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Ashima Goyal

Indira Gandhi Institute of Development Research, Mumbai
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Ashima Goyal
Indira Gandhi Institute of Development Research (IGIDR)
General Arun Kumar Vaidya Marg
Goregaon (E), Mumbai- 400065, INDIA
Email (corresponding author): ashima@igidr.ac.in

Abstract

The paper assesses changes in the global financial architecture and related global governance. Despite useful reforms lacunae remain. Analysis of financial regulations and measures to address global imbalances show serious weaknesses in addressing risks from shadow banking and large banks that are responsible for volatile capital flows to emerging markets (EMs). The underlying philosophy that intervention and controls distort markets and manipulate currencies weakens the toolbox available to EMs to deal with volatile capital flows. The use of interest rates, quantitative easing, and deficits are regarded as a valid response to domestic conditions, and their effect on commodity price inflation hitting EMs not acknowledged. Despite greater representation of EMs in the G-20 adjustment continues to be asymmetric. This harms global stability and recovery. Universal adoption of some basic minimal measures can close arbitrage gaps and resolve many problems

Keywords: Global financial architecture, regulations, imbalances, currency wars, international governance.

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I. Introduction

The global financial crisis (GFC) is the push for change in the global financial architecture (GFA). The primary cause of the GFC was lax financial regulation although a debate continues on the contribution of balance of payment imbalances and macroeconomic policies to financial fragility. As a consequence, the reforms proposed target each of these aspects.

The new institution created to coordinate the reforms process, due to the recognition that better coordination was required in a more interconnected globe with more spillovers, was the G-20. Although it lacked the comprehensive legal charter required for a formal international institution, it gave a voice to major emerging markets (EMs) in global dialogue, potentially reducing the dominance of the G-7 countries. EMs did get greater representation in some of the international institutions that comprise the GFA but institutions—International Monetary Fund (IMF) and WB (World Bank)—that monitor the policies decided on in the G-20, have not changed as much as necessary to credibly reflect the wider dispersion of economic power. Insufficient diversity encourages the "groupthink" that the Independent Evaluation Office of the IMF indicted as a cause of the lack of action on many emerging pre-crisis financial risks.

Infirmities in the GFA were obvious for long. A G-20 plus (G22, 1998) was set up after the East Asian crisis also, but did not have much success in implementing the many sensible reform proposals that were floated even then, although this may have moderated or even prevented the GFC. Implementation was poor since the East Asian crisis did not impact the major financial centers. The latter believed they gained from the GFA as it was.

The GFC shook this belief, and there are now serious attempts at reform. There is some progress. But the prolonged global slowdown and continuing asymmetric power

are both vitiating reform and further prolonging the slowdown. The paper examines how this is happening in both financial regulation, and in macroeconomic policies.

While weaknesses remain in addressing risks from shadow banking and large banks that are responsible for volatile capital flows to EMs, the underlying philosophy that intervention and controls distort markets and manipulate currencies weakens the toolbox available to EMs to deal with these flows. But the use of interest rates, quantitative easing (QE), and deficits are regarded as a valid response to domestic conditions, and their effect on commodity price inflation hitting EMs also not acknowledged. This asymmetric adjustment harms global stability and recovery. Universal adoption of some basic minimal measures can close arbitrage gaps and resolve many problems.

After a brief discussion of the causes of the GFC and consequences for reform in Section II the chapter analyses global financial reforms including institutional changes in Section III. Section IV assesses global imbalances, unconventional macroeconomic policies, and the intermittent 'currency wars'. Section V analyzes changes in global governance required for a better GFA, before Section VI concludes.

II. GFC: Causes and Consequences

The immediate cause of the GFC was financial fragility in the US and Europe. Legal changes due to a pro-market philosophy and belief in the efficacy of self-regulation encouraged lax regulation[1]. Incentives from features such as bonuses and accounting rules, encouraged procyclical behavior, as did no-skin-in-the-game securitization and market price based risk models. Short-term funding combined with high leverage, made institutions vulnerable to fire sales that destroy asset value, in the event of a rate rise. Conflicts of interest in rating agencies, paid by those they rated, created perverse incentives.

