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**The Global Financial Crisis – Impact on Asia and Policy Challenges Ahead\***

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The global financial crisis had hit Asian economies with unexpected speed and force. Equally, the recent recovery in Asia was also faster and stronger than expected. The crisis throws up important features of the economic linkages between Asia and the world, and within Asia. This paper will touch on three issues: first, why the impact on Asia was so deep, and the rebound so swift; second, Asia's immediate challenges in managing the recovery; and third, the longer-term structural challenges.

*Impact of Global Financial Crisis on Asia*

The unexpected speed and force of the global financial crisis impacted Asian economies through both the trade and financial channels, reflecting the region's deep economic integration with the rest of the world. This effectively put to rest earlier notions that Asia had become "decoupled" from developments in the US. From peak to trough, Asian exports tumbled by over 30%, average sovereign CDS spreads increased more than three-fold for five Asian economies and Emerging Asia stock prices fell by more than 60%.<sup>1</sup> Exchange rates also came under pressure in a number of countries in the region. Asian economies, excluding China and Japan, contracted by an average of about 6.2% from peak to trough in the current downturn.<sup>2</sup> This is not far from the 8.3% GDP contraction during the Asian financial crisis, although Asia was not at the centre of the present crisis.<sup>3</sup>

*Explaining the Collapse in Asian Exports*

The recent and unprecedented collapse in exports in Asia has three notable features. First, the fall in exports across Asia, from Japan to Indonesia beginning from July 2008 to the trough around February 2009, was highly synchronised. Second, the export contraction was swift and sharp – exports tumbled by about 35% from peak to trough (July 2008 to February 2009). This was far sharper than the 18% drop during the 2001 IT downturn, as well as the 16% fall during the Asian Financial Crisis, when Asia was at the epicentre of the crisis. Third, intra-Asian exports contracted by even more than shipments to the advanced economies. Intra-Asian exports fell by 48% peak to trough, against a 29% decline in exports to the US and EU-15 over the same period.

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These features suggest the presence of a common external demand shock, rather than country-specific factors, at play. Indeed, our empirical work shows that business cycles in the key economies in Asia have been increasingly driven by common rather than idiosyncratic shocks. Based on a dataset of ten Asia ex-Japan economies, we find that most countries in the sample experienced a decline in the variability of the idiosyncratic component relative to that of the common component in the post-Crisis period (2000-2008) compared to the period up to the Asian Crisis (1980-1999).<sup>4</sup> Further, a separate econometric study by the Monetary Authority of Singapore (MAS) shows that the income effect, as proxied by (the decline in) OECD GDP, largely explained the bulk of the recent collapse in Asian exports. Our estimates suggest that about 85% of the fall in Asian exports on average over Q4 2008 to Q1 2009 may be attributable to the decline in OECD GDP.<sup>5</sup>

The common shock was propagated across Asia with a full force, and indeed, magnified, because of the structure of economic linkages and the recent shifts in behaviour pertaining to firms' inventory management.

Structurally, the proliferation of cross-border production networks in the region has increased its susceptibility to common shocks. Intra-Asia trade is dominated by trade in intermediate goods. In particular, electronics accounts for about 70% of intra-Asian trade in parts and components within machinery and transport equipment, compared to slightly over 30% in NAFTA and Europe.<sup>6</sup> Exports of machinery and transport equipment account for about half of total exports in Asia. As trade in intermediate goods cross national borders multiple times, a fall in end demand in the G3 can have a magnified impact on the region's trade flows. This helps to explain the relatively steeper decline in intra-Asian exports in the recent downturn.

In addition, global IT firms seem to have made significant changes in their inventory management. At the depths of the crisis, in the second half of 2008, they made deep cuts in output that exceeded the contraction in end demand, and drew down inventories sharply. The inventory adjustments appear to be uneven across the supply chain – global component manufacturers who are furthest upstream in the IT production chain experienced the sharpest cutbacks in production and inventory drawdown.<sup>7</sup> When the fall in final demand was not as dire as expected, the upstream segment also rebounded more sharply as the restocking needs were higher. This partly explains the sharp rebound in the exports of some Asian countries.

