Mr. Grenville talks on the Asian crisis, capital flows and the international financial architecture<sup>1</sup> Talk by the Deputy Governor of the Reserve Bank of Australia, Mr. Stephen Grenville, to Monash University Law School Foundation in Melbourne on 21/5/98.

Kindleberger (1978), in his classic study of "Manias, Panics and Crashes", observed that: "there is hardly a more conventional subject in economic literature than financial crises." The Asian crisis, while unexpected in its timing, spread and severity, contains many familiar elements. If we were to distil a core weakness from the complex causes, it would be the juxtaposition of fragile domestic financial systems with large and volatile international capital flows. Today, I want to focus on the second element of this fatal combination - the large and volatile capital flows.<sup>2</sup>

### The Pros and Cons of International Capital Flows

There is a strong a priori case that international capital flows are a Good Thing. The obvious analogy is with international trade. If it is beneficial for nations to trade in goods and services, then there is a presumption that there will also be advantage in trading in saving. Financial flows supplement domestic saving, allowing more investment to be done in those countries where returns are highest; they buffer the variations over time between exports and imports; foreign direct investment brings the advantages of technological transfer; there are gains for savers from diversification; and, to complete the case for free capital flows, we should record the argument that even speculative capital flows can serve a beneficial purpose.<sup>3</sup>

Capital flows are generally supported by the economic profession, both academics and practitioners. Open capital markets are part of the widely-accepted Washington Consensus (whose twin elements are that countries should deregulate, and should open their economies to the outside world), and are endorsed by the IMF.<sup>4</sup>

Why, then, does foreign capital flow rank as a central element in the Asian crisis? The short answer is: painful experience in the practical world. Contrast Keynes' (1919) views on the pre-WWI world, with his later views on the prospective post-WWII world, transformed by the experience of the 1930s. He describes pre-WWI London, with evident approval, this way: "The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth . . .; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble, in their prospective fruits and advantages . . . He regarded this state of affairs as normal, certain, and permanent, except in the direction of further improvement, and any deviation from it as aberrant, scandalous, and avoidable." (pp. 9-10) This was, as Keynes noted, a "paradise" in which "internationalisation was nearly complete in practice". Contrast this idyllic civilised picture

I am grateful for the help of John Hawkins, Suzanna Chiang and Amanda Thornton in preparing this paper.

This is not to downplay the deficiencies in domestic policies, which have been discussed elsewhere. For some discussion of the other "twin" problem - financial sector fragility - see Grenville (1997 and 1998b).

The best known proponent of this argument is Milton Friedman, who has argued that speculation is inherently stabilising, as any speculator who does not buy cheap and sell dear (thus driving the price towards its fundamental equilibrium) will quickly go out of business. More recent literature is less confident of this result.

The IMF Managing Director recently put forward seven building blocks for a stronger financial system, with the first three relating to globalisation: "The first of these building blocks is the tremendous potential for growth and prosperity globalization provides countries fully integrating into the global economy. Formidable sources of dynamism are there, engendered by new information technologies and unifying financial markets. . . . The second building block is integration. By integrating themselves into the mainstream of the globalizing world economy, the poorest countries will avail themselves of a most powerful instrument of acceleration of development. . . . The third building block is the universal consensus on the importance of an increasingly open and liberal system of capital flows in order for globalization to deliver on its promises." (Camdessus 1998).

with the world Keynes envisaged as he wrestled with the problem of reconstruction after the Second World War: "it is widely held that control of capital movements, both inward and outward, should be a permanent feature of the post-War system." "Experience between the Wars clearly demonstrated the mischief of unregulated capital movements, which take no account of the balance of trade available for overseas investment." <sup>6,7</sup>

The central point here is that some types of capital flows, for all their benefits, are very volatile. Policy-makers are not just interested in the growth of GDP, but its variance. Large volatile influences are a policy nightmare.

# The Asian Experience

Private capital flow into the five troubled economies of Asia (South Korea, Indonesia, Thailand, Malaysia and the Philippines) was very large and variable, both up and down. It had reached almost US\$ 100 billion in 1996 - one-third of worldwide flows into emerging countries. This was a five-fold increase over the 1990-93 average. It reversed in 1997, to record an outflow of US\$ 12 billion. This turnaround was equivalent to more than 10 per cent of the GDP of these countries.

