



**THE ASIAN FINANCIAL CRISIS AND ITS
IMPACT ON BARBADOS**

by

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BACKGROUND

The South-East Asian tigers which are made up of Thailand, South Korea, Malaysia, the Philippines and Indonesia were once heralded as the most successful emerging market economies and were seen as models of development to be emulated by the Caribbean.

These market economies were successful in terms of their rapid growth and the striking gains in their populations living standards'. They had prudent fiscal policies and high rates of private saving.

In less than a year Asia was transformed from the world's fastest growing economy to its slowest growing region. At the same time the region considered by many investors to offer the most attractive business opportunities was converted almost overnight into a net exporter of capital.

The thought that these economies would become embroiled in one of the worst financial crises of the century seemed the most unlikely event that could occur. Yet this unforeseen event did occur and as many questioned what went wrong?

THE CRISIS

The financial crisis started to unfold in Thailand in 1996 when the economy slowed down and many questionable investments became unprofitable. The economic slowdown started when

the dollar appreciated against the yen in mid 1995 leading to an export slowdown. When the baht floated freely on July 2, 1997, the belief that there was no foreign exchange risk quickly disappeared. Investors lost confidence in the baht and quickly tried to convert their bahts to dollars.

When the local currency rapidly depreciated, the cost to Thai businesses of servicing their dollar denominated debt increased. Then as domestic residents rushed to hedge (see note attached) their external exposure, exchange rate pressures intensified and the currency was devalued.

Asia is a clear cut example of regionalization of trade and investment. So intense is this regionalization that the effects of the Thai devaluation spread more rapidly throughout Asia than officials had expected because the region faced the same problems as Thailand : slowing export growth, rising current account deficits and weak banking systems. Hence, the contagion spread to the other countries in the region.

The five countries then underwent sharp declines in currency and equity values (Indonesia, Korea, Malaysia, the Philippines and Thailand). The greatest decline was the rupiah of Indonesia which plunged 70% against the dollar since mid 1997 (see table 1 below). The sharpest declines in equity values were in Korea and Malaysia where the stock market declined almost 46% since 1997 (See table 2 below).

Table 1
Depreciation in Asian Exchange Rates
% Change From:

	Jul 1, 1997 - Dec. 31 1997	Dec.31, 1997 - May 1, 1998	Jul. 1, 1997 - May 1, 1998
Indonesia	-55.8	-31.2	-69.6
Korea	-47.5	26.7	-33.5
Malaysia	-35.2	5.7	-31.5
Philippines	-34.5	.6	-34.9
Thailand	-47.6	21.2	-36.5
Japan	-11.9	-1.9	-13.6
China	.1	.4	.5
Hong Kong	0	0	0
Taiwan	-15.2	-8	-15.8
Singapore	-15.4	7.0	-9.5

Table 2
Depreciation in Asian Stock Values
% Change from:

	July 1, 1997 - Dec 31, 1997	Dec 31, 1997 - May 1, 1998	July 1, 1997 - May 1, 1998
Indonesia	-45.4	14.5	-37.0
Korea	-51.6	11.9	-45.8
Malaysia	-45.7	6.2	-42.3
Philippines	-32.4	16.7	-21.1
Thailand	-35.7	12.7	-27.5
Japan	-24.4	2.5	-22.6
China	1.5	13.7	12.0
Hong Kong	-28.6	-3.5	-31.0
Taiwan	-9.5	1.9	-7.7
Singapore	-13.8	-8.9	-21.3

The rapid pace of financial liberalisation and the associated globalization of financial markets means that monetary problems when they arise, can be highly contagious on the global and particularly on a regional dimension.

In this case what financial globalization did was to pose a major challenge as it exposed and punished the countries' economic weaknesses.

The financial crisis was caused by the mismanagement of the structure of foreign debt (currency composition and the length of maturity), the mismanagement of macro-economic policies and weaknesses in the financial banking sectors of these economies. Of these, the domestic component reacted by causing pressure on the balance of payments of these economies whilst the foreign component led to the demise of these markets.