The behavioural change probably reflects the lessons learnt following the 2001 IT downturn. As an aside, the tighter inventory management in the IT sector, and the way different segments of the value chain adjusted, make the interpretation of high frequency data, and the policy responses for the short-term, more difficult. It may thus be useful to study how inventory management differs across sectors.

### *Some Resilience to External Shocks*

Although exports had been uniformly compressed across Asia, the final impact on GDP varied greatly, depending on a number of factors such as the size of the economy, the degree of trade openness, and the capacity for counter-cyclical policies. The larger Asian economies of China, India and Indonesia have avoided a recession, due in large part to the resilience of their sizeable domestic demand. In comparison,

the smaller, more open economies in ASEAN and the NIEs were more badly hit, with many suffering their worst output contractions in the post-war period.

While Asian output and exports were hit hard, their monetary and financial systems were largely resilient. The financial shocks from the advanced economies were felt in Asia through the drying up of trade credit and cross border capital flows, the pull-back by global banks, heightened risk aversion and sharp fall in asset values. But apart from the initial stresses that affected all markets, there were no severe financial dislocations – interest rates and exchange rates have remained stable in most countries. Asia withstood the financial shocks well as there were few inherent sources of vulnerabilities. For example, credit excesses and currency mismatches that had prevailed during the Asian Crisis, and which now plague a number of Central and Eastern European economies, were largely absent. Households and corporates entered this crisis with generally stronger balance sheets, which helped to bolster confidence. This favourable outcome reflects the host of reform measures in the economic and financial systems following the Asian Financial Crisis – dependence on foreign borrowings was cut back, official reserves rebuilt, prudential supervision of the financial sector tightened, banks recapitalised, non-performing loans lowered, and corporate leverage reduced.<sup>8</sup>

#### *Stronger Than Expected Rebound in Asia*

While the economic contraction was sharp, the recent recovery has been stronger than in the past. One quarter after the trough in the present cycle, Asia's GDP rebounded by 9.4% on a quarter-on-quarter seasonally adjusted annualised basis (in Q2 2009), significantly stronger than the 4.3% rise after the Asian Crisis (in Q4 1998). The improvement was across-the-board in all expenditure categories, with particular resilience in private consumption and investment spending. Household spending has held up better this time round as the rise in unemployment has been more moderate. Asian exports have also recovered, lifted in part by a sharp increase in shipments to China – Asia's exports to China (up 37% since touching a trough in January 2009) have grown more rapidly than China's own exports (up 12% since its trough in February).<sup>9</sup> Inventory restocking – particularly among upstream producers who had drawn down their inventories to very low levels – appears to be driving the recent upturn in the global IT market, setting the stage for the bounce in Q2 2009.<sup>10</sup>

A major factor supporting the present recovery has been the timely roll-out of appropriate fiscal and monetary stimulus measures. Governments rolled out a massive US\$700 billion worth of stimulus measures in Asia over the past year,<sup>11</sup> in stark contrast to the contractionary fiscal policies during the Asian Crisis. Monetary policy responses were swift, with many Asian central banks cutting interest rates in rapid succession. Again, this was unlike in 1997-98, when they were forced to sharply raise interest rates to support their currencies and reduce capital flight. The decisive macroeconomic measures have helped to restore confidence, support domestic demand and avert massive layoffs in the labour market. A better appreciation of the needed policy responses, increased room for policy manoeuvres, as well as a global recognition of the scale of the problem, has led to a more timely and appropriate policy reaction this time round.

### *Managing the Recovery – the Challenges*

With the worst of the crisis behind us, the policy focus in Asia is now geared towards managing the cyclical recovery. In the short term, there is a need to ensure that the macroeconomic policy settings remain appropriate to ensure sustainability of the economic recovery, i.e., the stimulus measures should not be removed prematurely. Although economic conditions have picked up more recently, a sustained, global recovery is not a given.