Portfolio equity investment into these five countries almost quadrupled in a single year - 1993. These flows were huge, compared to the size of the domestic financial sectors. It is hardly surprising that the then-Governor of the Indonesian central bank said: "we started building the foundations of a house but suddenly we had to host a party". Kindleberger (1989), describing the post-OPEC period, captures the same point when he says: "multinational banks swollen with dollars, . . . . tumbled over one another in trying to uncover new foreign borrowers." (p. 26)

## Two other characteristics are worth noting:

- almost 60 per cent of the 1996 private flows to the Asian Five were from foreign commercial banks and 40 per cent were short-term credits. Bank lending was flighty indeed inflows of US\$ 56 billion in 1996 turned into outflows of US\$ 27 billion in 1997. Direct equity investment which might be expected to be more stable was quite modest (6 per cent of the total), but portfolio equity investment (which can and did quickly reverse) was twice as large;<sup>9</sup>
- the flows were driven, to an important extent, from the supply side. The flows in the 1990s were consistently larger than the current account deficits i.e. they were not drawn in by the need to fund the saving/investment gap.

Paradoxically, one source of volatility was the high profit opportunities available in these countries, as they "got their economic act together", combining technology and cheap labour

BIS Review 46/1998

Treasury memo to the UK War Cabinet's Reconstruction Problems Committee.

Proposal for an International Monetary Fund, Annex A of the Washington Conversations Article VII, Memorandum by the Minister of State, 7 February 1944.

Bhagwati (1998), distinguished economist and long-time champion of free trade, provides another example, in his strong scepticism that the arguments for international freedom of trade can be transposed to capital flows.

For a description of the measures which Indonesia took in the early 1990s to try to slow the inflows, see IMF (1995, p. 14).

In the two decades beginning in the mid 1960s, Singapore succeeded in absorbing very large capital inflows without disruption. This was predominantly foreign direct investment.

with capital, to produce high productivity (and high profits) as they moved towards the technological frontier. Hand-in-hand with these high profits go high real interest rates. The international capital flows came, as a normal part of the working of markets, to avail themselves of these opportunities. These capital flows were not some aberration which could be avoided by better macro policies or by enhanced policy transparency, but were the normal manifestation of the working of capital markets. <sup>10</sup>

The inflows, nevertheless, presented an intractable dilemma for policy. While-ever domestic interest rates were high, this encouraged more foreign inflow which made credit control difficult and was costly to sterilise; but lower interest rates would have fuelled excess domestic demand. More exchange rate flexibility has been suggested as the panacea in these difficult circumstances, but I have argued elsewhere<sup>11</sup> that, while it would have helped, the problems were more fundamental. The one way that an equilibrium (of sorts) could be established was to bid up asset prices so that the high intrinsic profit opportunities were counterbalanced by over-priced assets - but of course this distorted investment incentives and fuelled over-optimistic expectations. The result, in short, was a widespread perception that borrowing was cheap, with all the resource misallocations and distortions that go with this.

High saving economies routinely produce another destabilising characteristic - high leverage ratios (Wade and Veneroso 1998), which leave enterprises vulnerable to changes in the macro settings, particularly interest rates. Households do the saving, while companies do the investing, so the corporate sector is inevitably highly indebted in fast-growing countries with under-developed equity markets. When investment is funded from overseas, then one of the parties (either the borrower or the lender) is taking an exchange rate risk, which makes these flows volatile and flighty. In short, high-profit/fast-growth economies are intrinsically more vulnerable to the volatility of capital flows.

This degree of volatility can be ameliorated by better domestic policies. But volatility is intrinsic to these flows, and there is a long international history in which capital flows were either the catalyst for a crisis, or exacerbated a crisis which was set off by other factors: "the history of investment in South America throughout the last century has been one of confidence followed by disillusionment, of borrowing cycles followed by widespread defaults".<sup>12</sup>

We might note also, in passing, that the overall international financial environment has been routinely subject to fits, starts and sudden reassessments. The large swings in the yen/dollar exchange rate during the 1990s and the abnormally-low interest rates in Japan were an important factor in the capital flows under discussion here.<sup>13</sup>

High levels of international debt and large current account deficits were a reflection of saving/investment imbalances, and to the extent that the economic literature had wrestled with this issue beforehand, the puzzle was that the international capital flows had not been larger, rather than that they were somehow too large (the standard reference here is Feldstein and Horioka (1980)).

