign liabilities when they came due. While a moderate devaluation coupled with contractionary policies might cause a recession, that recession would be shorter and shallower than what faced Mexico in the absence of funds to roll over its short-term debts.

Thus the peso support package: the United States, the International Monetary Fund, and other sundry and assorted contributors cobbled together some \$40 billion in dollar-denominated assets. Initially the White House sought to get Congress to approve \$50 billion in loan guarantees. The White House knew that this request was risky; President Clinton was told that his reelection prospects could be effectively destroyed by this one issue if Mexico failed to pay the money back. Nothing, more than the decision to nonetheless go ahead, could have made the commitment to globalization and openness more clear. The Congressional leadership, Newt Gingrich and Bob Dole, were willing to give the President rope; initially they agreed to support the loan-guarantee request. The willingness of the executive and legislative branches to work together to minimize the impact of the peso crisis was unsurprising; after all, economic engagement with Mexico was the policy of both the Democratic executive and the Republican legislative majority. Moral suasion was mobilized: Chairman Greenspan telephoned Rush Limbaugh at his studio to lobby for the package (which he characterized as the "least worst of

the various alternatives that confront us"). But the Treasury's state-by-state analysis of how a Mexican meltdown would affect U.S. employment was apparently not brought to the attention of Congressional staffers. And the Congressional leadership badly overestimated its ability to overcome the reservations of a rank and file that thus failed to see the impact on their individual districts. Soon Congressional leaders as highly placed as Speaker Gingrich's lieutenant, Majority Leader Armey, began demanding that the administration gather 100 House Democratic votes for the package as a precondition for Republican support. Perennial presidential candidate Patrick Buchanan called the support package a gift to Wall Street, "not free-market economics [but] Goldman-Sachsonomics." Ralph Nader urged Congress to vote down the support package and to instead demand that Mexico raise real wages. *Wall Street Journal* columnists demanded that support be provided only if Mexico first returned the peso to its pre-December nominal parity. Isolationist Republicans and protectionist Democrats claimed that NAFTA had caused the crisis and vowed to fight the package. Almost alone on the other side of the debate was the newly-elected governor of Texas, George W. Bush, who trumpeted his firm support for the rescue on the grounds that a collapse of confidence in Mexico would be "unbelievably disastrous."<sup>52</sup>

Congress' failure to quickly pass the package meant that discussions of U.S. financial assistance did more to roil than calm the markets. Barely a month into the 1995, the Congressional leadership had abandoned any attempt to pass loan guarantees. Treasury staff developed a plan to take large-scale recourse to the Exchange Stabilization Fund (ESF), and Gingrich et al., chastened by their failure to pass the loan guarantees, responded with a unconditionally supportive letter.

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<sup>52</sup>*Economist* (February 4, 1995), p.24.



The original legislation governing use of the ESF had assumed that it would be used for short-term exchange market interventions to stabilize the value of the dollar against other major international currencies, not that it might be used by the Executive Branch to stabilize the peso.<sup>53</sup> But the statute was revised in the 1970s to provide that the ESF should be used in a manner consistent with U.S. exchange obligations under the amended IMF Articles of Agreement. Indeed, it had been used before, repeatedly, for just this purpose, to help stabilize the currencies of foreign countries, including prominently the United Kingdom in 1976 and, revealingly, Mexico in 1982. But the scale on which it was to be utilized in 1995 was unprecedented (both in terms of amount and duration of the exposure), prompting Treasury to solicit and obtain the written approval of the Congressional leadership before the fact. In authorizing that the ESF be used on this scale, Congress effectively abdicated to the White House a substantial measure of its institutional power over international economic policy. The vitriolic hearings over the Mexican rescue and over the administration's use of the ESF that followed in 1995 were to some degree the Congressional rank and file's effort to undo the consequences.

In this way the program to support the peso was put in place. The IMF Executive Board, under strong pressure from Managing Director Michel Camdessus, ponied up a large contribution over the objections of some European directors. As we noted at the beginning of this section, there was virtually no chance that the Clinton administration would not respond rapidly and aggressively to a Mexican financial crisis. The centrality of the debate over NAFTA in its first year, followed by the legislative disaster of its second, meant that NAFTA had become, by default, one the administration's two signature accomplishments. The National Security team supported an aggressive U.S. response for its own reasons; national security

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<sup>53</sup>See Schwartz (1997).

advisor Tony Lake was among those who argued that the crisis could threaten political stability in Mexico and that political disorder might mean a wave of illegal immigration into the United States.<sup>54</sup> From this standpoint, it could be argued that the loan was a good investment.

The same argument could be made from a narrowly economic point of view. The Mexican government was already following sustainable macroeconomic policies -- if it could only find the money to repay its tesobonos without having to resort to the printing press. In a matter of months or, at worst, years, New York investors would calm down and recognize that there was a more than measure of truth in the optimism toward investing in Mexico that had prevailed in 1993. And then the loan could be paid back, with interest.

This is more or less what came to pass once the tesobono problem was cleared from the boards. The restoration of external balance was all but immediate as the heavily depreciated peso boosted exports and made imports unaffordable to Mexicans. The volume of exports rose by fully 30 percent in 1995, while imports fell by more than 8 percent. The swing in net exports between 1994 and 1995 was nearly \$30 billion, allowing Mexico to register a \$7 billion trade surplus in 1995.

The restoration of internal balance took longer. Real GDP fell by nearly ten per cent in the year from 1994-Q3. Monetary and fiscal policies did little to support domestic absorption and therefore Mexican GDP. This raises the question of why the Zedillo government insisted on such a rapid adjustment. After all, one purpose of a support program is to allow macroeconomic adjustment to take place in a kinder, gentler fashion (with more monetary and fiscal support for domestic demand) and to give time for expenditure-switching to take place. In large part the Zedillo government responded in this way because of pressure from the United States. The Chair

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<sup>54</sup>*Washington Post* (February 13, 1995, p.A1).

of the Senate Banking Committee, Alfonse D'Amato, spent much of 1995 hunting for the head of the person responsible for the "Mexican disaster."<sup>55</sup> D'Amato believed that he had a winning case no matter what explanations Treasury officials offered: either the U.S. government had failed to foresee the Mexican crisis, in which case Treasury officials were incompetent; or they had foreseen it but failed to warn investors, in which case they had effectively stolen money from his constituents to prop up the PRI. Pressure from the Senate Finance Committee and the fear that still-outstanding U.S. government money would become an issue in the 1996 presidential campaign led the U.S. to take part of the peso support package out of Mexico in 1996.<sup>56</sup>

How successful on balance was the U.S. led rescue of Mexico? A fully adequate answer requires a paper of its own. While the 1995 recession was deep, the recovery that commenced in 1996 was rapid and sustained. Contrary to worries that Mexico, let off easy with help from its big brother to the north, would soon be back for another infusion of official finance, the country did not appeal again to the U.S. for assistance. It did not backtrack on reform. The neo-liberal model of market opening and reform was not discredited; rather, it continued to spread to other parts of Latin America.<sup>57</sup>

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<sup>55</sup>See, for example, Federal News Service (1995), "Hearing Before the Senate Banking Committee: Mexico and the Exchange Stabilization Fund (July 14, 1995). From another perspective, D'Amato's lead role in the critique of policy toward Mexico was distinctly odd. He was the junior senator from New York. Whatever you thought of U.S. loans to the Mexican government, they were used to pay debts owed to D'Amato's constituents. To protest that U.S. money should not be used to make sure that New York companies were repaid was a strange move for a senator from New York to make. Indeed, D'Amato had initially backed the original loan guarantee program.

<sup>56</sup>As a domestic political strategy this was very desirable: the fact that the U.S. had made a handsome profit silenced Congressional criticism.

<sup>57</sup>But Mexico's financial system continues in disarray. And its distribution of income appears to have taken an upward leap as a consequence of the 1994-1995 crisis.

But did countries elsewhere in the world grow overconfident that they too would receive exceptional support if they too encountered financial difficulties? Did investors come to anticipate the extension of official finance for crisis countries and act on this expectation? The assessment of the Mexican rescue is more negative if it created moral hazard, bred contagion, and set the stage for the Asian crisis. The quantitative evidence is inconclusive, not surprisingly; isolating deviations from the efficient prices and quantities that would obtain in the absence of expectations of official intervention requires a consensus model of asset price determination, something that we do not have.<sup>58</sup> At some level, it is hard to believe that investors were wholly unaffected.<sup>59</sup> But there is little sign that the Mexican rescue, by itself, constituted in investors'

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<sup>58</sup>Thus, the attempts of Zhang (1999) and Spadafora (2000) to identify the effects of moral hazard by estimating an ad hoc model of emerging-market bond spreads, and looking for a pattern of outliers (that is, spreads narrower than predicted) following the Mexican crisis is not more convincing than that ad hoc model. It is not surprising in this light that these authors reach diametrically opposing conclusions. Lane and Phillips (2000) review approaches to identifying moral hazard in international financial markets. While arguing that "It is inherently plausible that financing from the IMF generates some element of moral hazard" (p.1), they find that the evidence is inconclusive (although they are able to decisively reject the limiting hypothesis "that investors perceive a full guarantee from the Fund" (p.28). And, even if there exists evidence that the potential availability of Treasury and IMF money to fight international financial crises eased the minds of investors, inducing them to lend and invest more than would otherwise have been the case, this is not necessarily a bad thing to guard against. As DeLong, Shleifer, Summers and Waldmann (1990) pointed out, a well-functioning financial market is one that takes appropriate account of "fundamental" risk. The risk that investors will panic is not a fundamental in the relevant sense. A financial market that discounts prices because of this possibility is not setting prices equal to social marginal value. In this case the level of international lending and borrowing, absent official intervention, will be inefficiently low. Of course, a pattern of overly frequent, unconditional intervention can tip the balance the other way, but excessive lending at inefficiently tight spreads is not the only possible outcome.

<sup>59</sup>On the other hand, there is the argument that the backlash against the Mexican rescue on Capitol Hill gave investors reason to doubt that the experience would be repeated (Willett 1999). And administration officials could and did argue that Mexico was more a liquidity than a solvency crisis. Help was justified on efficiency grounds by the predominance of the liquidity element, where successor countries whose crises had deeper structural roots (and investors in those countries) should not expect comparable help. Of course, whether investors could draw these subtle distinctions is an empirical question.

minds a pattern of support. The phrase "moral hazard" appeared in the newspapers in 1995, in the wake of the Mexican rescue, only one-fourth as often as it would appear in 1998, following Asia. (See Figure 6.) The idea of a "moral-hazard play," that G-10 governments and multilaterals were prepared to eliminate the downside risk of investing in countries like Brazil that were too important systemically and like Russia that were too nuclear to be allowed to fail, became current only in the wake of the Asian loans that followed Mexico by two to three years. There were concerns about moral hazard in 1995, in other words, but it would take the Asian crisis (and the Russian crisis after it) to give them resonance.

#### **4. Responding to the Asian Crisis**

Coming in the wake of Mexico, Thailand's crisis was less of a surprise. Indeed, the kingdom's problems bore an eerie resemblance to those of its Latin predecessor. A large current account deficit was raising questions about competitiveness. There were worries that monetary policy was too expansionary to remain consistent with the exchange rate peg maintained by the central bank. The baht, according to some estimates, was overvalued by the now customary 20 per cent.<sup>60</sup>

To be sure, Thailand, like Mexico before it, was not running a large budget deficit; the problem did not obviously lie in the profligacy of the government.<sup>61</sup> As in Mexico, the

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<sup>60</sup>This is the retrospective estimate of Chinn (1998). "Customary" refers to the precedent of Mexico in 1994.

<sup>61</sup>It can be argued that the overheated state of the Thai economy implied the need for a substantial surplus, not just a balanced budget, a point with which, with benefit of hindsight, we would agree. But the issue here is whether fiscal variables were "flashing red" and sending out early warning signals of an impending crisis. The answer, clearly, is no. Those who insist that fiscal policy, while not the problem, could nonetheless have been part of the solution must be able to argue that higher taxes and lower public spending would have significantly narrowed the current account deficit (where the "twin deficits" literature suggests that the link here is tenuous) and could have

authorities defended themselves by arguing that the strength of the baht and the magnitude of the current account deficit reflected the country's admirably high level of investment. But there were signs that companies were taking on excessive debt burdens: by 1996 companies in Thailand, excluding banks, were spending the equivalent of 18 per cent of GDP on interest. And, even more than in Mexico, there were reasons to doubt the productivity of much of that investment. Valuations on the Bangkok stock exchange had been trending downward since 1996. The inefficiency of infrastructure investment and the frothiness of the real estate market were notorious. Many construction loans had already gone bad, undermining the solvency of banks and finance companies and implying a significant fiscal obligation for the authorities (the government having already announced that it would not allow depositors to suffer when financial institutions that had gone bad were closed down). Non-performing loans were perhaps \$20 billion by the start of 1997. By the start of 1997 there were whispers that the cost of bailing out insolvent financial institutions could be as high as six per cent of GDP.

The IMF had been warning for more than a year that the situation in Thailand was unsustainable. Its managing director, Michel Camdessus, had visited Thailand four times between July 1996 and July 1997, exhorting the government to "get rid of this very dangerous peg to the dollar." The existence of these problems was familiar to the Federal Reserve and the U.S. Treasury: Treasury officials, from Rubin on down, were vocal in insisting on the need clean up the financial sector and adjust the exchange rate. What came as a surprise was not that Thailand had a crisis and experienced macroeconomic distress but the severity of the fallout and the speed and scope of its spread.

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raised the average quality of investment.

Under most circumstances this tinder box would have ignited even earlier than it did. It was clear that the banks were bust, rendering the Thai authorities reluctant to use higher interest rates to defend the currency (given the additional pain this would inflict on the already suffering banking system).<sup>62</sup> That the conflagration only erupted in July of 1997 can perhaps be explained by the ease with which emerging markets generally, and not merely Thailand, could finance their external deficits, given the conditions prevailing on global financial markets (and the perception that they were "miracle economies"). An astonishing \$240 billion in private capital had flowed out of the industrial core into the developing periphery in 1996. More than a quarter went to the fast-growing economies of East Asia. All signs at the start of 1997 were that this flow would continue and, if anything, increase. Japanese banks in particular were pouring in money through the Bangkok International Banking Facility (BIBF), something to which the Japanese Ministry of Finance paid no mind (despite warnings from the Fed and the U.S. Treasury).<sup>63</sup> That said, there were already some who had begun to worry that the miracle was oversold, and that financing was too easy to get.<sup>64</sup> Moral hazard emanating the Mexican rescue could conceivably have supported this financial flow, but more plausible in our view is that investors found investing in the East Asian miracle irresistible, wanted a piece of the action, and were confident that they could get out in time if, in Thailand or elsewhere, something finally went wrong.

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<sup>62</sup>As in fact turned out to be the case. While the Thai authorities raised interest rates when the crisis broke out, they lowered them "prematurely" (in the words of Boorman et al. 2000) in early August and again in mid-September, arguably undermining the confidence of investors in their commitment to defense of the exchange rate.

<sup>63</sup>We return to the political economy of the BIBF below.

<sup>64</sup>See for example Krugman (1994).