DOMESTIC CAUSES

There were several factors which contributed to the crisis. Of these the domestic component were:

- (1) Debt
- (2) Capital inflows
- (3) High currency mismatch
- (4) The vulnerability of the financial system to interest rates and economic slowdowns
- (5) Lax enforcement of regulations
- (6) Data availability and lack of transparency
- (7) Political uncertainty
- (8) Inflated property and stock values
- (9) Moral hazards in domestic finance
- (10) The fixed exchange rate

1. Debt

Carrying a large amount of debt involves high risk. To finance growth in their economies, the Asian countries relied on a large amount of short term debt relative to equity and a similarly large amount of maturing long term debt relative to foreign currency reserves. In Korea, external debt amounted to US \$155 billion, in Indonesia US \$140 billion, in Thailand US \$100 billion, in the Philippines US \$60 billion and in Malaysia US \$40 billion.

This made the Asian currencies prone to attack. These economies became financially vulnerable with a high likelihood that they would suffer a successful speculative attack against their currencies.

2. Capital Inflows

Capital inflows into the Asian Markets stood at US\$ 63.1 billion in 1994, US \$ 91.8 billion in 1995 and US\$ 102.2 billion in 1996. This was mainly due to attractive basic economic fundamentals (e.g. high cost of production in Japan and the use of low interest rates had caused many Japanese firms to relocate). A large portion of these capital inflows were volatile portfolio investments (short-term borrowing), which were easily threatened by shifts in the international economic environment or policy mistakes. In today's global financial market place, investors can quickly move their capital out of an economy. This is what happened in these Asian countries. In 1997, this figure was reduced to 38.5 billion and to 1.5 billion in 1998.

3. High Currency Mismatch

The great volume of unhedged foreign currency exposures by banks and corporations reduced the ability of the authorities to revalue currencies in a timely fashion, without straining the private sector capacity to pay back debt denominated in foreign currencies. Over time when the perceived likelihood of a devaluation increased, firms and banks rushed to buy foreign currency, thus increasing the demand for foreign currency. When the devaluations finally took place those who had high foreign reserve obligations took a hard hit, thus contributing significantly to the severity of the crisis.

4. The Vulnerability of the Financial System to Interest Rates and Economic Slowdowns

Banks are vulnerable to both economic slowdowns and interest rate hikes, due characteristically to high levels of debt accumulation and poor mix of loan portfolios. The excess use of leverages by corporations and the poor quality of the banks' loan portfolios were products of prolonged credit booms accompanied by the inflated prices of assets and stocks.

When the Central Banks tried to respond to their speculative attack on the currencies with increases in interest rates they were restricted by the high level of indebtedness and the structural weakness within banking system. When interest rates were finally increased, the economic slowdown ensued, asset prices collapsed leading to bankruptcies becoming the order of the day.

5. Law enforcement of Regulations

In the banking systems of these economies there was lax enforcement of prudential rules, inadequate supervision and government directed lending practices. The combination of these led to a sharp deterioration in the quality of the banks loan portfolio.

With an abundance of short-term foreign capital flowing into these countries, investments and transactions were not properly assessed in terms of risks. The weak banking system allowed loans to be diverted to questionable investment projects and real estate deals. When the financial crisis hit, the questionable loans threatened to bankrupt a sizable number of firms and domestic financial institutions.

6. Data Availability and Lack of Transparency

Data availability and lack of transparency also hindered market participants from maintaining a realistic view of economic fundamentals. For example, corporate governance is based on family control conglomerates with weak minority shareholders rights and the lack of reliable information about soundness of a bank loan portfolio.

7. Political Uncertainty

Problems of Governance and Political uncertainties led to the exacerbated loss of confidence in the economic system, to the reluctance of foreign creditors to roll-over short-term loans and placed downward pressure on currencies and the stock-markets. This problem was quite significant in Indonesia.