Grenville (1998a). Latin America provides earlier examples of countries whose real exchange rates were driven up by capital inflows, as a prelude to a sharp substantial fall when confidence changed (see McKinnon and Pill (1995)).

Royal Institute of International Affairs, quoted by Dornbusch (1985). See also Kindleberger (1989, Chapter 7) and Arndt (1998). McKinnon and Pill (1995) provide an interesting account of the interaction between capital flows and financial sector weakness in recent Latin American experience. Their final "stylised fact" provides an accurate description of the subsequent Asian problems: "The 'over-borrowing' episode culminates in a financial crisis, capital flight and recession - often forcing an uncontrolled deep devaluation of the currency, with a resurgence of inflation." (p. 6) The characteristics of emerging countries impart to the flows far more volatility than is seen in, say, Australia. In the exchange rate problems of Australia in the mid 1980s, capital inflow continued at its underlying average rate.

For discussion of this point, see Eichengreen and Rose (1998).

### Perceptions and Confidence

In this fragile world, the critical issue that changed - motivating the volte face of capital between 1996 and 1997 - was an extraordinary change in confidence - what Stiglitz calls the "instability in beliefs" and Keynes called "animal spirits".

Such reversals of sentiment are not uncommon, even in the United States: one notable example was the October 1987 share market shake-out. He are the opportunities for these reversals of confidence are greater in the Asian countries, where foreign investors did not know these economies well and the economic fundamentals are not well established. So they were even more susceptible to herd behaviour - once doubts started, they were self-fulfilling. Over-optimism based on imperfect understanding could easily change to over-pessimism, equally based on misunderstanding. Over-inflated asset prices deflated rapidly. A recent Fortune (1998) article captures the post-crisis disillusionment: "You can't trust the companies, you can't trust the governments, you can't trust the analysts, and you can't trust the mutual funds managers. Watch out." "There was a touch of the absurd in the unfolding drama, as international money managers harshly castigated the very same Asian governments they were praising just months before. . . . But, as often happens in financial markets, euphoria turned to panic without missing a beat." (Sachs 1997)<sup>15</sup>

The recipient countries had only a limited range of instruments that could be used to counter these changes of confidence. The traditional answer is to raise interest rates. <sup>16</sup> But this had limited effect: nervous foreign lenders were concerned about the fundamental credit-worthiness of borrowers, not interest income. Many lenders had provided funds denominated in foreign currency, and higher local currency interest rates were irrelevant, except to the extent they added to concerns about the local economy. High interest rates in the defence of the exchange rate were more damaging to these vulnerable economies because of their high corporate leverage. The short-term nature of the flows added to the woes.

#### Proposals for Reform

In short, the size and volatility of the foreign capital flows exacerbated the serious and fundamental domestic policy problems, fuelled the boom and made the subsequent crash worse. These problems are all the more intractable for economies which are in the process of opening themselves up to international financial markets, with small inexperienced financial sectors. In the wake of this experience, there is no shortage of reformist proposals.

George Soros (1997) - the most famous of the hedge fund managers and a prime beneficiary of the current freedoms of capital flow - has suggested the setting up of an international credit insurance corporation. Henry Kaufman, the doyen of Wall Street economists, has urged the creation of an international supervisory structure, which would "vet" countries' prudential systems

BIS Review 46/1998

Greenspan (1998) observed that: "there is no credible scenario that can readily explain so abrupt a change in the fundamentals of long-term valuation on that day."

An academic literature is building up around the idea of "rational beliefs". McKinnon and Pill (1995), referring to the work of Kurz, say: "The rational beliefs approach permits individuals to hold different views about the structure of the economy, provided the models implicit in these views are not refutable by observed or observable data. This structure allows the economy to deviate from 'sustainable' paths in the short run - which could last for an extended period - until observed data demonstrate that the structural model implying this ex post unsustainable behavior was incorrect." (p. 17)

Kindleberger (1989, p. 153) cites the case where, in 1849, a 2 per cent (200 basis points) rise in the UK discount rate was enough to cause sailing ships carrying gold to America to turn around and return to the United Kingdom: such fine-tuning of crises seems to be a thing of the past, along with sailing ships.

before allowing them to borrow in international financial markets. At the other end of the spectrum, there are those who argue that the main problem was "lack of liquidity" in these financial markets, which they identify as causing large price movements on relatively small volume changes. For the latter group, the solution is simple: to go harder, stronger and quicker towards full deregulation.