Some critics of the markets go a step further and argue that the origin of the Asian crisis lay in the major money centers, that the East Asian economies were fundamentally sound, and that the true source of crisis was an investor panic. We are more inclined to the position staked out by Summers (1999a): while there would have been no crisis of this magnitude in the absence of investor panic, an investor panic would not have produced a crisis of this magnitude in the absence of serious problems of non-performing loans, inadequate and weak financial regulation, and currency and maturity mismatches, all of which had major implications for future (quasi) fiscal deficits and hence for sustainable monetary policies. Both the fundamental financial problems of East Asian economies and an investor panic were needed for the situation to develop as it did, and it was their interaction that was key. The buildup of short-term, foreign-currency-denominated debt left East Asia's economies vulnerable to a sudden collapse of confidence. Depreciating currencies and falling asset prices exacerbated the strains on private-sector balance sheets and unleashed a vicious spiral.

In May the Bank of Thailand successfully fought off a speculative attack, using Singapore's support to engineer a bear squeeze. The attack convinced the government that reform could not be further delayed. In June it initiated steps to restructure the financial system, closing down sixteen insolvent finance companies. But this was too little, too late, what with capital and reserves continuing to hemorrhage out. On July 2, 1997 the central bank scrapped the fixed exchange rate and watched the baht fall by one-sixth on that day alone. (See Figure 7.) The Bank raised short-term interest rates that day by two percentage points, to 12.5 per cent annualized, to prevent a larger, potentially-destabilizing fall. Observers feared that if the exchange rate weakened further, many Thai companies with dollar-denominated debts would see their profits vanish under the impact of higher repayment costs. The consensus estimate of Thai



companies' short-term dollar-denominated debt was that \$50 billion was maturing within the year, a sum more than half again as large as the perhaps \$30 billion of Thai foreign exchange reserves. And no one knew how much of this dollar-denominated debt was unhedged.

Yet there was little sense at the very start of July that the Thai situation was as serious as Mexico's had been or that the crisis would spread to other East Asian economies. The government in Bangkok had already taken steps to begin to liquidate insolvent financial institutions and strengthen the financial system -- steps that the Mexican government had failed to take. The Bank of Thailand had engaged intervention on the forward foreign-exchange market, the losses from which would absorb a significant portion of its reserves, but was not known to the market, since the IMF's efforts to enhance transparency had not extended to the off-balance-sheet liabilities of central banks.<sup>65</sup> The dollar value of the Thai stock market fell on July 2, but by "only" 9 percent, a little more than half as much as the currency.

Suddenly everything changed. On July 6th the Philippine Finance Minister was quoted by the *Straits Times* as saying that his country's peso "might devalue." Five days later the Philippines, another country with chronic competitiveness problems, had abandoned its fixed exchange rate, following Thailand down.<sup>66</sup> While this helped the Philippines avoid a more

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<sup>65</sup>Whether this is feasible remains an open question. To the extent that financial-market rocket scientists and their customers are always one step ahead of the markets, concocting new instruments ostensibly exempt from existing disclosure mandates, the IMF has increasingly focused on codes of transparency for central banks to induce voluntary disclosure and measures to strengthen corporate governance as a way of promoting disclosure by private-sector entities. We return to this below.

<sup>66</sup>The Philippines' blessing, as it were, was that no one had mistaken it for an Asian "tiger" or a "miracle" economy. It had not imported capital on the same scale as Thailand. It had not experienced the same construction and real estate boom, and the problems in its banking system, while chronic, were in some sense less acute. But the Philippines exported many of the same products as Thailand (textiles and apparel, for example), and hence had good reason to follow the baht.

serious crisis, it raised further questions about the stability of other currencies. On July 8<sup>th</sup> the Malaysian ringgit came under heavy speculative pressure. On July 11th Indonesia announced that it was widening its exchange rate band and then stopped defending the rate. On July 13th Korea's eighth-largest chaebol, Kia, and its creditor banks announced an urgent restructuring designed to avoid bankruptcy (following other failures by smaller chaebol earlier in the year). And on July 14 Malaysia stopped supporting the ringgit. Now the crisis was in full swing. Before the end of July the East Asian economies had opened discussions with the IMF for support, and Malaysian Prime Minister Mahathir Muhammed had launched his denunciations of international currency speculators and of foreign exchange markets in general.

Both the Fed and the Treasury saw Thailand as a problem best handled by the IMF in light of the surprisingly bitter and long-lingering controversy over the Mexican rescue and the fact that Thailand was hardly in America's back yard. August saw the IMF assemble and approve its \$17 billion support package, which included parallel bilateral financing, Japan making the major contribution.<sup>67</sup> The U.S. did not contribute (although it supported the idea of parallel financing). Treasury was fettered by Senator D'Amato's rider to the appropriations bill constraining the use of the ESF, which did not expire until September 30<sup>th</sup> (the end of the fiscal year).<sup>68</sup> U.S. inability or unwillingness to participate (the decision was interpreted variously) created considerable enmity in East Asia.

Any potentially favorable impact on market confidence was immediately destroyed by the revelation that the Bank of Thailand had \$23 billion of outstanding forward dollar sales (and

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<sup>67</sup>Japan contributed \$4.3 billion through a pari pasu arrangement. In addition, there were contributions from the World Bank, the Asian Development Bank, Australia, China, Hong Kong, Singapore and other Asian countries.

<sup>68</sup>We provide more discussion of this below.

now associated losses) that it had to cover. This fact had been uncovered by the IMF mission and was known to the Executive Board (and hence the U.S. government). Treasury and the Federal Reserve pushed the IMF and the Thais to reveal the position on the grounds that anything known to the Board was bound to leak.<sup>69</sup>

As the shock waves radiated outward, Indonesia abandoned its support of the rupiah. By the end of September the Korean chaebol Jinro and Kia had gone bankrupt, adding the third largest economy in the hemisphere to the list of the vulnerable. By late November, Thailand would have returned to the IMF for a second package (the terms and targets of the first one having been rendered irrelevant by the collapse of the currency).

During the fall of 1997 proposals for an Asia-only \$100 billion bailout fund were shot down by the U.S. and European governments.<sup>70</sup> Treasury and the Fed worried that a large, free-standing source of funds would undermine the role of the IMF and its conditionality by providing generous finance on lax terms. They doubted that a different mix of adjustment and financing, which the existence of a large, free-standing regional fund implied, was appropriate for Asia than for the rest of the world. And, in practice, this large, free-standing source of funds would have been dominated by Japan's Ministry of Finance and the Bank of Japan.<sup>71</sup> Looking at the course of the Japanese economy from 1989 to 1997, it was impossible to have any confidence in the ability of those institutions to handle a domestic let alone an international financial crisis.

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<sup>69</sup>In addition, making public the fact that the Thai reserve position was even weaker than it seemed provided additional political justification for the large (505 per cent of quota) IMF package.

<sup>70</sup>In addition, China opposed the fund, both for its strategic implications and out of doubts that softer or unconditional money would be helpful for crisis prevention and resolution.

<sup>71</sup>Although the latter was not a big fan of the idea, fearing that it would end up having to pay for the initiative.

That U.S. opposition to the Asia-fund idea, on the grounds that national influence would undermine the role of the IMF, provoked such a hostile reaction in Japan and other parts of Asia is hardly surprising when one observes how profoundly U.S. influence shaped the actions of that institution. Just saying "no, no, no" was thus not a feasible political position for the United States. The U.S. administration's counterproposal was the Manila Framework Agreement, launched at a meeting in the Philippines in mid-November. This led to agreement at the Asia Pacific Economic Cooperation summit in Vancouver to strengthen mutual surveillance within the region, and to create an Asia fund with no dedicated staff, with no specific funding level, and, critically, with the proviso that funds could be lent only with IMF supervision. Returning to the crisis itself, what is particularly striking is the failure of all concerned -- in government, in the markets, in the multilaterals -- to anticipate how widely, quickly and powerfully instability would spread. Almost no one warned that Indonesia, for example, was at risk of suffering a crisis like Thailand or Mexico.<sup>72</sup> The country's current account deficit was less than one-third as large a share of GDP as Thailand's. Indonesia had never pegged its exchange rate, and the band within which it allowed its exchange rate was relatively wide (and was widened further after the Thai devaluation).

Yet Indonesia also suffered from politically-directed lending through state banks, tangled corporate control, a lack of easily accessible information about corporate finances, insider lending, and poor banking supervision. Most important, however, was the magnitude of unhedged foreign hard-currency borrowing. Thus once the rupiah began to lose value, Indonesia's situation deteriorated very rapidly. Debt owed to foreign banks relative to

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<sup>72</sup>This despite the fact that G-10 deputies, together with representatives of the emerging markets and multilaterals, had emphasized the role of weak institutions and flawed structural policies in the Draghi Report issued in April of that same year (see below).

Indonesian GDP quadrupled as the rupiah fell, reaching a peak of perhaps 1 1/2 times a year's GDP.

In October the Indonesian government announced that it was seeking IMF assistance, and by the end of the month a \$40 billion support program had been unveiled. Having recognized that the crisis could spread from region to region like weeds from one backyard to another (and no longer constrained by the rider to the Treasury appropriation that complicated the use of the ESF), this time the administration committed (in the face of still Congressional opposition) to making available a contingent line of credit worth about \$3 billion in the event that the IMF rescue package proved inadequate to stabilize the economy.

However, the Indonesian government's willingness to carry out the actions needed to obtain continued IMF funding was unclear. In the late fall of 1997 it did close a few--but not all--potentially insolvent banks (controversially, in that there was no deposit insurance and the risk of depositor panic was great), including at least one bank owned by the Suharto family. But when Suharto's commitments to restrain government spending on infrastructure projects ran up against his eldest daughter's interests, family won. Thus it remained uncertain whether the Indonesian government truly was willing to take the policy steps that the IMF hoped would reassure foreign investors. And between the second quarter of 1997 and the second quarter of 1998, Indonesian real GDP fell by 16.5 percent.

Malaysia decided to go its own way, rejecting the conditions sought by the IMF, Mahathir Muhammed would claim that the financial crisis was all a western conspiracy to impoverish emerging Asian economies, and that the Malaysian economy was fundamentally sound. Yet in the summer of 1997 Malaysia's domestic bank lending was equal to more than one and two thirds of a year's GDP, and many feared that much of this lending had gone into

unproductive investments. The twin Petronas Towers in Kuala Lumpur--the tallest office building in the world and the set for the Sean Connery movie "Entrapment"--became a symbol of the claim that Malaysia too had suffered from an investment bubble in the mid-1990s.

One reason Mahathir was so desperate to keep the IMF at bay may have been his fear that the Fund would demand, as part of structural reform to promote economic efficiency, the end to the distortions and subsidies that give economic preference to those descended from Malaysia's indigenous population as opposed to those descended from Chinese immigrants. Since these policy measures were at the core of Mahathir's political support, he may have seen his political career at an end should a structural adjustment mission land at Kuala Lumpur. Thus eventually Mahathir would opt for capital outflow controls rather than IMF-style programs to contain the crisis.<sup>73</sup>

The fourth of the severely-afflicted fast-growing East Asian economies was South Korea, whose problems were exacerbated by politically driven lending. For decades the government had directed its banks to lend to favored sectors of the economy, encouraging heavy corporate borrowing and high debt-equity ratios. Even as of the end of 1996, the twenty-five largest chaebol had a debt-equity ratio of more than four to one. Eight chaebol went bankrupt in 1997, leaving the banks with a large but uncertain exposure to bad loans. And the country's banks and operating companies had unknown but staggering unhedged dollar-denominated debts. The country was thought to have \$65 billion of short-term foreign debt, but we now know that the true figure was at least twice that large.

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<sup>73</sup>According to Kaplan and Rodrik (2001), it is not clear that Malaysia lost much in terms of speed of recovery from its heterodox policies. Their methodology is controversial; others would point to other explanations for the relatively mild nature of Malaysia's crisis (such as its low level of international debt).

It is striking, then, that everyone was in denial on Korea until early November, when the crisis spilled over from the rest of Asia. In response, Korea and the Fund agreed on a support program of \$57 billion, the largest IMF-led program ever.<sup>74</sup> But even this super-sized package proved too small. The failure of the Korean package to staunch the bleeding was particularly alarming: not only was Korea one of the 12 largest economies in the world, but the inability of multilateral finance to stability conditions cast doubt on the viability of the entire IMF-U.S. led rescue strategy, leading to the first time to dire predictions in December of the possible meltdown of the global financial system.

Korea epitomized the "bailout problem" -- that for every dollar of official money that was pumped in, the banks could take a dollar of their money out. Not only did this debilitate efforts to end the liquidity crisis, but it had adverse political consequences (Congressional critics complained of "welfare for bankers") and heightened concerns about moral hazard (insofar as international banks that had taken on risky loans were now able to "get off scot free"). But exhorting the banks to keep their money in the country was ineffectual in a situation beset by collective action problems. Not only might individual banks decline to participate in concerted action, but so might individual governments. Thus, as late as mid-December Japan, preoccupied by the health of its own financial system, was urging that country's banks to pull out of Korea. Only when Korea was pushed to the brink of default, on -- to pick a date -- Christmas eve, did the IMF, in concert with G-7 governments, get them to first roll over their maturing short-term claims, by offering to accelerate the second line of defense conditional on a successful effort by a critical mass of Korea's foreign bank creditors to extend the maturity of their exposure to the

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<sup>74</sup>The IMF contribution alone came to 2,000 per cent of quota, far exceeding the conventional ratios of 100 per cent of quota in a year and 300 per cent of quota over the lifetime of a program.

Korean banking system and to then to convert these and other short-term obligations into (highly remunerative) long-term bonds.<sup>75</sup>

Ex post evaluations criticize officials for not having moved faster to bail in the banks. It is argued that if the same steps had were taken at the end of December had in fact been taken in November, perhaps following the Manila meeting at which the country's difficulties became known, then the first IMF package would have had a better chance of working. Preventing so much bank money from bleeding out would have avoided so demoralizing the markets. But whether the same steps would have been feasible earlier is questionable. For much of the period, Korea was still in the heat of a contested election (which took place in the third week of December). Despite the IMF's efforts to get all the candidates to endorse its program, it was uncertain whether the winner would follow through with the prescribed reforms. There was the danger that attempting to arrange a concerted rollover might so alarm the markets as to spread the crisis to Brazil and back to Russia. It may have been necessary to allow the least patient (Japanese) banks to exit before it was possible to obtain the cooperation of the others. Above all, it is doubtful that the banks -- or, for that matter, the Japanese government -- would have agreed to act in the collective interest before there was evidence of how truly dire the circumstances were. A few foreign banks had in fact tried on their own to orchestrate a

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<sup>75</sup>Treasury and the Federal Reserve Board encouraged William McDonough, chairman of the Federal Reserve Bank of New York, to convene a meeting of the six largest U.S. banks to impress on them the urgency of doing so, which he did on December 22<sup>nd</sup> (Callaghy 2000). The Bank of England did the same for the UK banks, also on December 24<sup>th</sup>, while the German Finance Ministry did so on the 29<sup>th</sup>. William Rhodes, vice-chairman of Citicorp, worked on behalf of the U.S. banks to open channels to the Japanese banks and to impress upon them the importance of participating in the rollover. He and his colleagues contacted each of the top 10 Japanese banks and the Japanese vice-minister of finance, Eisuke Sakakibara. As a result of these initiatives the Japanese were represented at the next meeting in New York, on December 29<sup>th</sup>, by officials from Bank of Tokyo Mitsubishi (*Euromoney*, March 1998).



stay/maturity extension package a week or so before Christmas, but their head offices had refused to go along.

