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Asia and the Global Financial Crisis: A Broad Overview[1]

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Introduction

Until the mid-1990s, emerging Asian economies were among the most dynamic in the world. In addition to the sustained growth of the newly industrialising economies (NIEs) – Hong Kong, Korea, Singapore and Taiwan – and the near-NIEs in Southeast Asia (notably the economies of Malaysia, Indonesia and Thailand), the Asian giants of China and (later) India were rapidly integrating into the global economy. The Asian crisis of 1997-98 brought the growth in the NIEs and Southeast Asia to a screeching halt. The region experienced a period of painful but much needed deleveraging and corporate and financial restructuring (including consolidation, loan loss recognition and restructuring of bad loans) as well as some institutional and governance reforms. The region faced setbacks with a series of negative shocks in 2000-03, including the collapse of the NASDAQ bubble, the spread of SARS, the Avian flu and some natural disasters, all of which helped delay a full-fledged recovery in both growth and asset prices. Although some doubts were expressed about whether the region could regain its lustre at all, Asia re-emerged quite strongly, with growth returning to pre-crisis levels and asset prices, in most cases, even surpassing their pre-crisis levels.

Asia and Pre-Lehman Brothers

The sub-prime mortgage crisis and the housing downturn in the United States in 2006-07 was initially only viewed with passing interest by the media and policymakers in Asia. The belief – not without merit – was that the sub-prime market was too small to have any significant impact on the larger United States economy. In addition, Asian financial institutions were relatively unexposed directly to the United States' sub-prime market. As of May 2008, total reported write-downs for emerging Asian banks were less than three percent of global losses, compared to the capital and asset size of Asian banks (see Table 1). In addition, for its part, Asia had not created such a (sub-prime) market, as securitisation had not advanced nearly as quickly as in the United States and Europe, and tighter credit regulations remained in place for the granting of loans.

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[1] This paper develops on the remarks first prepared for "New Ideas in Development after the Financial Crisis Conference", Johns Hopkins-SAIS, 22-23 April 2009.

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Indeed, in 2007-08, there were a number of conferences and workshops to mark the decade since the Asian crisis took place. The general takeaway from these gatherings was that Asia was much stronger now; its economies were more resilient and flexible and much less vulnerable to a currency crisis in view of the rapid build-up in foreign exchange reserves and less dependence on short-term external debt (see Figure 1).[3] Asian banks were well-capitalised with lower nonperforming loan ratios and the corporate balance sheets had been strengthened significantly as well (see Table 2).[4] Although there were political concerns in some parts of the region, such as Thailand, there was a noticeable sense of optimism, with the buoyant Chinese and Indian economies leading the way.

As the crisis started affecting the overall United States property market with negative repercussions on many over-leveraged and over-exposed United States and some European financial institutions, many confident Asian (and mid-eastern) sovereign wealth funds (SWFs) and government holdings companies viewed the depressed share prices of these institutions as a once-in-a-lifetime buying opportunity (see Table 3). While there were increasing fears about the impact of the crisis on the overall United States economy, the catchword in Asia in 2007-08 was "decoupling". As long as the slowdown in the United States was not "too sharp", the belief was that the rapid growth in China and India as well as the revitalisation of the Japanese economy would at least cushion the region, if not completely offset the slowdown in the United States and ensure that the region's growth momentum was not completely derailed. In fact, in 2009, the Asian Development Bank (ADB) in its flagship publication, *Asian Development Outlook*, referred to "Asia's relative immunity" (p.28) from the crisis due to "only limited exposure to sub-prime and related products…" (p.28).

Asian Vulnerabilities, Crisis and Policy Responses

This relative optimism was also mirrored in the initial International Monetary Fund (IMF) forecasts in mid-2008 for regional growth in 2009-10 (see Table 4). Regional equity prices, too, remained reasonably steady until early 2008 (see Figure 2). While a slowdown from the 2008 levels was widely anticipated, it was expected to be relatively mild and things appeared relatively manageable for the region as a whole until the summer of 2008. The Lehman Brothers bankruptcy in mid-September 2008 was a "game-changer" for Asia, as it was for the rest of the world, as risk aversion skyrocketed, global credit markets withered dramatically and emerging market spreads widened markedly. The extent of deterioration in Asia is also apparent from the sharp downward revisions in growth prospects for the region for 2009 and 2010 in August 2008, as compared to the initial forecasts of mid-2008. However, which were the Asian economies that were most vulnerable and why? We consider a few of the following vulnerabilities:

Trade exposure: Smaller and more open economies heavily dependent on global exports were obviously extremely susceptible. While China has emerged as the largest export market to many Asian economies, the bulk of Asian exports to China are intermediate goods, with final processing done in China and re-exported to the United States and Europe. On this count, we should note that many of the NIEs and Southeast Asian economies, especially Singapore, Hong Kong and Malaysia, had large export-to-gross domestic product ratios (see Figure 3).

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3 Only Korea showed some vulnerability on this measure, with the short-term external debt-to-reserves ratio still close to 100 percent (though much lower than 1997-98 levels).

4 IMF (2009) explores the resiliency of the Asian corporate sector.

Dependence of foreign capital as a source of financing of the current account deficit: Figure 4 reveals the decline in external financing to emerging Asia from the first quarter of 2008.[5] A slowdown or reversal in foreign capital flows would lead to a negative balance of payments shock in the form of exchange rate depreciation, sharp decline in foreign exchange reserves and/or interest rate hikes with deleterious effects on the domestic economy. Most regional economies ran current account surpluses and were, therefore, not very vulnerable in this regard, with the notable exceptions of Korea in particular but also of India and Indonesia (see Figure 5). It is not surprising, therefore, that these economies experienced some of the sharpest declines in reserves and exchange rates (see Figures 6 and 7).

Dependence on foreign capital as a source of domestic financing: Even countries that do not require foreign capital to finance current account imbalances but experienced massive capital inflows that fuelled domestic economic activity and asset markets are exposed to a sudden stop in foreign capital and curtailment of credit. India and Indonesia experienced the most robust credit growth leading up to the crisis and, therefore, potentially faced the most risk (see Figure 8). Many corporates in India were borrowing overseas in the wholsesale funding markets mainly in United States dollars. When foreign capital dried up, these entities had to replace it with domestic financing via banks, redemptions from mutual funds, etc., thus leading to a credit shortage domestically. While monetary stimulus in general might help to cushion the negative shock, the key here is that a conventional monetary policy is a macro tool when what is required is targeting credit to entities that have experienced the boom and bust in foreign capital.

Taking the above three together, countries in Asia were particularly badly impacted because of the sharp decline in trade financing, much of which involved United States dollars (as regional trade is largely invoiced in United States dollars). While there was a worldwide economic slump, in countries such as Japan, production and exports contracted rather sharply in the fourth quarter of 2008, due mainly to the decline in global demand for automobiles, information technology and capital goods. The impact of this shock on Asia is apparent from the sudden drop in Chinese exports in late 2008 and the resulting decline in exports from the rest of Asia to China and other parts of the world (see Figures 9 and 10). There was a spike in inventory to shipping ratios, as firms in Asia were not able to get the financing necessary to buy or sell their goods. The collapse in Asian exports was much worse than during the Asian crisis a decade ago (see Figure 11).[6]

Degree of internationalisation of the financial system: In addition to the foregoing, as the crisis hit various United States financial institutions, regional financial centres such as Hong Kong and Singapore became obvious concerns, as were countries with significantly liberalised financial sectors such as Korea. This is clear from Table 5 which reveals that these three economies had relatively higher shares of foreign liabilities to domestic deposits than

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5 The issue of booms and busts in capital flows in Asia is an area of ongoing research by the author at ISAS.

6 The IMF (2009) elaborates on contagion to Asia from the global crisis due to the trade channel. As it notes:

> Asia's tightly integrated supply chain propagated the external demand shock rapidly across the region. The collapse in demand from advanced economies has been transmitted through the integrated supply chain, with dramatic effects on intraregional trade. Between September 2008 and February 2009, merchandise exports fell at an annualized rate of about 70 percent in emerging Asia – about one and a half times more than during the information technology sector bust in the early 2000s and almost three times more than during the Asian crisis in the late 1990s (p.3).