While the easy liquidity conditions in Asia ought to be maintained, policymakers will need to remain vigilant to domestic credit expansion, as well as to the potentially destabilising surges in capital flows in search of higher yielding assets and the attendant risk of asset price inflation. In effect, the execution of an “exit strategy” in Asia in the context of rising capital flows could pose some challenges in the short term. Fluctuations in global commodity prices could also introduce volatility to CPI inflation, given the greater weight attached to basic necessities in the consumption baskets of emerging economies.

Asian central banks will need to remain focused on anchoring inflationary expectations and ensuring medium-term price stability. We need to adopt a pragmatic approach in response to these developments. For example, excessive capital inflows at times may need to be met with appropriate sterilised interventions. Monetary policy is a blunt tool to tackle asset price inflation pressures, but a combination of prudential and administrative measures to prevent excess liquidity from fuelling asset price bubbles could be employed in a complementary way. The most appropriate response will, of course, vary across countries.

### *Considerations Beyond the Crisis – Structural Changes Needed*

Over the next several years, Asia would likely have to accept a lower rate of growth. The external demand that has provided a key impetus for growth may be subdued, as advanced economies would likely grow at a rate below potential, held back by significant balance sheet weaknesses. Asia has to rely more on domestic demand but in the short term, few economies can do so meaningfully without placing stresses on macroeconomic and financial stability. Most Asian economies are not yet at a stage where domestic demand can take over as the primary source of growth. The experiences of Japan and Germany suggest that reducing a nation’s export dependence involves major structural changes which evolve over an extended period of time.

While the world clearly benefited from the “productivity dividend” and enjoyed the period of the Great Moderation arising from the entry of China and other large emerging market economies, their integration into the global economy in the years ahead will also pose significant challenges. The positive ‘supply shock’ will induce changes in the patterns of trade, investment and production. The new competitive dynamics mean that structural adjustments by all parties are necessary. But these adjustments will be difficult against a backdrop of differences in demographics, saving and consumption habits, and exchange rate regimes and institutional arrangements, among others.

## *Continuing Structural Reform in Asia*

The global financial crisis is an important reminder to all countries that structural reforms in the real economy are inevitable. Many economies in Asia did well in pursuing institutional, banking and corporate sector reforms following the Asian Crisis. In the aftermath of the global financial crisis, Asia needs to continue with structural reforms. Four areas merit attention.

First, enhance investment rules and investors' protection to promote investment in physical capital, including infrastructure. Infrastructure remains underdeveloped in many Asian economies, presenting significant bottlenecks to growth. The Asian Development Bank, for instance, recently estimated that Asia needs to spend about US\$8 trillion on transport, power, and communications infrastructure over the next ten years if it were to emerge as an integrated and competitive region. To attract long-term investments in these areas, a combination of public and private funds is necessary. Further, the decline in investment in some parts of Asia has been severe compared to that in other regions over the past 1-2 decades, and relative to Asia's economic fundamentals and export growth.<sup>12</sup> Especially since the Asian Crisis, the growth of gross capital formation in Asia, excluding China and India, has slowed to some 4.7% p.a. (1999-2008), less than half the growth rate of 10.5% p.a. pre-Crisis (1990-96). Accordingly, the investment-to-GDP ratio in many Asian economies had fallen sharply and has remained at a subdued level. Hence, accelerating corporate and public capital spending in the region, especially outside of China, will be necessary for Asia to sustain its growth, and to help redress some of the imbalances in the global economy.

Second, enhance the quality of human capital and education standards in Asia. In particular, there is significant potential for catch-up in the area of higher education and training.<sup>13</sup> Continued investment in human capital would enhance labour productivity and long-term growth. This is urgent both for countries that are facing an ageing population, as well as those seeking to harness the dividend of a youthful population.

