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The Performance of Liberalized Capital Markets

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Comparisons of trend growth rates in the 1960s with the 1980s and early 1990s pose an economic policy question of supreme importance. In every G7 economy growth has slowed to around two-thirds of the rate in the 1960s, and unemployment has risen. In developing countries taken as a whole the average rate of growth has also slowed, to roughly the same extent. Even in East and Southeast Asia, trend growth per capita declined in four out of seven of the major economies, before the onset of the recent crisis.

For the policy-maker, the commonality of this experience demands explanation. Some countries bucked the trend but the overwhelmingly common experience was of slower growth (and, typically, of slower productivity growth too). It is possible that this was due to a variety of special local factors that just happened to reduce growth rates throughout the world at the same time. It is surely more likely, however, that some common factor has been at work. All countries have, of course, been affected by the liberalization of the international financial regime that began around Eurocurrency markets in the 1950s and the explosive growth of capital markets since 1970.

Liberalization was expected to deliver a number of advantages in improved resource allocation and lower costs of capital, and hence higher growth of productivity and output. Over and above the creation of jobs and incomes in the financial industries, the massive increase in financial flows has undoubtedly brought benefits to some countries at some times. In the early 1990s flows of investment toward emerging markets were a welcome replacement for official development finance. The relaxation of external capital constraints led to increases in growth and reduction in inflation. But these successes have been followed by extreme turbulence and stagnation or severe declines in real output. The key questions for the policy-maker are:

- Is there any relationship between liberalization and the decline in trend growth rates in advanced countries and in the developing world?
- More generally, is there a systemic failure that is creating problems for all?
- What framework of international financial institutions and regulations, if any, would produce the most efficient international outcomes?

The Gold Standards

Since the latter part of the 19th century, there have been three periods during which cross-border capital movements were substantially unregulated - under the "high" Gold Standard (or GS) before World War I and the gold exchange standard between the Wars, and at present (see de Cecco, 1984, 1987; Block, 1998b). Was global macroeconomic stability assured during the two GS episodes? In the first it was, after a fashion. In the second it obviously was not.

Between 1870 and 1914, international adjustment under the high Gold Standard pivoted on the Bank of England, often acting in co-operation with other central banks. Capital flows stabilized the system, because they tended to move out of the UK when the London interest rate was low, stimulating real investment in borrower countries of European settlement and the colonies. In time, the British economy would recover or the Bank of England would raise the discount rate to counter reserve losses. Capital would move back toward London and (on Robert Triffin's interpretation) high rates would force raw materials exporters to liquidate stocks, improving the British terms of trade and trade balance as well. This overall stability did *not* rule out national crises. When their inflows dried up, in many cases capital-importing countries could not raise exports sufficiently to avoid suspending debt payments or abandoning gold parity. But their local financial volcanoes erupted without threatening the system. Repeated crises in the British economy also failed to topple the Gold Standard, primarily because of the financial support of the Banque de France, the investment of the Indian surplus in London (to the detriment of the Indian economy), and South African gold production. Nonetheless, by the outbreak of the First World War, the Gold Standard was becoming unsustainable as more countries established central banks, complete with gold reserves that were no longer susceptible to the free-flowing influence of London interest rates. It is also worth noting that interest rate mechanisms central to the operation of the Gold Standard resulted in average real rates being very high. In modern times, they have only been exceeded in the liberal financial markets of the 1980s and 1990s.

A question for the 1990s (especially in light of the Asian crisis) is whether the local instability/global stability properties of the old Gold Standard carry over to the system presently in place. Or whether the property of global stability, imposed a century ago by the policies of the Bank of England, is now impossible to sustain in the face of the scale and speed of global financial flows.

Under the Gold Standard as it functioned between the Wars, stability properties were vastly different. The US had become the biggest international lender. It had a strongly pro-cyclical aggregate savings supply, meaning that in a downturn both its capital exports and import demand were low. Capital movements out of and trade flows into the US were thus both pro-cyclical and destabilizing. The US also competed directly in export markets with capital importers such as Germany, in contrast to pre-WWI Britain which exported financial capital to countries which produced its imports.

International co-operation was weak, in contrast to the earlier period when the Bank of England could always rely on counterpart institutions on the Continent. In one crucial example, Germany suffered a banking crisis in mid-1931, throwing the Reichsbank into dire need of external credit. France had ample gold reserves, yet attached such political strings to the credits it offered that the Germans would not accept. A Continent-wide banking crisis followed.

This collapse was worsened by "locational" imbalances in balance sheets of the financial systems in many of the affected countries. A high proportion of their liabilities was held by foreigners while their assets were largely domestic. Loss of confidence in banks and deposit withdrawals thus fed directly into runs on the currency. Sixty-six years later and half the world away, these

same factors exacerbated the Asian crisis of 1997.

In the United States, the major creditor country, the financial system was fragile for a different reason. Many of its clients were highly geared. When recession came, falling prices turned many previously credit-worthy borrowers into bankrupts as the values of their collaterals collapsed. This process of "debt-deflation" (Irving Fisher's term from 1933) helped usher in the Great Depression.

Finally, via the shares of gold and foreign exchange holdings in central bank assets and the money/asset ratio, each nation's money supply (M_1) was mechanically linked to its holdings of gold. Banking panics reduced the money multiplier as portfolio owners switched from deposits to currency. At the same time central banks tried to get rid of their foreign exchange holdings in a "scramble for gold". The monetary authorities' rigid (and from a modern perspective, irrational) adherence to an out-dated system was a final reason for its collapse, as "fixed exchange rates under the Gold Standard transmitted negative demand shocks" around the world (Temin, 1993). Countries that broke from the Gold Standard early, such as Britain in 1931, and pursued more expansionary monetary policies, fared somewhat better.

One effect of the competitive devaluation and beggar-my-neighbor policies of the 1930s was to encourage wartime policy makers to design international financial institutions in which strict controls on capital movements buttressed a system of pegged exchange rates - the Bretton Woods system. Insofar as its institutional structure reflected the new theoretical concerns of the era, Bretton Woods may be interpreted as a system within which national authorities might, if they wished, pursue full employment policies, free of some of the anxieties which accompany open capital markets.

The success of the Bretton Woods system is a key component in the evaluation of the impact of the subsequent liberalization. Growth and employment rates in the 25 years of its effective operation were at historic highs in most countries, whether developed or developing. Productivity growth was also at an historic high, not only in countries that were "catching-up" but also in the technological leaders. How the Bretton Woods system broke down after 25 years of extraordinary economic success is a well-known story. For present purposes, the objective is not the resurrection of Bretton Woods, that is simply impossible, but rather to evaluate the impact of the reduction in barriers to international capital movements that got underway as the post-WWII system started to fail.

Thirty Years of Capital Market Liberalization

As noted at the outset, whilst the present wave of capital market liberalization began with the opening of Eurocurrency markets in the 1950s, it was with the breakdown of Bretton Woods and the privatization of foreign exchange risk, that the explosion of forex markets began, followed by the creation of global bond markets in the 1980s and global equity markets in the early 1990s.

By the mid-1960s, the impact of Eurocurrency movements on balances of payments were

significant, as players learned to evade capital controls by switching currency denominations of their loans and investments outside national markets in response to changing interest and exchange rates. The ability of central banks to regulate the supply of money and credit was undermined by commercial banks' borrowing and lending off-shore. This process accelerated after the shock of 1973. Within a period of 10 years, national authorities were forced to scrap their interest rate ceilings, lending limits, portfolio restrictions, reserve and liquidity requirements, and other regulatory paraphernalia. Each of these instruments had limited the ability of the private sector to hedge risk, and anyhow could be circumvented by some set of off-shore transactions, so all of them finally had to be abandoned (D'Arista, 1998).

Dropping supply-side tools meant that central banks could operate on the demand side of the market only, i.e. on short-term interest rates. In the words of the Bank for International Settlements (1995), "... interest rates generally have to become higher and more variable" as they are managed to influence demands for financial assets. The new interest rate regime became a powerful inducement for even greater cross-border surges of portfolio investment. As under the inter-War Gold Standard, central banks in the advanced economies lost much of their power to pursue counter-cyclical monetary policies. And as under the 19th century Gold Standard, high interest rates seemed to settle in for good.

Liberalization and deregulation also changed the way in which commercial banks do business. In the US, the developing country debt crisis and a 1983 law requiring banks to satisfy capital adequacy requirements on their liabilities pushed them away from traditional deposit and lending activities toward off-balance sheet operations. These included money management and dealing in the over-the-counter (OTC) markets for foreign exchange and for the financial derivatives that proliferated in response to the interest and exchange rate volatility newly embedded in the system. Off-balance sheet and OTC transactions are opaque and difficult to monitor (let alone regulate), and derivative holdings tend to be very highly geared. They played an important role in amplifying the Asian crisis.

