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PERSPECTIVES

International Imbalances and International Policy Coordination

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Executive summary

The Global Financial Crisis clearly has multiple causes, but external imbalances are often cited as an important explanation, and China is frequently singled out for special mention. But standard economic theory sees imbalances and capital flows as part of the advantages of globalisation, which should be just as beneficial as trade in goods. Whether or not these current account surpluses were a major factor in explaining the current crisis, capital flows have often enough been associated with crises – reversals of capital flows set off the crises in Latin America in 1982, in Mexico in 1994, in Asia in 1997-8 and currently in Eastern and Central Europe. Also contrary to standard economic thinking, capital is flowing 'uphill' from the emerging countries with high growth potential (China), to the mature countries (the USA), into low-return investments such as housing over-building. So there does seem a need to put in place better financial infrastructure to link countries with surplus savings with the countries that have the best opportunities to use these savings. This would be an appropriate challenge for the G-20 Leaders.

If international economic meetings are about collective action and policy coordination, the G-20 Leaders' April meeting in London demonstrates a paradox. With the notable exception of the agreement to increase IMF funding, the other issues discussed were essentially domestic matters, requiring mainly domestic policy responses rather than international coordination. Fiscal expansion, monetary easing, recapitalisation of damaged banks and reorganisation of the regulatory framework are all principally domestic matters, requiring domestic expenditures.

Entirely missing from the G-20 agenda was one issue which is topical, important and unarguably international: the persistent international external imbalances. It is clearly beyond the scope of domestic policy in any single country, with the potential for international policy coordination. The Financial Times' Martin Wolf has identified this as the key cause of the Global Financial Crisis (GFC). Fed Chairman Bernanke has recently said 'It is impossible to

understand this crisis without reference to the global imbalances in trade and capital flows that began in the latter half of the 1990s.'[1]

Having identified external imbalances as an important cause, some have gone on to point the finger at China as the main offender. Here the aim will be to unravel the interconnected pieces, to see whether the imbalances were an important contribution to the GFC, separating what is primarily causal and what is responsive (endogenous) so that we can work out where policy might be applied. The objective is not to allocate blame, but to identify where policy might act to avoid or ameliorate the problem.

International imbalances in theory

At first sight, international imbalances (even persistent imbalances) should be a benefit, not a problem. Linking world financial markets so that capital flows between countries should be an efficiency and welfare-enhancing development. Countries which are in external balance have to fund all their investment from their own savings. International capital flows break this autarchy constraint. International capital markets give countries the opportunity to invest more than they save, and countries whose populations are big savers can find a profitable outlet for their funds. These capital flows and their corresponding imbalances are also useful in dampening the business cycle, lopping the peaks of demand and filling the troughs. Temporary excess demand can be 'spilt' overseas, to be met by an expansion of net imports, with this reversed when the business cycle is in its low phase. Inter-temporal trade between countries, through borrowing and lending, should be equally beneficial as trade in goods. So the starting-point is that external imbalances are a Good Thing.

The clearest exposition is by Professor Max Corden.[2] The deep behavioural driver of the external imbalance is the saving/investment balance in each country (which, by national accounts identity, equals the current account balance: if a country invests more than it saves, it must be importing more than it exports). Thus it is the behaviour of saving and investment that provide most of the insights, analytically and for policy. The argument is often taken a step further. Provided government budget deficits or surpluses are not the cause of the saving balance in a particular country, it can be argued that the public are 'consenting adults' who make rational saving and investment decisions with full knowledge of the consequences –

[1] Ben Bernanke. Financial reform to address systemic risk. Council on Foreign Relations, Washington, 10 March 2009.
[2] Max Corden, Those current account imbalances: a sceptical view. *The World Economy* 30 2007.

including future repayment requirements. A country's external imbalance is just the sum of these individual decisions. Thus there is a common presumption that policy should not interfere in this outcome without good reason.

Persistent national imbalances might make good sense. A 'young' country (like Australia) might have many more good investment opportunities than its domestic population can fund, and it is in the interest of both Australia and the foreign providers of capital to implement these projects and benefit from the output and profits, rather than leave these potential investments unrealised. Similarly, countries with maturing populations (e.g. Japan or Germany) might want to save as a nation, to fund later retirement incomes when domestic production is constrained by the high proportion of retirees. Resource-rich countries might have a similar motivation for running export surpluses which build up foreign asset holdings, diversifying their wealth and giving them the opportunity to draw on these overseas savings when resource incomes diminish[3].