Larry Summers (1998), US Treasury Deputy Secretary and former leading academic, draws an analogy with the advent of jet travel, which greatly improved convenience and safety of international travel, but when accidents happen, they are more dramatic. Should we, he asks rhetorically, address this problem by banning jet landings? To carry this analogy further, clearly the answer is to make the infrastructure safer for the most beneficial aspects of the innovation, while not precluding the possibility that the more dangerous aspects should be constrained.

The Asian experience - following, as it does, similar experience in Mexico in 1994/95 - has set the agenda for the reform of the international financial architecture. The G22 meeting held last month in Washington focused on three requirements:

- transparency (i.e. greater information to help markets make more rational decisions);
- strengthening of financial systems to make them more resilient in the face of changes of sentiment;
- ensuring that the private sector bears a proper share of the burden of any rescue operation.

All this makes good sense. To argue that more information is better than less information is as close to a truism as we can get in economics.<sup>17</sup>

Nor would any informed observer dispute the need for root-and-branch reform of prudential supervision in these countries.<sup>18</sup> The issues here are not ones of principle, but are operational: how to put in place an enforceable set of rules which is sufficiently strict to protect the core of the financial system from crises, without making the rules so onerous that financing shifts elsewhere, to an unregulated but equally-vulnerable channel.

The third area - private sector burden sharing - requires some elaboration. Despite the best endeavours on information/transparency and in building up prudential strength, it is hard to believe that the problems will be quickly and fully eliminated. For a start, a good prudential system will take many years to develop, considering that it requires counterpart improvement in accounting, legal and bankruptcy arrangements. Transparency is a good thing, but markets can make radical reassessments even when information is abundant - the October 1987 share market shake-out is evidence of this. And, realistically, domestic policy-makers will never be omniscient and single-minded in their pursuit of economic perfection.<sup>19</sup>

At present, the focus is on greater disclosure from capital-receiving countries, but this could be extended to greater disclosure from capital suppliers, including private intermediaries and investment funds.

This focus revives an old issue in economics - the sequencing of reform. The old argument was that financial deregulation should come last, as the financial sector facilitated the exploitation of any remaining regulation-driven distortions in the economy. The new argument is that if financial deregulation precedes the establishment of a strong prudential framework, the inevitable volatility of capital flows will produce a collapse of the financial system. For an interesting discussion of the need for a "global standard", see Sheng (1998).

Stiglitz (1998) puts it this way: "We must bear in mind too in designing policy regimes (such as opening up capital markets) that we cannot assume that other aspects of economic policy, such as macroeconomic policy or exchange rates, will be flawlessly carried out. The policy regimes we adopt must be robust against at least a modicum of human fallibility. Airplanes are not designed to be flown just by ace pilots, and nuclear power plants have built into them a huge margin of safety for human error."

If we accept that, with all the corrections made and "best endeavours" on the policy-making front, there will still be room for sharp breaks in confidence, then this has to be handled in the same way that it is handled domestically in the face of bank crises caused by loss of confidence - through the availability of a lender-of-last-resort.

Mexico in 1994/95 provides a classic example of the international lender-of-last-resort in operation, and most observers would regard this as a success. Most people would also regard it as an example of the residual problem of the lender-of-last-resort - "moral hazard". This type of moral hazard occurs when those who take economic decisions are not required to accept the full consequences, when that decision turns out badly. In the case of the sudden capital outflow from Mexico in 1994, this outflow was replaced by an IMF/US package of US\$ 50 billion, which was enough to pay out the government creditors, until confidence was restored (which occurred relatively quickly) There are those who argue that, in doing this, the foreign investors were "bailed out", and this sets a bad precedent for future investors.<sup>20</sup>

While the problem of moral hazard has long been recognised, and there was substantial discussion about how to address it following the Mexican rescue, subsequent events have demonstrated just how hard it is to avoid. In late 1997, foreign banks which had lent to Korean private banks were given an ex post government guarantee and concerted arrangements were put in place to avoid the impending default. If Mexico showed that creditors holding government debt can be bailed out and Korea showed that creditors holding bank debt can be assisted, then Indonesia may be providing an example, where foreign creditors holding debt of private firms are assisted. It is not hard to see why this occurs: while everyone is against moral hazard in principle, the resolution of particular problems often requires that special assistance be given to those who, by their actions, could make the current crisis worse. As Kindleberger (1989, p. 182) noted: "Actuality inevitably dominates contingency. Today wins over tomorrow." As with bankruptcy, in practice the balance needs to be drawn between the need to keep continuity of operations, against the need, also, to maintain appropriate incentives for risk-taking. While everyone agrees, in principle, that private investors should not be bailed out, administering the appropriate "haircut" is not operationally easy. Hence the question of private sector burden sharing on the G22 agenda.