8. Inflated Property and Stock Values

Asset price boom and currency exposures were fed by partial and ill-conceived financial and capital account liberalisation programs implemented in the late 1980's to 90's in the form of easing restrictions on external borrowing by domestic banks and co-operations while at the same time restricting foreign entry and ownership (foreign direct investment) in the local banking sector.

What the external hot money did was to increase the deposit base for domestic banks which were then lured into fueling domestic asset price bubbles leading to:-

- (a) Asset price inflation which in turn led to domestic inflation which eroded external competitiveness.
- (b) Excessive lending concentration in real estate which exposed the financial institutions to large non-performing loans when an oversupply of property emerged with no tenants and therefore no rents to collect.

9. Moral Hazards in Domestic Finance

This arose from implicit and explicit deposit insurance schemes based on the general perception that government stood behind banks. This perception led bankers and investors to overinvest in real estate, stocks, and other financial assets without paying sufficient attention to the risks involved.

In time credit to the private sector rose rapidly and asset prices also rose. Eventually substantially poor returns on investment in real estate lead to asset price busts and insolvencies in some financial intermediaries.

10. The Fixed Exchange Rate

The role of the fixed exchange rate policies in precipitating the currency crisis has been exaggerated. What the crisis brought to light was the appropriateness of the exchange rate and other monetary arrangements. The critical failure in the crisis countries was in following inconsistent policies, albeit in difficult circumstances that progressively lost credibility.

A fixed exchange rate regime can function well if there is strict financial and fiscal discipline and flexibility of domestic goods and service markets, to adjust for any structural changes in the economy (prudent banking supervision).

A flexible exchange rate regime can also work, provided that the policy package is correct and there is a well functioning foreign exchange and financial market.

Each of these Asian countries with a large deficit maintained a fix exchange rate. This gave business a false sense of security as there was a perception that the risk of devaluation was extremely low, leading them to hold a significant part of their short-term debt in dollars with interest rates that were lower than domestic rates without covering themselves against exchange rate risks. The volatile nature of the dollar denominated short-term debt made these Asian economies financially vulnerable in the event of a sudden loss of confidence by investors or an unexpected exchange rate depreciation.

FOREIGN CAUSES

The foreign components that contributed to the crisis were:

1. Competition from other markets
2. An exchange rate pegged to the US dollar
3. The appreciation of the US dollar against the Yen
4. Hedging of currency exposures by international investors
5. Underestimation of risk

Huge fiscal deficits or high inflation were not being experienced in Asian countries. The Asian crisis was preceded by buoyant financial markets for assets and therefore major inflows of capital. However, investors abruptly changed their attitudes, leading to bouts of panic and massive outflows of capital. Similarly, the sudden interruption of capital inflows unleashed a profound crisis in domestic financial systems threatening the stability of the productive sectors.

1. Competition From Other Markets

On the international scene, although Asia was enjoying a boom the global competitive environment was shifting. Adjustments in the U.S. economy through fiscal and monetary policies, technological change and corporate restructuring led to lower budget deficits, low unemployment and inflation. This meant that U.S. goods could now compete with Asian produced goods. Competition also came from the EU and Latin America, especially Mexico through improved access (NAFTA). This trade liberalisation was also responsible for a decline in exports of the Asian markets.

2. An Exchange Rate Pegged To The US Dollar

With the exchange rate pegged to the U.S. dollar, wide swings in the yen/dollar exchange rate between 1994 and 1997 contributed to the build up of the crisis through shifts in international competitiveness, placing the Balance of Payments under considerable stress.

3. The Appreciation Of The US Dollar Against The Yen

The Appreciation of the U.S. dollar against the yen led to an export slow down experienced by a number of countries. This squeezed exporters who had to compete with the Japanese rivals and other emerging markets in the rest of the world. The weakness of the yen revived Japanese exports placing it in direct competition with its Asian Trading partners.