While the banks were changing, so were the portfolio habits of their (erstwhile) customers. Households transformed themselves from being depositors in banks to investors in pension and mutual funds. According to flow of funds data, over the 15 years between 1978 and 1993, the share of US financial sector assets held by institutional investors rose from 32% to 52%; the share of banks fell from 57% to 34% over the same period. Similar increases in assets managed by institutional investors occurred in Britain, France and Germany. Pooled money funds moved aggressively toward investments abroad (including emerging markets) and toward short-term placements. In 1993 it was reported that "the typical stock is now held for an average of a little over two years, compared to over four years 10 years ago and seven years in 1960 (Edwards, 1993).

Regulation of liberal financial markets

The regulatory structure patched together in the US after the old supply-side interventions disappeared features capital adequacy requirements and privatized monitoring and surveillance at the level of individual financial firms. There are problems with both arms of the new system.

Capital adequacy requirements are pro-cyclical. The market will supply capital to the banking system in an upswing and withhold it in a downturn. More importantly, capital adequacy standards would be useless in a liquidity crisis. The weakness of capital adequacy ratios in volatile financial markets was the motivation for the development of risk management techniques as the more effective means of reducing both private and systemic risk. The rapid development of markets and financial products, together with the competitive pressures of a volatile financial environment, has resulted in the responsibility for risk management being located at the level of individual firms, subject to regulatory surveillance. This privatization of the risk management function was in 1996 embodied in amendments to the Basle Accord. Although there has been significant improvement in risk management techniques and procedures, this approach also has a tendency to be pro-cyclical.

A new difficulty in the management of systemic risk has been introduced by the blurring of distinction between banks and other financial institutions. Money management is now a primary function of all financial institutions. Yet regulatory procedures tend to differ, and the variety of regulators creates the possibility of certain activities “falling into the cracks” between particular areas of regulatory responsibility.

A fundamental proposition underpinning current procedures is that financial risk is most effectively managed by those who are exposed to it, and consequently exposed to failure. It is not the task of the financial regulator to coach firms in the management of risk, still less to dictate or even run the firms’ risk management function. Instead, the role of regulator is constantly to examine firms’ risk management procedures, to pronounce on their broad adequacy, and encourage the development of best practice within firms.

The development of an efficient risk management function requires that firms take responsibility for their own failure. The securities regulator is there to provide the ambulance at the bottom of the cliff, rather than the fence at the top. Hence, risk management must be supplemented by rules on advance provision for orderly wind-down, should the necessity arise. It should also lay down rules for the protection of customers’ assets, and provide appropriate deposit insurance for individuals and households.

The failure of particular firms does not inevitably produce systemic risk. It is the task of the financial regulator to introduce safeguards that inhibit the translation of particular risk into systemic risk. Examples include the legal netting of counterparty exposure and the segregation of client money. More generally, the regulator must take steps to counteract the pro-cyclical stance of firms’ internal risk-management. The regulator can take a more balanced medium-term view and must discourage both exaggerated optimism and exaggerated pessimism.

In addition, it is the responsibility of the regulator to ensure that appropriate information is available to enable firms to assess risk, and that fair and honest dealing underpins commitments and transactions.

None of this will, of course, protect a market against overall systemic failure. Effective risk management by firms will diminish systemic risk but it is not enough. A widespread loss of

confidence, for example, will undermine even the most prudent financial system. The task of responding to such problems takes the regulator beyond the goals of the individual firm and even beyond the scope of the mere regulation, raising general issues for the central bank and treasury.

Authorities even at the highest level may face considerable difficulties in dealing with a loss of confidence. If problems are detected with OTC transactions in derivatives, for example, it may not be easy to find a channel via which the central bank could inject liquidity in a lender of last resort operation. The Federal Reserve provided funds to the foreign exchange market in 1975 by assuming and executing (at a loss) the Franklin National Bank's foreign exchange book. This form of intervention may well have to be used again.

Another fundamental problem is that unless they are subject to system-wide interpretation, mere collections of surveillance data say nothing about aggregate dangers. Transparency is not enough. Individual actors can off-load their own risks onto the system. In a common developing country example, banks with dollar liabilities may well lend in dollar-*denominated* terms to borrowers whose incomes are in local currency (e.g. producers of non-traded goods), thereby "balancing" their own portfolios. In the event of a devaluation, however, the ability of debtors to service their loans would be impaired, in turn imperiling the financial system as a whole. The basic transaction is transparent in this case, and the authorities could take steps (accumulating reserve to back lender of last resort interventions in real dollars and/or encouraging financial institutions to hedge their dollar exposures) to protect the system. With opaque, off-balance sheet transactions their task becomes far more difficult.

Contagion

The current regulatory regime does not address the most dangerous threat of all to the global financial system, its vulnerability to contagion. In the past, the main strategy against contagion was compartmentalization. This was the rationale of the New Deal's Glass-Steagall "firewall" between the commercial banking and financial services industries. As late as the October 1987 mini-crash in the US, market segmentation allowed funds withdrawn from equity and derivatives holdings to be recycled via banks (with encouragement from the Fed) into loans to dealers and institutional investors. They then re-entered the market, halting asset price declines. In continental Europe and Japan, universal banking systems in the past were sufficient to stabilize financial systems in which the significance of securities markets was slight.

With the recent consolidation of financial conglomerates and the spread of securities markets worldwide, different segments of the system are now tightly interlinked, both nationally and internationally (incorporating forex risk). This new source of risk is poorly understood, and is certainly not fully captured by internal monitoring. Without external checks via clearing houses or similar institutions, gaps in a firm's own-surveillance may go unnoticed. The financial failures in Orange County, Daiwa, and Barings are large but isolated examples. There is a potential for system-wide repercussions.

Microeconomic responses can escalate into macroeconomic contagion. The Mexican bond crisis of 1994 propagated the "tequila effect" throughout Latin America. The Asia financial crisis has

spread throughout emerging markets, including Eastern Europe, Latin America and South Africa. The stock market crash of 1987 spread rapidly from New York to all financial markets. Recent studies of the 1992 ERM crisis have concluded that systemic contagion makes the link between domestic macro-economic conditions and the size of currency devaluations, let alone the likelihood of a crisis, tenuous. Indeed, the link may even have the “wrong” sign, with the financially virtuous suffering the greater punishment (Buiter, Corsetti and Presenti, 1998).

The prevalence of contagion is a powerful argument against the efficiency of unregulated financial markets, at least in the short-run. It might be argued that the damage inflicted upon the real economies of Asia will in turn result in real decline in other economies, and hence falling financial markets are an anticipation of prospects for the real economy. But this is simply a recognition of the inadequacy of current international financial institutions in the face of localized financial crises. If the local crisis is indeed likely to precipitate such widespread real losses, then it is in the wider interest to ensure that the original difficulties are alleviated. Systemic risk, risk management, and the provision of liquidity are problems that must be confronted within an international framework.

Moral Hazard

Action by the authorities to reduce systemic risk, particularly measures involving guarantees or the provision of liquidity must take into account the need to avoid the creation of moral hazard. The presence of moral hazard tends to *increase* dangerous risk taking in the private sector. Yet traditional steps to reduce systemic risk, such as the provision of access to a lender of last resort, tend to increase moral hazard. Minsky (1986) saw moral hazard as arising after the 1930s as a consequence of counter-cyclical policy aimed at moderating real and financial business cycles. At the same time, "automatic stabilizers" such as unemployment insurance were created as part of the welfare state. As is always the case, this economic engineering had unexpected outcomes.

One was a move of corporations toward more financially "fragile" positions. Without fears of price and sales downswings, high risk, high return projects became more attractive. This shift was exemplified by increased "short-termism" of investment activities, and the push toward merger and acquisition activity in the 1970s and 1980s.

Secondly, the intermediaries financing such initiatives gained more explicit protection against risky actions by their borrowers through lender of last resort interventions on the part of the Federal Reserve. The resulting moral hazard induced both banks and firms to seek more risky placements of resources. Banks, as already discussed, pursued financial innovations. Among them were the creation of money market funds which effectively raised interest rates toward Eurodollar levels in the 1970s, the appearance of investment funds and "asset securitization" at about the same time, and the later emergence of widespread derivatives markets and hedge funds. One concrete outcome was the Saving and Loan (S&L) crisis of the 1980s.

Moral hazard is a helpful way to look at history; it can be used to underpin plausible narratives. Extensions out of context begin to stretch verisimilitude. Deposit insurance, for example, certainly played a role in the S&L crisis in the US. In the Garn-St. Germain Act of 1982, depositors were allowed to have any number of fully-insured \$100,000 accounts with an S&L. With their

prudential responsibilities completely removed by the Act, S&L managers were free to engage in any high risk, high return projects they saw fit - which they immediately proceeded to do.