The winter and spring of 1998 saw the IMF programs begin to work, as the Thai and Korean governments began to change their economic policies in accord with IMF conditions. Indonesia was a harder case. The draft budget unveiled by President Suharto in early January substantially exceeded the IMF's targets. Suharto gave way, following meetings in Jakarta in mid-January with IMF First Deputy Managing Director Stanley Fischer and (now-) Deputy Treasury Secretary Summers, and phone calls from President Clinton, among others. Suharto signed a revised letter of intent on January 15<sup>th</sup>. The event was memorialized by the notorious photograph showing IMF Managing Director Michel Camdessus, his arms folded, standing behind the Indonesian president (though the IMF claims that film clips show that Camdessus in fact struck this pose for only a few moments).

President Suharto promised to axe infrastructure projects dear to his eldest daughter, to phase out tax breaks and loan subsidies to the Indonesian auto companies controlled by his youngest son, and to eliminate his family's private monopolies. But he continued to look for running room: promoting the regulation- and government investment-minded Bucharuddin Jusuf Habibie, and announcing plans to establish a currency board which many observers saw as a scam to enable Suharto and his family to repay their dollar-denominated debts at an artificially-high exchange rate before the currency board's collapse.

Nevertheless, even in Indonesia the direction of policy began to shift in the way advocated by the IMF.

Were these policy shifts a good idea? As the critics of IMF intervention pointed out repeatedly already in 1997, the Asian crisis was very different from the crises that the Fund was

used to handling. Asian countries had high saving rates. Asian governments had run budget surpluses. Asian central banks had inflation under control. Hence, the standard conditions attached to IMF lending -- raise taxes and cut government spending to shift the budget toward surplus and reassure observers that the government would not resort to the printing press to finance its expenditures, curb demand in order to compress imports and generate a trade surplus, establish a monetary regime that would create confidence that inflation would remain under control -- were of questionable relevance, except possibly in Thailand.

Is there any validity to the even stronger indictment of these policies -- that they were they not only of questionable relevance but in fact damaging and counterproductive? Much ink has been spilled over these questions. There is now widespread consensus, with which we would concur, that the initial demands for fiscal cuts on the part of the crisis countries were excessive; by further compressing demand in an already depressed environment, they made post-crisis recessions worse.<sup>76</sup> There was no need for sharp fiscal consolidation in the interest of either confidence or fiscal sustainability in countries that had not entered their crises with large budget deficits or exploding debts. Here, it can be argued, the IMF's principal shareholder did not do enough at the outset to rein in Fund staff's ingrained habit of associating crises with fiscal excesses.

On monetary policy, in contrast, there is no such consensus.<sup>77</sup> The critics, from Stiglitz to Sachs, argued that sharp hikes in interest rates were more destabilizing than stabilizing for countries with high debt gearing and weak financial systems. The official position, of the U.S.

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<sup>76</sup>Note for example, the observation of IMF First Managing Director Stanley Fischer (2001a), "that the Fund on occasion makes mistakes, of course, we recognized that formally in the Asian crisis with fiscal policy, which was excessively tight for a few months at the beginning..." (p.5).

<sup>77</sup>See, inter alia, Furman and Stiglitz (1998), Kraay (1998), and Tanner (1999).

Treasury as well as the Fund, was that avoiding sharp hikes in interest rates was even worse, since failure to tighten would signal a lack of commitment to defending the exchange rate and provide no pecuniary incentive for investors to keep their money in the country, causing the currency to crash and bringing down with it banks and firms with foreign-currency-denominated liabilities.<sup>78</sup>

Clearly, this was a Hobson's choice. Governments finding themselves in this situation have no good options (as Mexico had learned in 1995). The IMF's gamble was that high interest rates would restore confidence quickly, stabilizing the currency and enabling the cost of credit to be brought down to customary levels before widespread bankruptcy ensued. In addition, IMF-led financial support clearly allowed governments to have higher exchange rates (and thus lower hard-currency debt burdens) and lower interest rates (and thus higher domestic investment) than otherwise, giving time to put in place financial-sector reforms and industrial-sector restructurings while awaiting the return of investor confidence.

If the fundamental imbalances underlying old-style crises were the result of bad macroeconomic policy decisions, the fundamental imbalances underlying new-style crises were more likely to be the result of bad structural policy decisions: unproductive public investments, unconditional guarantees for banks and firms, and financial policies that conduced to excessively high debt-equity ratios.<sup>79</sup> Awareness of this fact led IMF conditionality to take a new and

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<sup>78</sup>There was no enthusiasm in Treasury for squaring this circle by encouraging the crisis countries to impose capital and exchange controls, for reasons that we detail in the following section.

<sup>79</sup>The major macroeconomic policy failure, in our view, was to continue pegging exchange rates to the dollar too firmly for too long, providing implicit insurance against currency risk to the private sector and thereby encouraging accumulation of the unhedged exposures that so aggravated the crisis when it finally came (and inadvertently aggravating problems of competitiveness in a period when the dollar was appreciating against the yen). At a deeper level, however, the distinction between macroeconomic and structural policies is harder to sustain. Pegging was a corollary of the Asian development strategy of government-led investment,

unprecedented turn, in the direction of structural reform, with the active support of the Clinton Administration.<sup>80</sup> Not surprisingly, financial reforms -- closing bad banks, recapitalizing the survivors, and strengthening prudential supervision -- were key elements of the IMF's crisis programs in Asia. But these bad private-sector decisions reflected more than simply the weakness of prudential supervision and regulation. They reflected a pattern of close ties between government and powerful corporations, typically family led, in countries otherwise as different as Indonesia and South Korea. It was not just the ready availability of finance from poorly regulated banks but also the expectation that the borrowers themselves would be bailed out rather than closed down when things went wrong that weakened market discipline and encouraged lax investment decision making. This was the "crony capitalism hypothesis" that led the IMF by November to festoon its Asian programs with a host of structural conditions.

Like interest rate policy, the efficacy of this new structural policy was questioned: it was not clear that conditions which pointed to weaknesses in a country's economic system did more

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relying on the banks as the instrument of industrial policy. It can be implicated under this heading for having encouraged the extension to the financial sector of implicit guarantees that encouraged lending (by, inter alia, foreigners) without due regard to the underlying risks. But this discussion takes us beyond the parameters of the present paper.

<sup>80</sup>Although the number of structural conditions attached to IMF programs peaked in 1997, the increase in such measures was not specific to Asia or to its crisis. The number of structural conditions per program more than doubled between the late 1980s and early 1990s and doubled again between the first and second half of the most recent decade (Goldstein 2000). Explanations for the trend include the priority that came to be attached to restoring growth in highly-indebted countries in the 1980s (complaints that the Fund placed too much weight on stabilization and therefore was too tolerant of recession led to this emphasis on growth, which in turn required structural reform) and the emphasis on structural transformation and institution building in formerly centrally planned economies in the 1990s. While these experiences help to explain why the Fund became accustomed to giving growth-related advice and applying structural conditions, they do not justify its preoccupation with micro- and sectoral reforms in East Asia, a region with an admirable record of growth and no history of deep structural problems. They do not explain why the conditions attached to the Fund's 1997 and 1998 programs with Indonesia, South Korea and Thailand were so numerous and detailed.

to undermine than to restore confidence.<sup>81</sup> To a considerable extent the skeptical view has prevailed. Goldstein (2000), in his definitive analysis of the issue, concludes that as far as structural reforms were concerned, the IMF had "bitten off more... than either it or its member countries can chew." By 1999 the Clinton Administration was advocating a somewhat streamlined and simplified loan conditionality that focused more narrowly on macroeconomic and financial problems.<sup>82</sup>

As late as the summer of 1998 it was not clear that the crisis had been surmounted. The U.S. Treasury was relieved that the IMF-led programs had avoided a potentially catastrophic default in Korea and led to a substantial strengthening of the Thai stock market and currency, and that the crisis had not spread beyond East Asia. Trade balances had turned around, and interest rates and exchange rates had stabilized. But there were still no signs of improvement in Indonesia, where it was not at all clear that the stabilization program would be implemented.

Moreover, even though forecasters were anticipating a rapid turnaround in East Asian current accounts in 1998, they pushed expectations of a resumption of rapid economic growth back to the start of 1999. Disappointing export growth, especially exports to Japan, were at the heart of beliefs that recovery would not come as rapidly as had been expected. The weakness of the yen and worries that the Chinese renminbi might be devalued (voiced by administration officials at a Manila Framework Group meeting in Tokyo in June) reinforced these fears. Poor export performance was assisted by the fact that the magnitude of dollar-denominated liabilities and non-performing loans had turned out to be larger than even the most pessimistic estimates as of mid 1997. In Indonesia real GDP was expected to shrink by as much as 10 per cent (a

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<sup>81</sup>If it is believed that these weaknesses were generally known, of course, the argument that it is dangerous to address them on confidence grounds dissolves.

<sup>82</sup>As we analyze at more length in the next section.

forecast that turned out to be too optimistic). In Thailand real GDP was expected to fall by as much as 6 per cent (a forecast that turned out to be too pessimistic). In Korea the economy was expected to shrink by as much as 4 per cent. And in Malaysia growth in 1998 was expected to be zero.

As news continued to be mixed in the spring and summer of 1998, policymakers at the IMF, in the U.S. Treasury, and elsewhere took the fact that the news was not worse as evidence of the positive impact of their policies. There had been no meltdown. A slide into the depths of a great depression like that started in 1931 with the collapse of Austria's Credit Anstalt did not occur in the spring and summer of 1998, notwithstanding the warnings of the Cassandras (Krugman 1999). But the slowness of Asia's recovery was worrisome. Swift recovery from the Mexican crisis had come because the main destination for Mexican exports -- the United States -- had been growing rapidly, while recovery from the East Asian crisis was likely to be slow because the main focus of East Asian exports -- Japan -- was stagnating and unprepared to do anything to solve its problem.

The success of East Asia's recovery therefore required that the Federal Reserve risk some possible rise in inflation in the U.S. Fed staff continued to oppose further easing, until Russia's default and the subsequent flight to quality shocked them out of their complacency. By the end of August Fed Chairman Greenspan had accepted the need for further loosening and was actively raising Secretary Rubin's level of worry over the risk that the crisis could spill over into U.S. capital markets. Substantial easing of monetary policy in the industrial core, led by the Fed, then followed.

But continued stagnation in Asia combined with Russia's default to produce a large rise in yield spreads throughout the world. It was this sharp rise in spreads that was the proximate

cause of the financial distress of Long-Term Capital Management. Quickly confidence in Brazil and its peg began to deteriorate, raising fears of another round of contagion. The financial press wrote of a "financial firestorm" that had generated the "most baffling currency cris[i]s since the system of fixed exchange rates crumbled a quarter of a century ago."<sup>83</sup> President Clinton spoke in September of the gravest financial crisis of the postwar era. Doubts mounted about whether the IMF had the resources needed to contain its spread.

Fortunately, before long looser credit conditions began to work, and the innate productive potential of the Asian economies began to reassert itself. By the end of 1998 there were clear signs of recovery in Korea and Thailand, countries that had basically followed IMF prescriptions, curbing domestic demand, restructuring their financial systems (even if more slowly, hesitantly, and incompletely than the IMF had wished), and keeping interest rates high enough to avoid the extremes of depreciation. But there were also clear signs of recovery in Malaysia, which had followed its own very different course. Only Indonesia, where the East Asian financial crisis had segued into the Suharto succession crisis, remained in severe distress. By early 1999 -- save for Indonesia -- the Asian financial crisis was over.

The last of the major international financial crises confronting the Clinton Administration -- Brazil in late 1998 and early 1999 -- unfolded differently. Superficially the circumstances were similar. The currency was overvalued, again by a familiar 20 per cent. The current account was in deficit; reserves were running down. Treasury officials were less than happy about having to support another unsustainable peg, but in the fall of 1998 fears of contagion to other emerging markets and even the United States led them to conclude that there was no alternative, especially in light of the losses suffered by commercial banks, investment banks and

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<sup>83</sup>Davis, Friedland, and Moffett, *Wall Street Journal* (August 24, 1998).

other institutional investors due to the combination of Russia and LTCM. They doubted, in other words, whether the system could "take another hit." And, though they would have preferred seeing Brazil move to a more flexible exchange rate earlier, as in the case of Mexico four years previously, U.S. officials lacked the power to compel this.

The U.S.- and IMF-led response was cut from the same cloth as its predecessors: a large IMF loan (600 per cent of quota) with numerous conditions (but no unconditional demand that the country alter its currency peg) and a nearly matching amount from the U.S., Japan, the World Bank, and the Interamerican Development Bank, in November 1998. As in these other cases, official finance put off the day of reckoning but did not avoid the denouement. Unlike Mexico and Asia, however, Brazil's abandonment of its peg and forced shift to floating in January 1999 did not precipitate a major output decline; contrary to the consensus forecast of a serious slump, real GDP declined only modestly before recovering robustly in the second half of the year. It did not spread contagion to other emerging markets. It did not infect the United States.

Had the Clinton Administration and its collaborators on 19<sup>th</sup> Street finally learned the secret of how to manage an exit from an unsustainable peg? The strong family resemblance of the Brazilian package to its Asian and Mexican predecessors casts doubt on this Whig interpretation of recent financial history. It is sometimes said that the very fact that the banks could see the crisis coming encouraged them to hedge their exposures, which limited the adverse financial fallout after the fact. But it had also been possible to foresee the Mexican and Thai crises, and this did not avert the adverse financial consequences, which casts doubt on this interpretation of events. It is suggested that previous crises had taught the Brazilian government the importance of building credibility with the markets and of replacing its peg with a clear and



coherent monetary policy operating strategy; hence it installed Arminio Fraga and inflation targeting. But why Brazil should have been faster to learn these lessons than other countries is far from clear. Brazil was a less dependent on trade than either Mexican or the East Asians, which meant that a misaligned exchange rate posed less of a threat to its economy. But while Brazil may have been less open to trade, it was highly open to finance, and it was the financial fallout that proved surprisingly mild. Finally, it is argued that the combination of the Asian crisis, Russia's default and the flight to quality following the near-collapse of LTCM led to a sharp reduction in leverage in international financial markets, which reduced the scope for contagion. But while this can help explain the limited spread of the Brazilian crisis, it does not help us to understand why the macroeconomic consequences in Brazil itself were so mild, in international comparative terms. The very different aftermath of Brazil's crisis remains one of those late-20th century mysteries to be unraveled by future historians.

## **5. Strengthening the International Financial Architecture**

This sequence of events ignited a debate, which still simmers, about how to better prevent and manage financial crises. Treasury was quick off the mark with speeches by Secretary Rubin at Georgetown and Brookings in February 1998 on the need to "strengthen...the architecture of the international financial system."<sup>84</sup> Of course, Rubin's speech was not the administration's first foray into this area. Although the Mexican rescue had not provoked an equally contentious debate, it had created concerns, both inside and outside the administration, about moral hazard. And it raised red flags about inadequate transparency and weak financial

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<sup>84</sup>See Rubin (1998a).

systems. In response, the international policy community, with impetus from the Clinton Treasury, started down the path it has been following ever since.

