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THE EVOLVING POST-CRISIS WORLD

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ADB Outlook Background Paper: The Evolving Post-crisis World

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The worst of the global financial crisis (GFC) is over, but it has left scars, principally in the form of fiscally-driven debt increases, balance sheets that still need repair and high unemployment in the principal crisis countries. There is also unfinished business from the pre-crisis period, in the form of external imbalances. More positively, the crisis offers lessons about economic policy-making that may improve the way things are done. Of course the main lessons are for the developed countries that were at the centre of the crisis. But the countries of the region had to cope with the back-wash, and in doing so lessons were learned. In addition, the lessons in the crisis countries, learned in an environment of extreme stress, may have relevance for the emerging market economies of this region.

1. What was learned

While the GFC was unexpected, many of its elements were well covered in economic analysis (although some of it from older, less-trodden, paths). The core issue was an old-fashioned financial crisis, so Kindleberger, Minsky and Bagehot[1] cover the ground. Banks found new and innovative ways to make old mistakes: over-leverage, borrowing short and lending long, over-optimism about asset values and lending to people who couldn't repay. With these mistakes common to the major mature countries (notably the US and the UK) the agglomeration of errors was large enough to create substantial collateral damage along the global linkages, via falls in exports and capital flows. That the globalised world spreads problems as well as benefits is not news, and increased globalization meant stronger linkages. Yet strong policy response in the region offset much of this knock-on effect with perhaps surprising success.

What new lessons were learned, and old lessons confirmed or modified?

Lesson One. From the crisis itself, financial markets work less well than we might have hoped (and many proponents promised). Financial markets did a poor job in their basic functions: price discovery: safe intermediation from savers to investors; and risk mitigation. The Efficient Markets Hypothesis

[1] KINDLEBERGER, C. P. (1978) *Manias, Panics, and Crashes: A History of Financial Crises*, John Wiley, MINSKY, H. P. (2008) *Stabilizing an Unstable Economy,* New York, McGraw-Hill. BAGEHOT, W. (1873) Lombard Street.

(EMH) has taken a beating, with its view that all available information was incorporated in the market price. Combined with the view that market participants were rational and that risk could be calibrated in terms of price volatility, the EMH promised much more than it could deliver. Calculable risk turned out to be, in practice, incalculable uncertainty. Prices moved not on the basis of 'news', but on endogenous responses, as portfolio managers had to unload assets into falling markets. Sharp shifts in risk premia might have been expected, but what was essentially a freezing of the international money markets was not. There were examples of successful intervention by the authorities in the crisis countries, in restoring liquidity to frozen markets. In the region, there was helpful intervention in foreign exchange markets and in the case of the Republic of Korea (henceforth, 'Korea'), vigorous support for banks that had tapped the international funding markets.

The general lesson we might take from this is that markets work well most of the time and will remain absolutely fundamental to the efficient operation of financial sectors (including for exchange rates). Markets will still do the heavy lifting of allocation of resources and price discovery. That said, the doctrinal (some would say theological) opposition to any intervention in markets, ever and under any circumstances, has weakened. Governments should be ready not only with 'lender of last resort', but also 'market maker of last resort' to keep vital financial markets operating. Governments have demonstrated that there are occasions when intervention is helpful, so this should be treated as an analytical issue (to work out the 'when, how and how much?') rather than a doctrinal matter. This opens up new policy issues, which have the potential to make policy more complex but better.

Lesson Two. Fiscal policy works well as an offset to weakening activity. There were those who doubted what now seems to be the obvious efficacy of fiscal policy. Some skeptics thought in terms of Ricardian equivalence: that private savers would anticipate later tax increases and raise their savings to offset the stimulus. Others might have thought within the real business cycle framework, where most macro-policies are ineffective. Others might have had in mind the Mundell policy-assignment rules, where the more flexible exchange rates which prevail in many countries might have suggested that fiscal policy was ineffective, being offset by a rise in interest rates[2] and the exchange rate. Others simply carried the pragmatic operational belief that

[2] But this view misunderstood how monetary policy is implemented now, with the authorities setting the short-term policy interest rate.

fiscal policy was so slow to operate that it always arrived on the scene too late.

Whatever the rationale for prior doubts, these arguments have disappeared, with the emerging market economies of the region effectively countering the fall in their exports through fiscal expansion. The main focus is now on the timing of exit and unwinding the fiscal debt legacy. When this return to normality is achieved, it still leaves an unresolved issue for fiscal policy. The accepted pre-crisis wisdom was that fiscal policy was a weak and uncertain instrument, too subject to political manipulation to be seen as an active tool. The automatic stabilizers should be allowed to operate, but beyond this fiscal policy should be constrained by some rule which makes it neutral over the course of the cycle. In some cases (e.g. the 3 percent deficit limit in Europe's Stability and Growth Pact), additional constraints have been seen as necessary. Thus the newly-demonstrated efficacy of fiscal policies may need to be kept on a tight rein.

Lesson Three. Monetary policy also works, and sharp falls in policy interest rates (even if not fully passed on to borrowers) allow financial institutions to restore confidence in their balance sheets quite rapidly and offset the crisis-induced rise in borrowing risk premia. In a number of countries in the region credit growth has markedly slowed, suggesting that the credit channel is to some degree 'pushing on a string' (i.e. is constrained by weak demand for credit), at least until business confidence is stronger. The usual operating channel through short-term interest rates was supplemented by greatly expanded liquidity operations (with most countries widening the range of acceptable collateral and eligible institutions). With the zero-bound (Keynes' 'liquidity trap') reached in a number of crisis countries, Quantitative Easing (QE) was also given a test in several countries outside the region, with much less clear-cut results. Huge increases in the balance sheets of the USA and UK central banks in particular have raised concerns about inflation and the ability to unwind this stimulus, but these concerns seem exaggerated[3]. Inflation Targeting (IT) proved to be too narrow a framework and monetary policy must also look at financial stability. Doubts have been expressed whether the current 'best-practice' operating system using interest rates as

[3] Again, part of the issue is a misunderstanding of how monetary policy works. With policy operating via interest rates rather than via the base money multiplier, excess base money accumulates in the commercial banks' balance sheets without influencing their behaviour much, and can be readily withdrawn by reversing the open market operations which initiated the excess.

the policy instrument is enough, and whether credit growth needs to play a larger role in the analysis (as it has in the ECB 'second pillar'). Asset prices have long been an unresolved aspect of monetary policy, and the lesson now is that 'something should be done' although just what is still unresolved. The problem is that central banks still have just one instrument – the interest rate – which has been assigned to CPI prices, which will often be moving quite differently from asset prices. The answer will be found in the use of macro-prudential controls, but the operational aspects of these have yet to be devised.

Lesson Four. There is a sharp contrast between the policy reaction to this crisis and the 1997-8 crisis. This time, most countries reacted by easing both monetary and fiscal policy (the opposite of 1997). Of course the circumstances were different (an external shock mainly impinging on exports, rather than capital flight) but there was still the danger of triggering a similar shock – sharp outflows of capital. Perhaps the lesson here is that the superior fundamental position of the Asian countries (strong financial sectors, better institutions, more anchored exchange rates, lower inflation, strong fiscal positions, modest short-term foreign debt and bigger foreign exchange reserves) made it feasible to push policy in a supportive direction – including some easing of exchange rates – without this triggering a loss of confidence. The capital outflows in Korea (and, outside the region, in Eastern Europe and the Baltic countries) are a reminder, however, that there is a fine line between being able to offer this policy support, and requiring the policy instruments to be tightened to support the exchange rate and price stability, at the cost of lower economic activity.

Related to this, globalization might have taken a set-back, but it is minor and temporary. The crisis has not removed the compelling logic of international specialization, comparative advantage and the efficiency of outsourcing and a well-constructed international supply chain (Eichengreen, 2009). If anything, the crisis has reinforced the case for globalization, with the strong growth of the emerging countries (notably China and India) providing a timely boost to world demand when the USA and Europe turned down. The initial fall in trade was larger than its counterpart in the Great Depression ((Garnaut, 2009) updates the famous Kindleberger 'spider-web diagram'), yet the ever-diminishing trade spiral so characteristic of the 1930s was avoided. While some trade protection measures were taken by a wide variety of countries, these were relatively minor. Some credit might be taken by the enhanced global dialogue through G20. Nor have tensions with international

imbalances altered the case for international capital flows, although the volatility and perverse direction of some flows have highlighted the imperfect institutional frameworks that facilitate these flows.

It is clear from the Asian experience that those with the greatest export dependence suffered the largest falls in growth, particularly if exports were concentrated in manufacturing. Should the lesson be drawn that there is virtue (and a more sustainable growth path) via a less export-oriented strategy, through fostering domestic consumption? For some countries (e.g. Indonesia) this domestic-orientation seems to have worked well, but to go against comparative advantage and to forego the demonstrated benefits of globalization would seem to be a lesson mis-learned.

Lesson Five. Bagehot's century-old dictum on how the authorities should handle a banking crisis – "lend freely" -- still seems correct, but it may not be enough. Some financial institutions in the developed crisis countries were in such bad shape that they needed to be nationalized and reconstructed (using the 'good bank/bad bank' model), and in many cases the authorities (and the legal infrastructure) were ill-equipped to do this smoothly. The residual moral hazard problems from these interventions remain to be resolved. Banks in the region generally came through well (although in Indonesia Bank Century was rescued, triggering unresolved political problems, a reminder that these issues have important political economy facets).

Lesson Six. International cooperation, even embryonic policy coordination, took some tentative but important steps forward, largely (but not solely) through the G20. Fiscal coordination discussion may have made countries bolder and less concerned about spill-over of stimulus effects to other countries. While the coordination of monetary policy may have been more apparent than real[4], the simultaneous moves probably reinforced confidence that the task was being undertaken at a global level. Major emerging countries (and in all six countries from the region) now have a seat at the G20 table. The challenge is to use this opportunity in the most fruitful way. Partly reflecting the G20 meetings, the International Financial Institutions (IFIs) have accelerated the reform process. The pathetically tardy rebalancing of the International Monetary Fund's governance quotas is being

[4] Eight countries moved their interest rate on the same day (ten in a two day period). See Box VI.A: p 99 of BIS Annual Report 2009.

effectively bypassed. Formal membership/voting is still way behind the necessary redress, but has been prodded, with high-level discussions shifted to the G20. More operationally, the Flexible Credit Line seems a big advance on earlier attempts to provide a conditionality-lite lending facility. The political stigma on use of this facility remains, but as several countries have signed up (although not used) the facility, the stigma may be diminished in time[5].