The same report offers some evidence of the extent to which trade finance in Asia was impacted in the last quarter of 2008 (pp.9-10).

the other regional economies. In relation to this, in countries where the domestic banking system is relatively over-leveraged, there is likely to be a greater pull-back in credit, reducing the potential effectiveness of domestic monetary stimulus. Households in higher and middle income economies (NIEs and Malaysia) had somewhat higher debt burdens than other Asian countries (see Table 6), although they were lower than in most other high income economies such as Japan, the United States and the United Kingdom.

The policy responses in Asia involved a combination of monetary and fiscal stimuli as well as the granting/widening of deposit insurance (see Tables 7, 8 and 9 respectively). The fiscal stimuli packages in many Asian economies such as China have been very sizeable. Some Asian governments, notably in India, also supported specific entities like mutual funds companies and non-bank financial institutions and generally worked to extend credit to businesses and households and support the well-functioning of financial markets where possible.[7] Although often insufficient, particular attention was paid in some economies to the plight of small and medium-sized enterprises (SMEs) which were especially hard-hit by the credit crunch.

Given the lack of availability of the United States dollar in some economies, while some economies such as Singapore and Korea agreed to swap agreements with the United States, others such as Korea and India sold their United States dollar reserves for local currencies to help meet the demand for United States dollars by their corporates. While there was some discussion about enhancing regional monetary and financial cooperation, not much of any substance was done in this regard (see Rajan, 2009). The policy responses were somewhat *ad hoc* and mostly uncoordinated. An example of this was apparent from the decisions taken by regional central banks to expand deposit insurance. Taiwan first announced its extension of deposit guarantees on 6 and 7 October 2008. Fearing deposit outflows from their economies, Hong Kong announced similar policies on 14 October 2008, followed by Singapore and Malaysia on 16 October 2008 and some other countries in the region thereafter.

Countries which have been running large fiscal deficits had relatively less room to stimulate their economies in response to the slowdown in external and private domestic economic activity. Large government debt could also make the stimulative effects of fiscal policy somewhat less effective. While emerging Asian economies have generally been fairly fiscally disciplined, India and the Philippines had relatively high government debt burdens due to past periods of relative profligacy.[8]

Lessons Going Forward

After the sharp downturn in the latter part of 2008 and early 2009, the global and Asian economies appear to have stabilised. Much of Asia seems to be in a recovery phase, largely due to the thawing of credit markets as well as the impact of the large fiscal stimuli in countries such as China.[9] As the global risk appetite has improved substantially, larger

[7] The issue of monetary policy and bank lending in India is the specific focus of a forthcoming ISAS Working Paper by M. Shahidul Islam and Ramkishen S. Rajan.

[8] Two important caveats. India's consolidated fiscal deficit was much worse than the central government's deficit due to large state-level deficits. Notwithstanding the fiscal stimulus resulting from the crisis, the fiscal position of the Philippines has been gradually improving since 2004. The IMF (2009) discusses the fiscal stimuli programmes and extent of fiscal space in Asian economies.

[9] Contrary to the IMF (2009) which noted "Asia's growth path will continue to run parallel to the global economy" (p. x), Asian growth appears to have run ahead of the global economy.

countries such as India which were impacted primarily due to the sudden stop in international capital flows as opposed to high dependence on export markets have seen the fastest to recover compared to smaller export-dependent economies such as Singapore and Taiwan where recovery is likely to be more tepid.[10] The largely liquidity-induced surges in the global stock markets, albeit from a low base, have also no doubt added to the recovery momentum (though the sustainability of the market run-up remains to be seen), as have the relative easing of commodity prices.[11] Going forward, however, the quick economic turnaround – fragile as it is – should not divert Asian policymakers from learning more valuable lessons from the global financial crisis.

Following the Asian crisis, and having witnessed the prolonged slowdown in Japan and the buoyancy of the United States economy since the 1990s, many policy makers and thinkers in Asia started to believe in the supremacy of the United States' approach to growth. In some cases, the belief was more externally-imposed as part of the IMF rescue packages in Indonesia, Thailand and Korea. Certainly, some elements of change such as the strengthening of financial and corporate sector balance sheets were good, as was the introduction of greater wage and exchange rate flexibility. The significant strides in corporate governance and transparency are also to be welcomed. Much, however, remains to be done. We consider a few of the following tasks and concerns:

Development Philosophy: An important ingredient of the development success of many Asian economies up to the mid-1990s was that governments eschewed ideology in favour of pragmatism in policy-making and policy experimentation, that is, trying different things and learning from their mistakes, as well as those of the regional economies. However, after the Asian crisis (1997-98), there appeared to be a wholesale embracement of the United States' approach to capitalism. The role of the government was rolled back in many cases and state-owned financial and industrial enterprises were divested quite aggressively. Paradoxically, the United States' policy response to the ongoing crisis has the traits of the pre-Asian crisis growth model, including policy experimentation and not allowing the policy to be straight-jacketed by free market ideologies. The United States government is/policy-makers are trying whatever works and are learning from mistakes. Asia could probably learn a lesson from all this. In addition, relatively equitable growth, which was a hallmark of East Asian development, appeared to be replaced by the United States' approach of growth-only focus with less attention paid by governments to the quality of growth.

Monetary and Financial Issues: Many economies, notably Korea, continued to liberalise the financial sector rather aggressively, including the introduction of foreign competition. The Greenspan-inspired view of a relatively light, market-based approach to financial regulations was all too readily accepted in many Asian economies. Market discipline and self-regulation proved to be grossly inadequate. Prudential regulations need to be comprehensive, counter-cyclical and well-enforced and there is an urgent need to strengthen the abilities of supervisors to enforce regulations. Particular attention needs to be paid to systemic risks posed by large institutions that are considered too large or too interconnected-to-fail. In a recent speech, the Chairman and a member of the United States Board of Governors of the

[10] The recently-conducted election and the formation of the new and likely quite stable government in India has also been a pull factor of capital inflows back into India.

[11] The recent upsurge in oil prices since February 2009 (about 40 percent since February and June 2009) does not portend well for much of Asia which depends heavily on oil imports. It remains unclear whether this rise in oil prices is sustainable.

Federal Reserve System, Ben Bernanke (2009), made the following observations regarding financial sector reforms in the United States, which seem equally pertinent to emerging Asia:

> First, we must address the problem of financial institutions that are deemed too big – or perhaps too interconnected – to fail. Second, we must strengthen what I will call the financial infrastructure – the systems, rules, and conventions that govern trading, payment, clearing and settlement in financial markets – to ensure that it will perform well under stress. Third, we should review regulatory policies and accounting rules to ensure that they do not induce excessive procyclicality – that is, do not overly magnify the ups and downs in the financial system and the economy. Finally, we should consider whether the creation of an authority specifically charged with monitoring and addressing systemic risks would help protect the system from financial crises like the one we are currently experiencing...The elements of such an authority's mission could include, for example, (1) monitoring large or rapidly increasing exposures – such as to subprime mortgages – across firms and markets, rather than only at the level of individual firms or sectors; (2) assessing the potential for deficiencies in evolving risk-management practices, broad-based increases in financial leverage, or changes in financial markets or products to increase systemic risks; (3) analysing possible spillovers between financial firms or between firms and markets, such as the mutual exposures of highly interconnected firms; and (4) identifying possible regulatory gaps, including gaps in the protection of consumers and investors, that pose risks for the system as a whole.

The concerns noted by Bernanke above, including those pertaining to institutions that are supposedly "too-big-to-fail", have been addressed somewhat in the new financial blueprint recently released by the Barack Obama Administration entitled "Financial Regulatory Reform: A New Foundation: Rebuilding Financial Supervision and Regulation".[12] There needs to be a similar fundamental re-evaluation of the role of government in regulating financial sectors by Asian countries to mitigate the chances, extent and impact of future financial busts and meltdowns. While the aim of regulatory overhaul should be to build a more stable and less crisis-prone financial system, crises will almost inevitably re-occur. Policymakers must also, therefore, consciously work towards redesigning central bank liquidity frameworks in order to facilitate more effective crisis-management as part of reorganising the post-crisis regulatory architecture.

Economic Diversification: Going forward, greater attention should be paid to diversifying growth engines. Beyond focusing on electronics-based exports, they should consider alternative engines. For instance, Singapore has been actively promoting the development of integrated resorts to promote the local service industry to act as a buffer to electronics cycles. Concerted efforts must also be made to promote domestic demand in a sustainable manner (that is, preventing household and corporate stress), especially in larger economies such as China, Japan, Indonesia and Korea (India's domestic demand, in contrast, is fairly robust).[13] Even smaller economies such as Singapore, Malaysia and Hong Kong can do so by attempting to reduce domestic household and corporate savings. One way of reducing corporate savings (retained earnings) is by altering tax incentives so as to transfer corporate

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12 http://www.financialstability.gov/docs/regs/FinalReport_web.pdf.