If the combination of moral hazard and the understandable reluctance of governments to enlarge the international lender-of-last-resort leaves the feeling that the problems have not been fully resolved, then a further - more controversial - element is on the agenda in some quarters. For some people, the problems of short-term capital flows outweigh their benefits. They argue that short-term flows bring little or no technological transfer. William Rees-Mogg (1998), former Editor of The Times, has put it this way: "There is now a huge financial industry which is purely speculative in character; it centres on the currency trading of international banks. It is deeply resented in those countries which have been ravaged by its inflows and outflows, however much they may have contributed to their own misfortune. Because it is entirely short-term in character, casino capitalism makes little net contribution to long-term investment." "It is impossible to pretend that the traditional case for capital market liberalisation remains unscathed. Either far greater stability than at present is injected into the international monetary system as a whole or the unavoidably fragile emerging countries must protect themselves from the virus of short-term lending, particularly

BIS Review 46/1998

It might be worth noting a common terminological confusion: in a "bail out of Mexico", for example, it is the foreign investors who are the direct beneficiaries.

<sup>&</sup>quot;Again, the international community faces a dilemma: it often sees no alternative to a bailout - the risks of not undertaking an action seem unacceptable. After each crisis, we bemoan the extent of the bailout and make strong speeches saying that never again will lenders be let off the hook to the same extent. But, if anything, the "moral hazard problem" has increased, not decreased, with each successive crisis." (Stiglitz 1998, p. 18)

by - and to - banks. After the crisis, the question can no longer be whether these flows should be regulated in some way. It can only be how." (Wolf 1998b) "The evidence now seems clear that any substantial net draft on foreign savings creates huge risks. For countries with savings rates as high as those of the east Asians such risks hardly seem worth running." (Wolf 1998a) This last point is taken up by Stiglitz (1998, p. 5): "the East Asian countries, with their high savings rates, may have gotten relatively little additional growth from the surge in capital flows".

With the focus on what might be done on short-term capital flows, there is particular interest in the experience of Chile, which for a couple of decades has imposed substantial deposit requirements on capital inflow - a quasi-tax which impinges more heavily on short-term flows. Note that the controls are on inflows, not outflows: the aim is to prevent the problem from arising, rather than attempt to clean up afterwards.<sup>22</sup> No-one is arguing for countries to cut themselves off from the benefits of foreign capital. Rather, the aim is to see how the benefits can be reaped while minimising the risks from volatility: in short (returning to Larry Summers' analogy), how to make jet travel safer. As part of this process, there is more interest in ensuring that there are no positive incentives in favour of short-term flows, for example, via the BIS capital adequacy requirements, or via specific institutional arrangements such as the Bangkok International Banking Facility.

#### Where To From Here?

The sort of reform discussed here is not going to be easy to implement. There is always a tension between those who favour a pure laissez-faire version of the market, and those who see a role for government in the international architecture.<sup>23</sup> "It is ironic: the age of globalisation may well be defined in part by challenges to the nation-state, but it is still states and governments - by the practices they adopt, the arrangements they enter into, and the safety nets they provide - that will determine whether we exploit or squander the potential of this era." (Haass and Litan 1998, p. 6) Stiglitz (1998, p. 20) makes a similar point: "in approaching the challenges of globalization, we must eschew ideology and over-simplified models. We must not let the perfect be the enemy of the good. . . . There are reforms to the international economic architecture that can bring the advantages of globalization, including global capital markets, while mitigating their risks. Arriving at a consensus about those reforms will not be easy. But it is time for us to intensify the international dialogue on these issues."