Lastly, the GFC may mark the end of a *policy-making mindset* characterized by strong faith in the market and its self-equilibrating qualities, scepticism about policy interventionism, and a reluctance to undertake any policy which required *discretionary* action. With the ending of the 'great moderation' (the decade of seemingly self-generating strong growth and low inflation), there is a need to address once more the old debate on the benefits of active macro policies. Prior to the GFC, fiscal policy had been largely taken off the policy agenda, either for doctrinal reasons, or through lack of confidence that it could be kept well constrained and protected from political mis-use. Management-style policy rules (often based on 'one-instrument-one objective') and assignment of instruments were the vogue (the popularity of inflation targeting is one example). Clearly policy activism saved the world from a much more serious decline over the past year. But there are reminders in recent experience that policy activism has its dangers, too. We are demonstrably not very good at forecasting non-routine events. We know, too, that abnormal settings of the macro instruments designed to cope with the immediate effects of the cycle can sow the seeds of later problems (the low interest rates in the US for the three years following the Tech-Wreck; Japan's low interest rates in the late 1980s).

2. The International Environment

What is the 'New Normal'? What are the characteristics of the new environment, which policy will have to address?

(a) Differential growth rates
First, it is likely to be a **two-speed world**, with the countries most affected by the crisis taking some years to get back to their historical potential output

[5] A concerted simultaneous token drawing by all G20 emerging countries would shift the stigma problem in the right direction.

path. Partly this reflects the starting point, with high unemployment. Partly it reflects a financial sector which will require years of balance sheet rebuilding before full attention will be given to active credit expansion in support of new activity. Households, too, will take time to restore their balance sheets and spend confidently. Most fundamentally, the lackluster outlook reflects the sheer size of the debt legacy from the fiscal stimulus. It is not possible to foretell with any accuracy how effectively these countries will cope with these debt legacies. These are essentially political issues: will the taxpayers accept an additional burden to cover the cost of debt servicing and/or debt reduction? If not, will governments reduce their debt through inflation? What seems clear is that it will be much harder to maintain the accustomed rate of growth in these post-crisis countries, and that this will affect the global environment for Asian emerging countries. Meanwhile, there is the potential (if deftly managed) for the countries less directly affected by the crisis to return quickly to their normal growth rates, although this will have to occur in a world of slower export growth.

(b) Re-addressing external imbalances

The second characteristic is that there will be an imperative to address and reduce over time the **external imbalances**. While-ever the US has an unsustainable external imbalance, this will dampen confidence and hobble the potential growth rate[6].

The starting point should be that international imbalances are not, in themselves, bad. Thirty years ago Feldstein and Horioka (Feldstein and Horioka, 1980) asked why there was such high correlation between each country's savings and investment ratios: i.e. why the external imbalances were not *larger*. Countries such as Australia have run consistently (some would say chronically) large deficits (4-5 percent of GDP) without serious problems, and Singapore has run a large current account surplus (with a firmly-managed exchange rate) for a decade without provoking complaints of mercantilism. So the issue is one of *sustainability of the deficit country*. What is the deficit used to finance? In the case of the US, the deficit reflected progressively greater household consumption.

[6] For a comprehensive discussion of the issues, see BLANCHARD, O. & MILESI-FERRETTI, G. M. (2009) Global Imbalances: In Midstream? *IMF Staff Position Note 09/29*. See also PRASAD, E. (2009a) Rebalancing Growth in Asia. *Finance and Development December,* Vol 46 No4.

These imbalances, of course, pre-date the crisis, but their nature has changed somewhat. There is now additional pressure on the US to resolve its position. The saving/investment balance is no longer driven by the medium-term rise in consumption (and counterpart fall in household saving). Consumers have restored their saving position to somewhere near its longer-term norm. The driver of the saving/investment imbalance is now the fiscal position, and this will determine the timing of the adjustment. The budget, pressured by 10 per cent unemployment and a wide output gap, is running at over 10 percent of GDP. Now, following the GFC, the imbalance reflects a large budget deficit, unsustainable because it will drive up government debt to levels which funding markets may not accept[7]. The US fiscal prospects are significantly worsened by the additional unresolved issue of funding the retirement and health costs of an aging population. This does not set the exact timetable for correcting the sustainability, but it does set the imperative.

The other prominent indicator of unsustainability is the disconcerting fact that capital is flowing uphill from the emerging countries to the mature countries. It's hard to argue now (as was done by, e.g. (Cooper, 2007)) that this reflects higher returns to capital in the US. This might have been a valid argument prior to the GFC, but it is now apparent that the main use of capital in the US in the period prior to the GFC was to fund lending to people who did not have the capacity to repay. The inflow had not been drawn to the US by the prospect of higher returns but, instead, was an accidental byproduct of external imbalances which had nowhere else to go.

The US external deficit is a good starting place to analyse the adjustment, because this is the correction that has to occur. The solution is clear, at least in principle: the only efficient answer is *a significant increase in US net exports*. The slack in domestic activity as saving increases will produce some self-correction, but the most effective driver will be a substantial fall in the exchange rate.

Leaving aside the inability to 'dial up' the desired exchange rate and the political constraints that require the US authorities to continuously assure the

[7] The debt/GDP ratio is expected to reach over 80 per cent of GDP. A different version of unsustainability is offered by CABALLRO, R. (2009) Discussion of "Global Imbalances and the Financial Crisis: Products of Common Causes, by M.Obstfeld and K.Rogoff". *Federal Reserve of San Francisco*., who sees the trigger of the crisis in the excessive inflows to the USA seeking safe assets.

world that they adhere to a strong dollar policy, there is a further constraint. During the transition to a smaller current account deficit, the ongoing imbalance still has to be funded by foreign capital inflow and the large overhang of short-term foreign investment needs to stay bedded down. Pre-crisis, the concern was that foreign funders would reduce their US dollar holdings and that the loss of funding would force a precipitous fall in the dollar, raising inflation fears, forcing higher US interest rates and slowing growth. This concern did not eventuate. At no stage did the US suffer from any flight of capital (in fact, it was the opposite). But this concern has not gone away. No matter how desirable an increase in US international competitiveness, the concern about a funding-inhibiting fall in the US dollar remains.

The time profile of the external imbalance reduction sets the schedule for the counterpart change in the US fiscal deficit. The fiscal deficit cannot be unwound until there are alternative sources promoting economic activity: as net exports add to activity, the support of the fiscal deficit can be reduced.

This suggests a rather protracted adjustment for the US. This, in turn, sets the time-line for the ROW counterpart adjustments, including in Asia. Nevertheless, there will be steady pressures to reduce the imbalances. This pressure impinges on the deficit country (the US) but it is in everyone's interests that the unsustainable elements in international imbalances are eliminated in good order rather than by prolonged under-capacity growth or by another form of crisis. While the unsustainability may not manifest itself imminently, the necessary adjustments in both deficit and surplus countries are of a structural nature, which always take time to implement. The quicker a start is made, the quicker the two-speed world can give way to a world where countries are growing at their full potential.

(c) Revival of capital flows

The third element of the environment will be a revival of **international capital flows**. The starting point is to recall just how large these flows have become. Gross private capital inflows to emerging market economies rose from 4% of their combined GDP in 2003 to 10.7% in 2007[8]. Rising even more quickly (but from a lower base) are the reverse flows from emerging

[8] BIS (2009a) Annual Report. p. 75

countries[9]. The different motivations driving these two-way flows give ample opportunity for policy challenges.

As was widely expected, private capital flows to emerging countries fell dramatically during the GFC to around a quarter of the 2007 level[10]. Flows to the Asian region fell less (to around 40 percent of the earlier peak level) and are expected to be around 60 percent of that level this year. This revival, in itself, should be a helpful environment. But there are two policy issues, one for the longer term and the other more immediately relevant.

First, the GFC has demonstrated (once again) that emerging countries can receive excessive capital inflows, leaving them with over-valued exchange rates and vulnerable to reversals ('sudden stops'). This time round, it was not the countries of the region that suffered (perhaps with the exception of Korea). It was, instead, Eastern Europe and the Baltic states, and the resultant problems are still being worked through[11]. But this is a reminder of the dangers. The conservative attitude of the 1997-crisis-scarred countries of Asia may be well-founded.

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[9] See HILL, H. & JONGWANICH, J. (2009) Outward Foreign Direct Investment and the Financial Crisis in Developing East Asia. *Asian Development Review Vol 26 No 2*.

[10] IIF, I. F. I. F. (2009) Capital Flows to Emerging Market Economies.

[11] Korea seems to have been an exception. There were sharp reversals of capital which pushed down the exchange rate by 50 percent. There was a substantial outflow of private portfolio equity capital in 2008 with full reversion in 2009 (a turnaround amounting to $70 billion). But Indonesia experienced a similar portfolio outflow and reversion without this causing a similar degree of angst. Perhaps the greater vulnerability in Korea was the large USD funding position of Korean banks, which had a maturity mis-match between their USD funding for long-term export credits, matched by short-term funding in the US financial markets which dried up in September 2008. Korea's foreign exchange reserves looked adequate beforehand, equal to 20 percent of GDP and about equal to short-term debt, but financial markets regarded these levels as skinny when the crunch came. Capital outflow was equal to 3 percent of GDP in the single month of October 2008, and that outflow ($25.5 billion) was far greater than the worse month in 1997 ($6.4) , requiring the support of the $30 billion Fed swap facility, with an additional $30 billion from Japan and from China. See CHO, D. C. (2009) The Republic of Korea's economy in the swirl of global crisis. *Asian Development Bank Institute Working Paper 147*.

The more likely source of disruption in the near future may come from a second issue: the *composition* of the renewed flows, with too much short-term volatile capital[12].

Throughout these variations in flow, **foreign direct investment** seems to be the most stable (see Figure 2.3.3. of ADB Update). While exchange rates and interest differentials may play some role in FDI flows[13], FDI is principally determined by complex inter-relationships with international trade, whereby investment and funding is supporting the supply chains that have been set up over the past decade or two. These flows are responding to commercial relationships and deeper structural comparative advantage rather than current interest differentials and exchange rate expectations.