However, a frequently stated extension of this observation to international capital markets makes less sense. Consider the following examples. Deposit guarantees have frequently been accused of worsening Chile's currency crisis around 1980, but in fact they had been removed by the authorities explicitly to avoid moral hazard! Similarly, for South Korea in 1997 the popular assertion that the government provided implicit guarantees for banks and industrial corporations does not stand up. Korean conglomerates or *chaebol* are supposed to have engaged in reckless investment and had low efficiency as proven by their low profitability. But as Chang, Park, and Yoo (1998) argue, profitability was low only *after* interest payments, not before. Moreover, over the 1980s and 1990s the government did *not* bail out any *chaebol*. In the period 1990-97 three of the 30 biggest ones went bankrupt. The government did have a history of stepping in to restructure enterprises in trouble, but that left little room for moral hazard - managers knew they would lose control over their companies if they failed to perform.

Despite such shaky empirical antecedents, moral hazard is given a central role in mainstream financial crisis models. East Asian governments are supposed to have self-insured by accumulating international reserves to back up poorly regulated financial markets. National players felt justified in offering high returns to foreign investors, setting up "spreads" between local asset returns and foreign borrowing rates (as discussed in more detail below). Domestic liabilities were acquired by outsiders until such point as the stock of (implicitly) insured claims exceeded the government's reserves. Speculative attacks followed.

As will be seen, the leitmotif of an alert private sector chastizing an inept government recurs throughout discussion of financial crises. In the model just presented, the government encourages reckless investment behavior with its implicit insurance schemes. All a sensible private sector can be expected to do is to make money out of such misguided public action!

Systemic risk embodies an important element of externality - it is greater than the sum of private risks. Hence the sum of the risk "managed" by private agents is less than the total risk to the community. And hedged risk is simply spread, not eliminated. The role of the lender of last resort, deposit insurance, and similar guarantee schemes is to manage this "social risk". Moral hazard distorts social risk management by transferring risk from the private agent to the public body. Hence schemes need to be defined which minimize or otherwise take account of this transfer. The charging of "penal" interest rates for borrowing from the lender of last resort is just such a measure. As far as the provision of deposit insurance and similar guarantees for various forms of savings instrument is concerned, these should be offered to households who should be required to pay for the cover. Institutions should not be similarly guaranteed. In the case of institutions regarded as pivotal to the operation of the economy the government may decide to take over a failing firm and honor its financial obligations as Federal Reserve did in 1975 when it assumed and executed the foreign exchange book of Franklin National Bank. As previously noted, such interventions may prove to be particularly important in the case of OTC derivatives markets.

The Benefits of Liberalization

International liberalization has exacerbated market volatility and greatly increased the dangers of contagion. The result has been a shift in the public sector toward less expansionary policies, and in the private sector toward lower investment. Nonetheless, liberalization has brought some clear benefits too.

The establishment of the currency trading industry and its associated income flows created real purchasing power that did not exist previously. The FIRE (finance, insurance, real estate) sector now contributes more than manufacturing to American GDP. Its foreign exchange operations are an essential component of the sector and hence of the GDP. FIRE incomes largely flow to people at the top ends of national distributions and contribute to an ongoing trend toward increasing inequality world-wide (Galbraith, Darity, and Lu, 1998). This equity bias could presumably be offset by appropriately progressive tax and expenditure policies, but that has not happened so far. Apart from a wider menu for financial portfolio choice, people in the bottom 90% of most nations' income distributions have gained little from the spread of FIRE.

A second benefit has been reduction of "risk" - in the sense of price volatility - in foreign exchange markets. Through the use of derivative contracts (forwards, options, and swaps) individual players can hedge against possible future exchange rate disturbances, thereby avoiding unpleasant surprises. Standard calculations estimate the welfare gains from such activities at around one percent of the underlying primary transactions, and a smaller fraction of overall GDP. They do not take into account systemic hazards of the sort just discussed. There is of course an ambiguity to this benefit: hedging is made possible by liberalization, but hedging is necessary because of the consequences of liberalization.

Thirdly, one might expect more widespread financial markets to channel resources where they are "needed," at least in the sense of supporting real investments with high returns. In fact, international capital flows have been "perverse" (Blecker, 1998). In the 1980s net flows to developing countries as a whole were near zero, whilst the US absorbed around \$100 billion a year. In the mid-1990s the United States still absorbs two-thirds of the rest of the world's surplus savings, even though real rates of return are no higher in the US than in other industrialized countries, and are well below those in the developing world. However, in the late 1980s and early 1990s some tens of billions of dollars to net capital flows did begin to find their way to developing countries. Southeast Asian inflows accelerated after the Plaza Accord exchange rate realignment in 1985, and Latin America received positive transfers after 1990. More foreign resources helped support rapid growth in Asia for a decade before its crisis and permitted exchange rate-based anti-inflation programs in Latin America to succeed.

Finally, market liberalization is generally supposed to enhance microeconomic efficiency, and thereby productivity growth. The benefits are less apparent here. Worldwide growth performance began to deteriorate around 1970, just when liberalization of financial and other markets was getting well underway. Why the post-World War II economic "Golden Age" ended is a topic of intense debate. What *is* clear is that deregulation of financial and other markets did not prolong its life.

In sum, forty years of exponential expansion of international capital transactions appear to have created more well-to-do people and promoted modest market efficiency gains in an environment of generally slow economic expansion. Capital flows to “emerging markets” helped inflation and growth performance in some developing economies for a limited period of time.

Were the costs of similar magnitude, the whole enterprise would be of secondary importance. Unfortunately, observed and potential losses are not small. We have already pointed to regulatory problems *within* the financial system. There are also dangerous linkages with the rest of the economy. The East Asian crisis can be tied directly to interactions between liberalized capital markets and macroeconomic instability. It is of global significance. Potential downside risks in the advanced economies are far greater, yet have been typically ignored.

Real and Financial Interactions - Developing Country Experiences

To the extent that the international financial system that has emerged in recent decades is regulated at all, the regulatory system is pro-cyclical with significant blind spots. This poses real dangers for the global economy as a whole. To see whether destabilizing dynamics can emerge, the real side of the worldwide macro system, and its interactions with the financial system must be considered. The focus in this section is on already observed crises in developing economies. Later sections take up potential sources of real/financial instability in the advanced industrial economies.

The striking point about the most notorious developing economy crises -- in Latin America's "Southern Cone" around 1980, Mexico in 1994-95, and East Asia in 1997-9? - is that they are *not* well described by standard theories. Moral hazard arguments fail, as was noted above. Conventional speculative attack models don't work either.

As in the world of moral hazard, attack models suggest that currency crises result from an alert private sector pouncing upon the public sector's foolishness. The macro policy "trilemma" among full capital mobility, a fixed exchange rate, and expansionary monetary and fiscal policy is frequently invoked. Only two of these policy lines can be consistently maintained. If the authorities try to pursue all three, they will sooner or later be punished by destabilizing capital flows, as in the run-up to the Great Depression around 1930 and Britain and Italy's difficulties during the ERM crisis more than 60 years later (details are presented below). The problem with the trilemma story for our sample of developing countries is that all of them had adopted "moderate" fiscal and monetary practices along with (more or less) open capital accounts and fixed exchange rates. Why did they all suffer currency crises?

Crisis dynamics

The answer is that their problems were caused by private sectors (both domestic and foreign) acting to make high short-term profits in circumstances in which policy and history provided the preconditions and the public sector acquiesced. Mutual feedbacks between the financial sector and the real side of the economy then led to a crisis. By global standards, the financial flows involved in such episodes were not large - \$10-20 billion of capital flows annually (less than 10% of the

inflow the US routinely absorbs) for a few years are more than enough to destabilize a middle-income economy. The outcomes are now visible world-wide.

Five essential elements enter the dynamics of a stylized emerging market crisis: (1) the nominal exchange rate is fixed or the authorities attempt to support it at some time as the crisis unfolds; (2) there are few barriers to external capital inflows and outflows; (3) historical factors and the conjuncture act together to create wide "spreads" between returns to national assets (interest rates on government bonds, capital gains on the stock market or real estate) and borrowing rates abroad - these in turn generate capital movements which push the domestic financial system in the direction of being long on domestic assets and short on foreign holdings; (4) regulation of the system is lax and probably pro-cyclical; (5) macroeconomic repercussions via the balance of payments and the financial system's flows of funds and balance sheets set off a dynamic process that is unstable.