13 The ADB (2009) discusses this issue in more detail.

profits from retained earnings to greater dividend payouts to shareholders. While the ongoing fiscal stimulus is important in helping to alleviate the effects of the downturn, the medium- and long-term focus should be on rebalancing growth more towards domestic demand by focusing more on the provision of social services like heathcare, pensions, education, and social safety nets. An ease in uncertainties regarding the availability of or access to these social services should, in turn, reduce the need for precautionary savings and consequently assist in boosting domestic consumption. Improvements in infrastructure should help improve the investment climate as well. Governments in the region can certainly do more to assist in the financing and nurturing of domestic entrepreneurship and SMEs.

Regional Cooperation:[14] Apart from the fact that the ongoing crisis has illustrated clearly the risks of depending too heavily on external demand, emerging Asia needs to pay particular attention to boosting regional demand as there are serious questions about whether export-led growth has reached its limit with medium-term trend growth in the United States and the European Union likely to be slower than the leveraged-induced pre-2007 growth. While intra-regional trade in Asia has appreciated markedly (about 50 percent of total trade), the bulk of the trade is in intermediate products with final demand still being the United States and Europe. In this regard, the region should redouble its efforts to pursue the various free trade agreements, particularly with China and India. Schemes to assist cross-border infrastructural development, the development of regional tourism, SMEs and other such initiatives should all be pursued with renewed vigour. Some of the regional SWFs could work in concert with the ADB to deploy resources domestically and regionally for these purposes.

The collapse of regional trade partly due to the lack of trade financing indicates that there is considerable scope for boosting regional cooperation at the micro-financial level. Greater focus should also be paid to reducing the extent of trade invoicing of regional trade in United State dollars which was adversely affected by the crisis due to a severe dollar shortage. Other areas to focus on include continued development of regional bond markets and coordination of policies during future international financial strains, including policies towards deposit insurance schemes. Steps towards building a robust financial system should also help accelerate domestic demand by reducing the credit constraints of households and firms, although care must be taken to ensure that the credit expansion does not create “over-leverage” and consequent boom and bust cycles (as has been experienced by Korea since the Asian crisis).

[14] The emphasis here is on trade and micro-financial issues. Macro-financial issues such as the Chiang Mai Initiative have been discussed in some detail in Rajan (2009).

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This paper also benefitted enormously from various research reports on Asia from many commercial entities, including DBS, Deutschebank, Goldman Sachs, Macquarie, Morgan Stanley and Nomura.

Table 1: Asia's Sub-prime Losses

	United States	Japan	Korea, Rep. of	China, People's Rep. of	Malaysia	Total Asia
Subprime losses ($ billion)	157.7	8.7	0.4	2.8	0.1	19.5
Total bank assets ($ billion)	15,492	11,350	1,184	5,950	267	20,965
Capital of banks ($ billion)	1,572	572	85	256	29	998
Subprime losses as share of capital (%)	10.03	1.52	0.52	1.08	0.30	1.95
Subprime losses as share of assets (%)	1.02	0.08	0.04	0.05	0.03	0.09

Notes:

Capital of banks: "capital account" item in International Financial Statistics as of December 2007.

Total bank assets as of December 2007 for the United States and Malaysia; as of January 2008 for Japan, Korea, and People's Republic of China.

Total Asia includes data on other commercial banks in Asia.

Japan: Mizuho Financial Group and Nomura Holdings.

Korea, Rep. of: Woori Bank.

China, People's Rep. of: Bank of China, Commercial Bank of China, China Construction Bank.

Malaysia: 0.3% of capital base of banks.

United States: 14 banks.

Source: Asian Development Bank.

Table 2: Financial Soundness Indicators (%)

	Nonperforming loans (% of bank loans		Risk-weighted capital-adequacy ratio		Banks' return on assets	
Developing Asia	1999	2007 or 2008	1999	2007 or 2008	1999	2007 or 2008
China, People's Rep. of	-	6.7	12.8	7.7	0.1	1.0
Hong Kong, China	7.2	1.2	18.7	14.3	0.4	2.0
India	14.7	2.4	11.2	12.6	0.5	1.0
Indonesia	32.9	8.5	-6.7	16.8	-8.7	2.3
Korea, Rep. of	8.3	0.8	10.8	12.0	-1.3	0.9
Malaysia	12.7	4.7	12.5	12.6	0.7	1.5
Philippines	13.6	3.9	17.5	15.9	0.4	1.4
Singapore	5.3	1.8	20.6	14.0	1.2	1.4
Thailand	38.6	5.3	12.4	14.8	-5.7	0.1
Other						
Japan	5.8	1.5	11.9	12.3	-0.9	0.3
United States	2.2	5.1	12.2	12.8	1.3	0.6

Notes:

1. For nonperforming loans, latest data are December 2007 for the People's Republic of China; September 2008 for the Republic of Korea and Japan; November 2008 for Philippines; March 2008 for Indonesia; September 2007 for Singapore; and December 2008 for Hong Kong, China; India; Thailand; and United States.

2. For capital-adequacy ratio, latest data are June 2007 for the People's Republic of China; March 2008 for Hong Kong, China; India; Japan; Republic of Korea; and United States; December 2008 for Indonesia and Malaysia; September 2007 for the Philippines and Singapore; and December 2007 for Thailand.

3. For return on bank assets, latest data are June 2007 for the People's Republic of China; March 2008 for Hong Kong, China; India; Japan; Republic of Korea; and United States; December 2008 for Indonesia; December 2007 for Malaysia, Philippines, and Thailand; and September 2007 for Singapore.

Source: Asian Development Bank.

Table 3: Performance of SWF Investments in Financial Firms

Firm	Sovereign wealth fund(s)	Date of investment	Investment ($ billions)	Equity stake (%)	% change in share price	% change in S&P Financial Index
Credit Suisse	Qatar Investment Authority	2/18/2008	0.5	2.0	–34.16	–43.84
Barclays	Qatar Investment Authority	6/25/2008	3.5	8.9	–44.61	–31.30
Citigroup (round 1)	Abu Dhabi Investment Authority	11/26/2007	7.5	4.9	–61.28	–46.59
Citigroup (round 2)	Government of Singapore Investment Corporation and Kuwait Investment Authority	1/14/2008	7.9	5.2	–60.36	–46.14
UBS	Government of Singapore Investment Corporation	12/10/2007	9.7	9.0	–71.91	–52.71
Morgan Stanley	China Investment Corporation	12/19/2007	5.0	9.9	–69.27	–48.23
Merrill Lynch (round 1)	Temasek Holdings	12/19/2007	5.0	9.9	–70.35	–48.23
Merrill Lynch (round 2)	Kuwait Investment Authority and Korea Investment Corporation	1/15/2008	8.9	5.4	–69.38	–44.07

NOTES: The numbered rounds indicate rounds of investment by sovereign wealth funds (SWFs). The sixth column shows the change in share prices between the date of investment and November 5, 2008; the seventh column shows the change in the Standard and Poor's (S&P) Financial Index over the same period.

Source: Deutschebank.