Australia could, if it chooses, play a role in this dialogue, out of proportion to its modest standing in world affairs. The Asian crisis is the starting point of the reassessment of the international architecture: while our understanding of Asia and the crisis is imperfect and no doubt distorted in various ways, it may well be ahead of many of the larger countries which have tended to dominate the debate.<sup>24</sup> We have well-developed links - across a variety of disciplines - with our

The Australian experience with Variable Deposit Requirements in the 1970s is also relevant. There is a common view that these were ineffective, and it would certainly have to be acknowledged that regulations such as this are by no means watertight. But it is worth noting that, at one stage, they worked too effectively, and were a major reason behind the monetary squeeze of 1974, where the safety valve of capital flows was effectively blocked by the VDRs.

Kindleberger (1989, p. 7), again, has a sensibly balanced view: "The position that markets generally work but occasionally break down is widely at variance with the views at either of two extremes: that financial and commodity markets work perfectly in all times and places, or that they always work badly and should be replaced by planning or governmental assignments. On the contrary, I contend that markets work well on the whole, and can normally be relied upon to decide the allocation of resources and, within limits, the distribution of income, but that occasionally markets will be overwhelmed and need help. The dilemma, of course, is that if markets know in advance that help is forthcoming under generous dispensations, they break down more frequently and function less effectively."

In Australia, for example, there was a well-informed and bipartisan discussion when these issues came before the Australian Parliament recently (House of Representatives, 26 March 1998), with both sides of politics exhibiting a depth of knowledge which has simply been absent from the legislative debate in America. In contrast, see, for example, Far Eastern Economic Review, 26 February 1998, p. 17.

Asian counterparts. An Australian view may be less bound by narrow commercial interests than some others. We have, ourselves, experienced some of the problems of volatile international capital flows. We know something, too, of the trials, tribulations and benefits of a flexible exchange rate regime. Not least, because the international landscape matters more to us (as a small country on the periphery of a culturally-different and diverse region which is fundamental to our economic future), we care more, so we will try harder to improve our international environment.

The current international economic architecture has evolved in response to the demands placed on it: many of these add-ons, lean-tos and ad hoc bricolage serve the purpose well enough. But the original floor plan was drawn up in an earlier era and - more importantly for us - the building committee was formed long ago and does not always represent today's economic realities. We are, of course, represented on the IMF Executive Board, but with more than 180 members, our voice is small. We have a seat at the Bank for International Settlements, but this remains a European-oriented institution. With the G22, we have a group that represents us and our geographical region in a way that did not occur in the older groups such as G10,<sup>25</sup> but the future of this group is not assured: it represents a recognition that the old groupings need to be reworked, but this has yet to be done definitively. We have shown a readiness and ability to provide key inputs into international economic relations,<sup>26</sup> but we need to see this as a priority issue if we are to have our voice heard in the Councils of the World, and we need persistence and patience to reinforce our credentials.

More regionally-focused groups could give us extra leverage. APEC is, of course, the over-arching regional framework. There are, in addition, a variety of smaller and more specialised groups - EMEAP (the East Asian central bankers group), the Manila Framework Group, Four/Six Markets Group<sup>27</sup> - which all have memberships relevant to Australia's regional economic interests. These regional groups might be used, inter alia, to develop more co-ordinated positions and attitudes in worldwide forums, to influence the shape of the reformed structure.

The challenge is to use the lessons of the Asian crisis to build a more stable, resilient international framework. Australia has good credentials to play an active role in this.

\_

Some of the important post-mortem discussions of the Mexican 1994/95 crisis took place within the G10 (e.g. the "Rey Report"), but as G10 includes only one Asian country (Japan), the opportunity for interaction with this region was minimal.

The Australian Treasury played a vital role in fashioning one piece of the New Architecture - the still-pending New Arrangements to Borrow, the successor to the narrowly-based GAB.

For discussion of these regional arrangements, see Grenville (1998c).

### **Bibliography**

Arndt, H. (1998), 'Globalisation', Australia-Japan Research Centre Pacific Economic Papers No. 275.

Australia, House of Representatives (1998), Parliamentary Debates, 26 March, pp. 1172-1190.

Bhagwati, J. (1998), 'The Capital Myth: The Difference between Trade in Widgets and Dollars', Foreign Affairs, Vol. 77, No. 3, May/June, pp. 7-12.

Camdessus, M. (1998), Toward a New Financial Architecture for a Globalized World, address at the Royal Institute for International Affairs, London, 8 May (http://www.imf.org).