To a greater or lesser extent, national policy-makers can take steps to prevent these components from coming together explosively:

(1) There are often good reasons to have a pegged nominal exchange rate. It is anti-inflationary, which was crucially important to Latin American stabilization packages beginning with Mexico's in the late 1980s. It can also enhance export competitiveness, as happened when countries in Southeast Asia pegged to the falling dollar after the Plaza Accord. Problems with a pegged rate arise when it contributes to big spreads and (especially) when it is over-valued. These are good arguments for a carefully designed crawling nominal depreciation or (harder for developing economies with thin foreign exchange markets to manage) a "dirty" float. An even better argument is that such an exchange rate regime can help avoid real appreciation, which in turn can widen the trade deficit, bring in capital inflows or induce reserve losses, and kick off an unstable macro cycle.

(2) Without international assistance, it is virtually impossible to prevent capital from fleeing the country in a crisis. It is much more feasible to construct obstacles to slow it down (at least) as it comes in. In the recent period, Chile and Colombia have had some success with prior deposits and taxes on inflows, especially when they are short-term (Agosin and Ffrench-Davis, 1996, Agosin, 1998). In a not much more distant past, Asian economies had fairly effective restrictions on how much and how easily households and firms could borrow abroad whilst China retains such barriers. In non-crisis times, acquisition of foreign assets can also be monitored.

As the experience of the Great Depression already suggests, the key task is to prevent a locational (forex) mismatch in the macro balance sheet, with a preponderance of foreign liabilities (especially short-term) and national assets. Local regulatory systems can certainly be configured toward this end. If imbalances are detected, the relevant authorities can direct or encourage players to unwind their positions, or can require that such positions be hedged. Such guidance is routine (and usually undertaken by the *private* sector) in well-managed markets for securities and derivative contracts written on them.

(3) In many instances, it does not take financial genius to recognize a wide-open spread, and a wide spread will certainly not be ignored by market practitioners. Under a fixed exchange rate regime, it is easy to see a 10% differential between local and foreign short-term interest rates or a similarly sized gap between the growth rate of the local stock market index or real estate prices and a foreign borrowing rate. Such potential returns, however risky, are bound to draw some players in. Destabilizing market competition enters in a second stage. The pioneering investors are exploiting a spread of (say) 10%, while others are earning (say) 5% on traditional placements. Even if the risks are recognized, it is difficult for other players not to jump in. A trader or loan officer holding 5% paper will reason that the probability of losing his or her job is close to 100% *now* if he or she does not take the high risk/high return position. Such potentially explosive behavior is a consequence of standard market practice, as interview studies by Rude (1998) and Sharma (1998) make clear. In the former's phrase, "...the speculative excesses of the international investors in the Asian financial crisis were not an exception,... but instead the result of normal business practices and thus to a certain degree inevitable." Whether policy-makers feel are able to reduce spreads by cutting interest rates or deflating an asset market boom is another question. Without resort to other means of monetary or financial control there may be very little they can do.

Another source of potential spreads is through off-balance sheet and derivative operations. Here, local regulators can be at a major disadvantage - they don't necessarily know the latest devices. Staying up-to-date as far as possible and inculcating a culture of probity in the local financial system are the best defences here.

(4) There is of course a serious question as to whether many developing country regulatory systems can meet the targets expected in sophisticated financial markets, especially in the wake of liberalization episodes. Another difficulty arises with timing. It is very difficult to put a stop to capital flows *after* the financial system has a locationally unbalanced position. At such a point interest rate increases or a discrete devaluation can easily provoke a crash. The authorities have to stifle a destabilizing cycle early in its upswing; exactly the moment when this is most difficult to do. Otherwise, they may be powerless to act.

(5) Each balance of payments crisis is *sui generis*. To produce a set of formal descriptions would demand a separate model for each episode in each country. Many of the components, however, would be the same. The simplest classification is in terms of disequilibria between stocks and flows. Some examples are:

Flow-flow: The main issue here is identifying the internal "twin(s)" of an external deficit. Is a current account deficit associated with a public sector deficit or a private sector deficit, or a combination of both? In the developing countries studied for this project, the financial deficits were in the hands of the private sector - businesses or households. The follow-up question is how they are being paid for. Are rising interest obligations likely to cut into savings and investment flows? Are flows cumulating to produce locational or maturity

mismatches in balance sheets? Discussions of "fundamentals" often center around flow-flow imbalances, but the more serious question is "what is happening to the stocks?"

Stock-flow: Have some asset or liability stocks become "large" in relation to local flows? East Asia's short-term external debt exceeding 10% of GDP was a typical example; it was a stock with a level that could change rapidly, with sharply destabilizing repercussions.

Stock-stock: Besides lop-sided balance sheets in the financial sector, indicators such as debt/equity ratios and the currency composition of portfolios (including their "dollarization" in Latin America recently) become relevant here. They can signal future problems with financing investment-saving differentials on the part of households, business, or the government.

The problem with all such indicators is that they lag an unstable dynamic process. By the time they are visibly out of line it may be too late to attempt to prevent a crisis; its management becomes the urgent task of the day.

Finally, a small element of moral hazard did play a role in the crises that afflicted the sample of developing countries considered. This consisted primarily of pro-cyclical regulation, rather than through some lender of last resort "promising" interventions or government provision of "insurance" in the form of international reserves. After a big downswing, some players will be bailed out and others will not, but such eventualities will be generally disregarded while the cycle is on the way up. In that phase, traders and treasurers of finance houses are far more interested in their spreads and regulatory acquiescence in exploiting them than in what sort of safety net they may or may not fall into, sometime down the road.

On the side of the lenders, moral hazards also did not seem to be important. In the East Asian crisis, international banks were the big offenders. In 1996 there had been a net flow of capital into the five most affected economies of \$93 billion. There was a net outflow of \$12 billion in 1997, with the most volatile item being commercial bank credit which shifted from an inflow of over \$50 billion in 1996 to an outflow of \$21 billion the following year. The overall turnaround of \$105 billion was close to the five countries' total reserves of \$127 billion and exceeded 10% of their combined GDP (about two percentage points higher than the impact of the 1982 debt crisis on the GDP of Latin America). It was a supply shock with sharp contractionary effects on the macroeconomy. Taking advantage of the short-term nature of their credits, the banks ran from their borrowers before they had a chance to default, making default itself or a massive international bail-out a self-fulfilling prophecy.

Did the banks enter heavily into Asian lending because of moral hazards from home, or did they just like the spreads? One will never know for certain. Perhaps the Americans were emboldened by the Mexican "rescue" of 1995, which pumped tens of billions of dollars through that economy back to its creditors on Wall Street. But the same cannot be said about the Europeans and Japanese. The fact that all international players left so fast suggests that they did not place much faith in the "implicit guarantees" that the Asian governments allegedly had offered.

Rescue Attempts

Once a country enters into a payments crisis, it cannot cope on its own. International assistance has to be called in. Each situation follows its own rules, but there are a few obvious "dos" and "don'ts" for the actions of the rescue team.

The contrast between Mexico's and Asia's "rescues" is striking. At least for the creditors the first one happened; the second did not. Very slow disbursement of funds by the International Monetary Fund may well be crippling the Asian effort permanently, pushing fundamentally healthy economies from illiquidity into insolvency. Against the \$105 billion external shock that the region received in 1997, international financial institutions may disburse around \$45 billion in 1998.

The first and most obvious "do" that emerges is to disburse rescue money quickly. In Helleiner's (1998) words, "Finance that is supplied only on the basis of negotiated conditions and which is released only the basis of compliance with them ... is *not* liquidity". East Asian economies became highly illiquid in 1997. By mid-1998, their position had not significantly improved, despite more than six months of Fund psychotherapy accompanied by liquidity transfusions on a homeopathic scale.

In fact, the transfusions might not even have been required if the rescuers had "bailed-in" the countries' creditors instead of bailing *them* out. By appealing to G7 regulatory authorities if need be, the IMF presumably has enough clout to prevent international creditors -- especially large international banks -- from closing out Asian borrowers overnight. This is a sort of "do" that should be built into rescue protocols before the next crisis strikes.

Within all afflicted countries, problems of income generation and employment are critical. The authorities can repress their peoples, up to a point, but ultimately will have to offer them a degree of social and economic support. Such an effort goes diametrically against the emphasis in Fund-type packages. As Singh (1998) puts it, "To provide such assistance effectively and on an adequate scale will require not only considerable imagination but also a large expansion in government activity and often direct intervention in the market processes. Such emergency safety net programs may include wider subsidies, food for work schemes, and public works projects. How to pay for these measures within the limits of fiscal prudence, let alone within IMF fiscal austerity programs, will be a major issues of political economy for these countries."

The most obvious "don't" is *not* to liberalize the capital accounts of affected countries further. If the single most apparent cause of crisis was a door three-quarters open, the last thing one wants to do is move it the rest of the way. A similar observation applies to attempts to restructure economic institutions fundamentally at a time of crisis. This strategy is now being pursued by the IMF in Asia, Russia, and elsewhere, using conditionality-laden credit disbursements as bait. This effort runs directly against well-entrenched social and economic structures. Moreover, those economic structures have been very successful in the past. As Joseph Stiglitz has argued, "no other economic model has delivered so much, to so many, in so short a span of time" (quoted in Singh, 1998). Indeed, Singh has argued that the Asian "corporate system became dysfunctional when, for example, in Korea the government undertook a process of financial liberalization".

