

Some Features of Latter-Day Financial Crises

Since the search for a new architecture was prompted by the frequency and severity of financial crises in the 1990s, it is useful to understand the nature of these crises and why the old architecture is unable to deal with them. In this chapter we discuss the special features of contemporary crises, which make them different from balance of payments problems faced by developing countries in the past, and which therefore call for a very different response, both from the country affected and from the international community.

2.1 Nature and Causes of Contemporary Crises

Contemporary crises differ from traditional episodes of balance of payments problems in important respects. The latter typically originated in the current account, with a macro-economic policy imbalance, or an external shock or domestic supply shock leading to a widening of the current account deficit which needed to be financed. Contemporary crises, on the other hand, originate from the capital account and are caused by a loss of confidence, which leads to a large outflow of capital and a denial of access to new financing.¹ The specific mechanisms at work may vary from crisis to crisis. In East Asia, the factor that triggered the capital outflow was the refusal of international

banks to extend fresh credits in a situation where the short-term debt had become very large. In the absence of fresh credits the repayment due on existing debt caused a massive outflow. Another mechanism which could cause a similar outflow is liquidation of portfolio investment by foreign investors. A capital outflow can also take place independently of the perception of foreign investors if there is domestic capital flight, which is always possible in a situation where there are no restrictions on movement of capital.² This was clearly the mechanism at work in Russia and to some extent also in Brazil.

Free mobility of capital is a pre-requisite for such crises and capital mobility has indeed increased enormously in the past two decades. This process has been driven by the dismantling of capital controls in the industrialised countries from the end of the 1970s and by the subsequent explosion of new financial instruments, which has vastly increased the options and investment choices available to international investors. It has been greatly facilitated by the impact of information technology which has greatly accelerated the integration of markets globally.

Many developing countries liberalised capital controls in the 1990s with the explicit objective of gaining access to the huge pool of resources available in international markets, and

1 The Latin American debt crisis of the 1980s also took the form of a denial of access to new financing and an inability to service the debt, but it is not a contemporary crisis because the source of balance of payments pressure could be traced to current account developments. High fiscal deficits had led to excessive borrowing abroad by governments leading to a build up of debt. The switch in US policy to combat inflation led to high interest rates, a dollar appreciation and an economic slow down. Export earnings of the indebted countries declined while high interest rates increased the debt service burden, both developments operating directly to worsen the current account. The dollar appreciation clearly increased the debt service burden in terms of export earning capacity. The denial of financing was essentially a recognition of the unviability of the current account position. This is very different from the sudden loss of confidence which characterises of contemporary crises.

2 Domestic capital flight may be triggered by a loss of foreign capital or it may occur independently. There is evidence in some cases that capital outflows are triggered by domestic capital flight rather than withdrawal of foreign capital.

Table 1 Capital Flows to Emerging Market Economies*

Annual Average	1984-89	1991	1995	1996	1997	1998
Private Capital Flows (net)	13.5	118.1	195.3	213.8	148.8	66.2
of which						
- Direct Investment (net)	13.0	31.5	99.6	113.5	142.6	132.4
- Portfolio Investment (net)	4.4	24.7	40.7	74.0	66.7	27.1
- Other net private flows+	-3.8	62.0	55.1	26.4	-60.5	-93.3
Official flows (net)	26.2	36.0	23.2	-17.9	24.4	43.6
Total capital flows	39.7	154.1	218.5	195.9	173.2	109.8

Source: World Economic Outlook, IMF

* Emerging market economies include developing countries, transition countries and newly industrialised Asian economies

+ Other net private flows include official and private borrowing from the private sector

private flows to emerging market economies did expand enormously in the 1990s. As shown in Table 1, private capital flows were half of net official flows in the period 1984–1989 but they had increased to more than 8 times the level of official flows in 1995. However, this has also made these countries vulnerable to the volatility of private capital flows. Free mobility implies that capital can move out if there is a sudden loss of confidence and the frequency of crises in the 1990s suggests that many developing countries have not been able to manage the risks arising from this situation in an effective manner.