[1] The Gramm–Leach–Bliley Act or the Financial Services Modernization Act of 1999 repealed part of the 1933 Glass–Steagall Act that separated investment and commercial banks. The Commodity Futures Modernization Act of 2000 labelled credit default insurance as swaps so exempting them from regulation. The 2002 Sarbanes Oxley Act, which allowed off balance sheet activities so long as other entities held the risks and rewards, led to the "originate and distribute" model of securitization. In 2004 the US securities regulator, SEC, allowed investment banks higher leverage, relaxing the net capital rule or ceiling of twelve times capital on borrowing, and letting them use their own models to determine risk. Investment banks did give SEC voluntary regulatory oversight over the parent holding companies in return, which SEC did not implement.

Following the legal changes, notional amounts outstanding in derivatives grew from $100 trillion in 2002 to $516 in April 2007 (BIS, 2008)[2]. Leverage shot up. The typical figure for investment banks that failed, such as Lehman Brothers and Bear Sterns was above 30:1 compared to 15:1 for a commercial bank.

There is a counter-argument that excess savings and high foreign exchange reserves in Asian countries triggered risky innovation to satisfy demand for high rated assets. But compared to the endogenous expansion in financial balance sheets, both the net ownership of US assets by foreigners and reserves were trivial. The former grew by about $1.5 trillion in the period. Asian reserves were less than $3 trillion, while the US current account deficit grew from $200 to $700 billion. These numbers should not disturb a well-regulated, deep and liquid financial system. Internally generated liquidity dwarfed any external source. The reason CBs buy dollar securities is the depth and liquidity of US financial markets that their purchases do not impact. US government securities markets absorbed inflows many magnitudes higher than reserves as funds returned to the US, after the Lehman Brothers crash (Goyal, 2009).

Bernanke (2005) also argued the "savings glut" was the reason long interest rates remained low, even after policy began raising short-rates. Taylor (2009) pointed out the factual fallacy underlying the 'savings glut' argument Since global savings were actually at a historical low in this period, high savings could not be responsible for low global interest rates. US dissaving overcompensated for Chinese saving invested in US treasuries.

Moreover, the volatility of cross border capital flows in the period indicates they were investment not savings driven. Finance fuelled consumption booms and asset bubbles were responsible for the flows. CB investments are actually more stable compared to the private flows (Goyal 2010).

[2] The exposure on netting would be lower, but the notional amount is a better measure of exposure in case of a sudden market failure since both parties to a contract are leveraged and may not be able to find funding.

Bernanke later acknowledged (Bernanke et. al. 2011) financial innovation driven cross border flows from Europe were exceptionally large in the post 2000 period[3]. Asian central banks (CBs) were not the only ones investing in the US.

Among other causes of the crisis, US monetary accommodation that kept short rates very low for extended periods may have encouraged excessive risk-taking. Taylor (2009) argued that US policy rates were cut in 2003 more than required by the prevailing inflation and output slack, in order to compensate for the bursting tech bubble, and this stoked a real estate bubble. Monetary policy may be a blunt instrument against an asset bubble, but it could have acted aggressively against the incipient bubble. It did not, and neither did the direct instrument of prudential regulation.

Even so, US annual broad money supply growth at about 6 percent, averaging about $15 trillion, was nowhere near the growth in derivatives. Policy rates were held at 1 percent over June 2003 to June 2004. They were raised after that but long rates continued to be low probably reflecting low inflation expectations and the under pricing of risk. After the 1980s, the money stock does not explain much of US macroeconomic fluctuations since excess liquidity there was delinked from excessive growth of the money stock. Deposits no longer were the most volatile component of aggregate financial liabilities. Endogenous liquidity creation dominated.

In other economies, even if banking is mostly traditional, US liquidity creation affects balance sheets through foreign liabilities of the banking sector, and other types of dollar carry trade. Even for banks mainly funded by deposits, banks' liabilities to foreign creditors are not counted as money, but they expand balance sheets (Shin and Shin, 2011).

[3] European banks typically held long-dated less liquid US dollar-denominated assets, funded by short-dated USD borrowing and FX swaps. Their foreign assets in all currencies exceeded $30 trillion in early 2008. As interbank markets dried up in 2007 they were forced to turn to other sources of dollar funding such as US dollar money market funds (MMFs), and dollar swaps. A run on MMFs occurred in late 2008. Swap lines between the Federal Reserve and European central banks, had to be activated to maintain dollar supply to European banks.