The IMF fundamentally misdiagnosed the nature of the Asian crisis, and accordingly its actions have tended to worsen the situation. The persistent IMF argument that the crisis was due to microeconomic structures in Asia, rather than internal and external financial liberalization, deepened the loss of confidence in the region. Furthermore, it apparently failed to understand that, in the beginning, the crisis was one of liquidity rather than solvency.

The Worldwide Impact of Financial Liberalization - The Advanced Countries

The Asian crisis, and the Mexican, Swedish and ERM crises which preceded it, are all examples of the impact of volatile financial markets and the collateral damage inflicted by financial contagion. These severe downturns might be expected to lower average rates of growth and employment. Indeed, the period of financial liberalization has been associated with a slow-down in the trend rate of growth in all advanced industrial countries, and with consequent increases in unemployment. There are a number of factors which might be responsible for this slowdown (in addition, that is, to periodic financial crises). However, it has been so pervasive that it seems probable that some common factors have played a significant role. The most obvious common factor is the international and domestic financial liberalization that accelerated in the early 1970s.

With liberalization came volatility and the fear of contagion. Volatility, contagion, and hence the uncertainty associated with liberal financial markets have not only imposed short-term shocks on the real economy of affected countries and regions, but have in fact led to changes in trend performance by inducing changes in behavior in both public and private sectors.

Public sector

That there has been a significant change in public sector behavior is incontestable, and that change is typically attributed to the “discipline” imposed on governments by the international financial markets. The discipline the markets impose has two distinct aspects. First, they will certainly punish policies that are mutually contradictory, for example in terms of the trilemma discussed above. Second, the markets operate on the basis of shared propositions of what might be a desirable economic, and those views will be mutually reinforcing and self-fulfilling (see Eatwell, 1996).

An excellent example of a policy stance that was internally contradictory was adopted by the British government in the summer of 1992. At one and the same time, the government attempted, first, to use monetary policy to maintain a fixed parity between the pound and the Dmark, and second, to weather a severe recession characterized by rising unemployment and falling asset values (particularly house prices). Completing the trilemma, international capital markets were open. The level of interest rates required to maintain the external parity exacerbated domestic economic problems. The policy stance became literally incredible. It was this contradiction that was exploited by the financial markets in a speculative run that forced the pound out of the Exchange Rate Mechanism (ERM) and precipitated a 20% devaluation against the Dmark.

In this case the behavior of the markets may be said to be "healthy" in that they exposed a policy stance that was impossible to maintain. But that is all. There is nothing in the markets' actions in this case from which to infer any evaluation of the relative merits of using monetary policy *either* to maintain the exchange rate parity *or* to expand the domestic economy. For at the same time as the contradictions of British policy were exposed, the French government managed to convince the markets that it was willing to sacrifice all other policy objectives to the maintenance of the parity between the franc and the Dmark. Once any hint of a contradiction was eliminated, speculation against the French franc ceased.

But as well as exposing contradictions, the financial market have tended to impose their own version of economic efficiency on national policies. Their liberalization has clearly reduced the power of governments to manipulate the economy. In fixed exchange rate systems (such as the ERM), governments face the trilemma's "impossibility problem" of sustaining fixed exchange rates, free capital movements, and an independent monetary policy. With flexible exchange rates, control over short-term rates is recovered, to some degree, but long-term rates are still subject to the whims and judgements of the international bond traders. Moreover, control over short term rates is only recovered if, like the US Federal Reserve, the authorities are apparently unconcerned about movements in the exchange rate - a rare luxury, and perhaps a costly one.

If the financial markets are simply enforcing the logic of real economic efficiency, strengthening the self-adjusting powers of competitive markets, then the "disciplining" of governments would be benign. But if markets are pursuing the rules of Keynes's famous "beauty contest" (i.e. are dominated by the desire of average opinion to pursue the goals of average opinion) and imposing self-fulfilling prejudices on the workings of the real economy, then the outcome may be very damaging. The markets are then determining the fundamentals.

Faced with the overwhelming scale of potential capital flows governments must today, as never before, attempt to maintain market "credibility". Credibility has become the keystone of policy making in the nineties. A credible government is a government which pursues a policy that is "market friendly" that is, a policy that is in accordance with what the markets believe to be "sound" and "efficient". Particularly favored are measures designed to meet a "prudent" pre-determined monetary target or imposing nominal anchors on monetary policy, and balancing the budget (preferably by cutting public expenditure rather than raising taxes). Governments that fail to pursue "sound" and "prudent" policies are forced to pay a premium in higher interest rates. Severe loss of credibility will lead to a financial crisis. The determination of what is credible, and how governments lose credibility, is a product of the market practitioners' beliefs about what other market practitioners are thinking.

This is in sharp contrast with the 1950s and 1960s when public sector objectives were typically expressed in terms of employment and growth, rather than the financial and monetary targets, typically summarized as "macroeconomic discipline". It is clearly true that *lack* of macroeconomic discipline is no way to secure sustainable growth. Burgeoning fiscal deficits and high and rising inflation will undermine any growth strategy. But what is most striking about the superior economic performance of the 1960s, when objectives were customarily defined in terms of growth and employment, is that fiscal balances typically displayed lower deficits than has been the case

since liberalization, and, indeed, fiscal surpluses were not uncommon (Matthews, 1968). The reason for this outcome was, of course, the interdependence between public sector and private sector balances. High levels of investment by the private sector, encouraged by a public sector commitment to growth and employment, in turn resulted in healthy fiscal balances, a result reinforced by relatively small current account deficits.

Three elements link international financial liberalization to this change in public sector behavior: the potential threat posed to financial stability and the real economy by large capital flows, the belief that those flows are motivated by a particular view of “sound finance”, and the additional belief that contagious financial crises may strike without warning. As the Bank for International Settlements (1995) has argued:

"In the financial landscape which has been emerging over the past two decades, the likelihood of extreme price movements may well be greater and their consequences in all probability further reaching. ... At the macro level, the new landscape puts a premium on policies conducive to financial discipline. Strategically, a firm longer-term focus on price stability is the best safeguard, one which can only be achieved with the support of fiscal discipline".

However, the BIS then warns, "yet such a safeguard is by no means always effective".

Private sector

The adoption of less expansionary policies by the authorities will tend to depress expectations in the private sector, with negative consequences for investment and growth. Ratios of investment to GDP have typically been lower in all countries since liberalization, suggesting a fall in private sector confidence.

But there are other, specific effects of liberalization which have tended to result in a deterioration in overall economic performance. As well as exchange rate instability, the 1980s also experienced both an increase in the volatility of bond rates and a sharp increase in the real level of the long term bond rate. There is a clear body of evidence that links the volatility and high rates of interest demanded in deregulated capital markets to declines in corporate performance. The impact of increased volatility on a firm's net worth will limit its ability to borrow, and that smaller firms in particular can be hard hit by the impact of high interest rates on the cost of loans. Combined with the well-known evidence presented by Fazzari, Hubbard and Petersen (1988) that retained earnings are the key determinant of investment, these results suggest that the impact of high and volatile interest rates on cash flow will lead to a significant deterioration in corporate performance, especially for those companies with high debt-equity ratios.

The facts confirm these hypotheses. Defaults on US corporate bonds, which were at an all time low in the 1950s and 1960s, have increased significantly since the early 1970s. Unsurprisingly, US business failures, which were also low in the 1950s and 1960s have been much higher since, and are correlated with high real interest rates and with high debt-equity ratios (Naples and Arifaj, 1997). These patterns suggest, at very least, a less than propitious climate for investment. A

decline in confidence in the private sector would also produce an increased desire for the opportunity of exit, further reinforcing the possibility of extreme swings in market sentiment which inflict both short-term and long-term damage.

These negative effects are reinforced by the emergence of pro-cyclical forces associated with liberalization. The ability of governments to moderate cyclical forces by monetary policy has been severely diminished both by international liberalization and by the shift in corporate finance from the banks to the securities market. The result is that all monetary policy is now focused on manipulating the demand for money via major swings in increasingly high short-term interest rates, damaging private sector investment.

If international financial liberalization has indeed led to a change both in the environment for investment and in public and private sector attitudes toward investment, and has resulted in the mutually reinforcing hurt of severe swings in market sentiment *and* a general deterioration in medium-term confidence, then a deterioration in trend rates of growth and levels of employment is to be expected.