An extensive literature has evolved in recent years on the nature of currency crises which helps explain the mechanisms at work.³ First generation models explained the occurrence of a crisis as the predictable outcome of macro-economic policy inconsistencies, for example maintaining a fixed exchange rate with an excessively expansionary monetary policy. The policy inconsistency leads to a decline in reserves and if markets perceive this inconsistency as being unsustainable in future, it could lead to a collapse of the fixed exchange rate even before the reserves run out. Second generation models go beyond the identification of policy inconsistencies – the so called fundamentals –

and focus on more intangible factors such as changes in the perceptions of investors or ‘market sentiment’ triggering a crisis in situations where a country has become vulnerable in some dimension.

An important feature of these second-generation models is that there is an inherent uncertainty about whether a crisis will be triggered in a particular situation. All that can be said is that if the country is in a zone of vulnerability, (for example because it has an excessive level of short-term debt relative to foreign exchange reserves) then a sudden change in expectations of investors, which may take place for a variety of reasons, can lead to a self-fulfilling crisis. The change in expectations may not be directly related to a worsening of fundamentals. It could occur independently of any change in fundamentals because of contagion from developments in other countries. The situation is unpredictable in the sense that a loss of confidence may or may not take place, but if it does, it becomes self-fulfilling and the country is pushed from a ‘good’ equilibrium to a ‘bad’ equilibrium from which recovery is not easy. These models are similar to the ‘multiple equilibria’ model of Diamond and Dybvig (1983) which explains banking crises arising from a run on deposits.

3 For a review of this literature see Eichengreen (1998) and Eichengreen and Mussa (1999). For individual contributions see Krugman (1979), Obstfeld (1986), Radelet and Sachs (1998) and Velasco and Chang (1998).

Table 2 Current Account Turnarounds in East Asia (per cent of GNP)

	Current Account Deficits		Turnaround (2-1)
	(1)	(2)	
	1997	1998	
Thailand	-2.0	12.8	14.8
Korea	-1.7	12.5	14.2
Malaysia	-5.1	12.9	18.0
Indonesia	-1.8	4.0	5.8
Philippines	-5.3	2.0	7.3

Source : World Economic Outlook

Contemporary crises are not only difficult to predict, they are also difficult to manage for two reasons: they explode quite suddenly, leaving very little time for the authorities to react, and the financing gap associated with them is very large. In East Asia, for example, the reversal of capital flows in 1997 for the five affected countries amounted to \$107 billion, or about 10 per cent of their combined GDP and most of the outflow occurred in the second half of the year.⁴ Both the size of the outflows and the speed of reversal reflects the fact that a loss of confidence is essentially a stock adjustment process, where a large change in flows can occur in a very short period. Outflows would not necessarily continue on this scale year after year, but the impact in the short term can be highly destabilising.

Since resources on the scale needed to finance such capital outflows are usually not available, and the outflows also cannot be stopped and reversed very quickly, countries are forced to 'adjust' to the capital outflow by generating a large improvement in the current account. The scale of the adjustment forced upon the East Asian countries can be seen from Table 2. Malaysia had to adjust to a turnaround of about 18 per cent of GDP in the current account while both Korea and Thailand experienced turnarounds of over 14 per cent. Indonesia had to make a much smaller adjustment of only 5.8 per cent.

In a text-book world it is possible to generate an improvement in the current account while protecting total output and employment by using a combination of policies involving a reduction in aggregate demand and a depreciation of the exchange rate. The reduction in aggregate demand reduces the domestic demand for tradables, which in turn improves the current account, but it is also likely to create unemployment in the non-tradable sector because of rigidity of money wages and labour market inflexibility. Depreciation of the exchange rate is expected to counter such unemployment by switching domestic demand away from tradables and towards non-tradables, and also encouraging additional production of exports and import substitutes. However, in practice there are limits to the extent to which exchange rate depreciation can help reduce imports or generate additional exports in the short run. A large current account improvement in the short term is therefore likely to be achieved only through a severe contraction in demand, which reduces imports but typically also leads to a contractionary effect on output and employment. This is precisely what happened in East Asia. The large turnarounds in the current account were all achieved through a massive import contraction which was also associated with a sharp decline in output. GDP in 1997 declined by 5.5 per cent in Korea, 6.8 per