Banking flows were the main source of volatility in the 1997 crisis, and demonstrated their volatility again in 2008 in Korea and Malaysia. This type of flow, however, seems likely to play a smaller role in the immediate future. Large international banks will be more inward looking and focused on their own domestic territory (encouraged by their regulators).

But if the banking flows seem likely to be limited, much larger **portfolio flows** seem to be in prospect, both equity and those flows which are responding to interest differentials. These interest-sensitive flows are not all pure *carry trade*, in the sense that they are leveraged, beginning with borrowing in a low-interest rate country. But for investors and fund-managers in the low-interest rate countries, even a non-leveraged investment will have the same motivation, driven by the interest differential between the *funding* country and the *target* country.

The GFC has expanded the environment for these interest-sensitive flows. Japan is no longer the only large country with systemically-low interest rates. Low interest rates in the USA, the UK and Europe give investors in these countries the same motivation. Interest rates are likely to rise in Asia, as growth resumes (and in any case the return of government bonds in, say, Indonesia or the Philippines already offer a large interest differential). At the same time the US dollar seems likely to remain weak, especially vis-à-vis

[12] For an excellent analysis very relevant to the issues in this section, see ITO, H., JONGWANICH, J. & TERADA-HAGIWARA, A. (2009) What Makes Developing Asia Resilient in a Financially Globalized World? *ADB Working Paper 181 December*.
[13] Including FDI-related hedging, which will not show in the FDI figures.

Asia and Latin America where exchange rates will tend to strengthen as productivity rises. This combination of continuing interest differentials and sustained strong exchange rates in the high interest countries provides the environment to promote a rapid expansion of interest-sensitive flows.

These interest-sensitive flows behave somewhat differently from most other capital flows. Characteristically, carry-trade-type flows are responding more to the low profit opportunities in the funding country and are motivated by the now-well-documented failure of *uncovered interest parity* (UPI) [14]. The carry trade will be driven by simple sharp-pencil calculations of interest differentials and exchange rate expectations, reassessed continuously and reversed quickly if expectations change. The carry-trade's major characteristic is its volatility. These inflows may appreciate exchange rates well beyond the equilibrium level. When the inevitable correction comes, the depreciation is likely to be sharper and overshoot the equilibrium in a downward direction[15].

The downside for the recipient country is:

- The carry-trade inflows tend to be invested in areas susceptible to asset price increase, fueling asset bubbles.
- These low-interest rate funding opportunities undercut the intent of domestic monetary policy, which sees a need for sustaining higher interest rates to restrain economic activity to an appropriate level.
- These flows are likely to reverse at an inconvenient moment in the business cycle.
- The profile of the exchange rate – generally overvalued, with occasional sharp overshooting depreciations – gives volatile and confusing price signals to the internationally-traded sector, adding to investment uncertainty.

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[14] The textbook version sees the exchange rate in the target country experiencing a once-off appreciation, then steadily depreciating, with the exchange rate movement continuously offsetting the interest differential. The uncomfortable reality is different: the exchange rate appreciates gradually over time until uncertainty about overvaluation creates a knife-edge equilibrium which can be disturbed by a small random event, setting off a sharp over-depreciation. For discussion of the failure of UIP, see ENGEL, C. (1996) The forward discount anomaly and the risk premium: a survey of recent evidence. *Journal of Empirical Finance, vol 32*, pp 305–319.

[15] MCCAULEY, R. N. (2008) Managing Recent Hot Money Inflows in Asia *ADBI Working Papers 99*. identifies a number of these break points, where a sharp fall in the exchange rate has been associated with a large interest differential.

- Those domestic businesses which borrowed in overseas currencies are generally exposed to a serious exchange rate risk, which result in systemic (i.e. across the whole business sector) balance sheet damage when the periodic sharp exchange rate reversal occurs.

The policy issue is whether these short-term flows are a help or a hindrance. The strong EMH basis of much academic work gives a clear answer to this: these flows are part of the equilibrating process and so policy should not interfere. This view is endorsed by the financial markets, where unfettered flows maximize profit opportunities. However UIP clearly doesn't hold, so the presumption that the flows are pushing the exchange rate along an equilibrium path doesn't hold either. The broad impression of unhelpful pro-cyclical portfolio flows is seen in the experience of Korea and Indonesia in the last quarter of 2008. It receives more rigorous backing from (Chai-Anant and Ho, 2008)[16]. If equity flows are largely pro-cyclically and market-following, and the carry-trade flows are characteristically forcing the exchange rate to an over-valued level, with occasional sharp falls with overshooting under-valuations, it is hard to judge these flows as beneficial.

Thus the policy issue which will be addressed in the exchange rate section below is whether policy should take action to put 'sand in the wheels' of these short-term capital flows.

3. Policy Instruments

This, then, is the task ahead for policy. To wind in the external imbalance as promptly as possible, with the speed and extent largely dictated by the US adjustment profile, without sacrificing the ongoing benefits of continued globalization or running any of the relevant countries significantly below their potential growth rates. Meanwhile, the revival of interest-sensitive capital flows will make the task of maintaining stable and growth-supportive exchange rates just that much harder. We now examine the policy

[16] 'while currency returns tend to show little detectable influence over net equity purchases, net purchases do have some explanatory power over near-term exchange rate changes.', although they are also quick to note 'that foreign investors sometimes act as contrarian in episodes of heightened market volatility is suggestive of the potential benefit of allowing more different types of investors to participate in the local equity market – the divergence of views lessens the likelihood of a "one-sided" market.'

instruments available to address this: fiscal policy, monetary and financial stability policy, and exchange rate and external policies.

(a) Fiscal Policy

Now that fiscal policy has proven its efficacy in both developed and emerging countries, there are two challenges. To find the right timing for the exit from stimulus: and to re-establish the 'normal-times' rules which protect fiscal policy from political abuse. We also need to ask what fiscal policy can do for the external imbalances.

(Corden, November 2009) and (Skidelsky, 2009) make the general case for maintaining fiscal stimulus until the output gap is closed. They have in mind the developed world, but the argument applies to emerging countries as well. For them, the reining-in point is determined by dangers of running the economy too strongly and triggering inflation. But, meanwhile, the fiscal debt legacy is accumulating. This seems a serious constraint in the major developed countries[17], but not for the emerging countries of the region (except India, where the deficit is running at 10 per cent of GDP and government debt is 80 per cent of GDP, and perhaps the Philippines). Thus there is the potential to lean further and longer on the fiscal stimulus, and if in the process this pushes current accounts in the deficit direction, this is to be welcomed. This seems particularly relevant for China, whose massive expansion (though the budget and also through quantitative credit controls) has been so important for the region (indeed, for the world). Fiscal expansion addresses the external surpluses in the most direct and desirable way, by increasing imports rather than constraining exports.

That said, the emphasis is on 'leaning'. Emerging Asia's generally conservative fiscal positions over the past decade have helped buy immunity from the GFC, so shouldn't be given up lightly. A renewed longer-term commitment to some version of the cyclically-neutral budget might be helpful, not least by allowing the current fiscal expansion to be maintained for longer. In the meantime, the best antidote to market concerns about debt overhang is to articulate a plan (including some broad timetable) for winding back any excess government debt.

[17] See REINHART, C. & ROGOFF:, K. (2010) Why we should expect low growth amid debt. *Financial Times January 27 2010*

(b) Monetary and financial stability policy

Many of the Asian countries have an explicit or de facto *inflation targeting* (IT) orientation to their monetary policy (Ho, 2008)[18]. While a framework which emphasises inflation-control still seems to be a valid and appropriate approach, there is a growing consensus that this is incomplete, on two grounds. It does not take account of the role central banks must play in maintaining financial stability. And the role of asset prices, always unsettled or ambiguous in monetary policy, now takes on a higher profile because the US housing bubble played an important role in the pre-crisis boom and subsequent bust.

As originally developed, IT was a rather narrowly mechanistic approach to policy embodying the one-instrument-one-objective approach, motivated more by managerial considerations than analytic. In practice it has evolved in a more flexible way, best characterized as a 'forward looking' Taylor Rule which takes account not only of CPI inflation predictions, but the expected output gap as well. Setting the inflation priority above other objectives helps central banks in the political-economy task of 'taking away the punch bowl when the party is getting to be fun'. There is some danger that if a crisis like this one seriously weakens the exchange rate, the central bank will feel obliged to raise interest rates to constrain exchange-rate-induced inflation, even if this harms activity. If central banks have some flexibility about how quickly they needed to get inflation back to the target, there is usually room to allow the exchange rate to fall without the necessity of an interest rate response (c.f. Indonesia in the fourth quarter of 2008). In addition, the pass-though from exchange rates to CPI has lessened for most countries, reducing the need for interest rates to respond to exchange rate falls. For some countries, there is also the extra instrument of foreign exchange intervention. In short, IT is a framework which has shown itself to be flexible enough to be *added to*, rather than abandoned.

The immediate issue is how quickly to shift interest rates up from the 'emergency' settings of the GFC. If countries were guided solely by some version of the Taylor Rule, then interest rates would stay low for some time

[18] See also FILARDO, A. & GENBERG, H. (2009) Targeting inflation in Asia and the Pacific: Lessons from the recent past. *BIS Asian Research Program*. Half of the 12 Asian countries they examine are explicit inflation targeters.

yet[19]. Also pushing in the same direction is the near-universal concern about an overly-appreciated exchange rate (not so much 'fear of floating' but 'fear of floating upwards'). When the Taylor Rule *is* indicating the need for higher rates, it would be a mistake to resist this for exchange rate reasons. In discussing exchange rates (below), we suggest that if countries are attracting excessive capital flows, this might be more appropriately addressed by measures which impinge directly on those elements of capital flow which are the least beneficial. There is a further argument for being ready to shift rates up. Where lending rates have fallen to abnormally low levels, there is a danger that longer-term investment decisions will be distorted. This is, after all, one of the channels of transmission. But if it means that projects are undertaken which will be unviable in normal times, then there will be a price to pay for these low rates (c.f. the low policy rates after the US Tech-Wreck).