Table 4: IMF Revised Projections Post-Lehman Brothers

Latest IMF projections

(year over year percent change)

			Projections		Difference from 2008 WEO projections	
	2007	2008	2009	2010	2009	2010
World output[1]	5.2	3.4	0.5	3.0	-1.7	-0.8
Advanced economies	2.7	1.0	-2.0	1.1	-1.7	-0.5
United States	2.0	1.1	-1.6	1.6	-0.9	0.1
Euro area	2.6	1.0	-2.0	0.2	-1.5	-0.7
Germany	2.5	1.3	-2.5	0.1	-1.7	-0.4
France	2.2	0.8	-1.9	0.7	-1.4	-0.8
Italy	1.5	-0.6	-2.1	-0.1	-1.5	-0.1
Spain	3.7	1.2	-1.7	-0.1	-1.0	-0.9
Japan	2.4	-0.3	-2.6	0.6	-2.4	-0.5
United Kingdom	3.0	0.7	-2.8	0.2	-1.5	-0.9
Canada	2.7	0.6	-1.2	1.6	-1.5	-1.4
Other advanced economies	4.6	1.9	-2.4	2.2	-3.9	-1.0
Newly industrialized Asian economies	5.6	2.1	-3.9	3.1	-6.0	-1.1
Emerging market and developing economies[2]	8.3	6.3	3.3	5.0	-1.8	-1.2
Africa	6.2	5.2	3.4	4.9	-1.4	-0.5
Sub-Saharan Africa	6.9	5.4	3.5	5.0	-1.6	-0.7
Central and eastern Europe	5.4	3.2	-0.4	2.5	-2.6	-1.3
Commonwealth of Independent States	8.6	6.0	-0.4	2.2	-3.6	-2.3
Russia	8.1	6.2	-0.7	1.3	-4.2	-3.2
Excluding Russia	9.7	5.4	0.3	4.4	-1.3	-0.3
Developing Asia	10.6	7.8	5.5	6.9	-1.6	-1.1
China	13.0	9.0	6.7	8.0	-1.8	-1.5
India	9.3	7.3	5.1	6.5	-1.2	-0.3
ASEAN-5	6.3	5.4	2.7	4.1	-1.5	-1.3
Middle East	6.4	6.1	3.9	4.7	-1.5	-0.6
Western Hemisphere	5.7	4.6	1.1	3.0	-1.4	-1.0
Brazil	5.7	5.8	1.8	3.5	-1.2	-1.0
Mexico	3.2	1.8	-0.3	2.1	-1.2	-1.4

Source: IMF, *World Economic Outlook*, January 2009.
[1]The quarterly estimates and projections account for 90 percent of the world purchasing-power-parity weights.
[2]The quarterly estimates and projections account for approximately 76 percent of the emerging and developing economies.

Table 5: Bank Ratios, 2008: Q4 (%)

	Loans to domestic deposits	Loans to total liabilities	Foreign liabilities to domestic deposits
China, People's Rep. of	0.69	0.68	0.01
Hong Kong, China	0.50	0.28	0.78
India	0.79	0.78	-
Indonesia	0.80	0.75	0.07
Korea, Rep of.	1.36	1.05	0.30
Malaysia	1.13	1.00	0.11
Philippines	0.78	0.69	0.14
Singapore	0.85	0.51	0.66
Taipei,China	0.77	0.71	0.08
Thailand	0.98	0.94	0.04
Viet Nam	0.98	0.91	0.07

- = data not available.

Notes:

1. Data for the People's Republic of China; Hong Kong, China; Indonesia; Malaysia; Thailand; and Viet Nam are based on banking institutions from *International Financial Statistics*.
2. Data for the Republic of Korea and Singapore are based on deposit money banks from *International Financial Statistics*.
3. Data for Taipei,China are based on deposit money banks; for the Philippines from the survey of depository corporations; and for India from the commercial bank survey reported in the CEIC.
4. Data for Hong Kong, China and for Malaysia are as of November 2008; those for the Republic of Korea and Viet Nam are as of October 2008.

Source: Asian Development Bank.

Table 6: Household Indebtedness (% of GDP)

	2000–2004 Average	2004	2005	2006	2007	3Q2008
Indonesia	6.2[1]	8.2	9.1	8.5	8.9	11.4
Hong Kong, China	59.3	58.1	55.5	52.0	51.4	53.2
Korea, Rep. of	29.7	35.3	37.6	40.8	40.3	41.0[3]
Malaysia[2]	45.4	50.0	52.2	53.0	50.8	46.7
Philippines	5.5	5.2	4.7	4.2	4.3	4.1[3]
Singapore[4]	...	50.1	48.1	44.9	45.3	45.7
Taipei,China	45.9	53.0	57.9	55.8	53.5	53.8
Thailand	...	24.5	24.6	23.6	23.4	23.4

Note: Data on China and India unavailable.
Source: Asian Development Bank.

Table 7: Policy Interest Rate Moves in Asia

	Up to mid-September 08	After mid-September 08	Cumulative cuts since mid-September	Policy interest rate as of 8 April	Policy interest rate forecast at end-2009
China		Cut the lending rate by 27bp (Sep), 27bp twice (Oct), 108bp (Nov) and 27bp (Dec).	216bp	5.31%	5.04%
Hong Kong	Hong Kong has no policy interest rate under the currency board regime.				
Taiwan	Raised the policy interest rate 12.5bp (Mar and Jun)	Cut the policy interest rate by 12.5bp (Sep), 50bp (Oct , 75bp (Dec), 50bp (Jan) and 25bp (Feb)	212.5bp	1.25%	1.13%
Korea	Raised the policy interest rate 25bp (Aug).	Cut the policy interest rate by 25bp (9 Oct), 75bp (27 Oct), 25bp (7 Nov), 100bp (11 Dec), 50bp (9 Jan) and 50bp (12 Feb)	325bp	2.00%	2.25%
Singapore	Singapore has no policy interest rate under the currency basket system.				
Malaysia	No change.	Cut the overnight policy rate by 25bp (Nov), 75bp (Jan) and 50bp (Feb)	150bp	2.00%	1.50%
Thailand	Raised the overnight repo rate 25bp (Jul and Aug)	Cut the repo rate by 100bp (Dec), 75bp (Jan), 50bp (Feb) and 25bp (Apr)	250bp	1.25%	0.50%
Indonesia	Raised the BI rate by 25bp in five consecutive months from May to Sep	Raised the BI rate by 25bp (Oct) but lowered it 25bp (Dec), 50bp (Jan), 50bp (Feb), 50bp (Mar and 25bp (Apr)	200bp	7.50%	7.00%
Philippines	Raised the repo rate by 25bp (Jan), 25bp (Jun), 50bp (Jul) and 25bp (Aug)	Cut the reversed repo rate by 50bp (Dec and Jan) and by 25bp (Mar)	125bp	4.75%	3.25%
Vietnam	Raised the policy interest rate by 100bp (Feb), 50bp (May) and 200bp (Jun)	Cut the policy refi rate by 100bp (Oct, Nov and Dec) and 150bp (Feb)	450bp	8.00%	4.00%
India	Raised the repo rate 25bp and 50bp (Jun) and 50bp (Jul)	Cut the repo rate by 100bp (Oct), 50bp (Nov), 100bp (Dec), 100bp (Jan) and 50bp (Mar)	400bp	5.00%	4.00%
Australia	Raised the cash rate 25bp (Feb and Mar), and cut it by 25bp (Sep)	Cut the cash rate by 100bp (Oct), 75bp (Nov), 100bp (Dec), 100bp (Feb) and 25bp (Apr)	400bp	3.00%	2.00%
Japan		Cut the policy interest rate 20bp (Oct) and 20bp (Dec)	40bp	0.10%	0.10%

Source: Nomura.

Table 8: Fiscal Stimulus Packages

Country	Size	Highlights
China	Y400tril, or 16% of GDP over 2009/2010	2 triillion on large-scale infrastructure projects such as railways, roads, airports and the national grid, rebuild areas ravaged by May's Sichuan earthquake. The rest of the stimulus money will be spent on an affordable housing, rural welfare and infrastructure construction, medical and cultural development, environmental protection as well as industrial restructuring.
Singapore	S$20.5bln and largest ever 3.5% deficit	Jobs Credit to help preserve jobs ; Special Risk-sharing Initiative (SRI) to stimulate bank lending; A wide array of tax rebates, exemptions and grants for businesses to enhance business cash-flows and competitiveness; support for households and Increase public sector construction spending to between SGD 18-20bn in 2009.
Hong Kong	Budget deficit of 2.4% GDP, widened from 0.3% last year	Emphasise directions for developments and prospects on regional corperation, tourism and new economic developments. Include: foster HK/Guangdong/Macao cooperation, three direct links" and exchanges with Taiwan, expand coverage of Individual Visit Scheme, more progress under the "Shenzhen-Hong Kong Innovation Circle", push ahead with public works projects, tax breaks and rental reduction.
Malaysia	1st: MYR7bln or 1.1% of GDP; 2nd: MYR60bln or 9% of GDP over 2009/10	Reducing unemployment and increasing employment opportunities of about 63K jobs, easing the burden of the rakyat, in particular vulnerable groups, assisting the private sector in facing the crisis with incentives on the property, airlines, auto, plantations sector, and increased investments by Khazanah; infrastructure spending.
Thailand	Bt116bn or 2% of GDP	Extended the economic relief package by another 6 months which includes free tap water and free public transport; maintain village funding, replace the Small, Medium and Large enterprise (SML) fund with the economic sufficiency fund. Govenment purchase schemes for farmers to cope with falling commodity prices. Medium term joint investment program for infrastructure projects to be announced.
Indonesia	IDR 71.3trn or 1.4% of GDP	Tax changes for individuals and corporates including 2%-pt cut in corporate tax; Waived taxes and import duties for busineses and certain households; Subsidies and government spending for businesses
Korea	KRW 14trn or 1.5% of GDP	Proposed a wide range of tax cuts including corporate tax and income tax, totaling KRW 20.7trn over five years (2.2% of GDP); Spent KRW 8trn (0.8% of GDP) to help the construction industry, such as buying construction firms' unused land and unsold new homes.
Taiwan	2% of GDP	A TWD 181bn fiscal stimulus program (1.3% of GDP), including public construction, tax breaks to private investment, subsidies to low-income households and preferential housing loans; distributed consumer shopping vouchers (TWD 83.5bn, 0.6% of GDP); 3) Increased budget for infrastructure investment over the next four years (a total of TWD 420bn)
India	5% GDP or 6% fiscal deficit, more than twice budgeted	Defense spending, subsidy on items like food, fertilizers and petroleum, interest subsidy of two per cent on pre-shipment and post shipment credit for employment-oriented sectors; tax rebates for SMES; increased approval on PPP infrastructure projects