⁴ See World Bank (1998). A substantial part of the reversal was on account of the withdrawal of commercial bank financing, mainly in the form of a refusal to roll over existing short-term debt which had reached very high levels in Thailand, Indonesia and Korea.

cent in Malaysia, 8 per cent in Thailand and as much as 13.7 per cent in Indonesia.⁵

The economic contraction in East Asia occurred because the collapse in the exchange rate generated severe negative effects on the balance sheets of banks and corporations which had large unhedged exposures to foreign borrowing. The role of negative balance sheet effects in contemporary crises needs to be clearly understood because it converts the normally expansionary effect of a depreciation, operating through the stimulus to exports and import substitutes, into a contractionary effect. Negative balance sheet effects on firms, leading to bankruptcy in extreme cases, obviously discourage investment and also reduce access to bank credit, both factors leading to contractions in output. If the banking system also suffers from excessive foreign exchange exposure, the exchange rate depreciation can erode the capital of the banks which has a contractionary impact on bank credit from the supply side. Even if banks have no direct foreign exchange exposure, they can suffer indirectly if their clients have excessive exposure because non-performing assets begin to mount, leading to banking distress.

High interest rate policies are traditionally recommended to discourage capital outflows, but these policies can hurt domestic banks, if there is a maturity mismatch in the banking system. The inability to use interest rate policy because of fragility in the banking system makes it difficult to prevent a collapse of the exchange rate which, as we have seen, has its own balance sheet consequences. A weak banking system can also create fears about bank failures, which can trigger a flight of domestic capital through the open capital account, thus worsening the initial currency crisis. Managing a currency crisis in the face of a weak banking system is therefore doubly difficult.

Is a disruptive outcome unavoidable once the crisis is triggered or is it the result of inap-

propriate policies? Critics of the IMF have argued that misguided policies were responsible for the depth of the crisis in East Asia.⁶ They have argued that the IMF erred in prescribing traditional remedies such as fiscal and monetary tightening when the circumstances preceding the crisis did not indicate imbalances in these areas. They have also criticised the IMF for exacerbating the loss of confidence by focusing too much attention too suddenly on the weakness of the banking system, which may have added to the panic rather than calming it, thus intensifying the crisis.

The IMF on its part has admitted that some mistakes were made in the early stages. It has conceded that the initial fiscal targets were too tight because they did not make adequate allowance for the fact that the exchange rate collapse would have severe negative balance sheet effects, which would generate strong deflationary pressures in the short run. It has also admitted that the closure of 16 unviable banks in Indonesia, though essential, should have been done in a manner which avoided uncertainty about the safety of the rest of the system.

The Fund's own analysis of the failure of its East Asian programmes to bring about an early stabilisation is contained in a Fund Staff study by Lane et al. (1999). The study points out that the financing provided in the Fund programmes was sufficient only on the assumption that the programmes would suffice to restore confidence and halt the capital outflow. When that did not happen, the continuing outflows led to a much greater collapse in the exchange rate than had been anticipated, which in turn had large negative balance sheet effects. The critical issue therefore is whether another set of policies could have been more successful in restoring confidence and thereby containing the extent of the capital outflow. We return to this issue in Chapter 4 when we discuss problems in designing adjustment programmes to deal with contemporary crises.

5 See *World Economic Outlook 1999* (Table 2.6).

6 See especially Radelet and Sachs (1998) but also Furman and Stiglitz (1998).

For the present, we will only note that the most important objective in handling a crisis of confidence is to try to restore confidence, so that capital flows return to normal levels. However, confidence once lost is not easily regained. Fiscal and monetary policies take time to have effect and in a world in which capital can move as rapidly as it does today, a great deal of damage can be done before the crisis resolution strategy begins to take hold.