So the macroeconomic policy regime did add to risks even if lax financial regulation bears the prime responsibility for the GFC. Are changes in the GFA adequate to address these weaknesses?

III. Financial reforms and institutional change

Underlying the proximate causes above are the fundamental failures finance is subject to. These are asymmetric information, leading to exclusion and arbitrage across asset-types and markets; large systemically important financial institutions (SIFIs) that are too big to let fail; and excess volatility or procyclicality (Goyal 2010). There are also regulatory failures that include delay, and either laxity or over zealousness. Reform, to be successful, must reverse the disincentives legal and institutional reform created, as well as mitigate fundamental failures by improving transparency, competition and reducing incentives for procyclical excessive risk-taking. Moreover, implementation, to the extent possible, should not rely on discretionary regulatory decisions.

Although the G-20 gives broad directions, the template for worldwide financial reforms is the Basel III, the US Dodd-Frank Act, and similar legislation in the EU. The sections below assess them on the above criteria.

III. 1 Basel III and country-level legislative changes

New norms for banking regulation, given by the Basel Committee on Banking Supervision (BCBS) seek mainly to increase capital buffers, restrict leverage, and cover systemic liquidity and funding risk[4]. Basel III also imposes a leverage ratio[5] (3 per cent) for the first time.

[4] The minimum common equity requirement is to rise from 2 percent of risk–weighted assets to 4.5 percent by 1 January 2015. Tier 1 higher quality capital requirement including common equity will increase to 7 percent by Jan 2018, including a capital conservation buffer of 2.5 percent to cover future periods of stress. An additional macroprudential countercyclical buffer, within a range of 0% – 2.5% of common equity, is to come into effect during periods of systemic risk. Additional collateral would be required for derivative contracts if the institution's credit rating is downgraded. A Liquidity Coverage Ratio (LCR) to meet liquidity risk and a Net Stable Funding Ratio (NSFR) to cover longer term funding risks and possible haircuts by reducing short-term funding, and stronger regimes for systemically important financial institutions (SIFIs) have been further delayed, pushed to 2019. The proposed reforms, including dates, are still being negotiated.

[5] A leverage ratio of 0.03 implies 3 units of capital must be held against 100 units of the asset, that is the accounting or balance sheet leverage is limited to 1/0.03 or 33.3 to 1. Accounting leverage is the inverse of the leverage ratio and is also known as the leverage multiple.

The US Dodd–Frank financial reform bill, which became law in July 2010, enhances consumer protection, regulation of OTC derivatives, gives the government resolution authority over SIFIs, and creates a Financial Stability Oversight Committee (FSOC) to coordinate regulators. The focus is on increasing transparency and accountability in derivative trade, reducing risk from SIFIs, and raising regulatory oversight.

The Volcker rule seeks to ban proprietary trading by deposit-taking banks in order to reduce their risk-taking. But exemptions include loans, spot foreign exchange or commodities, and also repurchase and reverse repurchase agreements or securities lending transactions required for liquidity management. Banks can invest in hedge funds, private equity funds, treasuries, bonds of government-backed entities, and municipal bonds. The UK Independent Commission on Banking (2011) proposes stronger ring fencing of retail banking, prohibiting trading book activities. But financial activities required to fulfill treasury functions are exempt. In the EU the Liikanen report (2012) proposed milder ring fencing, without full separation of investment and retail banking, in order to support the European universal banking model. Proprietary trading (with some exceptions to allow client servicing within narrow position risk limits) was to be hived off to a legally separate unit in the same bank holding company.

But, at the time of writing, Europe seems to be further softening these proposals so banks do not have to separate out key market-making business. France and Germany are also diluting the capital requirements on their universal banks agreed under the Basel III framework. The outflow calculations determining the LCR and the quality of liquid assets banks have to carry, in order for them to survive a possible future short-term funding freeze, were moderated in 2013 and the implementation date further postponed. Apart from the government bonds and top-quality corporate bonds required in the initial draft, even equities, BBB- corporate bonds and discounted top-quality mortgage-backed securities are now to be counted in liquidity buffers. This is a boost for the securitization industry and has steeply reduced banks' liquidity shortfall. The collateral requirement for OTC derivatives has also been softened[6].

[6] Based on news reports. See http://www.ft.com/intl/cms/s/0/63a74260-f506-11e1-b120-00144feabdc0.html#axzz2M02yVSqd and http://www.ft.com/intl/cms/s/0/ebf54d1c-77c7-11e2-9e6e-00144feabdc0.html#axzz2M02yVSqd.