International macroeconomic balances: the position of the United States

Whilst the corporate sector of the US has been affected by the increase in volatility and uncertainty which financial liberalization has produced, macroeconomic policy making has been relatively immune. The unique position of the dollar in international finance and in international trade has meant that the US authorities can borrow in dollars and, for both financial and trading reasons, regard swings in the dollar exchange rate with relative equanimity.

But liberalization has still had a profound effect on macroeconomic policy. It is inconceivable that the US would have been able to run current account deficits for so many years if the liberalization of markets, and the growing dominance of institutional investors in all countries had not initiated a large and sustained inflow of foreign capital. The persistent US current account deficit has produced a peculiarly unbalanced structure of world macroeconomic flows, which may well threaten the future stability of the global economy (Blecker, 1998).

At the global level (at least prior to the Asian crisis) the main financial players are four countries or groupings - the USA, the EEU, Japan, and "Other Asia." The two in surplus are the EU and Japan. The US runs the major deficit. Its current account gap of around \$200 billion (perhaps rising to \$300 billion in 1998, post-Asian crisis) "injects" effective demand to the tune of about 1% of world GDP into the global macro system. This is a non-trivial amount. The world economy can be sensitive to "one percent" shocks, such as the 1973 oil price hike or the initial appearance of the US deficit in the 1980s.

There are three key international financial flows:

The US has a structural deficit. It has used the resulting capital inflows to support steady if unspectacular GDP growth since the early 1990s, based on stable although not low real interest rates.

Japan has been stagnant since its "bubble" economy burst around 1990, and runs a secular surplus. As a consequence of the collapse of the bubble, its internal credit supply is limited, leading to slow growth, a weak yen, and a rising trade surplus with corresponding capital outflows.

In recent years, Europe's growth has been slow and the foreign surplus large for specific national reasons and (more importantly) the Continent-wide fiscal crunch implemented to satisfy the criteria of the Maastricht Treaty. The surplus has to a large extent been channelled toward American liabilities via European net lending to East Asia (including China/Hong Kong) and the latter's trade surplus with the US.

How do the economies supporting these flows interact? In terms of its output dynamics, the US trade deficit is pro-cyclical. Borrowing rises when the level of economic activity is higher, drawing in imports, and/or the interest rate goes up, drawing in capital inflows. America's (negative) net lending therefore varies against the cycle, just as did Britain's under the high Gold Standard of the nineteenth century. Financial flows into the US behave in a globally stabilizing fashion.

For a nation that borrows, however, capital movements are not a matter of its own free will. A better way to describe the current role of the US is to say that its creditors - Japan directly and the EU at one remove - have been lending pro-cyclically with regard to the American injection of global effective demand.

This scale of borrowing has built up a large stock of US obligations. At the end of 1997, gross US external "liabilities" (in the broad sense, including foreign holdings of corporate equity) were about \$3.1 trillion. A rough breakdown was: government, \$1.3 trillion; corporate debt, \$0.6 trillion; corporate equity, \$0.7 trillion; financial sector, \$0.5 trillion.

The government's foreign debt is almost 35% of its total obligations of \$3.8 trillion. Less than 50% of the \$1.3 trillion it owes externally is in public hands and most corporate debt is held privately. Foreign governments' holdings of US debt are at least subject to international negotiation. The same cannot be said of the US debt and equity held by the private sector in the rest of the world. A 10% downward shift of foreign dollar asset holdings would be of the same order of magnitude as annual American capital inflows. There is the potential for a severe stock-flow disequilibrium.

Another potential source of trouble would be an interest rate increase. If the short-term rate went from its current level of around 5% to 10%, for example, American payments on total foreign debt of \$1.9 trillion would go up by \$95 billion, increasing the annual foreign borrowing by the US by 50%.

A third source of concern is how future international borrowing will be absorbed. The main domestic counterpart to the net US external debt position now takes the form of government liabilities. Future external borrowing can only be channelled through new liabilities issued by the

government, the financial sector, the business sector, and households. The government is now in fiscal surplus, and will be reducing both domestic and foreign liabilities. The corporate sector largely finances its gross capital formation with retained earnings and keeps its financial assets and liabilities roughly in balance (within a range of \$0.1 trillion or so), so its contribution to the growth in the net stock of liabilities available to the rest of the world is relatively small. A similar statement applies to the financial sector, in which foreign assets and liabilities are broadly offsetting.

If, as will be argued below, the nation will have to borrow \$0.2-0.3 trillion externally per year for the foreseeable future to cover its current account deficit, and with the government in balance, households comprise the only major sector to which the rest of the world can lend this money directly or indirectly. But this need to accumulate indebtedness will appear just at a time when households are beginning to demonstrate financial distress.

Another stock-flow imbalance may be in the offing. Household debt is now approaching \$6 trillion, and its ratio to disposable income is at an all-time high. It is impossible to say how households or their creditors would respond to the need to absorb a trillion dollars of externally forced borrowing over the next few years, especially if a stock market adjustment forces their net worth to decline.

Finally, it makes sense to take a look at how the external position is likely to evolve if business continues as usual. At the end of 1996, US net foreign assets totalled -\$0.87 trillion or -\$1.21 trillion on portfolio account alone, with the difference being \$0.1 trillion of official reserves and a positive net direct foreign investment position (DFI) of \$0.24 trillion. Historically the US has received a positive net return on its investments, with profits on the DFI exceeding interest on the debt. However, that surplus vanished in 1997, when portfolio and DFI income were -\$82 billion and \$68 billion respectively. Blecker (1998) projects this situation forward under fairly conservative assumptions about the trade deficit, volumes of DFI, and investment income flows. The bottom line is that net foreign liabilities may rise from \$0.9 trillion at the end of 1996 to \$2.1 trillion at the end of 2002 *if current levels of macroeconomic activity and hence foreign borrowing are sustained*. Which of the major economic sectors - business, government, or households - will directly or indirectly run up the projected \$200 billion of new foreign debt per year is a key policy question. For the reasons already discussed, households may not be able to shoulder the burden. If they do not and deep recession is to be avoided, the federal budget will have to move into substantial deficit.

Present dangers?

The most recent run on the dollar took place in the late 1970s. It provoked the Volcker interest rate shock, a significant recession world-wide, the developing country debt crisis, and other major adjustments. Twenty years is a long time span in terms of such events; after all, the Bretton Woods system only lasted for twenty-five. What scenarios may unfold if the US in particular and the world system more generally get in trouble once again?

So far, the US has managed to borrow in globally stabilizing fashion and faces only potential

flow-flow and stock-flow disequilibria. There are risks, however, on both fronts. With regard to borrowing, the real decisions will be made in Europe and Japan. The latter has been under international pressure for years to restructure its economy so that aggregate demand can be driven by domestic spending as opposed to exports. So far, very little has been achieved and the Japanese current account surplus continues to be recycled via Wall Street. This situation may very well continue.

Europe, on the other hand, is likely to grow more rapidly if the Maastricht process succeeds and a strong Euro is born. In that case, higher activity levels and interest rates in the EU would draw in imports and capital flows. US borrowing could begin to be squeezed as the European trade surplus declines. It is also possible that the introduction of the Euro, the only currency with a potential status in international trade and finance similar to that of the dollar, will create a potentially unstable currency duopoly.

The question then arises as to whether an American response in the form of (say) higher interest rates would be credible - especially after the Euro is established as an alternative currency. The potential disequilibria - portfolio shifts away from the US, bigger interest obligations on its debt, and growing financial stress on the household sector - could begin to bite. At that point, with an expectational run on the dollar fuelled and not staunched by higher interest rates, dollar devaluation, austerity, and the other usual policy moves, all hopes for global macro stability could disappear. A massive international rescue campaign would certainly be required, with worldwide implications impossible to foretell.

Of course, such a dramatic collapse does not have to happen. Maybe business will even go on as usual. But significant imbalances are inherent in the liberal international financial system. US borrowing has stabilized the system to date. In the event of financial disruption the private sector could not continue the US government's pro-cyclical increase in indebtedness.

Liberalization and Global Economic Performance

At the microeconomic level, it is clear that liberalization has caused and been caused by massive changes in financial regulatory systems in advanced economies. They include the loss of control over the supply of credit on the part of the monetary authorities; increasing difficulty in controlling credit demand, as higher interest rates draw in capital inflows which drive rates back down; the emergence of a pro-cyclical regulatory regime based on capital adequacy requirements and handicapped by blind spots toward money management and OTC trade; and an inability to pull together data generated by financial enterprises' own-surveillance to shed light on the scale of systemic risk.

In developing economies, liberalization in conjunction with fixed exchange rates has tended to generate wide spreads between on-shore and off-shore rates of return. Under lax regulatory regimes, the resulting capital inflows have generated stock-flow macroeconomic disequilibria feeding on locational mismatches in financial sector portfolios. Currency crises have followed. At least in some cases, subsequent rescue efforts involving slow disbursement of funds and tight

conditionality restrictions on policy have made bad situations worse.