4. Hedging Of Currency Exposures By International Investors

International investors seeking to hedge their foreign currency exposures contributed to the crisis. These hedge funds would have allowed them to take and hold a position when they were expecting the countries to devalue their currency but, the exchange rate pressures intensified and the devaluations ensued.

5. Underestimation of Risk

Large private capital flows being driven by an underestimation of risks by international investors. Based on their history, the Asian markets were the most profitable to investors so much so that they never anticipated that the market would go down or that a combination of other financial problems would cause them to abruptly withdraw their financing from these countries.

THE ROLE OF THE INTERNATIONAL MONETARY FUND (IMF)

The International Monetary Fund went to the assistance of these countries (see note attached) to control the contagion that was already spreading in financial markets.

The IMF used measures to address the specific requirements of individual countries. These included:

- (1) Loans to restore investor confidence contingent on the implementation of reform.
- (2) Financial reforms: closing insolvent institutions, recapitalising weak but solvent institutions, strengthening financial regulation and supervision, increasing transparency in government and corporate sectors and opening markets to international trade.
- (3) Stabilization of exchange rates by raising domestic interest rates.

There has already been some recoveries of exchange rates and stock markets, and as the needed policies are carried out and external positions improve, confidence should recover.

IMPACT ON THE WORLD ECONOMY

The impact on world economies will vary depending on:-

- (a) The importance of trade and financial links with the crisis economies.
- (b) The economy's starting position. The contractionary effects of adjustment in the crisis economies will be most damaging in economies where activity and confidence are already weak (Japan) but it will contribute to inflationary pressures in countries operating close to full pressure utilization (U.S.A. and the U.K.).
- (c) how it affects developments in foreign exchange and financial markets that have accompanied the crisis.
- (d) Weakening equity prices; contractions in domestic spending and a decline in exports.
- (e) Demand contraction: the decline in imports in the affected country can lead to a decline in world prices if the market is large enough to affect world prices (if the market imported or exported heavily).
- (f) Competitiveness or substitution effect. These can occur due to real depreciation of the currencies of the suffering economies. This will be strongly felt in countries that:
 - (1) Export goods to Asian countries with domestic competitors;
 - (2) Countries that import goods from Asian producers that compete with domestic industries.

- (3) Countries that export goods that compete with Asian exports in third country markets.
- (4) Reduced access to international capital.

Despite the fore-mentioned, growth in North America and Western Europe has been well sustained and appears likely to remain so.

Domestic demand conditions in the U.S. and Canada together with, the strengthening of continental Western Europe (EU) will facilitate the adjustment of current account positions that is needed in the Asian emerging markets because of the sharp decline in capital inflows. The Chinese economy has remained literally unscathed by the financial crisis.

The only two sub-sectors in the U.S. economy which have been expected to be affected by the crisis are Manufacturing and Agriculture. In Manufacturing, electronics and food processing have been moderately affected. In Agriculture wheat, soybeans are being affected as export demand from Asian countries shrink. There is a decline in exports of agricultural and electronic goods to the affected market. States most severely hit, include new Mexico, Wyoming, Colorado, Nebraska, Kansas and Oklahoma.

It is expected that the crisis will intensify competition for Asian products within the U.S. Asian goods will be more competitively priced in the U.S. due to currency devaluation. In addition, the U.S. dollar makes these products cheaper in the U.S. further enhancing their competitive advantage. The import price index in US fell 6.1% for the 12 month ending February 1998. This can also be attributed to falling petroleum prices. There was also a .6% decline in non petroleum import prices in January 1996.

The Bureau of Labour statistics has also reported on selected categories of imports from specific countries. This has shown a decline in import prices from countries affected in the crisis. These items were electronic, equipment and machinery.

The impact on Agriculture is expected to be much more severe than manufacturing. Asia is a big market for the U.S. abundant production of grain and meat. Asia's likely cut back could push prices down and reduce income over the next few years.