Three supplementary areas require comment: using credit growth as an indicator; asset prices; and financial stability. For completeness, the experience of the developed countries with Quantitative Easing (QE) is also described, as it opens up another dimension for monetary policy which might be relevant to the emerging market countries in the future.

(i) Credit as an indicator

Some critics have pointed to the fast growth of credit in the developed crisis countries as a harbinger of the crisis, which should have warned the monetary authorities of impending trouble. The implication is that the IT framework failed because it does not focus on credit growth. To respond, more precision is needed in this criticism. If the argument is that credit growth would have helped to identify inflationary pressures, then the IT framework can easily accommodate this: it is a purely empirical matter, and if credit growth is a useful indicator, then it should be used. If, on the other hand, the argument is that interest rates are an inadequate *target instrument* and credit needs to be controlled directly, then this idea has to be rejected, at least as the principal instrument of monetary policy. It would imply imposing controls over just one part of the financial system (in practice this means just the banks), and competitive neutrality would be lost. If, as the third possibility, the growth of credit was an indicator of impending

[19] This, of course, excludes China where quantitative control over credit may be more important than interest rates.

financial stability problems, then this needs to be addressed by measures which *supplement* the IT framework: see 'financial stability' below.

Since the crisis, credit is again the focus in some countries, but now because it is growing so slowly rather than too quickly. Indonesia, the Philippines and Thailand seem to be in this category, with credit growth slowing in India as well. Some doubt that monetary policy, operating through interest rates, is sufficient stimulus to have a significant impact, particularly as the fall in policy interest rates has not generally been fully passed on in lending rates. The counterargument is that most of this weakness in credit growth is on the demand side, where firms are growing slowly, consolidating, running down inventories and reducing leverage (Potchamanwong, 2009). In any case it is inconsistent to argue that credit margins were too thin in the lead-up to the GFC and at the same time criticise banks for widening them now. Accepting that monetary policy may at times be 'pushing on a string', there seems no alternative mode of operation that does not create the likelihood of bad-debt problems later.

When countries introduce macro-prudential cyclical adjustments of capital and liquidity ratios, this will add another dimension to policy. But these variable ratios will be designed to retain adequate prudential buffers, even at the low point of the cycle. To take the existing reserve ratios and modify them in an attempt to promote credit growth (as Indonesia is contemplating at present) seems the wrong way to go.

China, with its more direct control over credit expansion, is in a different category. The rapid growth of credit suggests overly expansionary policies, especially with housing asset prices rising sharply (see next section). Reflecting this, China has recently taken steps to rein in credit growth.

(ii) Asset prices

Before discussing what monetary policy might do when confronted by asset price increases, there are two prior issues. First, can asset price bubbles be identified *ex ante*? Second, are all asset price bubbles harmful?

Some argue that it is not possible to identify asset price bubbles in advance (Greenspan, 1999). This seems a purely practical issue. Policy-makers can use whatever imperfect metrics that exist – asset price inflation, P/E ratios, 'Tobin Q' analysis and historical price norms – and use the same skills of

judgment that they bring to bear in routine monetary policy, to decide whether they are confronting an asset bubble. They may make mistakes of judgment (as they will from time to time with the Taylor Rule inputs to CPI inflation) and may miss some asset bubbles. But principled ignorance is not an excuse for ignoring impending bubble.

That said, before vigorous policy action is taken on asset prices, it is worth considering whether some bubbles are more damaging than others (Mishkin, 2009). There are two important distinctions here, although in practice they will not be precisely identified. One is whether the asset bubble is leveraged, which passes the shock into the financial system and thus makes it more serious. The second is the type of asset: investors generally understand that equity prices are volatile and a pure equity bubble (e.g. the 1999-2001Tech Boom in the US) is less likely to causes systemic problems. Housing foreclosure, on the other hand, causes social disruption.

Supposing a bubble can be identified and seems potentially quite harmful, what then? If interest rates are already set appropriately to support the strongest level of activity consistent with the CPI inflation target, then to tighten policy to address pressure on asset prices will clearly have some cost in terms of forgone output. At the same time, a minor tweak of interest rates is unlikely to do much to slow down an asset price bubble, where prices will be rising much faster than the nominal interest setting. There is probably enough flexibility or ambiguity in the policy setting to *lean against* an exuberant asset market which, while not immediately inflationary, will cause some pressures later on. That said, the choice of "lean or clean" (White, 2009) is intrinsically unsatisfactory: 'leaning' is unlikely to constrain an asset bubble and 'cleaning' is messy. The better answer is to look for *additional instruments* to restrain asset prices, in the form of micro instruments such as capital ratios, loan-to-valuation ratios (LVRs) or even credit growth limits (Posen, 2009). A capital-gains tax is another possibility. Where these micro instruments have been given to a separate prudential supervisory authority, this authority must be explicitly given the task of using these instruments to restrain asset prices, or (a better option) be required to take instructions from the central bank (which has more knowledge of the macro environment to be able to judge the needs).

Just as the IT framework has evolved from the original narrow version, monetary policy is evolving to accept some responsibility to constrain asset bubbles. A number of countries have already used additional instruments –

Singapore, Korea, Taipei China and China have all recently responded to the need to restrain property purchases. The old one-goal-one instrument world is evolving into something more complex and nuanced and this is to be applauded.

(iii) Financial Stability

The 'Great Moderation' of the 1990s lulled central banks everywhere into a false sense of security. It was thought that the combination of liquidity facilities, deposit insurance and, in extremis, lender of last resort (LoLR) would do the job when/if they were needed. Even where the micro tasks of prudential supervision had been shifted to a stand-alone supervisor, central banks still had responsibility for systemic stability (and of course the LoLR remained with the central banks, as the prudential supervisor had no balance sheet to fund the LoLR)[20].

The GFC demonstrated just how challenging is the obligation of ensuring financial sector stability. Meeting this challenge will require changes in:

- the political economy of prudential regulation
- The rules and practices of regulation and
- The structure of the financial sector

A principal deficiency was in the *political economy of regulation*. As demonstrated particularly in the USA, prudential regulators did not have the authority, coordination and backing to carry out the difficult and unpopular task of restraining the development of a financial sector which has strong profit motives combined with the moral hazard risks of LoLR and too-big-to-fail (TBTF). It is difficult to take unpopular action against low-probability (tail) risks. It has proven too difficult to act in a timely way, against the commercial pressures of a stridently self-confident financial sector. Just as monetary policy needed a powerful institutional arrangement to "take away the punch bowl when the party is getting to be fun" (in the form of central bank independence and the inflation targeting framework), the prudential authorities now need the same backing and institutional strength. This is not yet available in most regimes (Bank Century in Indonesia illustrates the problems).

[20] The GFC has demonstrated (particularly in the UK) the ambiguity of this separation: coordination of central bank and financial stability actions has been problematic.

The demonstrated weaknesses of monetary policy in handling asset price bubbles and financial stability will require central banks to become more involved in prudential supervision (where they are not already). This will require macro-prudential instruments and regulation, focusing on capital requirements, liquidity reserves and constraints on asset-funding (loan/valuation ratios). A clear liquidity ratio requirement was one of the missing elements of the Basel framework. Putting an effective liquidity requirement in place is all the more important now that just about every central bank has given generalized liquidity assistance to its banks: this has created a moral hazard problem, and a significant liquidity requirement is needed to prevent banks from simply assuming that 'next time' their liquidity position will be bailed-out again by the central bank. These prudential requirements need to be made flexible over the course of the cycle, to reduce the pro-cyclical nature of current supervision. All this is under discussion in the BIS forums and Financial Stability Board (with its newly-expanded membership)[21]. Given the slow and complex nature of these discussions (Basel II took almost ten years to implement), individual countries should not wait to implement sensible and straight-forward changes which could be tweaked if later international uniformity is required[22]. The GFC has revealed serious deficiencies: to wait a decade to respond seems unacceptably lethargic.

Perhaps more important, the *structure* of the financial sector needs to be re-examined. The US and UK financial systems were vulnerable because the various entities were too conglomerated and interconnected, so the old problem of 'too big to fail' spread over most of the financial sector, in the form of 'too complex to fail' and 'too inter-connected to fail'[23].

Although Asian financial sectors are currently not as complex as those in the US and the UK, they are moving inexorably in this direction. It would be

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[21] See BIS (2009b) Consultative proposals to strengthen the resilience of the banking sector announced by the Basel Committee, 17 December.

[22] On the issue of international uniformity of regulation, it might be worth noting that, with the possible exception of Singapore and Hong Kong, the emerging countries of the region do not have banks whose overseas operations are so large that international coordination of crisis management is important.

[23] See KING, M. (2009) Speech to the Scottish business organisations, Edinburgh 20 October. TURNER, A. (2009) Large systemically important banks: addressing the too-big-to-fail problem. Speech, 2 November. GRENVILLE, S. (2009b) Fixing the banks. *Australian Financial Review 27 November*.

easier to divert this process now rather than unwind it later. Emerging countries have the opportunity to benefit from the structural deficiencies revealed elsewhere during the GFC. But there will be great pressure to continue down the path of mimicking these overly complex and conglomerated structures. The wider membership of groups such as the Financial Stability Board provides the forum for exploring different structures, but it will be hard for the emerging countries, as new members of this 'club', to make their voices heard.

The better model for a financial sector is one made up of functional groupings of more specialized entities, with the 'safe core' being relatively simple banks (Glass-Steagall-type banks, providing deposit and payments services, simple lending and basic trade-facilitation services, not trading on own account or providing investment banking services such as underwriting). These banks would be separated from specialized institutions such as insurance and funds management, which require their own specialized supervision and regulation. Other financial services would be provided within a 'buyer beware' framework of regulated business conduct, with this caveat explicitly (and prominently) promulgated. Greatly simplifying financial institutions ('deconglomerating' them) would not only make them easier to understand and regulate, but simpler to manage.

Just as important as the LoLR facility is the 'market-maker of last resort'. During the GFC, even the most essential markets such as the New York money market dried up, leaving a fatal gap in the system. The general lesson for emerging market economies is that the authorities should be ready to keep vital markets (foreign exchange; money market; bank liquidity and inter-bank; government bond, export cover) operating. There need to be detailed operational *crisis management protocols* with simulation exercises to prepare the participants for the day when things go wrong.