Mexico's crisis had highlighted problems of inadequate monetary and fiscal transparency. Data on the Banco de Mexico's reserves had come to the market late (in 1994 as much as six months late), and deficits had been hidden in the accounts of the development banks (as noted above). The market reaction was abrupt and violent, the conclusion followed, because deterioration of underlying conditions had been hidden, rendering the devaluation of the peso an unpleasant surprise. This was an argument for encouraging countries to release such information in more timely fashion so that investors would curtail the provision of credit more gradually and ratchet up the pressure for corrective action without precipitating a crisis. Moreover, the magnitude of the assistance extended to Mexico was unprecedented, reflecting the increased scope for funds to flow over the capital account, in turn forcing the administration to resort to the Exchange Stabilization Fund on a large scale to obtain the necessary finance. In response, the Congress convened hearings and Representative Bernie Sanders of Vermont succeeded in introducing a bill that would have made it more difficult for the Treasury to again draw on the ESF for Mexico-style operations.<sup>85</sup> In addition, D'Amato succeeded in adding a rider to the appropriations bill for fiscal year 1998 that limited the use of the ESF for international rescue. (The rider required that the president certify that any use of the ESF would not cost the United States money -- that repayment was guaranteed. In addition, it required that except in an emergency the president obtain congressional approval for any loan of more than \$1 billion for more than six months. These conditions effectively prevented the use of the ESF in 1997 during

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<sup>85</sup>While Sanders' bill never became law, as an indication of Congressional sentiment it surely added to the reluctance of the administration to again resort to the ESF.

the first, Thai, stage of the crisis, as we explained above.<sup>86)</sup> If rescue operations were to be repeated, therefore, their financial basis had to be regularized. And this required international agreement.

America's G-7 partners had been ambivalent, to put it mildly, about the Mexican rescue. The crisis had not erupted in their backyards. Their investors had not held large numbers of tesobonos. European governments and central banks had always interpreted the lender-of-last-resort doctrine conservatively and taken the moral-hazard critique seriously. For all these reasons, it was not clear that they would support future Mexico-style rescue operations.

The first time these issues were formally addressed was the G-7 summit in Halifax in June 1995, at the conclusion of which the heads of state released an unusually detailed analytical document (G-7 1995). This document reflected each of the lessons drawn by the Clinton administration from the crisis. Reflecting the belief that many of Mexico's monetary, fiscal and financial problems had been hidden, it recommended greater transparency and requested that the IMF should sharpen its surveillance, issue franker assessments of country conditions, and establish templates for data dissemination. This last request led to the creation of the IMF's Special Data Dissemination Standard in March of 1996.<sup>87)</sup>

The premise was that market discipline could be relied on to rein in financial excesses before they got out of hand. Countries would not again be allowed to get into a Mexican-style bind where they found themselves with \$23 billion of short-term foreign-currency liabilities but only \$5 billion of reserves, since the markets would curtail the provision of short-term credit

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<sup>86)</sup>The rider expired after September 30, 1997, the end of the fiscal year (as already noted), and was not renewed subsequently.

<sup>87)</sup>It is important to recall, in other words, that this standard was not simply a child of the Asian crisis. Subscription to the SDDS remains voluntary (that is, IMF members are not obliged to subscribe).

before things got out of hand, and the government would feel the pressure sooner to undertake the necessary adjustments. With benefit of hindsight we can say that the emphasis placed by the Treasury's "financial architects" on the risks of inadequate financial transparency and excessive reliance on short-term foreign debt were right on the mark; these were the problems that would return, with a vengeance, in Thailand, South Korea and Indonesia two years later.

But, aided by 20-20 hindsight, we would argue that too much was asked of transparency and market discipline. Investors' attention span is limited, causing the application of market discipline to be uneven.<sup>88</sup> Market discipline does not function well in an environment where other distortions -- implicit guarantees for banks and corporations, for example -- are pervasive.

In addition, efforts to encourage transparency were uneven. Some would say there was something of a double standard: in the same way that the administration lectured Russia about democracy but hesitated to do the same to Saudi Arabia, it lectured Latin America about transparency but was reluctant to do so in Asia. There was a sense, shared in Europe and Japan, that Asian culture was different, and that Anglo-Saxon style transparency was too much to ask. Thus, efforts to encourage greater transparency did not prevent Asian governments from pursuing policies (like the Bangkok International Banking Facility and the Korean government's decision to free bank-to-bank borrowing before permitting foreigners access to Korean stock and bond markets) that greatly heightened their susceptibility to capital-flow reversals.<sup>89</sup>

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<sup>88</sup>Indeed, the example of Long-Term Capital Management suggests that the application of market discipline is uneven even where the stakes are large, distortions are absent, and the way that the institutions work is well known. See Lowenstein (2000).

<sup>89</sup>As more than one very senior U.S. Treasury official has pointed out, crises had a much higher chance of striking countries that had significant non-neutralities in favor of hot-money capital flows.

To allow the IMF to respond more adequately to capital account crises, the administration called for the G-10 (together with other countries not previously involved) to double the credits they made available to the Fund through the General Agreements to Borrow and the newly-created New Agreements to Borrow.<sup>90</sup> This call was embraced by the G-7 at its June 1995 Halifax Summit, and adopted by the IMF Executive Board in a decision taken in January 1997, although it took until 1998 and the lesson of the Asian crisis for the Congress to agree to fund the NAB and therefore for the new arrangement to become operational. While the Europeans continued to warn of moral hazard, they concluded that it was better that such rescue operations as were mounted should be arranged through the IMF where they could have a say.

The G-7 also asked G-10 finance ministers and central bank governors to review procedures for crisis resolution. The result was the Rey Report (G-10 1996), which addressed concerns that large-scale rescue packages were an engine of moral hazard and discussed the feasibility of alternatives ranging from limited changes in contractual provisions to the creation of ambitious new institutions (such as an international bankruptcy court for sovereign debts).<sup>91</sup> The report concluded that moral hazard was best addressed by modest changes in the institutional framework. While there could be occasions when officials, rather than extending emergency financing, might want to allow the country and its creditors to restructure their debts,

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<sup>90</sup>The NAB did not replace the existing GAB, but it became the first and principal recourse in the event that the institution needed supplementary recourses. The new name and separate arrangement were needed because the expanded arrangement was to include additional countries. As formulated, it involved 25 members and institutions. The original proposal at the Halifax summit to double the size of the GAB had not envisaged a separate arrangement because it had not anticipated the need to draw additional finance from new members.

<sup>91</sup>Treasury had wanted to say no to the sherpa proposal in 1995 that eventually resulted in the Rey Report, not knowing what recommendations such a high-profile international committee, which clearly possessed the expertise to articulate full-blown, coherent proposals, might table. On this occasion it was led to reverse its position by White House staff.

the feasibility of this should not be taken for granted. It was something that needed to be facilitated by institutional changes such as IMF lending into arrears (to provide the crisis country the equivalent of "debtor-in-possession financing") and the introduction of collective action clauses into bond indentures (as a way of preventing restructuring from being blocked by opportunistic creditors), a contractual innovation that governments might have to actively encourage.<sup>92</sup>

The Rey Report was the product of a G-10 process; some of its limitations reflected the fact that the emerging markets were not directly involved. This observation led to a second exercise: the Draghi report, composed by a working party made up of G-10 deputies together with representatives of emerging markets (Argentina, Indonesia, Korea, Thailand -- it is not as if officials missed the obvious suspects -- along with Hong Kong, Mexico, Poland, and Singapore), and the multilaterals. Jeffrey Shafer and Timothy Geithner spoke for the U.S. Treasury, Edwin Truman for the Federal Reserve Board. Its report, issued in May 1997 (Working Party 1997), was remarkable for its prescience. Not only did it flag the usual macroeconomic sources of vulnerability, including debt management as well as monetary and fiscal policies, but it gave equal weight to "sector-specific sources of vulnerability" (corporate government and management, market infrastructure and discipline, supervision and regulation -- what the subsequent literature would refer to as weak institutions and flawed structural policies). Particular emphasis was placed on the prerequisites for a robust financial system, not only the macroeconomic requirements but also the legal and juridical framework, accounting and other

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<sup>92</sup>The IMF Board agreed that its long-standing policy of lending into sovereign arrears on short-term loans from banks should be applied also to bonded debt. However, no official steps were taken to sharpen the incentives for the adoption of collective action clauses. We return to this point below.

information systems, stakeholder rights, and limits on the extent of the safety net. Someone clearly saw the Asian crisis coming, although it is not clear that they saw it coming in Asia.<sup>93</sup> If there is a criticism of this document, it is that it placed more emphasis on the identification of problems than their solution and on the design of optimal policies than on the capacity to administer them. And it lacked a sense of urgency; there was no sense that the relevant reforms had to be implemented in short order if a major regional crisis was to be headed off.

Be that as it may, the point is that the main issues raised by the Asian crisis were on the table before that crisis struck. The Clinton Treasury was a prime mover behind the push for greater transparency, for larger IMF facilities, and for examining the causes and resolution of sovereign liquidity crises. While rejecting ambitious schemes for an international bankruptcy procedure on grounds of political feasibility and worries that doing so would simply substitute one source of moral hazard for another, it acknowledged the need for modest institutional changes that would permit market-based restructuring as an alternative to large-scale financial rescues of crisis countries.<sup>94</sup>

But if the Tequila crisis highlighted the need for institutional changes to cope with the rapid growth of capital flows, it did not lead the administration to rethink its core strategy of encouraging the deeper integration of countries into global financial markets as a way of promoting reform and faster growth. How much responsibility the Clinton Administration deserves for this push for capital account liberalization is a contentious issue.<sup>95</sup> As already noted, the initial impetus came from elsewhere. Rubin and Summers themselves had always had

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<sup>93</sup> As noted above, the exercise did not enable officials to foresee the crisis in Indonesia, the paradigmatic case of a country with weak institutions and flawed structural policies.

<sup>94</sup> See Summers (1996).

<sup>95</sup> As our readers, who disagree amongst themselves, have reminded us.

relatively nuanced views of the merits of capital account liberalization; as noted above, neither was an unmitigated believer in the wisdom and efficiency of the markets. But the administration clearly could have done more to prevent the train from careening down the tracks. Much later then former-Secretary Rubin acknowledged in an interview that "With the benefit of hindsight I would say that we should have put more of an emphasis earlier on getting the rest of it right..." (*New York Times*, December 12, 2000, p.1) where in referring to "the rest of it" he meant "making sure countries had a regulatory structure and an understanding of what could befall them if the world picked up its money and moved it elsewhere."

The administration's support for capital account liberalization flowed naturally from its belief in free and open markets. It reflected the experience and predisposition of a Treasury Secretary with extensive experience in the markets. As Rubin put it in a speech timed to coincide with the Spring 1999 Bank-Fund meetings, "Our approach...has been informed by the fundamental belief that a market-based system provides the best prospect for creating jobs, spurring economic activity, and raising living standards in the U.S. and around the world."<sup>96</sup> It was a function of the belief that controls on capital flows created opportunities for corruption. It reflected the view that domestic financial liberalization had profoundly important benefits, but also the side effect of rendering capital controls that much more difficult and distortionary to administer and operate. Finally, it followed from the administration's commitment to trade liberalization, insofar as trade in merchandise was increasingly superseded by trade in services.<sup>97</sup>

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<sup>96</sup>Rubin (1999), p.1. Or, as he put it on another occasion, "Any discussion of changes to the global financial system should be, from my perspective, grounded in a fundamental belief that a market-based global economic system, based on the relatively free flow of goods, services and capital between nations around the world, will best promote global economic well being in the decades ahead." Rubin (1998b), p.2.

<sup>97</sup>Politically, Treasury could not be significantly less aggressive in attempting to secure national treatment for American banks than USTR was in pursuing market access for other U.S.



This approach reached its pinnacle (some would say its nadir) with efforts to secure an amendment to the IMF Articles of Agreement to oblige the members to establish the convertibility of their currencies on capital account.<sup>98</sup> Although this initiative did not originate in Washington (it emanated from the British and French Treasuries, as we understand it, and was enthusiastically received by Camdessus' IMF at both staff and management levels), neither did the administration oppose it. The administration owed one to the IMF Managing Director after Mexico: its life had been made much easier by Camdessus' willingness to turn on a dime and instantly contribute the lion's share of money for the peso support package in spite of the opposition of the British and German Executive Directors. And in the aftermath of the peso crisis, which reflected imprudent debt management by an emerging market country, Treasury saw the merit in extending multilateral surveillance to the process of capital account liberalization.

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exporters. This led to a curious role reversal during the WTO financial services negotiations, with the U.S. Trade Representative, hoping to secure a deal, arguing that the U.S. had gone as far as it should in pushing developing countries to allow commercial banks and insurance firms to enter their markets, while the Treasury continued to insist that more was necessary and desirable. Throughout, Treasury sought to draw a distinction between opening the capital account to financial flows and cross-border business and extending the right of establishment and national treatment to foreign financial firms in domestic markets. Summers, in a speech delivered soon after the outbreak of the Asian crisis, insisted capital account liberalization "is logically separable from the degree of domestic market access enjoyed by foreign financial institutions" but then went on to acknowledge that in practice the two tend to be linked (Summers 1997, p.3). A notorious example of linkage is Thailand, where the government opened the Bangkok International Banking Facility and then announced that it would give the broadest licenses to those who brought in the most money. With benefit of hindsight, it can be argued that more attention should have been paid to such dangers.

<sup>98</sup>In the language of the declaration of the Interim Committee of the IMF, the amendment would have made the liberalization of capital movements "one of the purposes" of the Fund. By analogy to the provision in the Articles of Agreement obliging members to establish the convertibility of their currencies on current account, governments would still have been able to delay this step for a transitional period, during which supportive measures were put in place. Still, the amendment would have ratcheted up the pressure for them to move in this direction.

With benefit of hindsight we can say that this initiative was at best poorly timed and at worst fundamentally misconceived. If there is one lesson of the Asian crisis, it is that premature capital account liberalization, initiated before prudential supervision is upgraded, corporate governance is strengthened, and government guarantees for domestic financial intermediaries are removed, creates conditions that can be described as an accident waiting to happen. However carefully the amendment to the Articles might have been scripted, and however long actual implementation of capital-account liberalization was to be delayed -- viewed as an ultimate goal rather than a current policy -- nevertheless the pressure to adopt it sent the wrong signal. Even though the administration supported broad deference to supervisory concerns as a legitimate constraint on capital account liberalization, Camdessus's speeches on the amendment and the priority to be attached to the objective were less nuanced; and given the influence of the United States in the Fund and the fact of close Treasury-IMF links, there was the perception, rightly or wrongly, that the U.S. was a wholehearted supporter of this push. The rebuttal is that the problem was not with the policy but with its implementation in Asia: the Koreans opened their capital account exactly backwards (freeing their banks to borrow offshore before liberalizing inward direct foreign investment and foreign access to domestic bond and equity markets), and the Thais subsidized short-term bank-to-bank borrowing by establishing the notorious Bangkok International Banking Facility. But this ignores the limited administrative capacity and politicization of policy that were facts of economic life in much of Asia and that should have more profoundly shaped the Washington consensus.

Learning from the experience, the administration drew back from this position following the Hong Kong Bank-Fund meetings, adopting a more careful and nuanced position emphasizing the benefits of "properly sequenced and supported" capital account liberalization. It became

"quietly sympathetic" to the use of Chilean-style taxes designed to limit short-term interbank borrowing.<sup>99</sup> By the winter of 1997-8 the amendment to the Articles was off the table, as policy makers became preoccupied by the Asian crisis.