DEVELOPING ECONOMIES

All developing countries have been affected in some way by the Asian financial crisis. In India the rupee suffered a 10% devaluation against the dollar. In Mexico the crisis led to a marked increase in the exchange rate and interest rate volatility.

The financial spillovers were stronger in countries with well defined stock-markets and higher relative financial vulnerability, for example, Brazil. In other countries there was the loss of competitiveness, high risk premia, lower commodity prices due to a reduction in demand for exports by trading partners. But most of all the greatest impact on developing countries has been the reduction of access to credit on capital markets and the weakening of investor confidence as investors prefer to invest their funds in the developed markets of North America and Western Europe. In other words financial market confidence remains fragile.

THE IMPLICATIONS FOR BARBADOS

The implications are two fold for Barbados. Firstly, we can use the Asian financial crisis as an example to seek out and monitor our economy for over heating- pressures and where necessary put measures in place to correct them and secondly, we can find out how the crisis been affecting our economy.

We know that in Asia the financial crisis was precipitated by a currency attack on overvalued exchange rates but fundamentally rooted in the massive mis-allocation of both domestic savings and borrowed funds by domestic banking systems. However, the financial crisis in Latin America a few years ago were caused by huge government debts and overspending.

We know that the chances of a currency or banking crisis are increased when the economy is overheated. That is, there is high inflation, the real exchange rate has appreciated, the current account deficit has widened, domestic credit has been growing and asset prices have become inflated.

Capital expenditure by government is on the decline. Government's credit dropped from \$ 643.3 million in 1996 to \$ 640.3 million in 1998. Credit to the private sector, which is the source of our current problem has been increasing. This figure stood at \$ 1, 585.7 million in 1996, \$ 1, 923.0 million in 1997 and \$ 2, 216.3 million in 1998. The credit was used to build hotels, construct homes and for personal credit.

At the end of December 1998, the Central Bank's balance to Government was zero while it had extended \$ 32.5 million in credit to the private sector. This means that our current account deficit is increasing and that there has been a reduction in our international reserves. These reserves declined by \$ 14.2 million at the end of 1998. As a result, Government may need to impose a credit squeeze in order to protect our foreign reserves. Other factors that are contributing to overheating in the economy are:

- (1) The price of land and rents becoming inflated.
- (2) As a result of the capital expenditure wages in the construction sector are now inflationary.
- (3) Domestic credit is now on the increase (purchasing of cars, mortgages etc.). This combination can act as an overheating agent in our economy.

Caribbean financial markets are not well connected. There are only a limited amount of shares traded. Its size has constrained the effect of the Asian crisis. Had our markets been bigger and linked with international financial markets, with higher relative vulnerability we would have been more affected. At present our financial systems do not have huge capital inflows as were prevalent in the Asian economy.

As a result of the crisis, Barbados needs to ensure that it maintains financial prudence and monetary policies needed to maintain a stable macro economic environment, with policies that are aimed at preventing prolonged credit booms, sharp currency appreciations, high current account deficits and large build up of short term debt.

Caution coupled with fiscal prudent, legal and regulatory measures and Institutional rules should be enforced to prevent financial shocks especially in areas of financial and banking regulation and corporate governance. For the future we need to ensure the legal and regulatory frame work in share holders rights, bankruptcy law, accountancy laws and information disclosure are placed on our statute books.

Another lesson that Barbados can learn from this crisis is that there is a role to be played by good governance, integrity and transparency and government having consultations with the private sector and trade unions to ensure that the tripartite is acting on best behalf of Barbados.

At present we cannot measure the impact of the Asian Financial Crisis on the levels of direct and indirect investment in Barbados. However, investors who were in some way affected by the crisis may prefer not to invest in Barbados through the purchase of real estate or setting up industries here. As already indicated, access to international credit is difficult now due to international markets instability.