In the developed countries public policy has become geared to the need to achieve market credibility in order to mitigate the dangers of volatility and contagion. This has resulted in a broadly more deflationary stance in monetary and fiscal policies. The US has escaped most of these pressures but at the cost of rapidly growing international indebtedness. The private sector has not escaped the consequences of increased volatility and uncertainty. The result has been lower investment, higher rates of bond defaults and corporate failure.

Asymmetric market information - moral hazard - has perhaps made life more difficult in both rich and poor economies, but it is not the central issue. The real difficulties arise from liberalization and the explosion of capital movements themselves. Specific moral hazards such as those arising from insurance schemes that benefit institutions as opposed to depositors and investors, and lender of last resort interventions that do not adequately punish the perpetrators of crises can be addressed by sensible adjustments to regulatory structures.

At the national level, macroeconomic effects of liberalization can generate severe disequilibria, as already noted. Standard models seek to explain these disequilibria in terms of the policy trilemma and the consequences of moral hazard. Far more realistic explanations can be based on imbalances between flows and stocks induced by capital movements. In the case of the major economies there can be important feedbacks from national developments to the global system: does the major borrower or lender, for example, behave in stabilizing or destabilizing fashion? What are its own weak points in terms of changes in stocks and flows? Such situations evolve over time. It seems likely that they are lagging indicators of the more fundamental processes which international financial liberalization has set in train. It follows that the global system can be at substantial "market risk," in the phrase that regulators use for dangers transcending mere price fluctuations.

We now turn to policy proposals to deal with the problem that market liberalization has brought in its wake.

A Policy Framework for the Creation of Efficient International Capital Markets

It is a familiar proposition in economic analysis that in the presence of externalities, free competitive will produce inefficient outcomes. The equally familiar policy response is *either* to attempt to internalize the externality, so that individual agents take social costs and benefits into account in their own decision making; *or* to create a framework of institutions through which "society as a whole" can make efficient decisions based on a social calculus of profit and loss.

Systemic risk - in the broad sense of a difficult to foresee threat to economic stability, equity, and growth - is an externality. In national financial markets it is managed by a combination of the strategies suggested above. Regulatory procedures require individual agents and firms to expend the resources necessary to manage risk, to maintain adequate capital, and pay for risk insurance. Society provides a legal and institutional framework for the management and regulation of national financial systems, and a lender of last resort.

A important aspect of the management of externalities is that whilst, on the one hand, effective management results in an increase in social welfare, on the other hand, individual agents tend to resent the costs involved and argue that, in their case at least, these costs are unnecessary. There is, therefore, a permanent tension between the individual agents who regard regulation as onerous to themselves as individuals, and the need for the policy maker to devise a socially efficient economic environment.

In an era of international financial liberalization, financial markets have become closely integrated. It is no longer entirely sensible to pretend that an efficient policy can be formulated purely at the level of national financial markets, with international markets left unmanaged and unregulated. If the world is to enjoy the benefits of a flexible international financial system, capable of mobilizing capital on a large scale for the promotion of growth and employment, then a structure must be devised to protect both national economies and the wider world economy from the risks which financial liberalization brings in its wake. The objectives of national regulator are consumer protection, the maintenance of the highest possible standards of integrity, market conduct and professional skills in the financial services industry, and the minimization of systemic risk. These should be the objectives of international financial regulation. Moreover, it must always be remembered that, as Alan Greenspan (1997) has argued, “A global financial system ... is not an end in itself. It is the institutional structure that has been developed over the centuries to facilitate the production of goods and services”. A financial system is efficient if, and only if, it achieves that end. Accordingly, the performance of international financial institutions should be assessed in terms of their contribution to growth and stability of the real economy.

The policy challenge

Since international financial liberalization results in a major increase in risk to both the national and the international real economy, an efficient policy toward capital markets must be international in character. That is in the best interests of all. In other words, a efficient policy cannot be just an agglomeration of national policies (which will inevitably embody inconsistencies between national practices) linked by a number of voluntary cooperative agreements. Given the conflicts involved in the management of all externalities, a new framework of international institutions must be created with the authority to develop policy and require adherence to internationally agreed principles. It is because systemic risk is an externality that measures designed to improve the working of international financial markets, such as greater transparency and improved information and settlement systems, whilst valuable, are quite inadequate to the task in hand.

The structure which is developed will, by definition, require the support of national governments. In the face of the sheer scale of capital movements today an international financial policy will only be possible if there is a high degree of mutually reinforcing co-operation between national monetary and financial authorities. It is often argued that nothing can be done to change the present system since capital flows can overwhelm a large number of measures decided by any one government. This is certainly true. But it is equally true that the foundation stones of the world financial system are the monetary instruments issued by a small number of major governments.

The US dollar, the Dmark, the yen, and the pound sterling were on at least one side of the transaction in 80% of currency trades in 1989 and 1992, and 77% of trades in 1995 (BIS, 1996, table F-3). So long as those governments, and others, act in concert, then together they have the potential to require market participants to obey internationally agreed rules.

Acting in concert will require a flexible application of broad principles, rather than the imposition of a rigid set of “one size fits all” rules. The international economy is made up of national economies at widely differing levels of development in both real and financial sectors. It is most improbable that one simple policy prescription will be appropriate to all. National policies must be respected and supported within the context of an overall international financial framework. A blanket commitment to liberalization, openness, and transparency will end in failure, and will endanger the development of the international market economy. Equally, a blanket commitment to complex regulatory procedures may be entirely inappropriate, indeed unworkable, for some economies, and alternative means of reducing systemic risk, such as restrictions on short-term capital flows, may be more suitable.

Ultimately, systemic risk can only be managed by the provision of liquidity, either by means of deposit insurance and guarantees, or by the presence of a lender of last resort. If the risks exposed in Asia, or the potential risk to the advanced economies such as the US, are to be efficiently managed, then there must be a system for the provision of international liquidity. It was, of course, the objective of the original framers of the Bretton Woods institutions that the IMF should provide liquidity to smooth countries over temporary disequilibria. Over the past 50 years the IMF has developed procedures defining the conditionality associated with the provision of liquidity in the face of current account deficits. Those procedures were circumvented in the 1994-95 Mexican financial crisis, and the Asian crisis has exposed the inadequacy of the procedures when applied to capital account problems. An entirely new approach is required.

That approach must both provide the insurance and the lender of last resort function necessary to minimize the systemic risk arising from the operations of money, securities and futures markets. At the same time, the regulator must also minimize the creation of moral hazard. It is vital to guard against the failure of firms endangering the effective operation of the market as a whole. Yet firms that make bad judgements must be allowed to fail.

As far as the provision of insurance is concerned the balance is best struck by requiring that the individual depositor, who is ultimately at risk, should pay for the insurance on that particular risk. In the event of failure the principal is covered, the agent is not. As far as forex risk is concerned this condition would require that all risk should be appropriately hedged. The derivatives market exists to do exactly this job.

But it is not clear that dispersing risk through the derivatives market will be adequate in the face of severe disruption. After all, there is still an incentive for those bearing the forex risk to move resources in concert with market sentiment. The potential for loss has not disappeared, it has simply been reallocated, and those who face potential losses will rush to escape in the same way as primary investors have done. Moreover, as the recent history of the credit derivatives market in Korea has demonstrated, the insurance provided by hedging may vanish in the wake of bankruptcy or default by the risk-bearer. In these circumstances the authorities may find

themselves forced to support risks which they have had no opportunity to assess.

As far as the lender of last resort function is concerned, the minimization of moral hazard requires the estimate of the level of public interest in the solvency of particular institutions, and a judgement as to whether the management and/or ownership of those institutions is responsible for its difficulties. Efficient regulation and surveillance are necessary conditions for any lender of last resort intervention to be successful. The authorities' goal should be to maintain the liquidity of the society as a whole, not that of particular firms. The authorities may, where appropriate, assume the assets and the liabilities of the institution in order to sustain liquidity.

The demands of international financial regulation and the maintenance of liquidity cannot be coped with by purely co-operative structures. The key to successful international financial management is the agreement of a set of core principles. An international authority can then develop those principles, whilst acting as a forum for debate and for the resolution of disputes. Of course, an agreed framework should link that entity and national financial and regulatory structures which will play a vital component part in the overall management system. But the very nature of an externality is that it can only be tackled effectively by a combination of internalization and decision making on a social (in this case, international) scale. The international authority must have the authority to translate its task of curtailing systemic risk into concrete policies.