There has been a vigorous debate about 'too-big-to-fail' (TBTF) and the moral hazard that goes with it. The restructuring suggested here confines TBTF to a smaller segment of the financial sector (although still large). Within this sector, intrusive supervision is part of the answer, and crisis management protocols covering the liquidation or nationalisation of failing institutions address moral hazard by assuring that both management and shareholders bear the brunt of failure.

(iv) The Zero Bound

The GFC has provided substantial practical experience with monetary policy operating at the 'zero bound': essentially Keynes' liquidity trap. Does monetary policy run out of puff when interest rates reach zero? None of this has immediate relevance for the countries of this region, so it will be dealt with briefly here. The first (and obvious) point is that, contrary to much of the popular commentary, monetary policy still has power even when the interest rate is at zero. It is as if the accelerator is flat to the floor (rather than non-operative), so it can't do more, but it is generally still doing a lot, and will go on being effective (lesson three, above).

In addition, monetary policy has other aspects that can be brought into play, generally called Quantitative Easing (QE). With the policy interest rate at zero, the central bank is no longer constrained to limit the amount of base money in order to keep the policy interest rate at its desired setting, but can carry out open market operations which have the effect of increasing the amount of base money, even substantially. In itself, this increase in base money probably has little or no direct effect in stimulating activity, because the excess base money accumulates in the balance sheets of the banks, which are already making all the loans they regard as bankable[24]. But the other 'leg' of the open-market transaction may have some effect. If the open market operation buys government bonds, it might lower the longer term bond rate. The Japanese experience in 2001-2004 (Spiegel, 2006) suggest that this effect is small, as does the current UK experience, although the more recent experience[25] claims to find a bit more effect. In any case it is not clear that this effect is passed through to commercial lending rates. Other open market operations might, however, be quite powerful: for example, when the authorities buy assets which the market is currently undervaluing because of non-specific concerns (Akerloff's 'lemons'). Thus the US Fed's purchase of $800 billion of private paper, including sub-prime, may be having more impact in reanimating this market. For completeness we should also note that the central bank could implement the famous Friedman 'helicopter drop' of currency, but this would be *fiscal policy* (i.e. the same as the government sending cheques to the population) which is a legitimate measure, but not monetary policy.

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[24] The text-book credit multiplier process has not been relevant in practical monetary policy for more than two decades, although the academic literature is only slowly catching up.

[25] See GAGNON, J. E. (2009) The World Needs Further Monetary Ease, Not an Early Exit. *Peterson Institute Policy Brief, December*.

(c) Exchange rates and external policy

(i) Exchange rates

In sharp contrast to the 1997 experience, **exchange rates** played very little role in the GFC. Within the region, exchange rates were well-behaved in most countries, with Korea (and perhaps Indonesia) being the exceptions. This is surprising, given the ubiquitous and dramatic fall in exports and the drastic shrinkage in capital inflows.

With the current degree of globalization and financial market inter-connections, the key policy insight is that the exchange rate is largely an *endogenous variable*, reflecting the outcome of monetary and fiscal policy settings and the economy's behavioural parameters. The exchange rate should not be seen as a separate independent policy instrument[26].

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[26] The Impossible Trinity (see AIZENMAN, J., CHINN, M. D. & ITO, H. (2009) Surfing the Waves of Globalization: Asia and Financial Globalization in the Context of the Trilemma. *Asian Development Bank Working Papers No. 180 | November 2009*. may be an unhelpful framework for thinking about the policy issues surrounding the exchange rate as it seems to offer a more active policy role for exchange rate policy than is available in practice. It focuses excessively on the effect of interest-sensitive capital flows on exchange rates, and thus misses other important influences. It is confusingly unclear on just what is mean by exchange rate fixity or stability, without enough regard for whether this stability represents an equilibrium exchange rate or not (if the managed rate is, in fact, the equilibrium rate, it is perfectly possible to have independent monetary policy and an open capital account while fixing the exchange rate). On the other hand a floating rate does not necessarily mean monetary independence. KIM, S. & YANG, D. Y. (2009) International Monetary Transmission and Exchange Rate Regimes: Floaters vs. Non-Floaters. *ADBI Working Paper 181 December*. show that the 'floaters' tend to mimic US monetary policy because of 'fear of floating' (or more precisely fear of over-appreciation).
The more realistic framework is to see the exchange rate as a largely endogenous variable. Why, then, would a country do anything other than have a free float to keep the exchange rate at its FEER equilibrium (which would resolve the Impossible Trinity without any down-side)? The answer, for most countries, is two-fold. First, that the free market is far from perfect at price discovery and delivering an outcome over time that represents the FEER equilibrium. Second, that foreign capital flows can be irrational, excessive, volatile and disruptive.

That said, exchange rates are clearly not always 'well behaved', and the GFC experience with markets (lesson one, above) might make countries more ready to intervene when the market takes the rate away from what seems a sensible equilibrium level. The last year has provided some positive evidence of the effectiveness of foreign exchange intervention and this may be part of the explanation for the surprising stability of most exchange rates in the region.

The policy issue is to find the right balance between allowing flexibility of the exchange rate to absorb shocks and accommodate the evolving fundamentals, while at the same time dampening the excessive swings which an uncertain and imperfect market can deliver. And all this has to be done within the necessarily limited operational capacity of the authorities.

The unhelpful debate about 'corner solutions' is now, thankfully, over[27]. Almost all of the countries of the region are operating successful 'middle-ground' exchange rate regimes, relying on the markets to provide feedback on where the equilibrium rate might be, while at the same time resisting wide fluctuations where possible. The issue is how to determine a sensible equilibrium range: how wide and with what centre[28]? The conceptual mind-set is clear enough: the policy-makers are trying to mimic the equilibrium exchange rate that a well-functioning market would produce. The theoretical attraction of free-market floating solution was that a well- functioning market promised to deliver this[29], and would guard against policy-makers

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[27] See GOSH, A. & OSTRY, J. (2009) Choosing an exchange rate regime. *Finance and Development December,* Volume 46 No 4.

[28] Thus the policy issues are operational ones. 'What level of reserves are the authorities prepared to accumulate and use in intervention?' 'How will they intervene i.e. let the market shift the exchange rate a fair way from equilibrium before intervening? (As the authorities don't know exactly where the equilibrium exchange rate is, it may be better to let the rate move until they are fairly sure it is out of kilter)' 'How much harm does unnecessary volatility do?' 'How much harm does more persistent misalignment do?' These operational issues are the important ones and the Impossible Trinity sheds no light on them. The stability trade-off is also rather different. Allowing a reasonably wide range of movement before intervention allows the authorities to benefit from market feedback on where the exchange rate should be. Too much of this feedback opens the possibility of destabilising momentum developing. Too little creates the danger that the FEER might change over time without the authorities realizing that they are supporting the wrong rate.

[29] Professor Harry Johnson, vigorous advocate of free floating, reflected the original (hopelessly unrealistic) promise of floating rates: "A freely flexible exchange rate would tend

attempting to impose their mistaken preconceptions or their mercantilist export-oriented priors on this. This approach falls down only because the market has shown itself unable to provide this price discovery in a form that is consistent and stable over time. But the key point is that any intervention should be trying to mimic a well-functioning market, not over-ride it to produce a non-equilibrium exchange rate.

Indonesia, Korea, Thailand, India, Taipei China and the Philippines allow a significant degree of movement (against the US dollar, each of these countries has demonstrated a range of over thirty percent during the past five years) but in all cases have also used significant intervention[30]. Singapore has a high degree of managed stability, using the exchange rate as the operating instrument for monetary policy, which allows the exchange rate to act as an important cyclical stabilizer. Malaysia has a rather similar high degree of managed stability, achieved by significant intervention. In both countries there is a large current account surplus[31]. Hong Kong SAR demonstrates the fixed nominal exchange rate option (with a strong rationale in the unique political position).

The Indonesian and Korean experience provide an interesting contrast. The rupiah came under strong downward pressure at the peak of the crisis in response to foreign capital outflows from equities and bonds. After initially supporting the rate with intervention, the authorities then let the rupiah fall quickly by around 30 per cent. The rupiah recovered all the lost ground within a couple of months and this looks to have been an admirable example of a balance between allowing the market to operate and using reserves to constrain overshooting. Korea, with apparently rather similar circumstances, saw its exchange rate fall by 50 per cent with only an incomplete subsequent recovery. The key difference seems to have been the reliance of the Korean banks on foreign funding, although it might be worth noting that Korea went

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to remain constant so long as underlying economic conditions (including government policies) remain constant; random deviations from the equilibrium level would be limited by the activities of private speculators" JOHNSON, H. (1972) *'The Case for Flexible Exchange Rates' in Further Essays in Monetary Economics* Allan and Unwin, London.

[30] Korea drew not only in its own reserves, but also the swap facilities offered by the US, Japan and China.

[31] In neither case has this caused comment within the context of the China overvaluation debate.

into the crisis with its real exchange rate higher than before the 1997 crisis (unlike the other Asian crisis countries).

Thailand also offers an interesting experience. Prior to the GFC the baht had been under upward pressure from capital inflows (and Thailand had experimented with inflow-discouraging unremunerated reserve requirements (URRs) in December 2006) but the GFC reversed these pressures, and the authorities allowed the baht to depreciate, offering some resistance through intervention. This seems to be another example of a successful restraining response. Now, with capital flows returning, the baht has reverted to its pre-GFC level and the prior over-appreciation problems may return. India, too, had seen the impact of very large capital inflows (especially FDI) in 2007, with the rupee appreciating. This gave room for some helpful weakening during the GFC (when the capital inflow slowed sharply) without pressure on inflation.

Looking forward, with the 'corner solutions' debate now behind us and the recognition that the foreign exchange market is not always well behaved, we might hope for a more vigorous and open debate about where the equilibrium exchange rate is in each country. It is hard to argue that the exchange rate falls in Indonesia or Korea in 2008 were part of an efficient exchange rate path, that they performed a shock-absorber role, or that they did not present a major distraction from good policy-making.