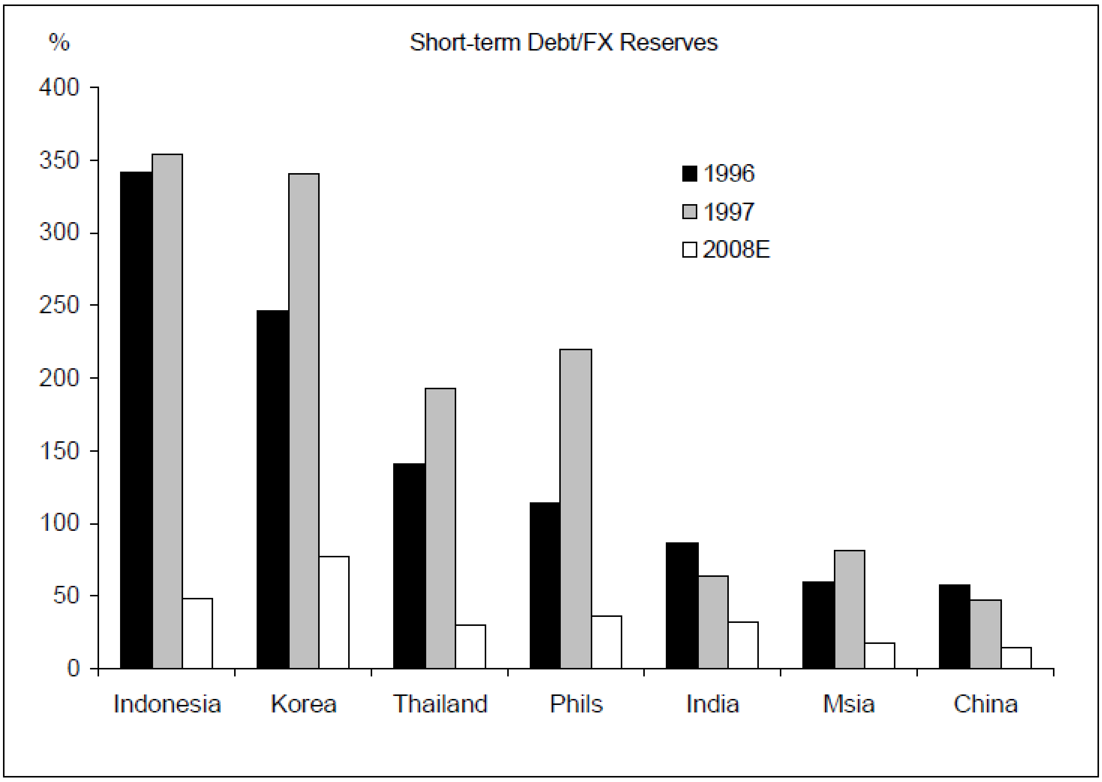
Source: DBS.

Table 9: Deposit Guarantees

Australia	The government will guarantee total deposit balances up to a limit of $A 1 million per customer per institution held in Australian banks, building societies and credit unions, and Australian subsidiaries of foreign owned banks, for three years at no charge. The guarantee covers all types of deposits, regardless of the account through which the deposit is made, both retail and wholesale, held by any type of legal entity, and denominated in any currency. The government will guarantee, for a fee, eligible wholesale borrowing and deposits above the $A 1 million threshold (new and existing term issuance of up to five years) of Australian-owned banks, Australian subsidiaries of foreign-owned banks, building societies, and credit unions. This is a temporary measure, to be withdrawn when markets normalize. Foreign bank branches are also able to apply for coverage for their domestic deposits and wholesale funding, subject to additional conditions, including a limit on the amount that can be guaranteed and that the $A 1 million fee-free threshold does not apply to their domestic deposits.
Hong Kong SAR	The government will guarantee all customer deposits until 2010.
Indonesia	The government has increased the amount of guaranteed deposits to rupiah 2 billion from rupiah 100 million, while at the same time raising the maximum rupiah guaranteed deposit rate by 75 basis points to 10 percent.
Korea	The government will guarantee domestic banks' external debt incurred between October 20, 2008, and mid-2009 for three years, up to a total of $100 billion. Deposit insurance has been extended to foreign currency deposits. Credit guarantees for small and medium-sized enterprises have been increased.
Malaysia	All local and foreign currency deposits with commercial, Islamic, and investment banks and deposit-taking development financial institutions regulated by Bank Negara will be fully guaranteed by the government until December 2010. The guarantee covers all domestic and locally incorporated foreign banking institutions, and in the event of spillovers from external developments, would be extended to interbank obligations.
New Zealand	All retail deposits in banks and nonbank deposit takers are now covered up to $NZ 1 million per depositor per guaranteed institution for two years. There is a fee for the guarantee which depends on the credit rating of the institution. Nonresident deposits in New Zealand branches of overseas banks and subordinated debt of building societies and credit unions are also covered. Collective investment schemes that invest in government debt or government-guaranteed institutions are also covered subject to conditions. The country has also introduced a guarantee on wholesale funding for financial institutions with investment grade credit rating (BBB– or better). For branches of foreign banks, only issuance in New Zealand dollars is covered. The wholesale guarantee facility will operate on an opt-in basis, by institution and by instrument. A guarantee fee will be charged for each issue, differentiated by the riskiness of the issuer and the term of the security being guaranteed, up to the maturity of the issue or for up to five years, whichever is earlier. Locally incorporated registered banks will be required to maintain an additional 2 percent tier 1 capital buffer, above the 4 percent regulatory minimum.
Singapore	All Singapore dollar and foreign currency deposits of individual and nonbank customers in banks, finance companies, and merchant banks licensed by the Monetary Authority of Singapore will be guaranteed through December 31, 2010. The government guarantee will also be extended to deposits placed with credit cooperatives registered with the Registry of Cooperative Societies. The guarantee will be backed by S$150 billion in reserves of the Singapore government.
Taiwan POC	The government will provide a temporary unlimited insurance guarantee on all bank deposits and interbank lending.
Thailand	The cabinet has approved an extension of the existing blanket guarantee on all domestic deposits of local and foreign financial institutions until August 2011. The guarantee has been in effect since the 1997 crisis.