The recognition that a backlash was brewing against financial globalization and the need to head off radical proposals for reform were what prompted Secretary Rubin to deliver his high-profile speeches on the subject of architecture in advance of the spring 1998 meetings of the Fund and the Bank.<sup>100</sup> Rubin laid out the three-pronged approach to strengthening the international financial system that was to characterize Treasury's efforts in this area for the remainder of the administration: initiatives to enhance disclosure and transparency, initiatives to strengthen national financial sectors, and mechanisms to ensure that the market more fully bore the consequences of its credit and investment decisions (that rather than investors being "bailed out," they were "bailed in"). While these recommendations echoed the conclusions of the Halifax and Lyon Summits, they also transcended them. On data and disclosure Rubin pointed to the problems, raised by the Asian crisis, of obtaining a complete picture of the forward and derivative liabilities of central banks and the foreign currency liabilities of commercial banks and corporations. He called for promoting "new, more flexible forms of debt agreements and

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<sup>99</sup>In the words of a *Wall Street Journal* report (April 5, 1999, p.A22). Others of us would instead say "at least acquiescent," and distinguish between Treasury's tolerance for Chilean-style measures where they already existed from its reluctance to actively urge their more widespread adoption. The new approach is encapsulated in the report of G-7 finance ministers to the June 1999 Cologne Summit, which concluded that "the use of controls on capital inflows may be justified for a transitional period as countries strengthen the institutional and regulatory environment in their domestic financial systems. Where financial sectors and supervisory regimes are weak, safeguards may be appropriate to limit foreign currency exposure of the banking system." G-7 (1999), p.10.

<sup>100</sup>Indeed, discussions had begun, within Treasury and between the Treasury, Fed and White House (represented by the CEA), on the need for fundamental measures to strengthen the international financial system (a "Halifax II") almost immediately following the outbreak of the crisis.

indentures" to provide a framework for direct negotiations between debtors and creditors.<sup>101</sup>

And he proposed the development of "a more complete range of global standards" to guide governments' efforts to strengthen their domestic financial systems.<sup>102</sup>

This was a more completely articulated agenda for strengthening the international financial architecture than potential rivals could claim. Camdessus was immediately receptive to the argument for encouraging transparency and promulgating international standards as a way of structuring international efforts to strengthen emerging economies' financial systems. He saw standards and codes as a vehicle for exerting pressure on member countries to upgrade their national financial policies and practices while at the same time providing an objective basis for IMF surveillance and conditionality and freeing the institution from criticism that its interventions were arbitrary and capricious. Camdessus and his staff recognized that, by placing the Fund at the center of these efforts to strengthen financial systems, it might be possible to further expand the mission of the institution.<sup>103</sup> The G-22, an outgrowth of the so-called

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<sup>101</sup>While not mentioning collective action clauses by name. Actually, the Brookings speech as printed referred to direct negotiations between "creditors and investors" where it presumably meant "debtors and investors."

<sup>102</sup>The push for standards was not exclusively a U.S. initiative; the UK Treasury and Bank of England played prominent roles in the formulation of this approach. To be sure, this standards-centered approach had other precedents, notably the Standard for Capital Adequacy for International Banks promulgated by the Basle Committee of Banking Supervisors. This too had been a U.S. initiative (we understand it as a U.S. response to the debt crisis of the 1980s, and specifically to Paul Volcker's concern that this crisis had revealed the tendency for international competition to exert competitive pressures that undermined the capital adequacy of international banks).

<sup>103</sup>To be sure, the Fund had already crafted a "Framework for Financial Stability" that essentially described standards for the supervision and regulation of banks and securities markets. The Fund had also developed a code for fiscal transparency, also in response to impetus from the UK Treasury. But there was considerable resistance in its higher echelons to widening the focus of surveillance from the Fund's core competencies of monetary, fiscal and exchange rate policies, resistance that was only overcome in the wake of Rubin's architecture speeches. Compare, for example, the absence of any reference to standards in Camdessus's February 1998 speech to the Bretton Woods Committee (Camdessus 1998a) with the emphasis placed on this initiative in his

Willard Group (an earlier effort by the administration to bring together the developed and developing countries around a single set of policy recommendations), quickly issued reports on transparency and disclosure, on strengthening national financial systems, and on private sector burden sharing, all of which were in line with Treasury thinking.<sup>104</sup> To the extent that the recommendations differed from those of the Rey Report two years earlier, this reflected the Treasury's increased insistency on "voluntary" solutions, which represented a backing away from Rey.<sup>105</sup>

It was in the area of crisis resolution that the administration was least successful in clearing a path. Its role was largely one of vetoing schemes, which it viewed as counterproductive or worse, to contain and resolve crises by giving national governments or multilaterals the power to override the markets. Administration officials torpedoed France's proposal in 1998 for a "financial safeguard clause" (analogous to the safeguard clauses that exist in international trade) under whose umbrella countries might impose temporary capital controls. They resisted Canadian and British calls for an international standstill mechanism for sovereign debts. If debt standstills and restructurings were to emerge as an alternative to large-scale financial rescues, they insisted, their feasibility would have to be demonstrated by the markets.

But administration officials did not offer specific suggestions for institutional changes to facilitate this process. For the proposed changes suggested by others -- mandating the addition

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May speech to the Royal Institute (Camdessus 1998b).

<sup>104</sup>See G-22 (1998a,b,c). President Clinton's offer to organize the G-22 meeting originated with a proposal that Prime Minister Goh of Singapore made while the two were playing golf before the November 1997 APEC meeting in Vancouver. In a repeat of the pattern when it had been proposed to create the Rey Committee in 1995 (see above), Treasury opposed the idea, until it was reformulated by the White House. The G-22 was later expanded into the G-33 (adding the remainder of the G-10) before being slimmed down into the present G-20, which held its first ministerial meeting in December 1999.

<sup>105</sup>One participant in G-22 report drafting reports that it was a struggle to keep "voluntary" out of every paragraph -- it kept coming back in, in the handwriting of high Treasury officials.

to collective action clauses to loan contracts, or establishing standing committees of creditors, for example -- they showed little enthusiasm. For example, they rejected measures to mandate the adoption of collective action clauses as a means to this end. In 1996 then Deputy Secretary Summers had described the case for collective action clauses as "obvious" (Summers 1996, p.6), and it was anticipated that the U.S. would support some kind of official action to encourage their adoption. It quickly became apparent, however, that financial-market participants, represented in this instance by the Institute of International Finance, strongly opposed legislation and regulations that might require them to modify their contracts. The extent to which this private-sector pressure influenced U.S. policy is unclear. Rubin's experience with the markets encouraged in him the belief that, if changes in contractual arrangements were desirable, they would come of their own volition; this may have been all that was at play. Be that as it may, by 1998 the administration had distanced itself from the idea of providing official incentives for the more widespread adoption of these provisions, and argued in international fora that the official sector had no business mandating the provisions of private loan contracts. The G-22 Working Group on International Financial Crises (G-22 1998c), led by U.S. Under-Secretary David Lipton, recommended only that governments engage in "educational efforts" in the major financial centers and that they "examine" the use of such clauses; it did not suggest that the IMF should key its lending rates and disbursements on their willingness to do so.

Was there any positive result in terms of creating an alternative to large-scale financial rescues as a way of addressing crisis problems? The scholarly answer would be that it is still too early to tell. When the IMF lends there is now a presumption that it will ask for a commitment from investors not to withdraw funds as quickly as the official sector pumps them in. But whether or not the markets can manage the process of debt restructuring smoothly enough to

avert serious output losses and relieve the IMF of pressure to intervene still remains unclear.<sup>106</sup> Institutional innovations like exit consents (pioneered in the case of Ecuador) provide some grounds for thinking that the markets are up to the challenge. Be that as it may, the transition from the Clinton administration to the Bush administration may increase the likelihood that we will have an experiment to see how this works.<sup>107</sup> But if the process is difficult and proves highly disruptive to the markets, the pressure for IMF intervention in the event of future crises will only intensify again, reviving the case for institutional changes to facilitate an alternative.

The exchange rate issue played surprisingly little role in these early architecture debates. To be sure, the issue came up in every official post-mortem of the crises, but it hardly occupied a place of prominence, and official pronouncements remained weak soup. This seems curious with hindsight, given the undeniable association of crises with currency pegs starting with Europe in 1992 and proceeding through Mexico in 1994 before arriving in Asia in 1997 and Brazil in 1998. Every major financial crisis since Mexico's in some way involved a fixed or pegged exchange rate regime, as even the IMF was eventually forced to acknowledge.<sup>108</sup>

From this perspective, it is striking that only in April 1999 did a G-7 leader, Rubin, state outright that the IMF should no longer support shaky currency pegs and that emerging markets

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<sup>106</sup>We are not arguing that it is desirable to eliminate all output losses following crises -- any more than it is desirable to eliminate all crises. Dooley (2000) develops the argument that output costs of misbehavior are necessary in order for lending to occur in the first place but exaggerates the implications, in our view. If one believes, as we do, that the IMF feels compelled to lend because these output losses are judged excessive by that institution's principal shareholders and that the moral hazard that flows from those loans is a source of inefficiency, then institutional reform that reduces those output losses and therefore the moral hazard created by a pattern of IMF lending is a step in the right, efficiency-enhancing, direction.

<sup>107</sup>Early experience with Turkey to the contrary notwithstanding.

<sup>108</sup>In contrast, countries without pegged rates -- South Africa and Mexico in 1998, for example -- while not immune from international capital market disturbances, suffered to a much lesser degree than countries with pegs (Fischer 2001c).

should move away from such arrangements in favor of hard pegs or, in most cases, more flexible rates. His deputy, Summers, had been pushing this "corner solutions" argument for some time.<sup>109</sup> The argument resonated with Rubin's experience in the markets, which informed his view that currency pegs were fragile and accident prone. Indeed, the advocacy by the Rubin-Summers Treasury of the corner-solutions view (that only hard pegs and relatively free floats are viable in a world of high capital mobility) was stronger and less conditional than many others in the administration found to their liking (though right on the mark, in our view).

This was a coherent intellectual position, but the U.S. was not able to assemble the coalition needed to operationalize it. The Europeans, given their history and their plan to create a monetary union, were not sympathetic to the case for floating rates; they had blocked frank discussion of the issue in the deliberations leading up to the Rey Report and again at the time of the G-22 report on managing financial crises. Asian governments, for their part, were reluctant to entrust their currency values to the market and resisted calls for greater exchange-rate flexibility. The IMF, being an institution of many members (and headed by a managing director who continued, even in the face of the crisis, to favor a return to fixed rates), continued to offer weak advice to the effect that "no one size fits all" and "what matters above all is consistency between exchange rate and other policies."<sup>110</sup> The U.S. Treasury was unable to overcome this hesitancy and division.

Here, moreover, the failure to develop alternative mechanisms of crisis resolution came home to haunt the administration. For countries with balance-sheet mismatches, abandoning a

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<sup>109</sup>For example, in a speech to the Interamerican Development Bank meetings the month before. Rubin (1999), p.4.

<sup>110</sup>Fischer (2001a) may indicate some change of opinion on this subject among the senior management of the institution, as may the appointment of a new managing director (although, on this, only time will tell). More generally, the implications of subsequent changes in the IMF management team for views on this subject remain to be seen.



currency peg could create serious financial difficulties and even widespread bankruptcies, as the case of Indonesia had shown. The cost of servicing dollar- and yen-denominated loans would soar if the exchange rate fell by a significant amount, leaving firms, many of whose earnings were in local currency, no way of keeping current on their debts. Widespread bankruptcy was the unavoidable result.<sup>111</sup> Absent mechanisms for more speedily resolving these problems, this was not an option that anyone was prepared to contemplate. Not surprisingly, when push came to shove, as in Brazil in 1998 and Turkey in 1999, the Fund, backed by its principal shareholders, continued to intervene in support of governments' efforts to maintain those pegs. And knowing that they still stood to receive international support, governments were understandably slow to move to greater flexibility. Notwithstanding this reluctance, there has been slow but steady movement in the direction of greater exchange rate flexibility in the developing world, something that has clearly reduced the risk of further financial crises.<sup>112</sup> But that movement has tended to be involuntary -- the result of a crisis (as in Turkey) rather than a preemptive step to avert one.

The final item on the architecture agenda was IMF reform. A first issue was the structure of conditionality. The Fund had been attaching additional structural conditions to its loans since at least the mid-1980s (the time of the Baker Plan). In Asia in 1997, these conditions were intended to precipitate "a vast change in domestic business practices, corporate culture, and government behavior."<sup>113</sup> The 1997 Indonesian program typified both the aspiration and the excesses: the conditions of the IMF program dealt with, among with other things, reforestation, the national car program, local content programs for motor vehicles, the compulsory 2 per cent

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<sup>111</sup>As described in more detail in Section 4 above.

<sup>112</sup>See Fischer (2001b).

<sup>113</sup>Camdessus (1998), p.3.

after-tax charitable contribution, restrictive market agreements for cement and paper, the forced planting of sugar cane, the introduction of a micro-credit scheme for small businesses, and the elimination of the Clove Marketing Board. While the "Christmas-tree" nature of this program was a product of the IMF bureaucracy and of Indonesian technocrats, who viewed it as an opportunity to push through much-needed domestic reform in the shelter of an IMF package but failed to deliver their principal, we are not aware of strong Treasury warnings of the dangers.

Treasury was sensitive to the danger that any evidence that Fund conditionality was being used to advance the country's own agenda (which in this case might have included opening up sheltered markets to international competition and giving U.S. commercial and investment banks improved market access) would undermine the legitimacy of IMF conditionality and the credibility of U.S. policy advice. It therefore resisted USTR pressure to use the crisis as an opportunity to gain specific concessions on market access for U.S. banks and corporations. Indeed, it is hard to find structural conditions in the Fund's programs that worked to the particular advantage of U.S. banks and firms.

On the intrinsic merits of structural conditionality, Treasury was torn. On the one hand its own approach to prudential supervision and regulation emphasized the need for competition, transparency, and arms-length dealing, and it instinctively wished to export these features of U.S. market structure and organization to emerging markets with the help of the IMF. It saw the crisis, and the resort of the Asian tigers to the Fund, as an opportunity to apply pressure and to reinforce domestic support for fundamental opening and reform -- to encourage these countries to break with crony capitalism, which may have been an appropriate arrangement for getting industrialization off the ground but was no longer a viable basis for growth in an increasingly advanced, competitive, financially-deregulated and technologically dynamic region. It saw the

crisis, and the IMF programs crafted in response, as a window of opportunity to encourage much-needed domestic reforms and to support reform-minded elements in various Asian countries. At the same time U.S. officials could not help but appreciate the danger of a backlash -- that intrusive conditionality might fuel popular resentment of the Fund, and of the country that was its principal shareholder.

Whether this emphasis on structural conditions was counterproductive, as authors like Feldstein (1999) insist, only time will tell. We are of the view that whether it is wise for the U.S. or the IMF to explore with national leaders which things they would like to be pushed can only be decided on a case-by-case basis; blanket rules for what should be in or out of IMF programs are unlikely to be feasible or desirable. If, as a result of the Asian crisis and the response, countries like Korea are really breaking with crony capitalism, creating capital markets, and opening up (as some would have it), then the case for at least limited structural conditionality will look strong. Whatever the answer turns out to be, the administration itself concluded that the expansion of structural conditionality had gone too far and came out in late 1999 in favor of a simplified and streamlined process (Summers 1999b).<sup>114</sup>

Russia's default and the near-collapse of the Greenwich, Connecticut based hedge fund, Long-Term Capital Management, by impressing upon the G-7 that financial fragility was not just an emerging-market problem, lent additional urgency to the architecture debate. Once more the administration sought to set the international agenda. Clinton, in his speech at the Council on Foreign Relations on 28 September 1998, warned that failure to act could "put our own

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<sup>114</sup> Although it never went as far as recommended by such critics as Feldstein (1998) and Meltzer et al. (2000). Some would suggest that it staked out this position in order to anticipate and preempt a conclusion of the Meltzer Commission and thus to head off some of its more radical recommendations.

prosperity at risk."<sup>115</sup> The main substantive innovation he suggested was the idea of a new facility to provide emergency financing for countries pursuing strong policies but nonetheless vulnerable to financial problems occurring elsewhere in the world. Reflecting the perceived severity of the threat posed by the crisis, the concept was quickly endorsed by the G-7 in extraordinary out-of-cycle declaration of October 1998 (G-7 1998), and that endorsement led to creation of the IMF's new Contingent Credit Line (CCL) in 1999. The CCL was a quick disbursing facility intended to prevent collateral damage to innocent bystanders in the event of crises. Limiting access to countries with strong policies addressed the moral hazard concern, while prequalifying them for assistance promised to shorten the delay between requests for assistance and their disbursement.