Cline and Williamson (Cline and Williamson, 2010) have recently revised and updated their estimates of FEER[32] (see a summary in Table 1) and the Fund's Consultative Group on Exchange rates (CGER) is regularly assessing each country's rate against a three-way equilibrium calculations. So far this latter work has been in the context of identifying cases where a country might have allowed or encouraged its rate to *depart* from equilibrium (i.e. it is designed to identify 'manipulation'). For this analysis to be useful in the current context, the calculations need to be made public and be seen as identifying opportunities for useful intervention to shift the rate *towards the*

[32] 'A fundamental equilibrium exchange rate (FEER) is defined as an exchange rate that is expected to be indefinitely sustainable on the basis of existing policies. It should therefore be one that is expected to generate a current account surplus or deficit that matches the country's underlying capital flow over the cycle, assuming that the country is pursuing internal balance as well as it can and that it is not restricting trade for balance of- payments reasons.' CLINE, W. R. & WILLIAMSON, J. (2010) Notes on Equilibrium Exchange Rates. *Peterson Institute Policy Brief 10-2 January*.

equilibrium[33]. Certainly, identifying the equilibrium exchange rate (even in the form of a range which is sufficiently narrow to be operationally useful) is difficult, but detailed analysis of the influence of the fundamentals can take policy-makers a long way. Cline and Williamson (Cline and Williamson, 2010), at least, are in no doubt as to what should happen: 'the remaining overvaluation of the dollar would be completely eliminated if the five East Asian economies with seriously undervalued exchange rates were to appreciate to FEER-consistent levels: China (whose effective depreciation has increased and needs the most effective and bilateral appreciation, the latter at 41 percent in the main estimate), Hong Kong (32 percent), Malaysia (31 percent), Taipei China (29 percent), and Singapore (25 percent).'

Table 1 Fundamental Equilibrium Exchange Rates

	Indonesia	Korea	Thailand	Malaysia	Singapore	Philippines	India	Taipei China
Adjusted 2008 FEER	7977	865	28.1	2.51	1.0	36.1	39.3	24.9
FEER March 2009	9707	1197	29.5	2.63	1.15	40	44.8	25.2
Actual March 2009	11922	1450	35.7	3.67	1.53	48.5	51.1	34.3
FEER Dec 2009	9884	1201	29.7	2.62	1.13	40	47	24.9
Actual Dec 2009	9395	1164	33.3	3.42	1.4	46	47	32

[33] The recent Korean Article IV discussion illustrates the pervasive anti-intervention mind-set of the IMF. The CGER estimates indicate that the won is undervalued (as usual, the extent of this is fuzzed and understated in the discussion), and Cline/Williamson's estimates show the same result. Instead of providing a powerful endorsement of Korea's substantial intervention to support the won in 2008, which pushed the exchange rate in the right direction (i.e. towards equilibrium), the Korean discussion is almost apologetic for its intervention, with the ameliorating factor being that they haven't intervened in 2009. "Prior to 2009, intervention was confined to smoothing operations. So far in 2009, the authorities abstained completely from exchange market intervention, as evidenced by the won's volatility and appreciation since early March." This no-intervention mind-set is endorsed by the Fund staff: "Foreign exchange intervention in the spot market should remain confined to smoothing operations." The successful intervention to support the won goes unremarked.

With some idea of the equilibrium in mind, there are variations in *strategy*. Williamson's 'band/basket/crawl' (BBC) fits neatly here, as does the different and more market-based approach of the Reference Rate model (both described in (Williamson, 2008)), which suggests that countries should agree on a 'reference rate band' and refrain from intervention within the band, but should have the option of intervening in a stabilizing direction if the exchange rate is outside the band. Probably superior to both is a more discretionary approach which does not require the defence of a specific band (always a perilous policy). Its main operating guide is the presumption that the further the actual rate is from the equilibrium, the more sure the authorities can be that their intervention is in the right direction and is beneficial compared with the 'no action' alternative. Nowhere in this range of strategies would one find the Fund's usual recommendation for 'smoothing only', nor for its close relation 'leaning against the wind'.

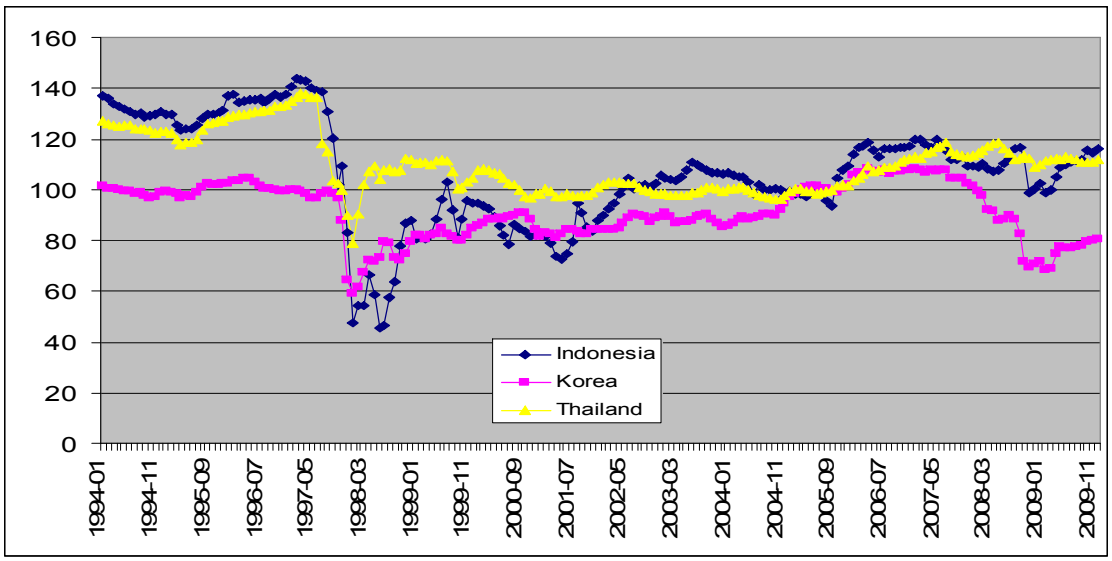
Here are some tentative conclusions from the post-1997 experience which might guide the authorities in their analysis of the equilibrium:

- There was an obvious overshoot in the REER for all three crisis countries in 1997 (see Figure 1). All three have come back to within 20 per cent of the pre-crisis level (which was probably artificially boosted by the large (abnormal) capital inflows in the pre-crisis period). If we take this into account informally and see Korea as heading for some further appreciation (as both the Cline/Williamson and IMF calculations of the FEER imply), the current REER for each country might be seen as not much more than 10 per cent different from the pre-crisis levels. It is worth noting that the pre-crisis levels were associated with substantial current account deficits (especially in Thailand's case), whereas all three countries are currently running surpluses. Depending on the exact parameters, all three countries appear to have been able to accommodate a Williamson-style BBC with a plus/minus 10 per cent range, with any readings outside that range being outliers at least potentially susceptible to intervention (although this is not to argue that the edges of the band could or should have been defended).
- That said, all these countries (and the others shown in Figures 6-8) showed quite substantial sustained shifts in REER over time. So the equilibrium calculation should have the capacity to adapt to a changing fundamental equilibrium rate over time. Recalling the

Japanese experience of a very substantial real appreciation in the early 1970s, this sort of major structural adjustment may become more relevant over time. It is surprising, in this context, that the REER have not demonstrated some Stolper/Samuelson productivity effects over time.

- Time and greater financial depth have not freed these countries from exchange rate volatility. Despite running current account surpluses, avoiding obvious over-valuation, and having quite large FX reserves and healthy financial sectors, both Indonesia and Korea experienced large depreciations during the GFC (in Korea's case, the fall in 2008 was of similar magnitude to that in 1997)
- Korea probably has the most internationally integrated financial sector among the crisis countries, and that may explain the greater range of exchange rate movement. The recent depreciation episodes in both Indonesia and Korea can be clearly associated with capital flow or foreign debt issues. But Singapore and Hong Kong, the most financially integrated of all, have both kept quite stable REER.
- Also worth noting is that Korea, unlike the other two crisis countries, went into the GFC period with its exchange rate stronger than before the 1997 crisis. If it is true that "the higher they are, the more they fall", then more vigorous intervention to hold down the won before the GFC might have lessened the fall during the crisis. It is a reminder of why countries have some preference for maintaining an undervalued exchange rate.

Figure 1: REER Indonesia Thailand Korea



Source BIS

We have nothing to add, here, to the much-discussed case for a RMB appreciation[34]. Given the level of foreign exchange reserves, capital 'flowing uphill' and the sheer size of the current account surplus (at least before the crisis temporarily reduced it), the case seems a strong one[35]. But at the same time it is hard to see that the exchange rate, in itself, is the answer or even the key element in addressing the US imbalance (McKinnon and Schnabl, 2009)[36]. More fundamental changes (e.g. allowing greater outward capital flows from China) and reducing the numerous distortions to production and demand seem more important. That said, untying the exchange rate from the depreciating US dollar would seem to be a first step to ensuring that the exchange rate distortion is not increasing over time. This USD/RMB link has undone much of the very substantial progress that was made in appreciating the REER in the years leading up to the GFC (see Figure 3). If a stable anchor is needed, a currency basket provides a better basis.

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[34] BLANCHARD, O. & MILESI-FERRETTI, G. M. (2009) Global Imbalances: In Midstream? *IMF Staff Position Note 09/29*. seems to capture the imbalances issue: 'But "one-size-fits-all" explanations (U.S. fiscal profligacy, U.S. consumer profligacy, the saving glut in emerging Asia, undervaluation of the RMB, Bretton Woods II) just miss the essential complexity of what has happened since the mid 1990s.'

[35] PRASAD, E. S. (2009b) Rebalancing growth in Asia *NBER Working Paper 15169 July*. Sets out the unusual features that suggest China has some rebalancing ahead of it.

[36] For other discussion, see BERGSTEN, C. F. (2009) The Dollar and the Deficits: How Washington Can Prevent the Next Crisis. *Foreign Affairs, Volume 88 No. 6, November/December*.