What goes wrong in practice?

This theory envisages sustained and substantial imbalances. There are certainly successful examples of this in practice – not least, Australia, which has run a current account deficit for more than two centuries and over the past two decades ran a deficit of around 5 percent of GDP without this triggering a crisis.

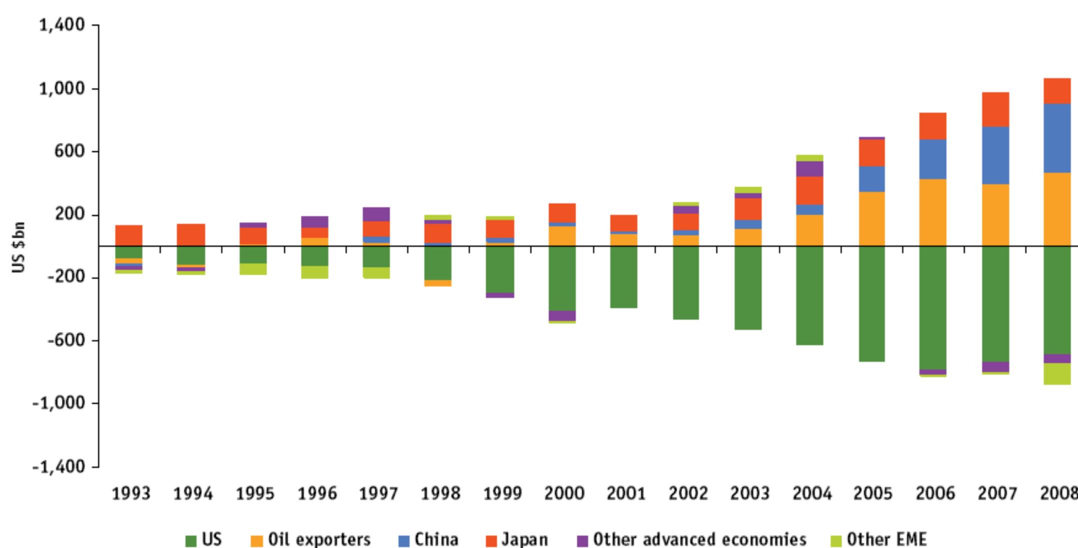
That said, substantial external imbalances usually provoke serious hand-wringing. The usual concern is that over-optimism during the business cycle causes *unsustainable* external deficits. Excessive foreign debt levels accumulate in the recipient country, often accompanied by asset price bubbles and exchange rate over-valuation. These eventually trigger a change of sentiment: optimism turns to pessimism. The adjustment process, when it comes, is sudden and painful, involving unemployment and underutilisation of capital. The pain of adjustment is always asymmetric: it is felt greatly by the deficit country and hardly at all by the surplus

[3] While the savings/investment approach usually provides the deepest insights into external imbalances, this story has to be consistent with its trade counterpart, which tells the story in terms of exports, imports and the exchange rate. The interest rate will also play a role in explaining the development of imbalances. The key in telling an insightful and policy-relevant story is to sort out which are the deep behavioural relationships and which are the endogenous responses.

countries[4]. As the US deficit grew persistently in the five years or so leading up to the GFC, the prospect of such a painful adjustment, involving a sharp fall in the exchange rate and a rise in interest rates, was a widespread concern.[5]

As things turned out, the role of the imbalances was rather different. Some of the elements were foreseen. In 2005 Fed Board member (now Chairman) Bernanke identified the world 'savings glut' as a problem[6] and Fed Chairman Greenspan noted the 'conundrum' of low longer-term interest rates.[7] During more than a decade before the GFC, world saving and investment both fell, but investment fell more, in particular in Japan in the 1990s and in the Asian crisis countries after the 1998 crisis. While ex-post saving and investment are by definition equal, the fall in longer-term interest rates was seen as a symptom of an ex-ante excess of saving over investment.