Tourist arrivals from the U.S. were 111,731 in 1996, 108,095 in 1997 and 80,000 January to September 1998. This decline in visitor arrivals would have to be further investigated before it is attributed to the crisis. Domestic exports in electrical components were valued 54,211 (BDS \$000) in 1996 and 51,904 (BDS \$000) and for the period January to July 1998, 27,282 (BDS \$000). These electrical components are used as inputs into the electronic industry in the U.S.A. which was highlighted as the most likely industry to be affected by the crisis.

At present direct trade links between Asia and Barbados are quite limited. Japan is our closest trading partner but it is not with that group of countries that makes up the Asian Tigers.

The IMF had forecast a slow down in economic growth world wide but the Barbados economy has been growing since the 1990 - 92 recession. There was a 3% growth in 1997 and 4.4% in 1998. This growth did not come from sectors that generate foreign exchange but from those that use up foreign reserves. However, for the first quarter of 1999, there has been a growth rate of only 2.5% which suggests a slowing down of the economy. The foreign reserves are still higher than the level required for safety. Barbados must also try to keep its deficit between 1.5% - 2.5% of Gross Domestic Product (GDP).

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Box 1. The Role of Hedge Funds in Financial Markets

Bouts of turbulence in international financial markets in recent years have drawn attention to the role played by institutional investors, especially hedge funds. Following both the 1992 crisis in the European exchange rate mechanism (ERM) and the turbulence in international bond markets in 1994, and again in the wake of the turmoil in financial markets in east Asia in mid-1997, it was suggested that hedge funds precipitated major movements in asset prices either directly through their own transactions or indirectly via the tendency of other market participants to follow their lead. Because information on hedge funds' activities is limited, IMF staff undertook a study of their role in recent market developments.¹ This box summarizes the main findings.

What Are Hedge Funds?

Hedge funds are private investment pools, often domiciled offshore to capitalize on tax and regulatory advantages. In the United States, they typically offer their shares in private placements and have fewer than 100 high-net-worth investors in order to make use of exemptions to regulations under the Securities Act of 1933, the Securities Exchange Act of 1934, and the Investment Company Act of 1940. They are managed on a fee-for-performance basis; typically, management is rewarded by a 1 percent management fee and 20 percent of profits, although management and investment fees vary. Most funds require shareholders to provide advance notification if they wish to withdraw funds; notice can vary from 30 days for funds with more liquid investments to three years for other funds.

Practices, however, vary enormously. Market participants distinguish two main classes of funds: macro hedge funds, which take large directional (unhedged) positions in national markets based on analyses of macroeconomic and financial conditions; and relative value funds, which make bets on the relative prices of closely related securities (treasury bills and bonds, for example) and are less exposed to macroeconomic fluctuations. Relative value funds tend to be more highly leveraged than macro funds because the amount of capital needed to establish a position is relatively small on the instruments they hold.

One problem with defining and describing hedge funds is that other investors engage in many of the same practices. Individual investors and their institutional investor counterparts (such as investment banks) buy stocks on

margin. Commercial banks use leverage in the sense that in a fractional-reserve banking system their total assets and liabilities are several times their capital. The proprietary trading desks of commercial and investment banks take positions, buy and sell derivatives, and alter their portfolios in the same manner as hedge funds. A significant number of mutual funds, pension funds, insurance companies, and university endowments engage in some of these same practices and are among the most important investors in hedge funds.

Several commercial services do gather information specifically on hedge funds. Excluding "funds of funds" (hedge funds that invest only in other hedge funds), such data suggest that hedge fund capital was in the neighborhood of \$100 billion as of the third quarter of 1997. Of that, some \$25 billion was in the hands of the macro funds, which typically leverage their capital by borrowing by four to seven times. Although these numbers are large, they pale in comparison with the capital of other institutional investors such as pension funds, mutual funds, insurance companies, and investment and commercial banks, which, in the mature markets alone, exceeds \$20 trillion. These other institutional investors are increasingly active in international markets.

What Are the Characteristics of Hedge Funds' Investment Strategies?