Unfortunately, the new facility delivered less than hoped. Rather than seeing the CCL as an additional line of defense against market turbulence, emerging-market governments feared that it would be seen as evidence that they were worried about crisis problems. And because strong policies could weaken, access to the CCL was never automatic; even countries that prequalified were subject to a further review by the IMF Board upon their request to actually draw. For both reasons, the CCL had no obvious advantage over a normal IMF program. At the time of writing, no country has applied for one.<sup>116</sup>

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<sup>115</sup>In retrospect, this rhetoric can be criticized as alarmist. But its purpose was to ratchet up the pressure on the Congress to vote a quota increase for the IMF, thereby increasing the resources available to the institution; in effect, it warned the politicians on Capitol Hill that they would be held responsible for the crisis if they did proceed accordingly.

<sup>116</sup>Although rumor has it that this may have changed by the time our audience receives this paper. The IMF subsequently attempted to make the CCL more attractive by simplifying access at the point of disbursement and by reducing the associated interest charges. Defenders of the CCL have argued that its mere existence may have played a role in preventing Brazil's end-1998 crisis from spreading to other countries, but we know of no evidence to this effect.

The Asian crisis, like the Mexican crisis before it, underscored the extent to which the growth of market liquidity had outpaced the growth of IMF resources. This created an obvious argument for a quota increase. Given Republican control of the Congress and the firestorm of criticism surrounding the expansion of IMF financial activities, the administration's success in pushing through a quota increase in late 1998 was nothing short of miraculous.<sup>117</sup> Officials testified at least 11 times on the Hill on IMF funding, more than three times as often as on domestic issues such as tobacco legislation and reform of the Internal Revenue Service. Their efforts were helped along by press coverage of Russia's default and the collapse of LTCM as threatening a global meltdown; Congress clearly didn't want to run the risk of being held responsible.<sup>118</sup>

The price was agreement to the demand to establish a bipartisan commission (ultimately chaired by Allan Meltzer) to recommend reforms of the international financial institutions.<sup>119</sup> The Meltzer Commission came back with a recommendation that IMF assistance be extended only to countries with strong policies and at risk of destabilization through no fault of their own,<sup>120</sup> that such loans should be contingent on prior actions rather than conditions regarding subsequent policies, and that the terms and conditions of IMF loans should be tightened to

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<sup>117</sup>This increase raised the Fund's lending capacity from about \$130 billion to some \$195 billion (not counting the expansion of the General Arrangements to Borrow into the New Arrangements to Borrow, something that had been proposed by the administration following the Mexican crisis and was acted upon by the Congress in 1998). The U.S. contribution was \$14.5 billion for the quota increase and \$3.4 billion for the New Arrangements to Borrow.

<sup>118</sup>As noted above, the President ratcheted up the pressure they felt in his Council on Foreign Relations speech, where he characterized their failure to vote the quota increase as "irresponsible."

<sup>119</sup>In addition, the IMF Authorization and Appropriations Act of 1998 required an annual report and testimony by the Secretary of the Treasury on the IMF and that the GAO prepare an annual report on IMF programs and policies.

<sup>120</sup>Which would seem to exclude Mexico, Thailand, Indonesia, and Korea, for in all these cases weaknesses in government policy played some role in setting the stage for the crisis.

discourage countries from taking excessive resource to the Fund.<sup>121</sup> The Treasury's response challenged the realism of a policy of benign neglect of crises in countries whose policies were less than impeccably strong, questioned the feasibility of prequalifying countries for assistance, and rejected the notion that policy conditionality could be eliminated.<sup>122</sup> Treasury was in a position to dismiss some of the more extreme recommendations of the Commission because it had already conceded the moderate ones, like the desirability of higher interest rates and shorter terms to maturity on IMF loans (notably in a speech by Secretary Summers to the London Business School in December 1999).<sup>123</sup>

The final issue under this subheading, governance of the international monetary and financial system, was a delicate one, given the need to give emerging markets greater voice in order to enhance the legitimacy of the process (and give them "ownership" of the reform agenda) but also the fact that changes in IMF governance might jeopardize the "U.S. veto" (the fact that important decisions require agreement by countries accounting for at least 85 per cent of IMF quotas and that the U.S. possesses more than 15 per cent of those quota rights). Predictably, it was easier to make changes outside the IMF where financial commitments were not involved.<sup>124</sup>

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<sup>121</sup>See International Financial Institution Advisory Commission (2000).

<sup>122</sup>See U.S. Treasury (2000).

<sup>123</sup>See Summers (1999b). This led the U.S. to table proposals for raising interest charges on Fund borrowing and reducing the term of loans at the time of the IMF's spring meetings in 2000, most of which were then adopted. Space limitations prevent us from discussing the efficacy of these changes in any detail. One question is whether higher interest rates and shorter terms to maturity are efficiency enhancing. Here, reasonable people (like the two present authors) can disagree; one's answer depends on whether one thinks that the main problem with the status quo ante was moral hazard (in which case higher interest rates and shorter terms may be desirable) or that governments are often too focused on how to pay back their loans to the IMF in the next 24 months (in which case they are not). A prior question is whether modest changes in the term and cost of borrowing will significantly affect the behavior of crisis countries desperate for external finance.

<sup>124</sup>Thus, the U.S. sought in 1999 to build support for a realignment of the constituency system, reducing the number of Europe-led constituencies in order to free up seats for Asian, African and Latin American countries, but without success.

The impetus the Clinton administration provided for the creation of the Willard Group and the G-22 responded to a real need to create a talk shop for high-level officials and their deputies that was not limited to the advanced-industrial countries, but it also limited the pressure for a fundamental reform of IMF quotas. In addition, the administration -- and the Fund itself -- emphasized the need for more transparency in IMF decision making and documentation as a way of holding the Fund more accountable to its ultimate constituents. It made progress in this direction despite the hesitations of a number of European and emerging-market members.

To what extent, in summary, did the Clinton administration guide the course of the architecture debate? Our assessment is "very considerably."<sup>125</sup> The presumption of the benefits of international financial liberalization that infused the Rubin-Summers Treasury remained a given, notwithstanding the reservations of foreign governments and the fact of emerging-market crises. The enhanced transparency and international financial standards advocated by the administration (with the strong support of the British) became the centerpieces of efforts to upgrade financial policies and financial systems. The administration played an important role in encouraging the IMF to upgrade its surveillance of financial markets.<sup>126</sup> It provided the impetus for creating the Group of 22 that developed into the Group of 20. It proposed the establishment of a "Market Conditions Advisory Group" composed of private-sector experts, which was the seed from which sprang the Capital Markets Consultative Group in which the Fund now takes such pride. Its recommendations had flaws and were not always clearly successful or even adopted. (Witness the Contingent Credit Line and the continued muddle with the Europeans and

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<sup>125</sup> Coeure and Pisani-Ferry (2000, p.34), agree: they write "Over the last three years, the discussions on reforming the international financial architecture have been by and large an exercise in American leadership."

<sup>126</sup> Thus, it lobbied for the creation of a Capital Markets Department in the Fund that would take the monitoring of market conditions and gathering of market intelligence as its mandate.

Japanese over exchange rate arrangements). Nor were its damage-control efforts always successful. But it possessed the loudest and most articulate voice.

These initiatives all had the strong support of the U.S. financial community. In contrast, where the administration had less support from its financial constituency, such as in developing new approaches to crisis resolution, it was less successful in setting the agenda for reform. By moving away from its early advocacy institutional changes to facilitate orderly debt workouts, partly in response, it would appear, to opposition from U.S. financial interests, and by adopting a more ad hoc approach to involving the private sector in the resolution of crises, it heightened uncertainty about the process of crisis resolution and reinforced worries about the moral hazard caused by a pattern of financial rescues, two problems that linger to this day.

## **6. Conclusion**

International economic problems and policies occupied the Clinton White House and Treasury to a greater extent than anyone had anticipated in 1992. In part this reflected the failure of the president and his staff to develop domestic initiatives other than deficit reduction that could command the support of swing votes in the Senate. More fundamentally it reflected far-reaching changes in the world economy. Falling transport costs raised the benefits of international trade for developed and developing countries and not least for the United States. Financial liberalization and the information revolution combined to accelerate the process of capital market integration, creating new opportunities for those on both sides of the international investment equation but at the same time heightening the economic and financial risks.

From a domestic point of view, the administration's monetary and financial policy was extraordinarily successful. Deficit reduction created space for monetary ease, which in turn



supported the investment-led recovery that ended a two decade-long productivity slowdown and powered one of the longest, strongest expansions in history.<sup>127</sup> Moreover, these events played a positive role in the rest of the world. European policymakers spent much of the 1990s preparing for monetary union and grappling with the chronic fiscal problems that were the principal obstacle to achieving it. They had little room in which to adjust aggregate demand in the interest of global growth and stability. Japanese policymakers spent the decade trying to minimize the embarrassment of executives and organizations who had made bad choices in the Bubble Economy years; they paid little attention to managing aggregate demand even to support their own growth. Only U.S. policymakers worried about global demand and sought to do something about it. In this context, they deserve more credit than blame for their willingness to risk the growth of the U.S. trade deficit and allowing the U.S. to be the importer of last resort.

Others would describe the Clinton administration as blind-sided by a series of international monetary and financial problems that it should have seen coming. These crises came as a surprise because economists' models and half a century of historical experience both

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<sup>127</sup>The story by which the 1990 Bush-Mitchell-Foley and 1993 Clinton-Mitchell-Foley deficit reduction packages broke the back of the Reagan deficits, allowed the Federal Reserve to reduce interest rates, and thus boosted the share of investment spending in GDP in the United States in the 1990s is well-known. The links between the investment boom and the rapid pace of productivity growth achieved in the United States in the 1990s are probable, but less certain. A large component of rapid productivity growth came from the technological revolutions in data processing and data communications. But such productivity growth does not fall from the air. It is built from the ground up as businesses slowly and methodically install and learn how to use the capital goods that embody the new revolutionary technologies. Budget deficits that raise interest rates discourage this process of investment, and increase the gap between the standard-installed and the innovative best-practice levels of technology. It is not clear how long the acceleration in United States productivity growth was delayed by the Reagan deficits in the 1980s. It is clear, however, that productivity growth in the 1990s would have been significantly slower had the U.S. federal budget deficit remained high. Here the Clinton administration pursued good policies, and also got lucky as the economic payoff to deficit reduction turned out to be much larger than anyone had imagined.

suggested that crises arise when it becomes impossible to sustain unsustainable policies. The symptoms of such unsustainability (large budget deficits, rapid inflation) are common knowledge, as is the medicine appropriate for treating them (monetary and fiscal retrenchment). But while the Thai, Russian and, arguably, the Mexican and Brazilian crises fit this mold, many of the other crises of the 1990s did not. In particular, the Asian crisis of 1997-1998 hit countries that were in broad macroeconomic balance and had been following broadly sustainable policies.

Those crises had structural roots. Lending by Asian banks was often guided as much by political as economic criteria. Countries in the region had weak systems of corporate government and opaque forms of financial organization that made it hard for outsiders to influence and even determine what was going on. And even where macroeconomic imbalances were present, structural problems accentuated their effects: in Mexico, for example, there was an overhang of dollar-denominated and dollar-indexed debt coupled with fears of political instability that rendered policy commitments (including the exchange rate commitment) fragile. Still, in each of these cases, the afflicted countries' sins against the gods of macroeconomics seemed minor compared to the punishment, which was harsh and swift. These aspects of the crisis problem were all corollaries of the liberalization of domestic and international financial markets, a policy to which U.S. support actively contributed with what in retrospect can be criticized as a bit of excessive zest.

Because these crises followed a new pattern, they surprised policy makers. The response therefore had to be assembled on the run. Unsurprisingly, it can and has been criticized: too much reliance on the standard monetary and fiscal instruments in addressing crises whose roots were not fundamentally monetary or fiscal, too much well-meant but ill-timed advice on how affected countries should reform their economies. At the same time, the IMF and the U.S.

Treasury did make substantial loans to crisis-affected countries, these loans did greatly ease the process of adjustment and recovery, and only one country (Indonesia) suffered more than a short interruption to its growth.<sup>128</sup> Successful international monetary and financial policies thereby supported the processes of growth and development that pulled more than four billion people past the take-off stage and onto the escalator that leads to modern industrial and post-industrial living standards. In this view, the fundamentally sound international monetary and financial policies of the United States helped to sustain growth and development worldwide. Compared to the problems of the dollar cycle and the Latin American debt crisis in the 1980s, or of the oil shocks and the breakdown of the Bretton Woods System in the 1970s, the 1990s have to count as a pretty good decade.

Still, workers in Mexico, Korea, and Indonesia paid a price. It can be argued that price was to a considerable extent avoidable because the crises in which it was incurred were not in fact that new -- that they really should not have come as such a surprise. During the crises of the 1990s observers rediscovered the dangers of fickle animal spirits causing destabilizing capital flows, of the vulnerability of investment to crony capitalism, of how poor banking sector regulation can generate an international financial crisis, and of how the existence of resources to provide support and rescue funds in a crisis could lead the private sector to hold imprudent portfolios that increased the risk to the system. But these were issues that had been familiar from 19<sup>th</sup> century experience with financial globalization; they had been raised by John Maynard

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<sup>128</sup>In Indonesia it can be argued that deep political problems rendered the patient immune to the conventional economic treatment (and even rendered the tender ministrations of the international money doctors counterproductive). It seems probable that most of Indonesia's current economic problems are the result of the Suharto succession crisis, in other words, and thus are analytically distinct from the East Asian crisis--even if the second did trigger the first.

Keynes and Harry Dexter White in the negotiations that culminated in the Bretton Woods Agreement of 1944.

It is not as though those responsible for the international monetary and financial policies of the Clinton administration were blind to these risks. U.S. Treasury Secretary Robert Rubin had spent his career at Goldman Sachs making money from the failure of the market to accurately value securities; he was no naive believer in the efficiency and rationality of the markets. When still in academia, U.S. Treasury Secretary Lawrence Summers had long been an intellectual opponent of casual reliance on the efficient-markets hypothesis.

So what explains their failure to warn more loudly of the risks of international financial liberalization? More than anything, the explanation lies in their belief that, if markets were not perfect, the alternatives were worse. There was a hope that by forcing the pace of financial liberalization, countries might be compelled to more quickly upgrade their domestic regulations and institutions. Conversely, encouraging them to open only after the requisite domestic reforms were well advanced applied no pressure for reform; it was road map to a destination that might never be reached. The strategy was risky, as the series of financial crises that punctuated the decade of the 1990s so graphically revealed. But the extent of fundamental reform in much of Asia and Latin America, and the speed with which growth resumed following crisis in many of the affected countries, suggests that this may have been a gamble worth taking.