Figure 1. Global current account balances[8]



Source: IMF, FSA calculations

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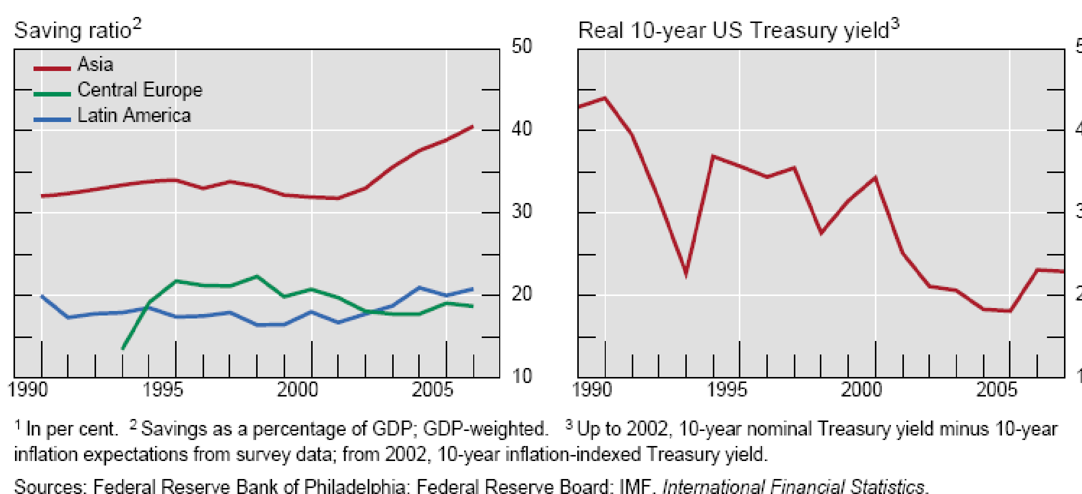
[4] This was an important issue for Keynes when the Bretton-Woods institutions were set up. See Robert Skidelsky, Keynes, globalisation and the Bretton Woods institutions in the light of changing ideas about markets. *World Economics* 6 (1) 2005.
[5] See, for example, Paul Krugman, Will there be a dollar crisis? *Economic Policy* 2007.
[6] Ben Bernanke, The global saving glut and the U.S. current account deficit. Sandridge Lecture, Virginia Association of Economics, Richmond, Virginia, 2005.
[7] Alan Greenspan, Remarks by Chairman Alan Greenspan to the International Monetary Conference, Beijing, 2005.
[8] Taken from FSA, A regulatory response to the global banking crisis. London, 2009, p 30.

Figure 2. Emerging markets savings ratios and US real interest rates [9]



That much was seen before the GFC. What was not clearly foreseen was that the capital inflow into America was not funding productive investment, but was instead fueling the sub-prime crisis, a housing boom, deteriorating credit standards (the 'search for yield'), risk mis-assessment, and grossly excessive leverage. Nor was the comprehensive failure of prudential supervision in a number of countries foreseen. Various other explanations allowed the external imbalance to be ignored – the inflows were responding to high profitability in the US[10] or that American foreign investment was so profitable that the imbalance could be sustained,[11] or that financial markets in emerging countries were not sophisticated enough to carry out the necessary international intermediation[12] or that the inflow was the collateral counterpart of outward FDI flows.[13] And, in any case, there was a strong intellectual and doctrinal presumption that the market would deliver appropriate capital flows, which took the focus away from the overall imbalances and onto the possibility of specific *market distortions*.

The market distortion which attracted the most criticism was China's role in the imbalances. This was not, in fact, substantial until 2005 (whereas the 'savings glut' and the lower interest rate had been developing over the previous decade). But several aspects attracted the ire of commentators, particularly in the US. First, it was associated with a large *bilateral* trade imbalance between the two countries, which has no significance analytically but made China

[9] Taken from BIS Committee on the Global Financial System, Capital flows and emerging market economies. *CGFS Papers 33* 2009 p 21.
[10] Richard Cooper, Living with global imbalances: a contrarian view, 2005.
[11] Ricardo Hausmann, Why the US current account is sustainable. *International Finance* 9 (2) 2006.
[12] Ricardo Cabellero, Emmanuel Farhi and Pierre-Olivier Gourinchas, An equilibrium model of global imbalances and low interest rates. *NBER Working Papers* 11996 2006.
[13] Michael Dooley, David Folkerts-Landau and Peter Garber, An essay on the revived Bretton-Woods system. *NBER Working Papers* 9971 2003.

the target of US protectionist pressures. More substantively, the Chinese imbalance reflected an exchange rate which was undervalued by the conventional measure – the build-up of foreign exchange reserves (which were unremarkable until 2005, but then grew spectacularly to $US 2 trillion). Undoubtedly there was a conscious export-led growth strategy – exports/GDP rose from 38 percent in 2002 to 67 percent in 2007[14] and the recorded savings rate was more than half of GDP. In addition, there was the unexpected effect that capital was flowing 'uphill', away from the rapid growth and profit opportunities of China, towards an already-mature economy – the USA.