Dornbusch, R. (1985), 'Over-borrowing: Three Case Studies', in G.W. Smith and J.T. Cuddington (eds), International Debt and the Developing Countries, The World Bank, Washington, DC.

Eichengreen, B. and A.K. Rose (1998), 'Staying Afloat When the Wind Shifts: External Factors and Emerging-Market Banking Crises', CEPR Discussion Paper No. 1828.

Feldstein, M.S. and C.Y. Horioka (1980), 'Domestic Saving and International Capital Flows', Economic Journal, June, Vol. 90, pp. 314-329.

Goldstein, M. and J. Hawkins (1998), 'The Origin of the Asian Financial Turmoil', Reserve Bank of Australia Research Discussion Paper No. 9805.

Greenspan, A. (1998), Statement of Chairman of the Board of Governors of the Federal Reserve System before the Committee on Banking and Financial Services, US House of Representatives, Washington, DC, 30 January.

Grenville, S.A. (1997), 'Asia and the Financial Sector', Reserve Bank of Australia Bulletin, December.

Grenville, S.A. (1998a), 'Exchange Rates and Crises', Reserve Bank of Australia Bulletin, February. (The full text can be found on the Bank's web site - http://www.rba.gov.au)

Grenville, S.A. (1998b), 'The Asian Economic Crisis', Reserve Bank of Australia Bulletin, April.

Grenville, S.A. (1998c), The Asian Crisis and Regional Co-operation, address to International Seminar on East Asia Financial Crisis, Beijing, 21 April (http://www.rba.gov.au).

Haass, R.N. and R.E. Litan (1998), 'Globalization and Its Discontents: Navigating the Dangers of a Tangled World', Foreign Affairs, Vol. 77, No. 3, May/June, pp. 2-6.

Institute of International Finance (1998), Capital Flows to Emerging Market Economies, April (http://www.iif.com).

International Monetary Fund (1995), International Capital Markets: Developments, Prospects, and Policy Issues, August.

International Monetary Fund (1996), Annual Report.

Keynes, J.M. (1919), The Economic Consequences of the Peace, Macmillan and Co., Limited, London.

Kindleberger, C.P. (1978), Manias, Panics, and Crashes: A History of Financial Crises, Macmillan. Revised edition 1989, Basic Books, Inc., New York.

Fortune (1998), 'The Great Emerging Markets Rip-Off', 11 May, pp. 68-74.

McKinnon, R.I. (1973), Money and Capital in Economic Development, The Brookings Institution, Washington, DC.

McKinnon, R.I. and H. Pill (1995), Credible Liberalizations and International Capital Flows: The 'Over-Borrowing Syndrome', paper presented at Reserve Bank of Australia Research Seminar, 24 August. (Published in T. Ito and A.O. Krueger (eds), Financial Deregulation and Integration in East Asia, University of Chicago Press, Chicago, pp. 7-50.)

Rees-Mogg, W. (1998), 'Capitalism of the casino', The Times, 12 March.

Rivlin, A.M. (1998), Toward a Better Class of Financial Crises: Some Lessons from Asia, remarks at the Hyman P. Minsky Conference on Financial Structure, The Levy Institute, Annandale-on-Hudson, N.Y., 23 April.

Sachs, J.D. (1997), 'The Wrong Medicine for Asia', The New York Times, 3 November.

Sheng, A. (1998), The Crisis of Money in the 21st Century, address to City University of Hong Kong, 28 April.

Soros, G. (1997), 'Avoiding a breakdown: Asia's crisis demands a rethink of international regulation', Financial Times, 31 December, p. 8.

Stiglitz, J. (1998), The Role of International Financial Institutions in the Current Global Economy, address to the Chicago Council on Foreign Relations, Chicago, 27 February (http://www.worldbank.org).

Summers, L. (1998), 'Go with the flow', Financial Times, 11 March.

Wade, R. and F. Veneroso (1998), 'The Asian Crisis: The High Debt Model vs. The Wall Street-Treasury-IMF Complex', Working Paper No. 128, Russell Sage Foundation, New York, 9 February (http://epn.org/sage/imf24.html).

Wolf, M. (1998a), 'Caging the bankers', Financial Times, 20 January.

Wolf, M. (1998b), 'Flows and blows', Financial Times, 3 March, p. 16.