Third, enhance regional trade and financial integration.<sup>14</sup> As mentioned earlier, intra-Asian exports are dominated by intermediate inputs for producing final goods that are sold largely to the rest of the world. As per capita purchasing power rises, Asian consumers will generate more demand for intra-Asian goods and services.<sup>15</sup> Asia needs to raise the proportion of final goods in intra-regional trade, as well as to exploit further opportunities in services trade. The re-orientation of the cross-border production network towards serving the needs of the region will provide a more balanced and sustainable growth path for Asia.

There is also a need to accelerate the pace of financial deepening and integration within Asia. A well-functioning domestic financial system that efficiently allocates capital to productive uses is necessary for sustainable economic growth. In addition, efficient cross border flows, especially within the region, will allow Asian countries at different stages of development to realise their growth potential. Developing a deep and integrated financial system in the region is a key building block in supporting structural adjustments in the region.

Fourth, greater currency flexibility is also important to facilitate longer-term, structural adjustments and to correct global imbalances. However, we need to be circumspect about the role that currency flexibility can play in correcting such imbalances. As Paul Volcker observed many years ago, increased currency flexibility “cannot be a substitute for more fundamental policies to restore competitiveness, to enhance productivity and savings, and to maintain stability.”<sup>16</sup> Currency flexibility needs to be part and parcel of a comprehensive package of structural reform for all countries involved. The sequencing has to take into account institutional and structural capacities. As these are strengthened, the necessary adjustments in the real exchange rate can then be accommodated. The secular rise in the real exchange rate, at an appropriate pace over the medium term, needs to reflect the underlying productivity and income growth in the economies concerned.

These changes will not take place overnight. Current account imbalances have appeared with some regularity in the world economy, irrespective of exchange rate arrangements. Such imbalances reflect underlying saving and investment decisions of private agents, which in turn hinge on slow-moving drivers such as demographics, socio-cultural inclinations, and the state of domestic financial and welfare systems. These have to be factored into the consideration on the speed and sequencing of policy actions. Nevertheless, difficult though these changes may be, it is important that we pursue them.

### *Sum-Up*

To sum up, Asia has an important role to play in the post-crisis world, and it is useful for the region to stay engaged in such global discussions. While there are considerable challenges and stresses in the near term, we must resist the temptation for quick fixes that do not address the underlying concerns. I believe Asia must continue to focus on strengthening its economic fundamentals – only then can it contribute meaningfully towards a more robust and resilient global economy.

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### *Endnotes*

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- <sup>1</sup> The (unweighted) average sovereign CDS spreads for five Asian economies (Korea, Indonesia, Malaysia, Philippines and Thailand) rose from 163 bps in June 2008 to a high of 770 bps in late October 2008. The MSCI Emerging Asia Index fell from 513.8 at the start of January 2008 to a low of 187.7 in late October 2008.
  - <sup>2</sup> Asian economies refer to the NIE-3 (Hong Kong, South Korea, Taiwan) and ASEAN-5 (Indonesia, Malaysia, Philippines, Singapore, Thailand) economies.
  - <sup>3</sup> The extent of the adjustment in the level of peak to trough GDP (Q3 2008 to Q1 2009) varied quite a bit, nonetheless, for each of the countries concerned, ranging from plus 1.2% (Indonesia) to minus 10.1% (Taiwan), reflecting considerable fundamental differences amongst economies in the region.
  - <sup>4</sup> The ratio of idiosyncratic relative to common fluctuations averaged 0.8 for the Asian countries over the period 2000-2008. This compares with a ratio of 1.2 in the pre-Crisis

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period. Thus, the size (as measured by the standard deviation) of common fluctuations has become larger. The increased sensitivity to a common shock could reflect the proliferation of cross-border production networks in the region, such that an external shock is manifested as increased volatility of the output gap for each country. Chew, Cyrene, and Siang Meng Tan. 2009. "Asia's Economic Resilience to Shocks: An Output Gap Perspective." Monetary Authority of Singapore, Economic Policy Department internal research memo.