That said, there were other big savers (Japan, Germany, the Middle East oil producers). Why pick on China? The short answer is that all the others seemed to have a reasonable 'story' to explain their savings: Japan and Germany were demographically 'old' societies with high structural savings; the oil producers had to do something with their resource riches. Only China seemed to be producing its imbalance as a conscious decision of policy.[15]

Why was the US, in particular, the unwitting counterpart of this imbalance? Partly because of its role as reserve-currency provider to the world: it is less constrained than other countries in running external deficits (Valery Giscard d'Estaing's 'exorbitant privilege'). Partly because the capital flowed naturally to the US, to the extent that the surplus countries tended to hold their excess balances in US dollar securities. Partly, it was because US monetary policy was willing to adjust to help absorb the inflow: the Fed kept interest rates low to ensure an acceptable level of domestic economic activity. So the US was the borrower and spender of last resort, prepared to soak up the imbalances no other country wanted. The low interest rate (partly a reflection of the 'savings glut') became a central part of the story, driving the search for yield (and hence greater risk), as well as the excessive lending in the housing sector.[16]

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[14] A number of other Asian countries – notably Japan – had pursued successful export-led growth strategies in the decades before China embarked on it.

[15] 'They are, I argue, in important respects the consequences of deliberate policies of export-led growth and self-insurance against the risk of financial crises that result in the huge accumulation of foreign exchange reserves', Martin Wolf, *Fixing global finance.* Baltimore, Johns Hopkins University Press, 2008, p 58. 'The important policy question is why this shift (to surplus of saving over investment) happened? Was it the product of private behaviour or was it the result of policy decisions, and if so, whose?' Wolf, *Fixing global finance*, p 81.

[16] 'Given the pattern of global saving and investment, the US emerged naturally – I would say inevitably – as the world's borrower of last resort'. 'Thus the US is at least as much a victim of decisions made by others as the author of its own misfortunes', Wolf, *Fixing global finance*, p 194.

Just how well this story fits together can be debated.[17] Clearly there were other elements involved.[18] Rather than allocate blame, it is instructive to explore other hypothetical scenarios. If China's surplus had not grown so quickly after 2005, would the (moderated, but still very large) international imbalances have been acceptable and sustainable, with no sub-prime crisis in the US? Alternatively, if China had removed its capital account restrictions and there had been a significant net private outflow (so that the Chinese outflow was privately owned rather than official), would the imbalances have been more acceptable and sustainable? Or for that matter, what would have happened if one of the countries with a 'good story' (Japan, Germany or the Middle East oil producers) had run an even larger surplus?

The point being made here is that the received wisdom envisages that these sustained imbalances can and indeed should occur. This model should be able to cope with 'savings gluts', through changes in world interest rates. In fact, these equilibrating interest rate changes occurred and were endorsed by policy. The Fed, which could have resisted the lower interest rate through its policy control over the short-term rate[19] chose not to, so as to validate a level of demand which was strong enough to met both the needs of adequate demand in the US, AND the excess goods exported by the world's surplus countries (most obviously, China). All of this is consistent with (indeed, is an integral part of) the Corden story, so where did it go wrong?

Does the fault lie, then, in the adjustment process: as interest rates come down, rather than this encouraging productive investment, it encouraged foolish lending and asset price inflation? Does the fault lie in a financial sector which, through poor structure, wrong incentives and inadequate prudential supervision, was unable to fulfill its proper intermediary role? To what extent was it a structural fault, that when the US authorities kept monetary policy loose in response to a weak economy after the Tech-wreck, the only borrowers to come

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[17] As far as China's role in concerned, the dramatic rise in the external surplus and reserves doesn't fit the timing of the causation story all that well. Interest rates had been falling for the previous decade (partly reflecting lower inflation and steady growth) and actually *rose* after 2005, when China's imbalances became big enough to matter. As far as the terminology goes, the issue was one of an investment drought rather than a savings glut: investment fell dramatically in Japan in the early 1990s, and in emerging Asia (except China) as an aftermath of the Asian crisis in 1997-8. At least in textbook theory, China should not have been able to implement its undervalued exchange rate/export promotion strategy: it should have caused inflation which appreciated the real exchange rate. But this wouldn't be the first time that the real world defies theory.