## References

- Bergsten, C. Fred (1986), "America's Unilateralism," in C. Fred Bergsten, E. Davignon and I. Miyazaki, *Conditions for Partnership in International Economic Management*, Report no. 32, New York: Trilateral Commission.
- Boorman, Jack, Timothy Lane, Marianne Schulze-Ghattas, Ales Bulir, Atish Ghosh, Javier Hamann, Alexandros Mourmouras and Steven Phillips (2000), "Managing Financial Crises: The Experience in East Asia," IMF Working Paper no. WP/00/107 (June).
- Callaghy, Thomas (2000), "The Vagaries of Debt: Indonesia and Korea," in Gregory Noble and John Ravenhill (eds), *The Asian Financial Crisis and the Architecture of Global Finance*, Cambridge: Cambridge University Press, pp.213-234.
- Camdessus, Michel (1998a), "The Role of the IMF: Past, Present and Future," Remarks at the Annual Meeting of the Bretton Woods Committee (13 February).
- Camdessus, Michel (1998b), "Toward a New Financial Architecture for a Globalized World," Address to the Royal Institute of International Affairs (8 May).
- Chinn, Menzie (1998), "Before the Fall: Were the East Asian Currencies Overvalued?" NBER Working Paper 6491 (April).
- Clinton, W.J. (1998), "Address to the Council on Foreign Relations" (28 September), [www.whitehouse.gov](http://www.whitehouse.gov).
- Council of Economic Advisors (1995), *Economic Report of the President 1995*, Washington, D.C.: GPO (February).
- Coure, Benoit and Jean Pisani-Ferry (2000), "Events, Ideas and Actions: An Intellectual and Institutional Retrospective on the Reform of the International Financial Architecture," Conseil D'Analyse Economique Working Paper No. 04-2000 (July).
- Davis, Bob, Jonathan Friedland, and Matt Moffett (1998), "Epidemic?: As Currency Crisis Spreads, Need of a Cure Grows More Pressing," *Wall Street Journal* (August 24, 1998).
- Dornbusch, Rudiger (2001), "A Primer on Emerging Market Crises," unpublished manuscript, [www.mit.edu](http://www.mit.edu).
- DeLong, J. Bradford, Andrei Shleifer, Lawrence H. Summers and Robert J. Waldmann (1990), "Noise Trader Risk in Financial Markets," *Journal of Political Economy* 98, pp.703-738.
- Dooley, Michael (2000), "Can Output Losses Following International Financial Crises Be Avoided?" NBER Working Paper no. 7531 (February).

Edwards, Sebastian (2001), "Does the Current Account Matter?" NBER Working Paper no. 8275 (May).

Eichengreen, Barry and Michael Mussa, with Giovanni Dell'Araccia, Enrica Detragiache, Gian Maria Milesi-Ferretti and Andrew Tweedie (1998), *Capital Account Liberalization: Theoretical and Practical Aspects*, Occasional Paper no. 172, Washington, D.C.: IMF (September).

Federal News Service (1995), "Hearing Before the Senate Banking Committee: Mexico and the Exchange Stabilization Fund (July 14, 1995).

Feldstein, Martin (1998), "Refocusing the IMF," *Foreign Affairs* 77, pp.20-33.

Fischer, Stanley (2001a), "Transcript of a Press Conference," [www.imf.org/external](http://www.imf.org/external) (8 May).

Fischer, Stanley (2001b), "Exchange Rate Regimes: Is the Bipolar View Correct?" Distinguished Lecture on Economics in Government, Delivered at the Meetings of the American Economic Association, New Orleans (9 January). Forthcoming in the *Journal of Economic Perspectives*.

Fischer, Stanley (2001c), "Asia and the IMF," Remarks at the Institute of Policy Studies, Singapore, June 1<sup>st</sup>, [www.imf.org.external](http://www.imf.org.external).

Frankel, Jeffrey A. (1994), "Exchange Rate Policy," in Martin Feldstein (ed.), *American Economic Policy in the 1980s*, Chicago: University of Chicago Press, pp.293-341.

Furman, Jason and Joseph Stiglitz (1998), "Economic Crises: Evidence and Insight from East Asia," *Brookings Papers on Economic Activity* 2, pp.1-135.

Goldstein, Morris (2000), "IMF Structural Programs," in Martin Feldstein (ed.), *Economic and Financial Crises in Emerging Market Economies*, Chicago: University of Chicago Press (forthcoming).

Greenspan, Alan (1999), "Efforts to Improve the 'Architecture' of the International Financial System," Testimony Before the Committee on Banking and Financial Services, U.S. House of Representatives, 20 May, <http://www.bog.frb.fed.us>.

G-7 Finance Ministers (1999), "Strengthening the International Financial Architecture," Report of G7 Finance Ministers to the Cologne Economic Summit, Cologne, 18-20 June, <http://www.ustreas.gov>.

G-7 Heads (1995), "Examination of the International Financial Institutions," Information of the Halifax Summit (June).

G-7 Heads (1998), "Declaration of G-7 Finance Ministers and Central Bank Governors" (30 October), <http://www.imf.org/external/np/g7/103098dc.htm>.

- G-10 (1996), *The Resolution of Sovereign Liquidity Crises*, Basle: BIS (May).
- G-22 (1998a), *Report of the Working Group on Transparency and Accountability*, Washington, D.C.: G-22.
- G-22 (1998b), *Report of the Working Group on Strengthening Financial Systems*, Washington, D.C.: G-22.
- G-22 (1998c), *Report of the Working Group on International Financial Crises*, Washington, D.C.: G-22.
- Institute of International Finance (1999), "Report of the Working Group on Financial Crises in Emerging Markets," Washington, D.C.: Institute of International Finance.
- International Financial Institution Advisory Commission (2000), *Report*, Washington, D.C.: IFAC.
- International Monetary Fund (1994), *International Capital Markets Report*, Washington, D.C.: IMF (October).
- Kaplan, Ethan, and Dani Rodrik, "Did the Malaysian Capital Controls Work?" NBER Working Paper no. 8182 (January).
- Knetter, Michael M. and Thomas J. Prusa (2000), "Macroeconomic Factors and Antidumping Filings: Evidence from Four Countries," NBER Working Paper no. 8010 (November).
- Kraay, Aart (1998), "Do High Interest Rates Defend Currencies During Speculative Attacks?" unpublished manuscript, The World Bank.
- Krugman, Paul (1994), "The Myth of Asia's Miracle," *Foreign Affairs* 73, pp.62-78.
- Krugman, Paul (1999), *The Return of Depression Economics*, New York: Norton.
- Lane, Timothy and Steven Phillips (2000), "Does IMF Financing Result in Moral Hazard?" Working Paper no.00/168 (October).
- Lowenstein, Roger (2000), *When Genius Failed: The Rise and Fall of Long-Term Capital Management* (New York: Random House).
- Meltzer, Allan et al. (2000), *Report*, Washington, D.C.: International Financial Institutional Advisory Commission.
- Nurkse, Ragnar (1944), *International Currency Experience*, Geneva: League of Nations.
- Reich, Robert B. (1997), *Locked in the Cabinet*, New York: Alfred A. Knopf.

Rubin, Robert (1998a), "Strengthening the Architecture of the International Financial System," Speech delivered at the Brookings Institution, 14 April, <http://www.brook.edu/comm/transcripts/rubin/htm>.

Rubin, Robert (1998b), "Remarks to the Dow Jones/Wall Street Journal Annual Conference on the Americas," 1 October, <http://ibreaudigilib.usia.gov/aug99/usiaweb/regional/ea/asiafin/rubin101/htm>.

Rubin, Robert (1999), "Remarks on Reform of the International Financial Architecture," *Treasury News* RR-3093, 21 April.

Rubin, Robert (2002), "Comment on 'Industrial Country Policies'," in Martin Feldstein (ed.), *Economic and Financial Crises in Emerging Market Economies*, Chicago: University of Chicago Press (forthcoming).

Schwartz, Anna J. (1997), "From Obscurity to Notoriety: A Biography of the Exchange Stabilization Fund," *Journal of Money, Credit, and Banking* 29:2 (May), pp. 135-153.

Spadafora, Francesco (2000), "The Pricing of Syndicated Bank Loans to Emerging Markets: Some Further Results," unpublished manuscript, Bank of Italy.

Summers, Lawrence H. (1996), "Introduction," in Peter B. Kenen (ed.), *From Halifax to Lyons: What Has Been Done About Crisis Management?* Essays in International Finance 200, International Finance Section, Department of Economics, Princeton University, pp.1-6.

Summers, Lawrence H. (1997), "Building a Global Financial System for the 21<sup>st</sup> Century," speech to the Congressional Economic Leadership Institute, 12 August, <http://www.celi.org/summers.htm>.

Summers, Lawrence H. (1999a), "Reflections on Managing Global Integration," *Journal of Economic Perspectives* 13, pp.3-18.

Summers, Lawrence H. (1999b), "The Right Kind of IMF for a Stable Global Financial System," Remarks to the London Business School (14 December).

Tanner, Evan (1999), "Exchange Market Pressure and Monetary Policy: Asia and Latin America in the 1990s," IMF Working Paper WP/99/114.

U.S. Senate Banking Committee (1995), *The Mexican Peso Crisis*, Hearings Before the Committee on Banking, Housing and Urban Affairs, S. Hrg. 104-164, Washington, D.C.: GPO.

Willett, Thomas D. (1999), "Did the Mexican Bailout Really Cause the Asian Crisis?" Claremont Policy Briefs, Issue No. 99-01.

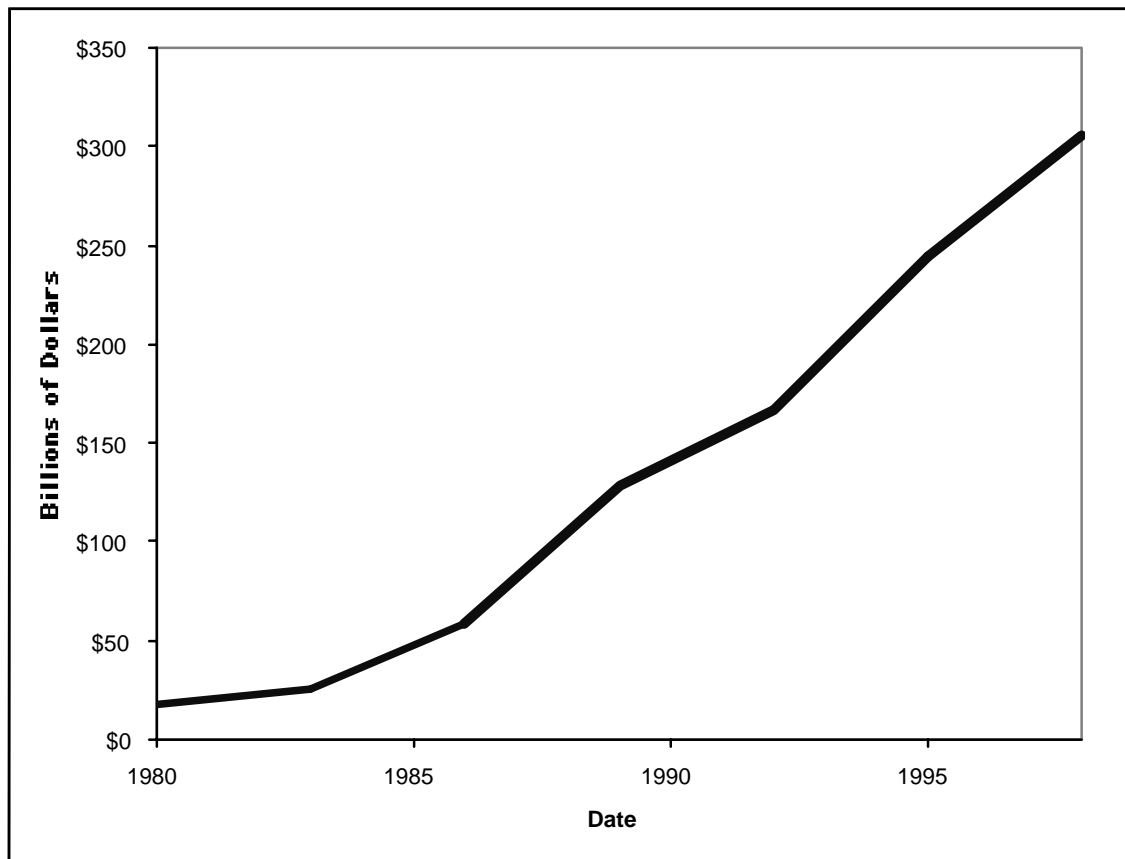
Woodward, Bob (1994), *The Agenda: Inside the Clinton White House*, New York: Simon & Schuster.



Working Party on Financial Stability in Emerging Market Economies (1997), "Financial Stability in Emerging Market Economies," Basle: Group of Ten, [www.bis.org](http://www.bis.org) (April)..

Figure 1

Daily Turnover in U.S. Foreign Exchange Markets

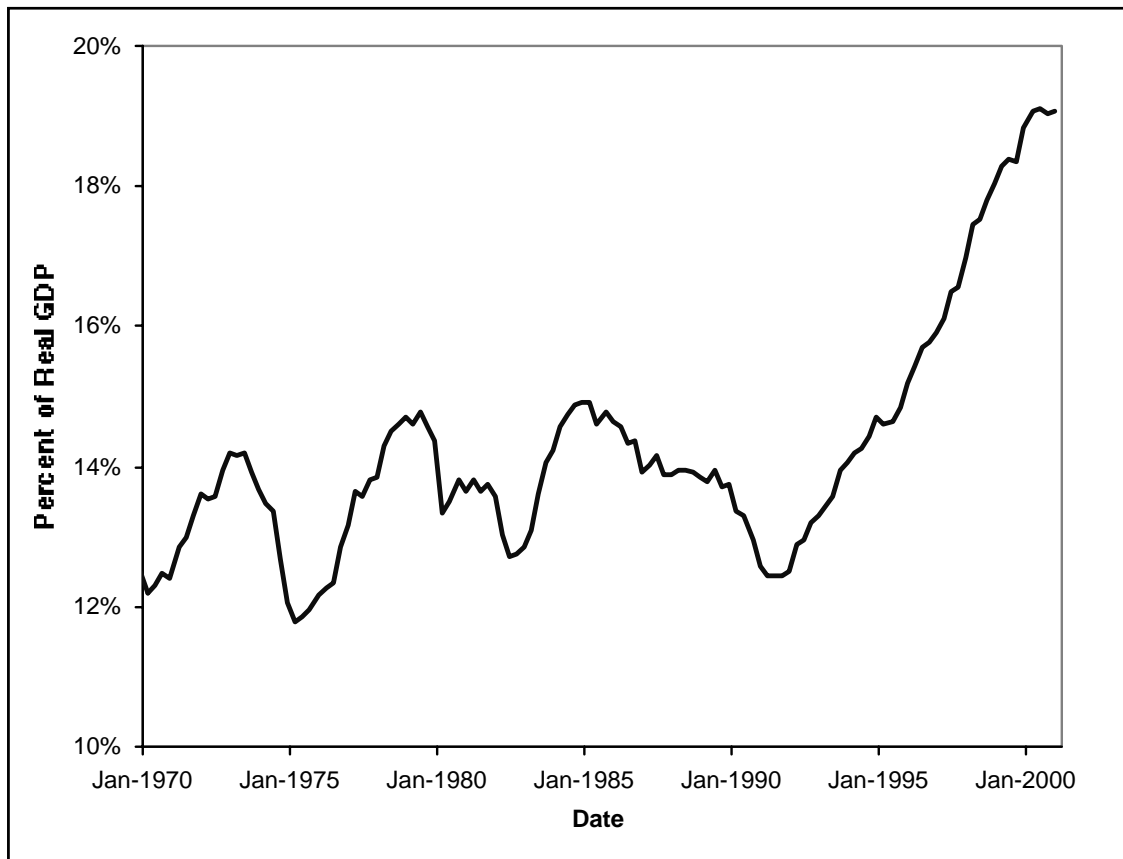


Source: Federal Reserve Bank of New York, Bank for International Settlements, Jeffrey Frankel. Datafile: [http://www.j-bradford-delong.net/Econ\\_Articles/CIEP/CIEP\\_data/forex\\_trading.xls](http://www.j-bradford-delong.net/Econ_Articles/CIEP/CIEP_data/forex_trading.xls)