Policy proposals

The analysis embodied in this paper, and the evidence assembled in the papers submitted to the project, *International Capital Markets and the Future of Economic Policy*, suggest a number of concrete reforms which might be improve the operation of the international financial system whilst diminishing the systemic risk which today afflicts national and international financial markets. The reforms would substantially improve real economic performance, reduce systemic risk, significantly diminish the likelihood of collapse, and also diminish the likelihood of the resurgence of trade restrictions in response to financial difficulties.

The overall objective of these proposals is to arrive at a pragmatic consideration of the relationship between capital market liberalization and economic performance, and to create an institutional framework that can put such a pragmatic consideration into effect. If liberal financial markets are not to be perceived as imposing unacceptable costs on national economic performance, then markets must be regulated, if necessary restrictions must be placed on capital flows, and national governments must have the opportunity to exercise control over the opening of their own capital markets. Nothing brings liberal financial structures into disrepute so much as the spectacle of national economies being forced into recession by “contagion” effects which bear no relation to their real economic circumstances. The success of Chilean and Chinese restrictions on short-term capital movements in limiting the damaging impact of contagion has been a salutary lesson.

The creation of an international body within which national policies on market openness can be debated and co-ordinated provides a route, perhaps the best route, to maintaining the benefits of liberal financial markets whilst minimizing the costs. The international body would also have the

responsibility, in co-operation with national authorities, for directing and maintaining international regulatory structures. The co-operative framework developed by the International Organization of Securities Commissions (IOSCO) is not enough. An executive authority with surveillance capabilities is required. The World Trade Organization (WTO) illustrates that it is possible to establish such an executive authority. The key task will be to devise a set of arrangements geared to the maintenance of national and international financial stability, and supportive of high levels of growth and employment.

A World Financial Authority

It is proposed that a *World Financial Authority* (WFA) be established. This organization would be complementary to the WTO. A central task of the WFA is the development of policies to manage systemic risk. The objectives of the WFA should include the requirement to pursue policies to maintain high rates of growth and employment.

It would be the task of the WFA both to develop rules which would ensure, where appropriate, the internalization of externalities, and to oversee the development of a credible and effective guarantor and lender of last resort function. It will therefore need to build on the achievements of IOSCO to develop a framework for international financial regulation (including risk management procedures) and to ensure, via the powers ceded to it, that those rules are implemented.

But the WFA should not simply be a body that develops and imposes regulatory procedures. It should also be a forum within which the rules of international financial co-operation are developed and implemented. Many of the goals of an efficient international financial policy can be achieved by effective co-ordination of the activities of national monetary authorities. The problem is that the means of achieving that co-ordination are, at the moment, very limited. The WFA will fill that gap. It will also be the responsibility of the WFA to ensure that once national policies have been agreed by the WFA, states support each other's national policies. It is that mutual support which is the key to success.

The WFA should also be given the responsibility of ensuring transparency and accountability on the part of international financial institutions such as the IMF and the World Bank. There is at present no systematic evaluation of the activities of the Bretton Woods institutions, and this lacuna may well have contributed to the damaging criticism that the IMF in particular is imposing an essentially political program in the guise of technical conditionality. Martin Feldstein, for example, has argued that the IMF "should not use the opportunity to impose other economic changes that, however helpful they may be, are not necessary to deal with the balance of payments problem and are the proper responsibility of the country's own political system" (quoted in Singh, 1998). Making the Bretton Woods institutions accountable to the WFA would introduce a "safety valve" of evaluation and accountability that would make the IMF more effective.

Finally, the WFA should provide the necessary regulatory framework within which the IMF can develop as an effective lender of last resort. In many countries the WFA would simply certify that domestic regulatory procedures are effective. In those countries in which financial regulation is unsatisfactory, *and which would therefore not have access to the IMF in a financial crisis*, the

WFA would assist with regulatory reform.

A reorganized IMF

The IMF should be reorganized to take responsibility on behalf of the WFA for co-ordinating and partially funding international rescue operations when the need arises and when WFA-approved regulatory procedures are in place. There should be explicit consideration of how the IMF procedures should be developed to deal with problems of liquidity, and the development of a lender-of-last resort function. For example, the IMF could develop procedures to ensure that in the case of liquidity crises creditors should be “bailed-in” to support the rescue rather than have their own positions “bailed-out”. Whilst reducing systemic risk, care should be taken to minimize moral hazard. To the extent that creditors are protected, this should be at not insignificant cost. Most importantly, rescues should be based on prompt injections of liquidity instead of the current disastrous policy of prolonged attempts to restructure national economic systems using conditionality-laden credit disbursements as bait.

A refocused World Bank

The World Bank should direct its lending activities toward poorer countries unlikely to get access to open credit markets, subject to oversight from the WFA. It should also act as a co-ordinator and guarantor for a new global closed-end investment fund for emerging markets, a task completely in accord with the powers and functions incorporated in the Bank's charter. The fund could be capitalized by purchasing and holding government securities of the industrial countries in proportion to its shares held by residents of these countries. It would concentrate on long-term investments in the production of goods and services in developing countries, rather than short-term portfolio placements. The fund's shares could be bought and sold freely in many markets and many currencies. Although its share values would fluctuate, the fund would not be forced to sell off its underlying portfolio in the event of a downswing. This would protect emerging markets from abrupt fluctuations in capital movements of the sort observed in Mexico, East Asia, and elsewhere, reducing the need for capital controls. The creation of such a fund should improve the efficiency of investment by significantly reducing the cost of information needed by investors to put together balanced and diversified portfolios.

The role of national authorities

Governments should be required by the WFA to improve control of national financial systems by imposing risk-weighted capital and/or reserve requirements on *all* major institutions, banks, mutual funds, insurance and pension funds, for all on-shore and off-shore and on-balance sheet and off-balance sheet operations (recognizing how difficult the identification of some of these operations may be). It should be recognized that traditional notions of capital adequacy monitoring are seriously inadequate in today's capital markets. Capital is no substitute for effective management. Risk management should be central to regulatory activity, internalising, as far as may be possible, risk externalities, though the authorities will need to be aware of the pro-cyclical nature of risk assessment by firms. Particular attention should be paid to the management of foreign exchange risk.

The goals of the development of a new financial framework are to give the authorities leverage over both the supply and demand sides of credit markets, and to prevent imbalances in which national financial systems have long internal and short external net positions or blatant stock-flow disequilibrium positions. The former task will take some of the pressure off short-term interest rates and limit the pro-cyclical consequences of a monetary policy that is directed only at the demand side. The latter task will reduce systemic risk by focusing more attention than at present to system-wide implications of individual agents' attempts to take profits as well as hedge and insure their portfolios.

The management of capital movements

National governments, after appropriate consultations with the WFA, should be empowered to impose restrictions on external capital movements as they see fit. Effective controls, particularly on short-term capital inflows may well be necessary if free trade in goods and services is to be sustained. Yet there is a significant difference between limiting short-capital flows into a country, and closing markets to foreign goods. In the latter case a country may attempt to acquire a beggar-my-neighbor advantage. The same argument does not apply to the former case. So the usual requirement of regulatory capital and reserve ratios imposed on firms may be supplemented with quantitative or tax-based obstacles to cross-border flows of funds. Whilst there should be a presumption in favor of national policies, the form, scale and duration of such restrictions (which may, if necessary, be deemed permanent) should, however, be determined in consultations with the WFA. Once particular conditions for the management of capital movement have been agreed then member states of the WFA should be required to provide assistance to fellow members in their operation.

Financial insurance

To diminish the damaging effects of moral hazard on institutional decision making, national compulsory deposit insurance and similar financial guarantee insurance systems should be associated with individuals and households rather than institutions.

Complete liberalization is inefficient and should be abandoned

The experience of the past twenty years has demonstrated that complete liberalization is inefficient. Unmanaged financial markets are too prone to volatility and contagion to provide the stable financial framework necessary for high rates of growth and employment. Instead, a regulated international system, operating through a WFA will create the possibility of securing the benefits of capital mobility, whilst diminishing the costs. Indeed, such management necessary if there is not to be a swing back to widespread protectionism. Campaigns to rewrite the IMF articles to require full capital market liberalization by all nations, and OECD proposal to write full capital liberalization requirements into a multilateral agreement on investment, are without sound intellectual foundation and should be abandoned.

Summing-up

The Asian crisis, the most severe of a regular series of financial crises since 1970, has demonstrated beyond all reasonable doubt that the international financial system as currently constituted is not working. It is not playing its historical role of stimulating real activity, funding real investment, and underpinning growth and employment. Instead, market volatility and contagion have resulted not only in huge negative shocks to the real economy, but also have been accompanied by a general slowdown in growth and employment throughout the world. Governments are often constrained to deflationary policies and companies are deterred by the additional costs and risk of committing resources to investment.

Historical experience has confirmed the necessity of regulation and of the lender of last resort in domestic markets. The same sort of measures are now required internationally. These measures are required if a broadly liberal world order is to survive.

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