In other respects the EU wants stricter regulation. In 2013, as part of its ongoing Capital Requirements Directives (CRD4) for banks the European parliament sought to limit bank bonuses to one time the base salary. Shareholder approval would be required for bonuses to increase to two times the base salary. This comes on top of earlier initiatives that reduced bonus pools and linked individual awards to longer term outcomes, by using bail-in bonds or equity subject to clawbacks. There will also be centralized regulation of banks with assets greater than $200b, as part of strengthening the Euro zone.

Belgium, Germany, Estonia, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia agreed to levy a financial transaction tax of 0.1 per cent on stock and bond trades and 0.01 per cent on derivatives transactions. The tax would apply to financial institutions with headquarters in the tax area, or who trade on behalf of a client in the tax area, or for an instrument issued in the tax area but traded anywhere in the world. There are exemptions for the trades of CBs and pension funds. The move is strongly resisted by the US and UK. Business groups fear double taxation.

III.2 Lacunae in proposed international regulatory changes

Basel III and other proposed post-GFC regulatory changes above may be inadequate because of delays, incompleteness and lack of international harmonization. Proposed reforms are in some ways too strict in allocating all risks to banks, but are too weak in leaving many gaps that enable escape from regulation.

The process of reform outlined above demonstrates the delays. Although enhanced capital requirements under Basel III are only to kick in from 2018, countries are already trying to weaken the standards. The Dodd-Frank Act has been passed but its sheer size and complexity will lead to protracted legal wrangling aimed at expanding the ambit of the many exemptions given. This illustrates the incompleteness. It is inherently difficult to distinguish between trading on own account and that undertaken for clients.

Incompleteness comes in through many other dimensions. It affects institutions and transactions, and also appears over time. Any kind of incompleteness gives rise to

arbitrage gaps. The Basel III and Dodd-Frank focus on banks will drive more financial intermediation to the shadow-banking sector. A measure like the Hanson et al. (2011) suggested imposition of a minimum haircut requirement at the level of asset-backed securities for all investors, not just on banks, can constrain short-term leverage for all investors taking a position in credit assets, thus restraining shadow-banks also.

Since individuals do not take into account systemic spillovers from their decisions, risks build up cyclically. This basic market failure acting over time makes countercyclical macro prudential regulations that increase the long-term cost of giving credit during booms and reduce these costs during busts, essential. But these have been left to systemic councils where problems of regulatory discretion and co-ordination will lead to critical delays.

International harmonization is much more difficult to achieve and this failure also creates arbitrage gaps. The disagreements between US, UK and the EU originate from differing financial structures. The UK wants to preserve the current dominance of the city of London as a financial centre. The US and UK want reforms that do not destroy the market-based Anglo-Saxon model of finance. They are worried about competition from fledging Asian financial centers. Major EU countries have a more bank-based model and want to protect their banks, especially since the GFC and the Euro-debt crisis that followed has left them weak.

Simple regulatory measures that can be applied universally are necessary to prevent one jurisdiction stalling regulatory reform in order not to lose competition to another more liberal jurisdiction. Reforms that are simple yet improve market incentives are preferable also since the GFC demonstrated regulatory failure. Simple robust reforms are less vulnerable to regulatory capture, discretion and delays.

Prudential regulation does align incentives by putting the entity's own capital at risk. But its primary purpose is providing a buffer to absorb shocks. These tend to be procyclical, hurting recovery—loss-absorbing buffers may have to be built up in bad times. Moreover, this is difficult to do so delays are negotiated, as in the current Basel

III. Shin and Shin (2011) argue the focus should be on preventing risky behaviour rather than on the loss-absorbing or shock-insulating role of buffers.

Traders clustering in activities that appear low risk, make them risky. This endogenous creation of risk is one reason why the risk assets-based capital buffers of Basel II were inadequate. But Basel III continues this approach[7]. Risks also change for exogenous reasons—Euro sovereign debt had zero risk weights before the problems in Greece exposed underlying risks. Accounting conventions that affect the measurement of assets also affect leverage. Economic leverage is actually a broader measure. Off balance sheet assets also need to be captured.