- 5 We examine the impact of global demand on the real export performance of nine Asian economies (ex-Japan) using a fixed effects panel data model over the period Q1 1998 to Q1 2009. We find that a 1% point increase in OECD GDP growth produces an average increase of 5.5% points in Asia's real goods exports on a quarter-on-quarter, seasonally adjusted basis. See Monetary Authority of Singapore. 2009. "Explaining Asia's Export Performance in the Downturn." *Macroeconomic Review* Volume VIII Issue 2, October, pp. 58-61.
- 6 This underscores the high degree of specialisation and inter-dependence among producers in East Asia in the electronics industry. These results are for Asia-10 economies, namely Japan, China, NIE-3 and ASEAN-5. See Monetary Authority of Singapore. 2009. "Box A: Trade and Regional Production Networks." *Macroeconomic Review*, Volume VIII, Issue 1, April, pp. 20-23.
- 7 The drawdown of inventories at the major semiconductor foundries, for instance, was found to be significantly greater than the fall in global chip sales over the period Q2 2008 to Q1 2009.
- 8 The Asian corporate sector has deleveraged significantly since the Asian Financial Crisis, with the debt-to-equity ratio (market capitalisation weighted average) falling from a peak of 400% in 1997 to about 75% in 2007. See IMF. 2009. "Global Crisis: The Asian Context." *Regional Economic Outlook – Asia and Pacific*, May, pp. 52. In the worst affected economies, the ratio of non-performing loans to total loans fell from high teens at the peak of the Crisis to relatively low single digits in 2007. See World Bank. 2009. "Battling the Forces of Global Recession." *East Asia and Pacific Update*, April, pp. 73.
- 9 Asian exports excluding China, Japan and India. This suggests that the recent revival in Asia's shipments to China could have been driven more by the rise in domestic demand in China, rather than demand from China's export processing industries.
- 10 For instance, in Singapore, the output in the upstream components segment contracted more sharply than the downstream end-product segment between Q4 2008 and Q1 2009, and subsequently rebounded more strongly in Q2 this year. This underlines the more pronounced production catch-up and inventory restocking effect that upstream firms experienced in Q2.
- 11 The bulk of the US\$700bn of stimulus measures in Asia ex-Japan was accounted for by China (US\$586bn announced in Nov 2008, or 12% of China's GDP). Other countries include Korea (US\$53bn, or 6.8% of GDP), Malaysia (US\$18bn, 10% of GDP), Singapore (US\$14bn, 8% of GDP) and Indonesia (US\$6bn, 1.3% of GDP).
- 12 IMF. 2006. *Regional Economic Outlook – Asia and Pacific*, May, pp 33. The IMF suggests that the investment environment can be enhanced by lowering perceived macroeconomic risks through prudent monetary and fiscal policies, structural improvements including trade liberalisation, deregulation and improvements to infrastructure, as well as deepening and broadening financial systems.

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- <sup>13</sup> Rankings on higher education and training vary greatly in Asia. While some of the more advanced Asian economies are above the 90<sup>th</sup> percentile, many others are clustered at the 50<sup>th</sup>-60<sup>th</sup> percentiles, suggesting the scope for further improvements. See World Economic Forum. 2009. "Global Competitiveness Report 2009-2010." pp 18-19.
- <sup>14</sup> Intra-regional trade in Asia (including Japan and China) stood at about 47% in 2008, well below the close to 60% share for the EU-15 countries.
- <sup>15</sup> Goldman Sachs. 2009. "The Power of the Purse: Gender Equality and Middle-Class Spending." August, pp 16-19. Across a sample of large emerging Asian economies (China, India, Korea, Indonesia, Philippines, Vietnam), the middle class currently comprises only about 14% of the population. By 2050, the ratio is projected to rise to 76%. Goldman Sachs defines "middle class" as individuals whose annual incomes are between \$6,000 and \$30,000 in PPP terms.
- <sup>16</sup> Volcker, Paul, and Toyoo Gyohten. 1992. "Changing Fortunes: The World's Money and the Threat to American Leadership." pp 294. Times Books.