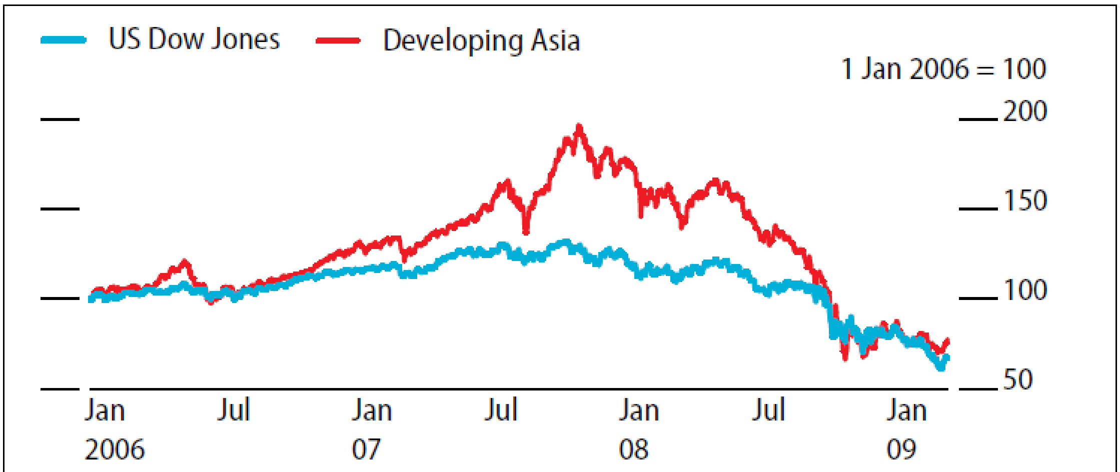
Source: International Monetary Fund.

Figure 1: Short-term Debt (%)



Source: Goldman Sachs.

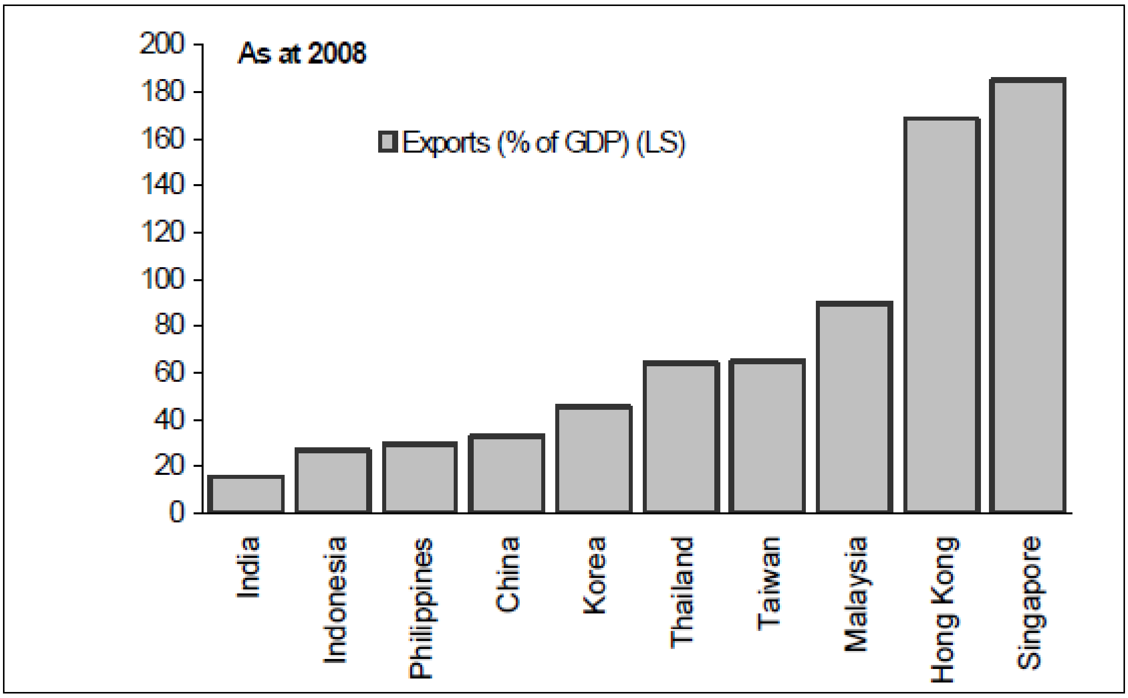
Figure 2: Stock Market Indices (Index)



Note: Developing Asia includes China, People's Rep. of; Hong Kong, China; India; Indonesia; Korea, Rep. of; Malaysia; Philippines; Singapore; Taipei,China; and Thailand.

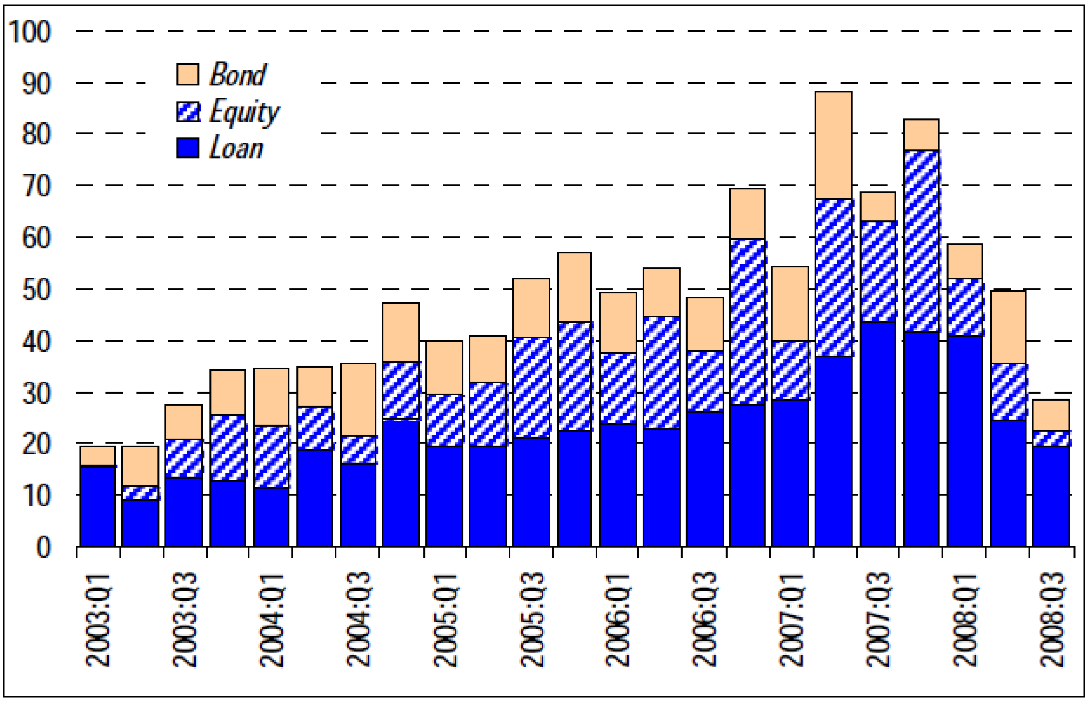
Source: Asian Development Bank.

Figure 3 : Export Orientation (%)



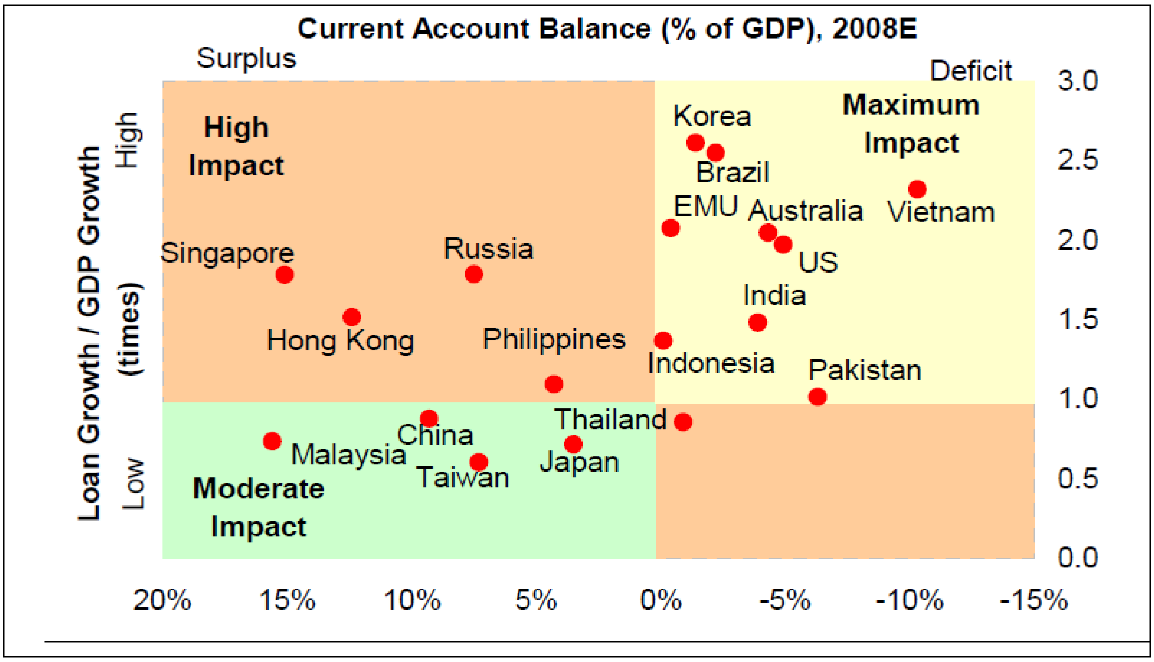
Source: Morgan Stanley.