[18] 'However, the responsibility to use the resulting capital inflows effectively fell primarily on the receiving countries, particularly the United States. The details of the story are complex, but, broadly speaking, the risk-management systems of the private sector and government oversight of the financial sector in the United States and some other industrial countries failed to ensure that the inrush of capital was prudently invested, a failure that has led to a powerful reversal in investor sentiment and a seizing up of credit markets.' Bernanke, Financial reform to address systemic risk.

[19] See Alan Greenspan, The Fed didn't cause the housing bubble. *The Wall Street Journal*, 12 March 2009.

forward to make use of the savings glut were those who wanted to spend on over-building in the housing sector and who had no capacity to repay?

The answer may be: 'all of the above'. But these explanations are, in any case, only the specific way that in this particular case the adjustment to unsustainable imbalances failed to work smoothly. The earlier concerns were that the US was heading for a painful adjustment, in the form of a capital reversal, a falling exchange rate and a sharp reduction in income. These problems were still waiting to come to pass, if the sub-prime excesses hadn't pre-empted this mode of adjustment, triggering a different process instead.

We should note here that this isn't the first time the external imbalances story has gone wrong in ways not foreseen in the textbooks. The large external deficit which developed in the US in the mid-1980s was corrected smoothly enough for the US, but this correction set in train the Japanese 'lost decade' of the 1990s. The Latin American debt crises, beginning with Mexico in 1982 were, in significant part, capital flow crises. The Mexican crisis of 1994 and the Asian crisis 1997-8 were largely external imbalance crises: these countries received a flood of optimistic capital from risk-ignoring (or ignorant) foreign investors, which fuelled the same kind of asset-price boom and led inexorably to a painful correction.[20] Eastern and Central Europe and the Baltic states are just the latest examples of excessive capital flows building up and creating an inevitable crisis.

The empirical evidence is that the adjustment process to capital flows is not at all smooth or reliable.[21] Exchange rates (and interest rates) are not well anchored in the fundamentals. Once the adjustment process starts, price-model uncertainty and all the other endogenous risk factors start to play out. Any weaknesses in the financial system are exposed and exacerbated by interconnectedness and mark-to-market accounting.

What might be done?

The 'blame China' thread of this story is the least important.[22] While the international community might urge China to introduce more flexibility into its exchange rate and

[20] One notable difference is that in the earlier crises we blamed the borrowers, not the lenders.
[21] This combination – the possibility of a saving glut with no self-correcting mechanism, and the very imperfect adjustment process, with its sudden capital reversals and sharp changes in exchange rates – leaves a problem which might be seen as the international counterpart of Keynes' domestic demand deficiency.
[22] For China's own answer, see Xiaochuan Zhou, On savings ratio. Beijing, 2009.

appreciate (and this might well be in China's own self-interest), the deeper issue is that even an unconstrained market outcome for China (including deregulation of capital outflow) would be likely to result in a substantial continuing external surplus. It's hard to see that a higher exchange rate would have had a dramatic effect on China's saving rate, which is the underlying cause of the external position (other policy measures, such as distribution of company profits, might have more effect on savings).

The wider and far more important issue is: 'how to make the world safe for the sort of beneficial imbalances envisaged by international capital theory?' If this can't be done, how to get the maximum benefit out of international capital flows while simultaneously safeguarding the system against traumatic adjustment. If it can't be left up to the market, just what rules, regulations and policy responses are needed?

It would be a counsel of despair to say that Japan has to put its entire savings into the low-return investments available at home (they have already built enough 'bridges to nowhere'), that the oil producers must spend their income as fast as they pump the oil from the ground, or that countries like Australia should 'learn to live within their means' and leave profitable investment projects unrealised. So we have to find ways to manage the external imbalances better.

We need to think abut the issue of external imbalances in two time horizons: as part of the immediate triage reaction to the GFC; and as part of a longer-term adjustment process.

First, the immediate crisis-response. As noted above, the main market pressure of adjustment is always on the deficit country, and this would be a very unfortunate time for the USA to correct its chronic savings problem (by, for example, reducing the budget deficit forthwith). Shoring up demand seems a higher priority than cutting the external imbalance. Can more pressure be brought on the surplus countries to push their expansionary policies further? China has announced very large budget expenditures, and the issue is now implementation. Japan, too, seems to have moved significantly in the right direction. Lower oil prices have already changed the position of some of the Middle East oil producers in the 'right' direction. Europe in general, and Germany in particular, seem to be the recalcitrants.