Figure 2. REER, India Malaysia Singapore

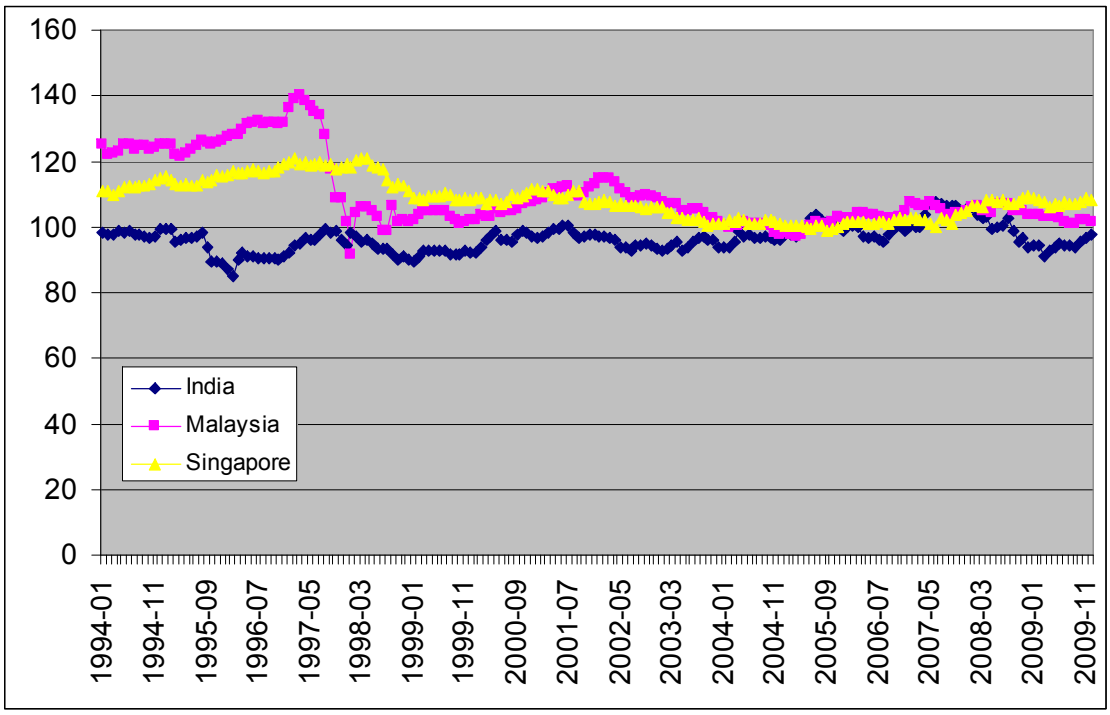
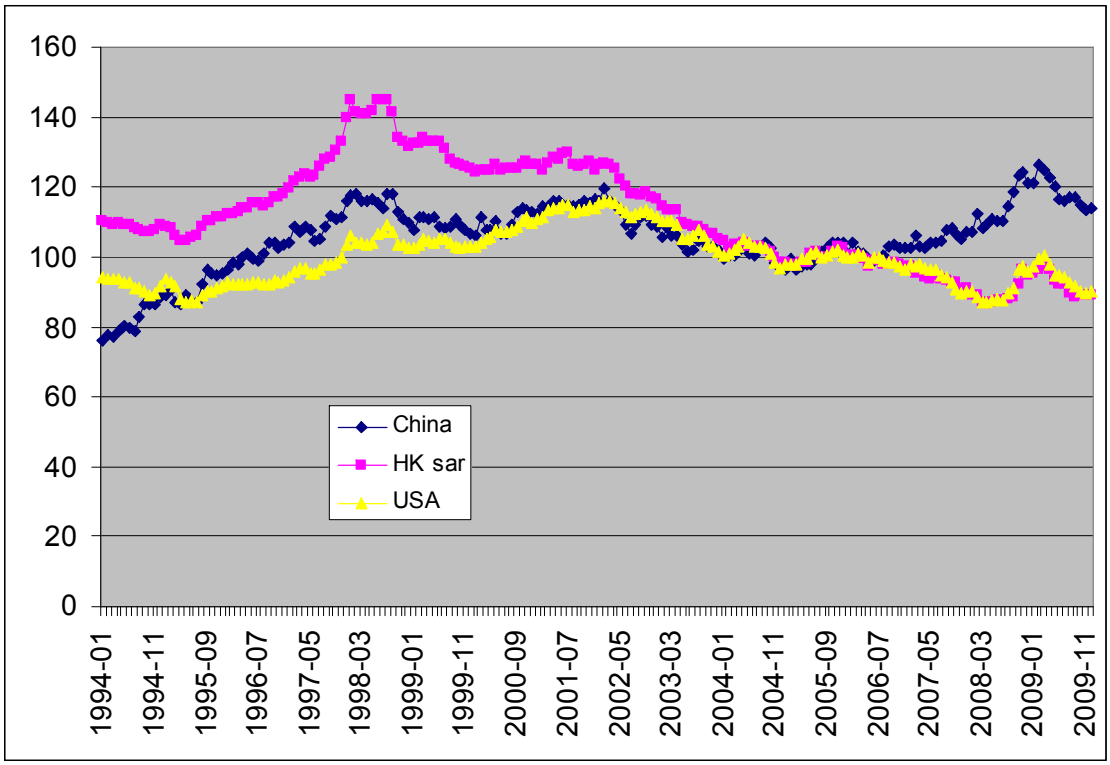


Figure 3. REER China, Hong Kong SAR, USA



Having looked at the policy-importance of identifying an equilibrium range for the exchange rate, we turn in the next two sections to discuss how policy might respond to a disequilibrium exchange rate. If the disequilibrium is caused by volatile capital flows, this might be addressed at source, by constraining the flows. This is examined in Section (iii) below. If this is not the case or not feasible, the disequilibrium might be addressed through intervention, discussed in the next section.

(ii)Foreign exchange reserves

Operationally, the constraint on intervention is reserves[37]. What do countries need in the way of foreign exchange reserves?

For some countries (China comes to mind), reserves are a byproduct of other policy settings rather than an objective in themselves. But for others, reserve-holding reflects a balancing of costs versus benefits, with some notion of what is an 'optimal' level. None of the conventional rules seems very helpful:

- The traditional 'months of imports cover' may have made some sense when the main action in the balance of payments was in the current account. But when it is in the capital account, months of imports don't have much relevance.
- Perhaps as an acknowledgment of this, the Guidotti/Greenspan Rule (Greenspan, 1999) suggests that countries should hold reserves equal to the foreign debt maturing over the next year. This might make sense for countries with large longer-term foreign debt that needs to be rolled over periodically. The Rule warns of any impending peak in roll-over. As well, the debt falling due over the next year could be funded if the roll-over possibilities dry up for a year (although this is an arbitrary period). But for countries with significant short-term private foreign borrowing, the idea that the authorities should put aside an equal amount, so that they are ready to bail out the private sector's short-term borrowing, raises moral-hazard and equity issues

[37] Countries have other possibilities which have the same effect. Using the Fed's swap facility was one example. Borrowing the intervention funds is another. And issuing FX-denominated government debt gives the market the opportunity to square its position (Brazil had implemented this approach from time to time), with much the same effect as intervention.

and a deeper question of what benefit is being derived from the short-term borrowing (see below for more). In any case, most commercial borrowing, even longer than a year, has contractual clauses which could trigger earlier repayment in a crisis, and it is these possibilities that need to be weighed.

- To scale the reserves against some broad money variable (Obstfeld et al., 2009) (Obstfeld et al., 2008) seems to imply that the incipient problem is a generalized flight by residents from the domestic currency. In practice intervention would not be the appropriate response: this is a clear case for higher domestic interest rates and, if necessary, credit controls.

Perhaps the answer is to have a range of these sorts of measures, but also to think through the detail (who is vulnerable to a 'sudden stop'? Who has mismatched-currency borrowing?), relying on more detailed *stress-testing* of the portfolio flows which are more susceptible to reversal, using data on commercial foreign borrowing and foreign holdings of equities and bonds.

Recent experience in Indonesia and Korea adds another dimension to the use of reserves for intervention. In both cases, the starting level of reserves, while lower than for many others in the region, was comfortable in terms of the usual criteria. But as soon as these reserves began to be used, financial markets focused on the *fall* in the reserves rather than the absolute level, and drew a 'line in the sand' ($50 billion for Indonesia, $200 billion for Korea) which came to be seen as a *minimum* level of reserves, not to be breached. But if these comfortable levels are seen by the market as minimal, how can reserves serve as a buffer through intervention? Swap lines with other central banks seem to have been more effective in combating adverse market sentiment[38] and government backing for bank foreign borrowing (as was carried out in Australia) seems the most effective of all. It also strengthens the case for a much more effective Chiang Mai Initiative (more below)

(iii) Policy on capital flows

[38] The three swap facilities (from the Fed, China and Japan), amounting to $90 billion, seem to have impressed the Korean foreign exchange markets. For some general discussion, see OBSTFELD, M., SHAMBAUGH, J. C. & TAYLOR, A. M. (2009) Financial instability, reserves and central bank swap lines in the panic of 2008. *NBER Working Paper 14826*.. For the Fed announcement, see http://www.federalreserve.gov/newsevents/press/monetary/20081029b.htm

In discussing capital flows (above), the case was made that short-term carry-trade-style inflows are volatile and disruptive. Intervention (as discussed above) might be part of the answer. But a more direct policy response, tackling the problem 'at source', would be to follow the recent Brazilian example of imposing a tax on portfolio inflows, or some variant on this, such as the unremunerated reserve requirement (effectively a tax) made famous by Chile[39], but used by many other countries before Chile adopted it in 1991. This seems to put the policy response close to the distortion, by imposing a once-off tax that will impinge more strongly on short-term flows than on longer-term flows, and serves to offset the interest rate gap that is fostering these unhelpful flows.

Of course this has been tried with mixed results. The Thai URR of 2006 was greeted with such annoyance and derision by financial markets that it was watered-down and then withdrawn in 2008. But the problem is not the URR: it is the markets. Understandably from their self-interested viewpoint, market players dislike any tax. What is needed is some analysis and positive backing from the IMF (not the critical commentary that was provided on the Brazilian tax). There needs to be a change in mind-set at the Fund[40] . It might also be helpful if the regional bodies (ASEAN, East Asia Forum, ADB) endorsed such actions in principle, and discussed when their use would be appropriate.