Although global macro hedge funds pursue a diversity of investment strategies, it is possible to point to several common characteristics.

First, global macro funds seek to identify countries where macroeconomic variables are far out of line with sustainable values, so that changes in asset prices (and the associated profits) will be large when they finally occur. Other investors are aware that global macro funds assume considerable risk, in return for which they expect considerable returns.

Second, managers are especially attracted to investments where the risk of large capital losses is effectively nil—for example, to an exchange rate that may be devalued but under no conceivable circumstances in the foreseeable future will be revalued.

Third, hedge funds are most likely to take large positions when the cost of funding is low. Cheap funding allows them to take and hold a position even when they are uncertain about the timing of events. For example, they may expect a country to devalue with significant probability but be uncertain about the date.

Fourth, hedge fund managers are attracted to liquid markets, where they can do large trades at low cost. In emerging markets, in particular, limited liquidity and the

¹Barry Eichengreen, Donald Mathieson, and others, "Hedge Funds and Financial Market Dynamics," Occasional Paper 166 (Washington: IMF, 1998).

limited size of accepted deals can constrain hedge funds and other investors who attempt to build up positions. Capital controls or restrictions on domestic banks during business with offshore counterparties make it difficult for hedge funds to put on positions relative to commercial and investment banks that operate both offshore and onshore. Managers are also wary of being identified as being on the other side of the government's or central bank's transactions, and anonymity is particularly difficult to maintain in smaller, less liquid markets.

Do Hedge Funds Lead Other Investors?

One popular generalization is that hedge funds are nimble and quick off the mark. Their managers have a reputation for astuteness. The rumor that hedge funds are taking a position may thus encourage other investors to follow. Systematic evidence on these relationships is scanty. An analysis of data reported to the U.S. Commodity Futures Trading Commission by broker-dealers, commercial banks, foreign banks, hedge funds, insurance companies, mutual funds, pension funds, and savings and loans who take large positions in futures markets found that hedge funds herd among themselves in the Standard and Poor's 500 Index contract and the three-month Eurodollar contract. Smaller funds were detected as herding with larger ones in the Japanese yen contract and the Standard and Poor's 500 Index contract.²

An extension of the analysis to test whether there was a significant tendency for hedge funds to lead other categories of investors obtained mixed results. There is a negative correlation between the positions of hedge funds and the positions of other institutional traders in the same period, and there is little correlation between the positions of hedge funds in the immediate post-period and the current positions of other traders.

Should Hedge Funds Be Subject to Greater Regulatory and Disclosure Requirements?

Regulators in the United States and the United Kingdom, where the most important hedge funds operate, see little need for a specialized policy response to regulate and limit the funds' activities in order to increase financial market stability. In particular, in this prevailing view, hedge funds that take short positions against foreign currencies do so in response to evidence of inconsistent policies likely to render currency pegs

unsustainable. However, insofar as hedge funds buy sharply depreciated currencies in the wake of a speculative crisis, they are sources of liquidity and stabilizing speculation that dampen market fluctuations.

Nevertheless, limited measures to strengthen supervision, regulation, and market transparency might be considered. For instance, it might be possible to strengthen and replicate the large-trader and position-reporting mechanisms in place in countries like the United States as a way of rendering hedge fund operators more transparent. Any system of detailed portfolio and position reporting to convey useful information, would have to encompass, among others, commercial banks, investment banks, insurance companies, and pension funds as well. Reporting requirements would have to be applied by all counterparties, otherwise, market participants who regarded reporting as onerous could book their transactions offshore.

The ability of hedge funds to take positions in financial markets could also be limited by requirements that banks and brokers raise margin and collateral requirements. Similarly, it would be possible to limit the ability of hedge funds to take short positions in currency markets by restricting the ability of financial institutions to lend domestic assets to nonresidents. Again, however, for such requirements to affect the operation of the markets, they would have to apply also to banks, pension funds, insurance companies, and other participants.