Figure 4: Asian External Financing: Bond, Equity, and Loan (US $ billions)



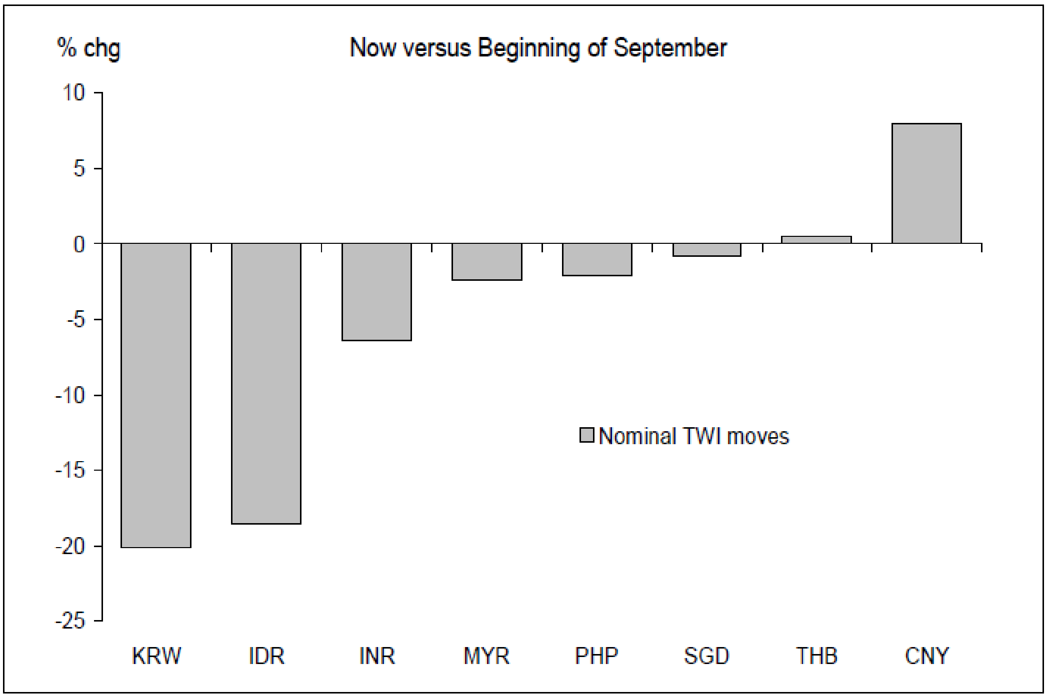
Source: International Monetary Fund.

Figure 5: Global Deleveraging and Risk



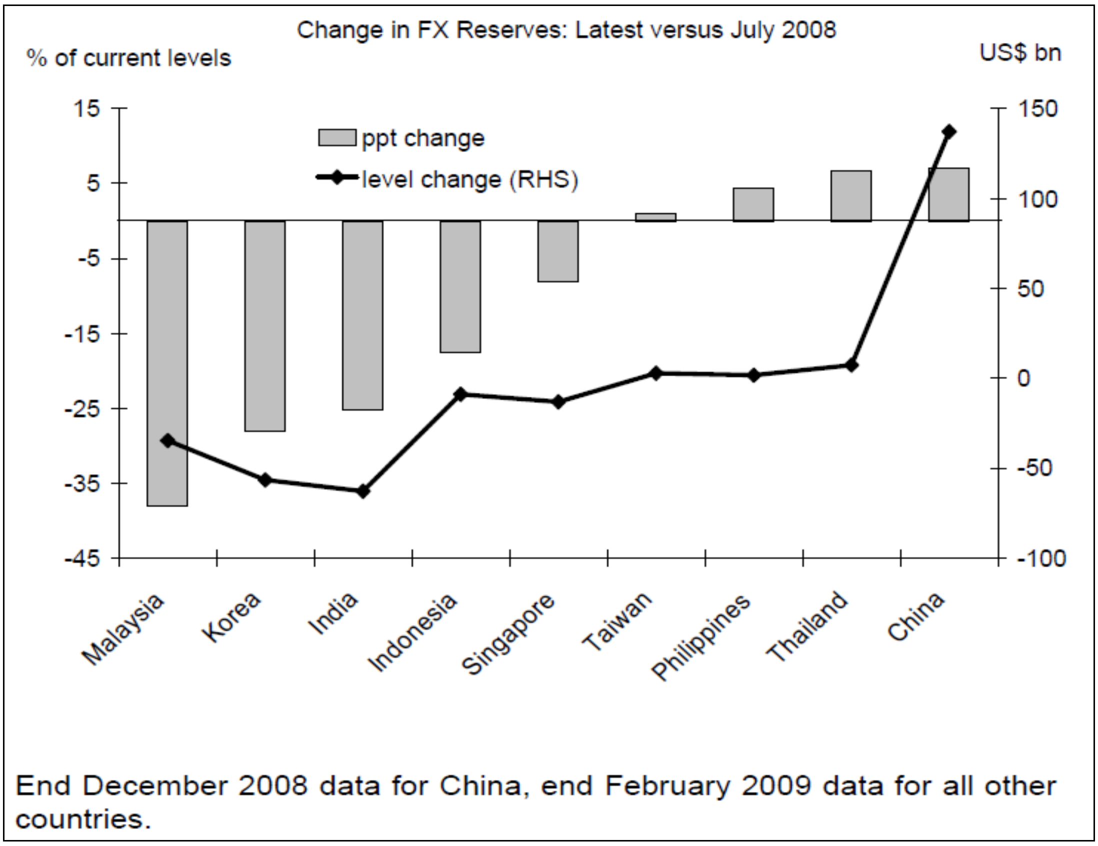
Source: Morgan Stanley.

Figure 6: Effective Exchange Rates since September 2008-March 2009 (%)



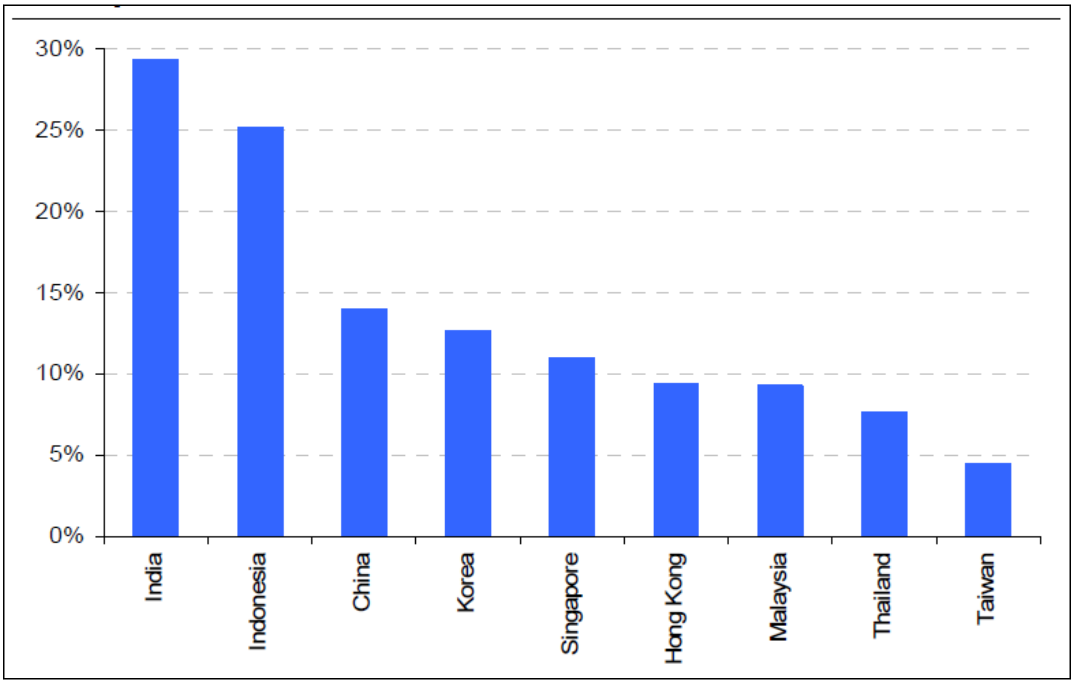
Source: Goldman Sachs.