It may be that a more effective response is in terms of a normal withholding tax on interest income. Historic accident has often resulted in tax being levied by the investor's country rather than at source-of-income, with the result that no tax is paid in the country which receives the capital inflow. Where the investor uses a tax haven, this results in a clear economic distortion. In equity terms, there seems a good case for tax at source-of-income: the investor is getting the benefit of the governmental infrastructure that makes this income possible, so should pay something for its provision.

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[39] See, e.g. IMF, I. E. O. (2005) Box 2.3. Chile: The IMF's Views on the Use of Market-Based Controls on Inflows. *Report on the Evaluation of the IMF's Approach to Capital Account Liberalization, April*, p 28.

[40] See GRENVILLE, S. (2010) Capital flows, the carry trade and 'sand in the wheels'. *Lowy Institute Policy Brief*. Very recently, the IMF has shown an important shift in its position on capital flows, accepting that there will be circumstances in which capital controls are justified. See OSTRY, J. D., GHOSH, A. R., HABERMEIER, K., CHAMON, M., QURESHI, M. S. & REINHARDT, D. B. S. (2010) Capital Inflows: The Role of Controls. *IMF Staff Position Note SPN/10/04*.

Where treaties permit, a significant tax on foreign interest earnings seems both equitable and helpful in the face of excessive inflows.

One issue requiring more analytic work is the apparent difference between capital flows in Indonesia, on the one hand and, say, Korea on the other. The equity-market data suggests that in Indonesia, where foreigners own around 70 percent of equity capitalisation, there was little capital flight from equities (see BI Financial Stability Report, March 2009). In contrast, foreigners retreated from the government bond and SBI markets. In Korea foreigners seem to have retreated from all financial markets, and the reversal of banking flows was particularly disruptive. It would be useful to have a clear understanding of the reasons for these differences. It is possible that the brief closure of the Jakarta Stock Exchange marked a watershed for foreign equity holders: when the market re-opened, they may have reasoned that they had already taken the 'price hit' and might as well stay. If this explanation is true, it is a reminder that allowing markets to adjust quickly to shocks ('not leaning against the wind' or 'smoothing') will often be the best policy.

(iv) International cooperation

This discussion of exchange rates and reserves raises question of regional cooperation in both areas. Both have been well-explored elsewhere (Grenville, 2009c, Grenville, 2009a). While progress has been made on reserve pooling through the multilateral Chiang Mai agreement (to come into effect in March), individual countries will still want to hold enough reserves to do the sort of routine interventions discussed above. And, as noted by (Eichengreen, 2009), while-ever there is a requirement for an IMF program for drawings in excess of the country's own contribution, the effective drawings on the CMI are very limited. Perhaps this requirement reflects a misunderstanding of the circumstances in which support may be needed. At least judged by the recent experience, the need for funding did not reflect any deficiencies in domestic policies which needed the sort of advice-laden intrusive program characteristic of the IMF. There was no need, this time round, to link the funding with an IMF program. Moreover, the Fund itself seems more than ready to lend in these circumstances through the Flexible Credit Line, so why would regional partners go on being so reluctant? To come through this crisis with no drawings on the CMI (while at the same time there was some use of the Fed's swap facility) suggests that a stronger sense of regional opportunities and solidarity is needed.

The Asian Bond Funds and Asian Bond Market Initiative reflect another under-developed opportunity to weld the financial systems of the region together more closely, but once again it will require more dynamism and drive than has been shown recently. While it is true that the ultimate aim will be to develop a deep and dynamic commercial bond market, the basic building block of this is a strong government bond market, with enough depth to absorb change in foreign demand and assure the participants of a good degree of liquidity. If China's need for an alternative reserve currency to its huge US dollar holdings could be linked with this need to develop the regional local-currency bond markets, there would be benefit to all parties. The Asian Bond Funds 1 and 2 began with quite modest aims which were quickly achieved. Now the need is to move these to a higher stage (especially Bond Fund 2, in local currencies). This requires rather more imagination than has been shown so far[41].

One area should be of particular interest to countries of the region working together: expanding intra-regional capital flows (Hill and Jongwanich, 2009). Just suppose, as a thought-exercise, China's current account surplus was balanced by capital outflow from state commercial and private sectors in the form of FDI or longer-term portfolio investments, perhaps concentrated in the emerging countries of the region. Not only would the RMB exchange rate setting be less vulnerable to criticism, but the up-hill flow of capital – from China to the USA -- would be addressed. Turning the thought-exercise into reality would take a substantial institution-building effort, particularly in the financial sectors throughout the region[42].

The development of the international architecture – particularly the expanded role of the G20 – is one of the silver-linings of the GFC. This is a major opportunity for countries of the region: the task now is to seize the opportunity. First, how to marshal the collective voices of the region? Second, to identify and develop the issues that should be pursued together. One possible path is for the six countries of the region that are members of

[41] For example, when Australia offered back-up funding to Indonesia during the GFC, this could have been given in the form of purchasing ABF No 2 bonds.

[42] But developing the financial sector, too, makes sense in terms of 'norms'. It seems that the financial sectors in the UK and the USA have over-expanded in the past decade and should contract, while the opposite is called for in countries like Indonesia, for example, where the financial sector seems particularly under-developed.

G20 to form a caucus to coordinate their voices at G20. This could be combined with more inclusive regional groupings (the East Asia Forum suggests itself, because it also includes these six G20 countries) so that the wide membership is included, directly or indirectly, in the G20 process (Grenville and Thirlwell, 2009). High on the list of issues that might be pursued in G20 is the reform of governance in the International Financial Institutions (IFIs).

International policy coordination is another area of potential. At some stage in the future, the moment will come for a wider discussion of international imbalances, which will include the benefits of a degree of coordination in the exchange rate adjustments involved. Whatever is agreed at a global level, the need for *regional* coordination will be even greater. Individual countries in the region need to maintain competitive relativities with China, to ensure the smooth continuation of the complex supply chains that have grown up[43].

Of course, servicing these international forums takes human resources – the very same scarce resources currently involved in high-level domestic policy-making. Membership of G20 takes will put huge additional demands on these resources. But well-functioning cooperation within the region would allow issues which are common to most of the countries to be analysed collectively, which would avoid overlap and gain economies of scale, while at the same time fostering the idea that issues of common interest in the region can be effectively pursued with a single voice in international forums.

4. Conclusion: Macro policies versus Structural Reform

A crisis gives the opportunity to examine how the economy works under pathological conditions (a 'stress test'), and a political-economy opportunity to push through reforms in response ("It would be a shame to waste a good crisis').

There is some danger of over-reacting to the apparent lessons of the GFC. Having seen how effective fiscal and monetary policies have been in averting or reducing the potentially disastrous effects of the financial collapse in the crisis countries, the power of the traditional macro instruments might be exaggerated. In practice these instruments are greatly

[43] This seems a much more fruitful endeavour than attempting to develop a regional currency.

constrained and if pushed too far or too often, they leave behind their own problems. In the case of fiscal policy, the debt legacy is the main constraint. In the case of monetary policy, a sustained low interest rate gives a wrong signal on the price of capital[44]

If there are lessons on how effective are the macro instruments during a crisis, there are lessons, too, on how modest is their capacity to alter outcomes during normal times. The earlier consensus – that fiscal policy should be close-to-neutral over the course of the cycle, with the main action being with the automatic stabilizers -- still makes good sense as a starting point. Re-loading the fiscal cannon so that it is ready for the next crisis also seems sensible. Monetary policy, too, is an instrument that in normal times will be constrained by the adverse side effects[45] if it is asked to carry the weight of strongly constraining exuberant activity or asset price bubbles.

Given the limited capabilities of the conventional macro instruments, policy might be taken in two directions. First, remembering the swift development of effective ad hoc micro policies in the emergency of the crisis, policymakers should intensify their search for new instruments. This includes, most importantly, the efforts to turn prudential supervisory policies from their current pro-cyclical nature, to take on a significant counter-cyclical role, which will require a big change of mind-set in the prudential agencies, and political support to allow them to counter pressures from the self-interested free-marketeers of the financial sector.

Second, one powerful reason why the region fared better this time than in 1997 was that the economic *structure* was more robust and the macro-parameters (current accounts, foreign debt, budgets) were in better shape. There was 'policy space' for the macro instruments to be used. It was not so much that the macro instruments were misused or misunderstood in 1997 (although that may be true). The structure was not sound enough to allow their use. Looking forward, policy should aim to strengthen this structure still further, looking to remove the impediments to growth (unhelpful legislation, price relativities out of kilter, inadequate legal backing for economic transactions, ill-defined property rights, rent-seeking behaviour in the private and public sector, and lethargic government administration). And

[44] C.f. the post-tech-wreck interest setting in the US, and the 'search for yield" (i.e. the acceptance of greatly increased risk) during the years leading up to the GFC.
[45] Notably, in attracting excessive capital inflow.

there is little doubt that there are elements at present that are out of balance, such as 'capital flowing uphill' and China's astonishing investment rate[46].

Seen in this context, the external imbalances may not be amenable to strong correction through macro-policy settings. Fiscal and monetary policies are assigned elsewhere and the exchange rate is largely endogenous. Much of the task has to be left to the structural ideas explored in earlier ADB Outlooks: freeing up product markets so that no artificial advantage is given to exports; removing controls and subsidies to get relative prices right; shifting factor shares towards households to increase consumption; more comprehensive social security protection to reduce households' saving propensities. A crisis might provide the opportunity for such reforms (as Malaysia has used the opportunity to liberalise its investment rules). The main challenge is to grind down these imbalances while continuing to foster the clearly beneficial effects of globalization. The region has benefited, perhaps more than any other, from the advance of globalization in recent decades.

We have identified areas where markets sometimes perform indifferently, and have suggested that intervention should be included in the policy-makers tool-kit. The GFC demonstrated the market at its weakest. But there is also a long history of ill-advised interventions. The inhibitions about discretionary policy are fading, but the rationale for these original constraints (that policy measures will be overused, and that policy always operates under conditions of uncertainty, with unintended consequences) remains. The key to understanding successful intervention is to see it as mimicking a well-functioning market, not producing some artificially distorted result.

[46] For a discussion of Chinese imbalances, see YU, Y. (2009) China's Policy Responses to the Global Financial Crisis *Richard Snape Memorial Lecture, November*.

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