2.2 Why Developing Countries are More Vulnerable

The frequency of crises affecting emerging markets in the 1990s is sometimes attributed to the high volatility of private capital in international financial markets, but this is not by itself a sufficient explanation since industrialised countries face the same capital markets, but they have not faced crises of similar severity.⁷ Developing countries clearly have special characteristics which make them more vulnerable and these characteristics have to be kept in mind in devising mechanisms for crisis prevention and crisis resolution in the new global architecture.

Some of the features which make developing countries especially vulnerable to severe crises are the following:

Lack of information: Investors have much less information about conditions in developing countries than about industrialised countries and this creates potential instability. Investment flows which are initially based on inadequate information are more liable to change based on new information or perceptions which may not be very robust. Lack of information also leads to herd behaviour, with less informed investors simply following the lead of those who are supposed to know better, creating familiar boom-bust cycles. The practice of judging performance of individual fund managers relative to

others makes it optimal for individual fund managers to move with the herd unless they have significantly better information which tells them to do otherwise.

Contagion: Contagion is a new phenomenon of the 1990s to which developing countries are particularly vulnerable. A loss of confidence in one country, which may be objectively justifiable in terms of deteriorating fundamentals, leads to a loss of confidence in another country purely through contagion, even though the fundamentals in the second country are quite sound. This phenomenon can be explained in terms of the inadequacy of the information needed for investors as a group to discriminate between countries. The expected behaviour of the group can be a determining factor even for the well-informed investor aware of the soundness of fundamentals since it will be rational to exit if other investors as a group are expected to panic and this is likely to affect the market.

Thin markets: The thinness of developing country markets relative to the size of global capital flows makes developing countries more vulnerable because changes in capital flows, which are relatively small measured by global standards, can cause large changes in asset prices. This generates euphoria in good times, as rising asset prices appear to validate the expectations underlying initial inflows, but it also produces panics in bad times. The nervousness about the destabilising capability of hedge funds arises precisely because of the perception that these funds can mobilise resources that are relatively large compared to the thin markets in developing countries, making it easier for them to destabilise these markets.

Financial sector weakness: Weaknesses in the financial sector, especially in banks, have

⁷ Industrialised countries have experienced currency crises in the 1990s, for example the ERM crisis of 1992 which affected the UK, Spain and Italy. However the currency crisis did not lead to a disruptive outflow of capital and a denial of access to global capital markets. The crisis remained a currency crisis in which there was a speculative attack because the market judged the exchange rates to be unsustainable. The speculative attack succeeded, but once the currencies had depreciated to a level judged sustainable, the attack ceased.

emerged as one of the most important causes of financial crises. With a weak banking system, capital inflows in the boom phase are likely to be intermediated in an imprudent manner, leading to an excessive build-up of foreign exchange exposure and of short-term foreign debt, either by the banks themselves (for example, Thailand and Korea) or by corporate borrowers (for example, Indonesia).⁸ Liberalisation of the capital account also sometimes generates feedback effects which increase the weakness of the financial system. As high quality corporate clients take advantage of access to world capital markets and shift to apparently lower-cost borrowing abroad, pressure is put on domestic bank margins and the asset portfolio of the banks also deteriorates, both factors tending to reduce bank profitability. This may encourage banks to enter into riskier activity to improve profitability. On the liabilities side, they may be tempted to borrow short term abroad, thus increasing their foreign exchange exposure; on the asset side, they may be tempted to expand into riskier domestic activity, for example lending for real estate development, backed by collateral values which are overpriced because of asset price bubbles. The absence of a domestic market for long-term debt, which is another dimension of financial sector weakness, also weakens the banking system because it creates pressure on banks to provide long-term finance, increasing their maturity mismatch and making them more vulnerable to interest rate changes. A weak financial sector not only contributes to vulnerability by encouraging an excessive inflow of foreign exchange exposure, it also makes it more difficult to manage a crisis should it occur, since interest rate policies cannot be deployed to contain capital outflows without damaging the banking system further.