Figure 7: Change in Foreign Exchange Reserves, July 2008-Feb 2009 (%)



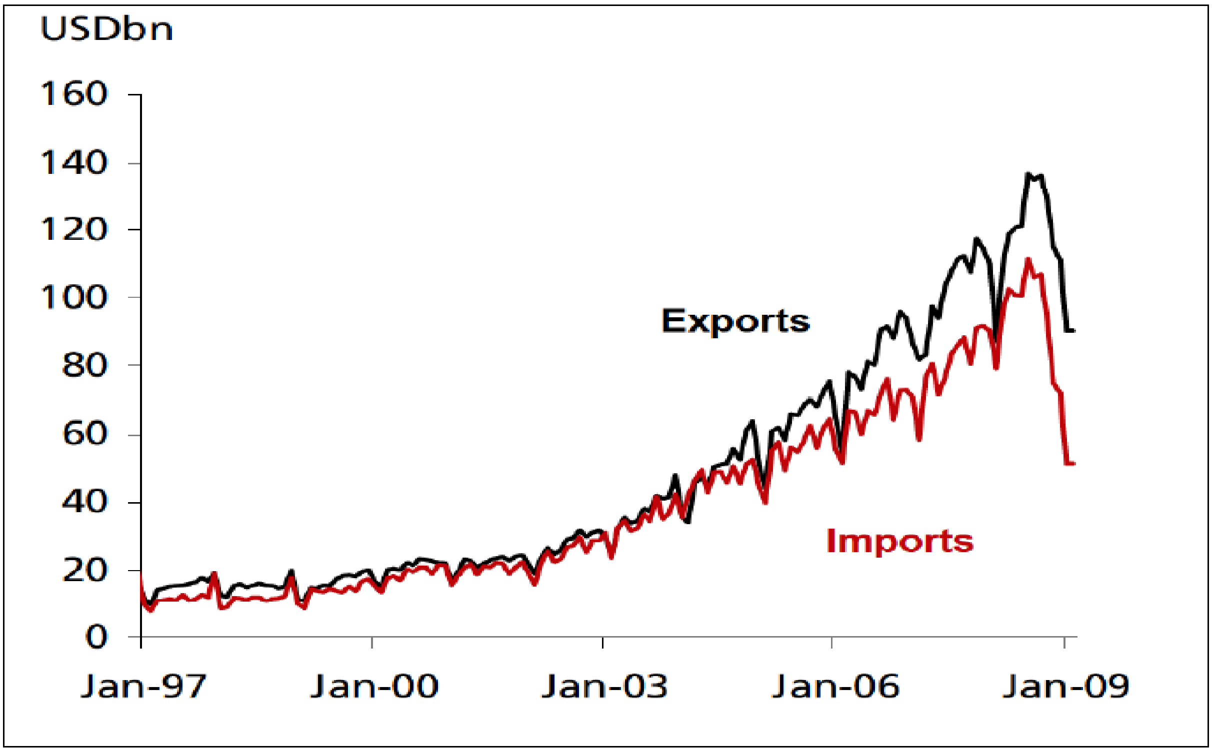
Source: Goldman Sachs.

Figure 8: Credit Growth Pre Lehman Brothers (Three Year % CAGR)



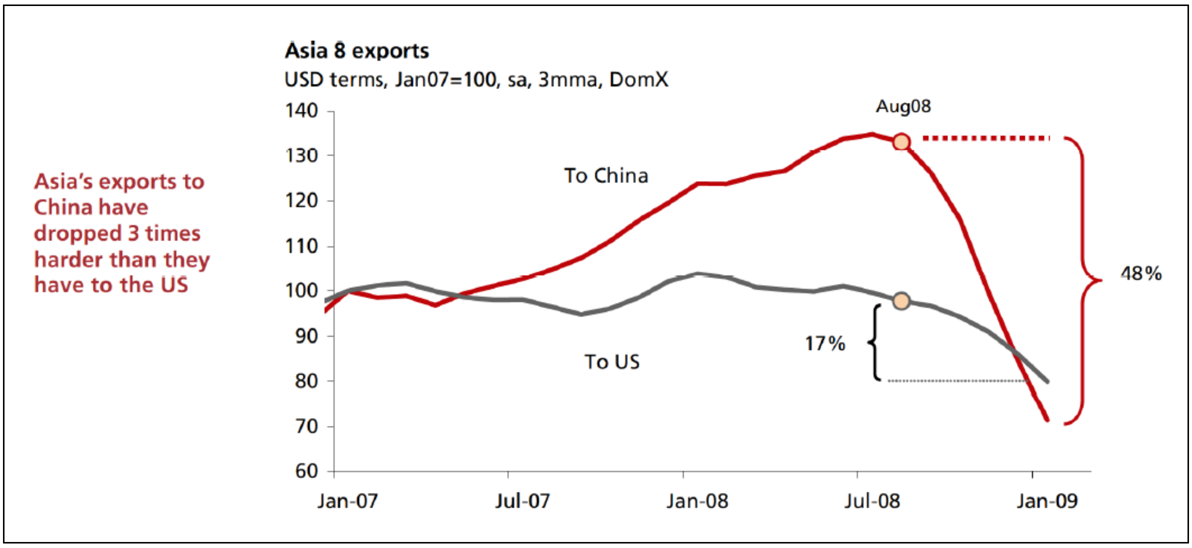
Source: Morgan Stanley.

Figure 9: China's Merchandise Trade (US$ billion)



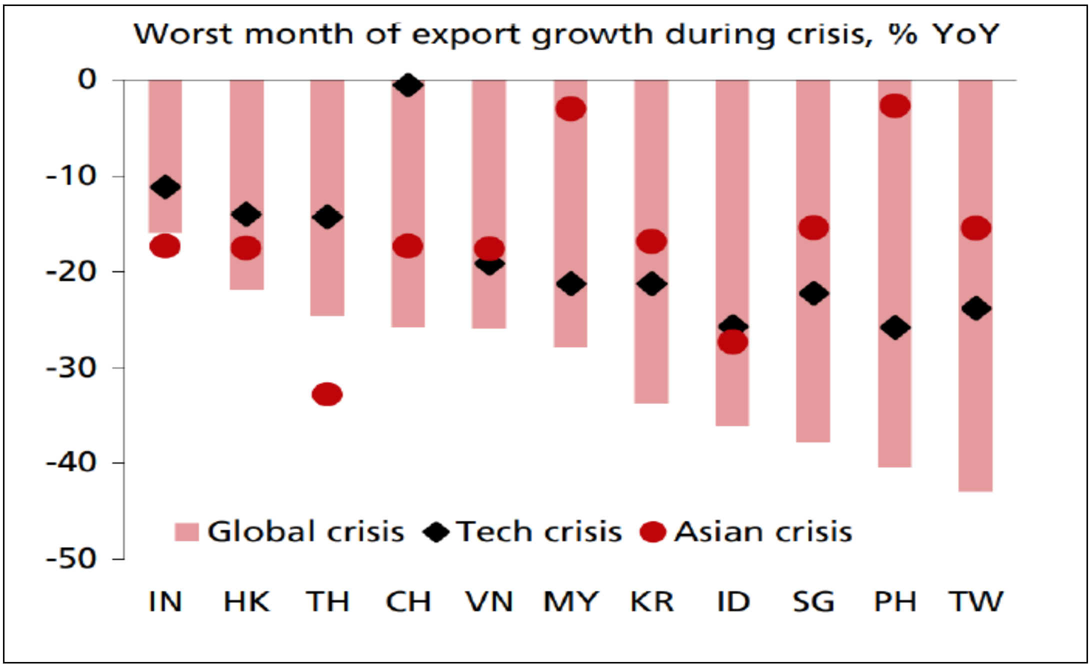
Source: DBS.

Figure 10: **Asian Exports to the United States and China (Index)**



Source: DBS.

Figure 11: Asian Merchandise Exports during Various Crises (Index)



Source: Nomura.

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