The most useful thing that could be done in the short term is to ensure that those countries which are in a position to expand demand and to shift their external positions in the deficit direction are not constrained by the availability of international financing capital. There is potential for an important adverse effect here. The Institute for International Finance expects

that private international capital flows to emerging countries will fall from $US925 billion in 2007 to $US165 billion this year. Some of the deficit countries are in no position to maintain their old imbalances (Eastern and Central Europe and the Baltic States need funding for adjusting their imbalances downward, and these adjustments can't be postponed, even though they will make the overall international position a little worse). But others (basically, emerging East Asia except China) have run very conservative external positions in the decade following the Asian crisis, and could usefully use this opportunity to expand expenditure on infrastructure. They are currently constrained by the drying up of international credit markets, at least for countries with their typically second-tier credit ratings. The IMF is probably in the best position to tackle this funding issue,[23] but its crisis-motivated actions alone will not be enough. Longer-term capital is needed to fund illiquid assets such as infrastructure. There seems an opportunity to tap directly those countries with big foreign currency reserves (China, Japan, some Middle East oil producers), helped by some international sharing of the credit risk, perhaps through the IMF or regional funding arrangements such as the Chiang Mai Initiative or the Asian Bond Fund No 2.

In the longer term, when the triage stage is over, it will be important to encourage deficit countries like the USA to embark on firm schedules to fix their savings deficits, largely through shifts in the budget position. It will be time, too, to examine one of the paradoxes of the past ten years or so – the flow of international capital 'uphill', from the emerging countries which seem to have the investment opportunities and profit prospects, to the old mature countries (like the US) where the evidence is now clearer that the dynamic high-profit investment opportunities were the exception rather than the rule.

The reasons for the uphill flow need to be identified and addressed. This may mean more effort to reduce risk and uncertainty in capital flows to emerging countries, as well as hastening the development of appropriate financial institutions and the necessary legal and property rights structures. A central issue is to raise absorption capacity in emerging countries: even in countries that desperately need more infrastructure, it is not built because of Byzantine implementation processes. Domestic institutions need to encourage investment, not – as so often happens at the moment – put in place so many checks-and-balances that good projects remain undone as no one can thread the tortuous approvals processes which are done in the name of 'good governance'. Official development banks (not just the World Bank, but the regional development banks and aid agencies as well) should go back to their former role of facilitating major infrastructure projects. The current fetish with governance reform has

[23] See the Goldstein suggestion of reviving the Compensatory Finance Facility. Morris Goldstein, Dig into the IMF's toolbox to tackle the crisis. *Financial Times*, 11 November 2008.

taken them away from these sorts of substantive projects, into ephemeral tasks of promoting box-ticking and multi-layered administration.[24] Perhaps private development banks could address the funding needs of longer-term illiquid assets such as infrastructure.

There needs to be enough stability in these flows that the recipient countries feel safe against 'sudden stops' and reversals. Self-insurance through huge foreign exchange reserve holdings (the China approach) does not seem to be an efficient answer, but the collective insurance methods (e.g. through the IMF) need governance which provides emerging countries with more representation and more assurance that funding will be readily available when needed.

Part of this reform will be to address the problem of 'bailing out the creditors'. In the domestic context, there is prevalent concern that too-ready bailouts will lead to moral hazard and careless risk-taking, but international capital's nearest equivalent of lender-of-last-resort – the IMF – is continually faced with the analogous problem of needing to help the debtors, but wishing it could administer salutary retribution to the creditors.[25]

While attempting to build a world in which capital flows (and their concomitant imbalances) can occur without triggering traumatic adjustment, the dangers of large imbalances (cyclical or structural) need to be recognised and policy intervention to restrain cyclical excesses needs to be devised, without this running into doctrinal objections from free-market fanatics. We all recognise that complex, intrusive and ubiquitous regulations are needed to safeguard the domestic financial sector. We should not be surprised that the international counterpart of these is needed, and has to be put in place and administered in an environment where sovereignty and the ability to enforce rules is far less.

In all of this, there is a role for a higher degree of international policy coordination than has occurred in recent decades. The last serious attempts were the Plaza Accord and Louvre Agreement in the mid-1980s. The G-20 Leaders' meeting might be the place to set up the framework, but almost certainly smaller working groups will be needed for the specifics, and the IMF could be tasked with the research aspects.