Exchange rate regimes: The ‘soft-peg’ exchange rate regimes adopted by many developing countries are widely regarded as having contributed to vulnerability. This is because they give the appearance of a firm commitment to maintain exchange rate stability, which encourages borrowers to ignore exchange risk and build up substantial unhedged foreign exchange exposure. In the absence of strong institutional mechanisms which can effectively anchor the exchange rate, situations can arise when the rate becomes unsustainable; this inevitably leads to an exchange rate ‘adjustment’ which is then viewed as a failure of policy with a loss of credibility. This particular feature of soft-peg regimes has led many to argue that countries should either have fully flexible exchange rate regimes which would encourage more explicit recognition of foreign exchange risk or else adopt rigid monetary arrangements (such as a currency board) which would provide credible exchange rate stability.

Implicit guarantees: Many developing countries operate within an institutional framework which is seen by investors as offering ‘implicit guarantees’ which are then said to encourage imprudent lending to these countries, leading to excessive inflows which make them more vulnerable to crises. Public sector banks and large public sector corporations are often seen to have implicit government guarantees. In fact even private commercial banks are sometimes perceived to have the implicit guarantee of the government behind them because of the belief that government would not allow such banks to fail. In Thailand, implicit guarantees were extended even to non-bank financial companies as the Bank of Thailand is reported to have repeatedly confirmed to foreign investors that the government would ‘back Finance One (a non-

⁸ A strong banking system would avoid these problems by maintaining limits on its own direct foreign exchange exposure and protecting its indirect exposure by limiting bank credit extended to corporations which are over exposed to foreign exchange risk.

bank finance company) all the way'.⁹ Such implicit guarantees obviously create moral hazard by encouraging lenders to ignore the financial condition of the banks.¹⁰

Political factors: Political uncertainty is not unique to developing countries but it has a more damaging effect on investor perceptions when it occurs in developing countries than in industrialised countries because it is generally seen as signalling a possible deterioration in economic management. It is interesting to note that many of the recent crises were associated with periods of political uncertainty. The Mexican crisis, for example, was preceded by an atmosphere of political uncertainty created by the Chiapas rebellion, the assassination of a Presidential candidate and a change in government. The Indonesian crisis was clearly deepened by the climate of political uncertainty associated with a likely change of guard after 30 years of the Suharto Presidency. In Korea, a Presidential election was underway at the time of the crisis and this may have contributed to the initial panic because it created some uncertainty about how the government would react.

To summarise, developing countries which have liberalised the capital account in order to integrate more fully with international financial markets are more exposed to risk than industrialised countries facing the same markets. A sudden loss of investor confidence, which may be

triggered by a variety of factors, including pure contagion from developments occurring in other countries, could lead to a massive outflow of capital which could be highly disruptive. That the existing financial architecture has not been able to handle this problem effectively is evident from the increased frequency and severity of crises suffered by emerging market countries in this decade. Reforms are needed which would minimise the probability of such crises occurring, i.e. crisis prevention, and also handle them more effectively when they do occur, i.e. crisis resolution.

Crisis prevention and crisis resolution are the two main themes that have dominated the new architecture discussions and the next two chapters deal with them in sequence. However it should be noted that crisis prevention and crisis resolution are not two separate watertight compartments. There are close linkages and two-way interactions between the two. Preventive measures not only reduce the probability of crises occurring, they also reduce their severity if they do occur, which makes crisis resolution easier. Equally, the knowledge that effective crisis resolution measures exist can sometimes help to forestall panic reactions, thus preventing crises from occurring in the first place, or at least making them less severe. More recently, it has also been argued that the extent of crisis prevention undertaken by a country should determine the extent and terms of international assistance extended to it in the event of a crisis.

9 See Corsetti and Srinivasan (1999).

10 It has also been argued that the expectation of an IMF bail-out is another type of implicit guarantee which encourages imprudent lending by foreign investors. This criticism was first raised at the time of Mexican bail-out and was repeated in East Asia. Its validity in East Asia is surely doubtful since investors suffered large losses in that region. Expectations of an IMF bail-out probably did influence the decisions of lenders to continue lending to Russia despite evident problems in the months before the crisis, because it was viewed as 'too big (or too politically important) to fail'. However it is precisely in that case that the bail-out did not occur, which should correct expectations in future.