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Figure 2

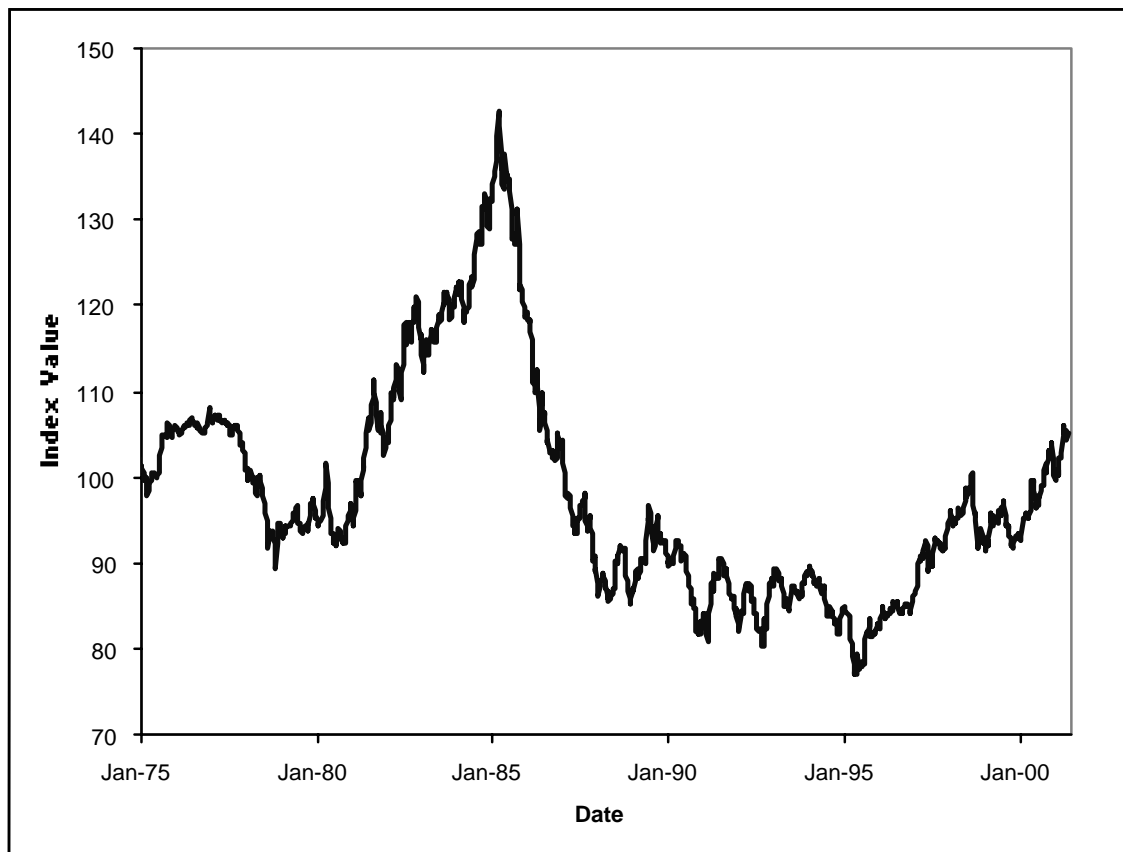
Fixed Private Domestic Investment as a Share of Real GDP, 1970-2000



Source: Federal Reserve Bank of St. Louis via <http://www.economagic.com/>. Datafile: [http://www.j-bradford-delong.net/Econ\\_Articles/CIEP/CIEP\\_data/inv\\_share\\_real\\*.xls](http://www.j-bradford-delong.net/Econ_Articles/CIEP/CIEP_data/inv_share_real*.xls)

Figure 3

Value of the Dollar Against Major Currencies, 1975-2000



Source: Federal Reserve Board. Datafile: [http://www.j-bradford-delong.net/Econ\\_Articles/CIEP/CIEP\\_data/weekly\\_major\\_curr.xls](http://www.j-bradford-delong.net/Econ_Articles/CIEP/CIEP_data/weekly_major_curr.xls)

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Figure 4

References in Major Newspapers to Strong Dollar Policy

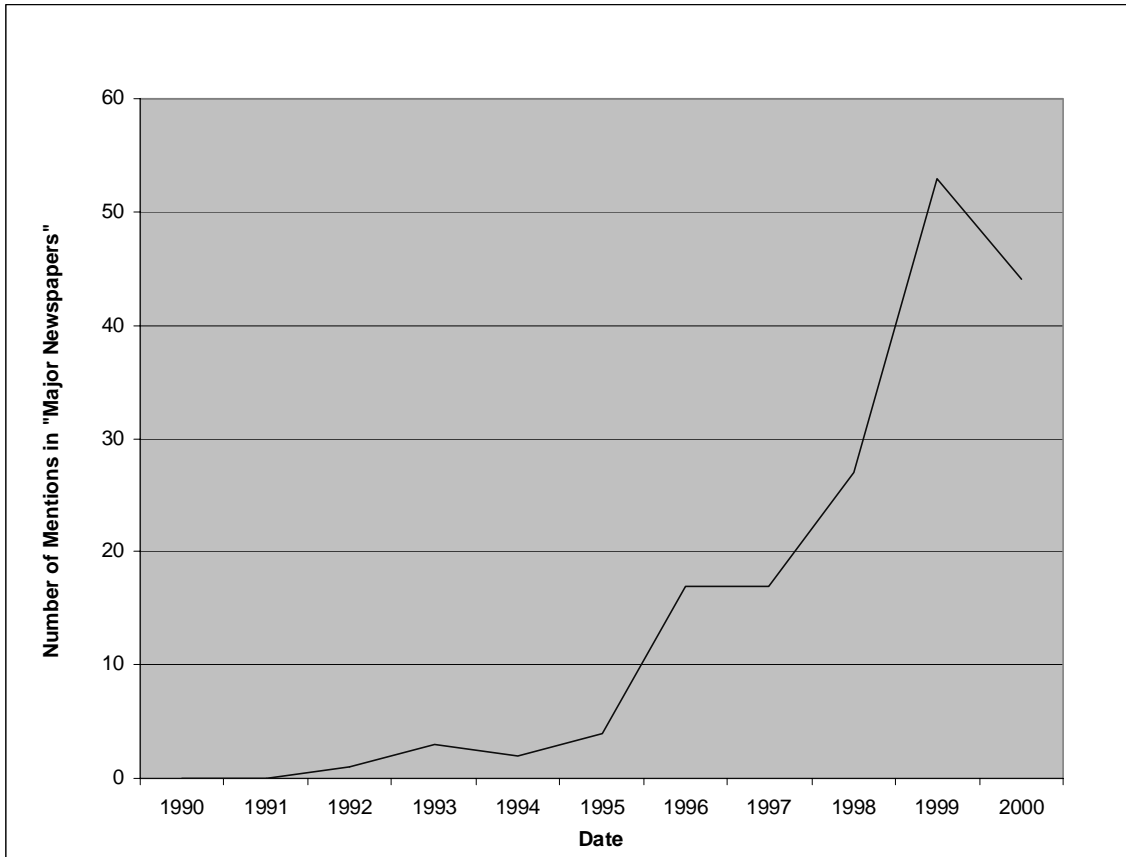
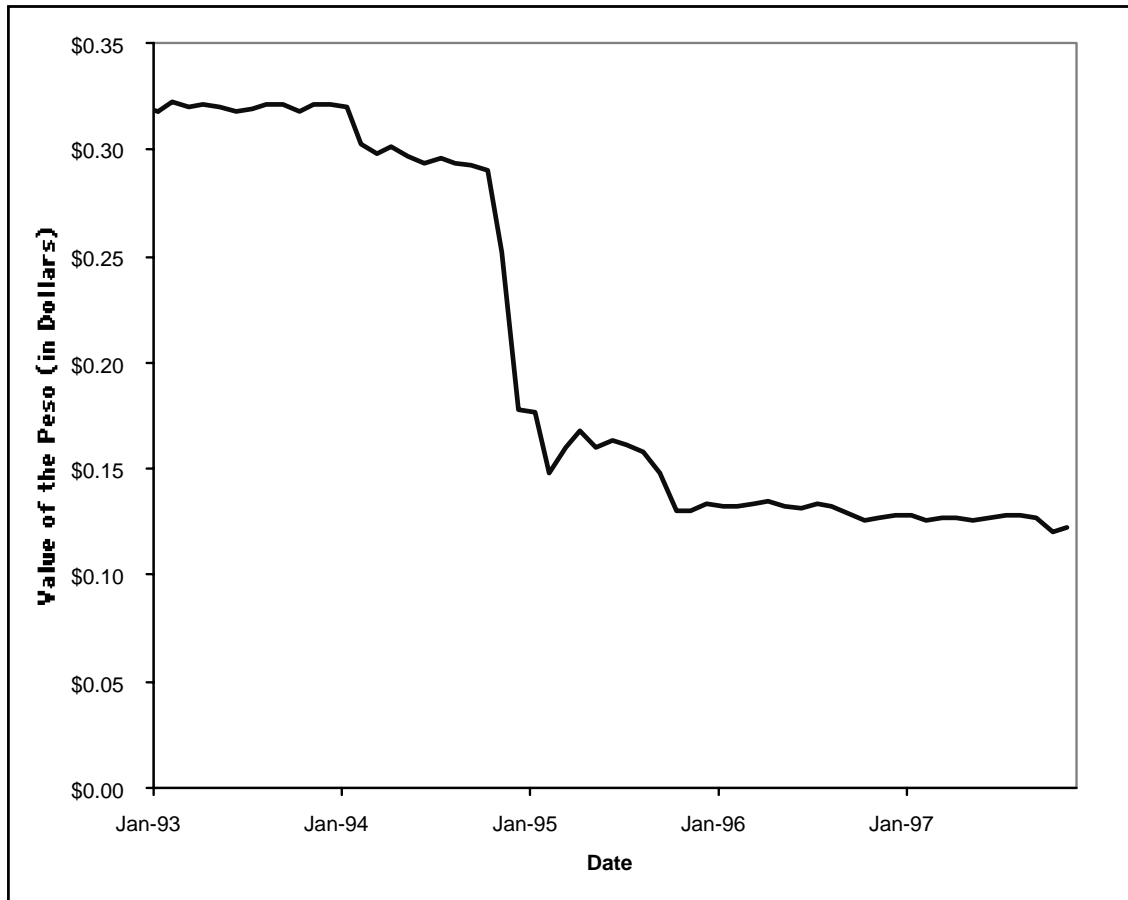


Figure 5

Value of the Mexican Peso, 1993-1997



Source: Federal Reserve Bank of St. Louis. Datafile: [http://www.j-bradford-delong.net/Econ\\_Articles/CIEP/CIEP\\_data/peso\\*.xls](http://www.j-bradford-delong.net/Econ_Articles/CIEP/CIEP_data/peso*.xls)

Figure 6

References in Major Newspapers to Moral Hazard

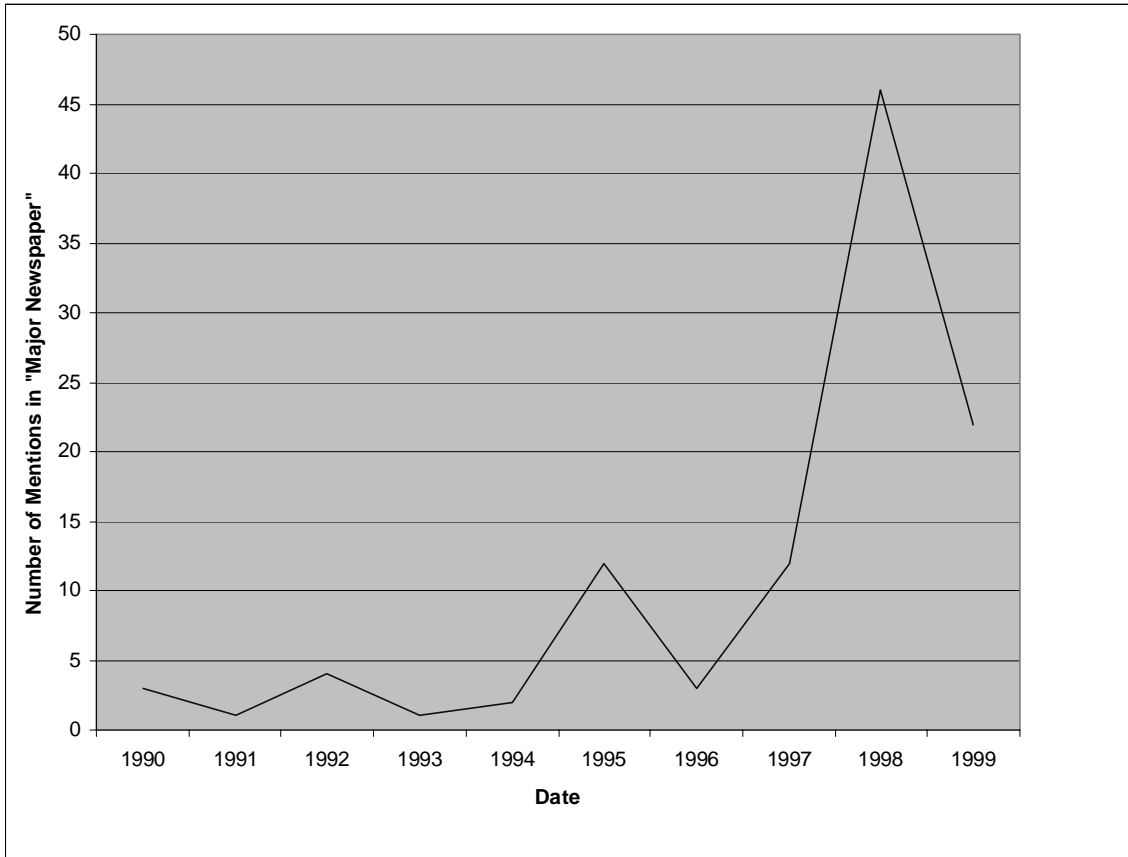


Figure 7

Value of the Thai Baht, 1990-1999



Source: Federal Reserve Bank of St. Louis via <http://www.economagic.com/>.Datafile:  
[http://www.j-bradford-delong.net/Econ\\_Articles/CIEP/CIEP\\_data/baht\\*.xls](http://www.j-bradford-delong.net/Econ_Articles/CIEP/CIEP_data/baht*.xls)