[24] John Kay, Box-tickers should not be the ones making decisions. *Financial Times*, 28 April 2009.
[25] AIG serves as a current example: the government's rescue support for AIG was passed straight on to the company's various creditors, mainly other Wall Street firms.

Conclusion

It is not surprising that opening up international capital markets led to external imbalances: this was the point of doing it. Nor should we be surprised that unsustainable imbalances would persist for some time, then collapse: as Herb Stein predicted, unsustainable things come to an end.

Theory led us to expect that this process would be largely market-driven: the market would identify the foreign investment opportunities, then financial markets would marshal the funding, allocate the risk, determine pricing of the various elements, put in place suitable management and governance and oversee the process to a successful conclusion. Financing needs would change over time, and markets would accommodate this change through processes of smooth adjustment of prices and interest rates.

As things have turned out, the flows have often been driven by animal spirits rather than careful assessment. The adjustment has turned out to be traumatic. The volatility of the flows was not foreseen, nor was the instability of exchange rates that went with that. Sentiment shifted not with the arrival of new economic news, but through an almost accidental change of perceptions, which were correlated so that everyone changed their mind at the same time. The task is now how to address this uncomfortable reality.

Martin Wolf[26] sets out some sensible objectives:

- Liberal market-based financial system, but without the crises
- Not reliant on spender of last resort
- Countries should feel able to run CADs without fear of reversals
- IMF should make this achievable.

We might leave the last word to Max Corden,[27] who as usual brings a non-doctrinal policy overlay to the narrow rigour and unrealistic clarity of economic theory:

> 'Surely one does not have to agree with Polonius (in Hamlet) 'Neither a borrower nor a lender be', especially internationally. It is the job of the various firms in the international capital market, notably banks, to intermediate capital flows from lenders to borrowers as efficiently as possible. …One should plan to achieve an international economic system where there can be global imbalances, usually temporary, but

[26] Wolf, *Fixing global finance*, p 151.
[27] Corden, Those current account imbalances: a sceptical view.

without crises. But it is certainly desirable that current account deficit countries use their funds for investment rather than consumption, other than during wars and environmental disasters. The fault and the failures in this recent crisis have been not with ultimate lenders or borrowers – other than US sub-prime mortgagees – but with the financial intermediaries, often highly paid.'

References

Bank for International Settlements, Committee on the Global Financial System. Capital flows and emerging market economies. *CGFS Papers 33* 2009.

Bernanke, Ben S. Financial reform to address systemic risk. Speech at the Council on Foreign Relations, Washington, 10 March 2009.

———. The global saving glut and the U.S. current account deficit. Remarks at the Sandridge Lecture, Virginia Association of Economics, Richmond, Virginia, 10 March 2005.

Cabellero, Ricardo, Emmanuel Farhi and Pierre-Olivier Gourinchas. An equilibrium model of global imbalances and low interest rates. *NBER Working Papers* 11996 2006.

Cooper, Richard N. Living with global imbalances: a contrarian view. Peterson Institute for International Economics Policy Brief 05-3, 2005.

Corden, Max. Those current account imbalances: a sceptical view. *The World Economy* 30 2007, pp 363-382.

Dooley, Michael, David Folkerts-Landau and Peter Garber. An essay on the revived Bretton-Woods system. *NBER Working Papers* 9971 2003.

Financial Services Authority. The Turner Review: a regulatory response to the global banking crisis. London, FSA, 2009.

Goldstein, Morris. Dig into the IMF's toolbox to tackle the crisis. *Financial Times*, 11 November 2008.

Greenspan, Alan. The Fed didn't cause the housing bubble. *The Wall Street Journal*, 12 March 2009.

———. Remarks by Chairman Alan Greenspan to the International Monetary Conference, Beijing, 2005.

Hausmann, Ricardo. Why the US current account is sustainable. *International Finance* 9 (2) 2006, pp 223-240.

Kay, John. Box-tickers should not be the ones making decisions. *Financial Times*, 28 April 2009.

Krugman, Paul. Will there be a dollar crisis? *Economic Policy* 2007, pp 435-467.

Skidelsky, Robert. Keynes, globalisation and the Bretton Woods institutions in the light of changing ideas about markets. *World Economics* 6 (1) 2005, pp 15-30.

Wolf, Martin. *Fixing global finance*. Baltimore, The Johns Hopkins University Press, 2008.

Zhou, Xiaochuan. On savings ratio. Beijing, People's Bank of China, 2009.

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