Strong limits on position-taking, however, could prevent hedge funds and other international investors from acting as counterweights. While hedge funds may be among the first institutional investors to short a currency when there is evidence of inconsistent macroeconomic fundamentals and unsustainable currency pegs, they may also be among the first buyers to go back into the market after a crisis in which a depreciating currency overshoots. It is not clear, therefore, that discouraging position-taking by hedge funds would reduce volatility in currency or other asset markets.

The most important action policymakers can take to protect their economies against uncontrollable market movements is to avoid offering one-way bets in the form of inconsistent policies and indefensible currency pegs. They can also strengthen the ability of clearance, settlement, and payments systems to withstand asset-price volatility. And they can provide better information about government policy and private sector financial conditions in order to weaken the tendency for inadequately informed investors to "follow the herd" and thereby magnify the repercussions of the positions taken by large institutional investors, among which hedge funds are only one category.

Box 3.2. Summary of Structural Reforms in Crisis Countries

The IMF-supported programs and policy advice to the Asian crisis countries have placed particular emphasis on wide-ranging structural reforms of the financial and corporate sectors, competition and governance policies, and trade regimes. In broad terms, the suggested reforms may be summarized as follows.

Financial and Corporate Sector Reforms

- Closure of insolvent financial institutions, with their assets transferred to a resolution or restructuring agency (Korea, Indonesia, and Thailand); together with recapitalization and mergers of others (all countries).
- The reform programs in Malaysia and Thailand place particular importance on the finance company sector, restructuring, actual funds used to be made explicit in the budget (all countries).
- Measures to significantly strengthen prudential regulations, including loan classification and provisioning requirements, and capital adequacy standards (all countries).
- Measures to strengthen disclosure, accounting, and auditing standards, as well as the legal and supervisory frameworks (all countries).
- Liberalization of foreign investment in domestic banks (Korea, Indonesia, and Thailand).
- The introduction of more stringent conditions for official liquidity support (Indonesia, Malaysia, and Thailand).
- Strengthening of prudential regulations on loan exposure (all countries).
- Introduction of funded deposit insurance schemes (planned in Indonesia and Thailand; under consideration in Malaysia; already in place in Korea and the Philippines).
- Restructuring of domestic and external corporate debt (Indonesia, Korea, Thailand) and closure of nonviable firms (Korea).

Competition and Governance Policies

- Liberalization of restrictive marketing arrangements for a variety of key commodities (Indonesia).
- Establishment of competitive procedures for privatization of government assets and for procurement (Indonesia, planned in Malaysia and Thailand).
- Announcement of bans on or limits to the use of public funds to build out private corporations (Indonesia, Korea, Malaysia, and Thailand).
- Introduction or strengthening of bankruptcy laws and exit policies (Indonesia, Korea, and Thailand).
- Acceleration of privatization or closure of nonviable public enterprises (Indonesia).
- Strengthening of corporate disclosure standards (Korea).
- Liberalization of foreign investment in ownership and management in sectors other than the financial sector (Korea, Indonesia, Malaysia, and Thailand).

Trade Reforms

- Reduction of import tariffs and export taxes (Indonesia).
- Easing of quantitative import or export restrictions (Indonesia and Korea).

Social Policies

- Labor-intensive public works programs (Indonesia, Thailand) and expansion of unemployment insurance system (Korea).
- Protection of low-income groups from increases in prices of food and other essentials (Indonesia, Malaysia, the Philippines, Thailand).
- Provision of higher spending for health and education (Indonesia) and reallocation of budgetary expenditures to health programs for the poor (Thailand).
- Expansion of scholarship and loan programs to minimize number of student dropouts (Thailand, Malaysia).
- Provision of subsidized credit for small and medium-sized enterprises (Indonesia, Malaysia).

²Laura E. Kodres and Matthew Prisker, "Directionally Similar Position Taking and Herding by Large Futures Market Participants" (unpublished, Washington: IMF and Board of Governors of the Federal Reserve System, 1997).