Basel III does introduce leverage ratios but they are still generous. Since the risk based approach reduces capital adequacy in relation to actual exposure, considerable leverage is still feasible. A given level of leverage can be achieved either by mandating the asset cover (through the leverage ratio), or restricting leverage itself. Tighter leverage (through different types of broad pattern regulation such as provisioning norms) can cap leverage at a level below the ceiling derived from the level of assets and the leverage ratio.

A leverage cap may make the delay in implementing full capital adequacy more acceptable. Moreover, the potential rise in leverage is much larger for large banks with large capital so a leverage cap is a more effective instrument for large banks that could otherwise create systemic risk (Goyal 2013). Thus it would mitigate the risk from SIFIs, which has increased because of greater post-crisis concentration.

Other potential tools that restrict leverage are taxes and margin requirements. They are automatically counter-cyclical since the tax base expands in good times, and they can be designed to fall more on highly leveraged activities, thus providing good forward-looking incentives (IMF, 2010). Non-standard tax treatment across assets must, however, be carefully thought through. For example, tax breaks that encourage debt over equity need to be removed. International harmonization could perhaps be

[7] The BCBS is considering trading book reform, to be announced in the end of 2013. An explanation for banks widely varying capital for similar exposures is strategic use of number of years' data in their VAR models used to calculate risk. This may be standardized to between 3 and 5 years. See http://www.ft.com/intl/cms/s/0/e0a27130-75e0-11e2-9891-00144feabdc0.html#axzz2M02yVSqd.

feasible for a simple universal tax. Its mobility made finance under taxed, but new technology is changing that. A low tax that matches transaction fees charged would not be burdensome since the same technology has substantially reduced transaction costs. A low FTT may be easier to impose. Taxes would have to fall in EMs and rise in the major financial centers where they tend not to exist.

But given resistance to a tax on transactions independent of profits made, a financial activities' tax (FAT) that falls on profits and therefore is not passed on to consumers of financial services, could be negotiated. But an FTT has the advantage that it applies in the jurisdiction where a transaction is made, and potential profits earned, while a profits tax earns revenues only for the country of residence or country of source depending on tax agreements to avoid double taxation. An FTT shares taxes under dominant tax by residence clauses that favour advanced economies (AEs), from where the majority of portfolio investments originate.

Margin requirements and position limits are also not uniform across countries. There is evidence that short-term futures price bubbles are more pronounced in domains with lax regulation (Goyal and Tripathi, 2013) , and contribute to the deviation of commodity prices from fundamentals.

Broad-pattern regulations do exist, that reduce risk-taking without forcing too much risk on risk aggregators through large buffers, or leaving open the possibility of arbitrage through strategic use of risk weights. A better combination of financial stability and financial innovation then results. If there is agreement on simple basic measures, beyond that countries could be free to adapt regulations to context as required.

Sectoral provisioning requirements are an example of such regulation that reduces excessive risk-taking. Prompt corrective action (PCA), with minimum regulatory delay, is easier in response to sectoral cycles than aggregate cycles. When Indian real estate prices rose, a countercyclical rise in provisioning for bank housing and commercial real estate loans was more effective than changing risk weights, since provisioning affects the profit and loss account of banks. There was scope for

escaping the effect of risk weights since average capital adequacy ratios were above the minimum (Sinha, 2011).

Relatively conservative accounting standards, without full mark-to-market requirements, also reduced pro-cyclical incentives. They did not permit recognition of unrealized gains in equity, but unrealized losses had to be accounted. Banks had to periodically mark-to-market only investments held in trading categories. They had to provide for net losses while ignoring net gains. Securitization guidelines imposed conservative capital adequacy requirements exposures. Profits on sale of assets to a special purpose vehicle could not be recognized immediately on sale but only over the life of pass through certificates issued (Goyal, 2009).

International fair value accounting norms are being adjusted in these directions, for example by shifting from incurred loss, which is cyclical, to expected loss. BCBS (Basel Committee on Banking Supervision) is working on a countercyclical provisioning methodology based on the latter. But the consultation involved with the international accounting standards board (IASB) is likely to be a lengthy process— so simpler alternatives could be agreed to in the interim.

It is possible to apply lessons from many EMs, including India, where simpler regulations successfully restricted leverage and acted counter cyclically. IMF (2011) notes these successes but does not build on them, preferring to merely continue advocating deepening markets for EMs.

The highest volatility in private capital flows to emerging markets came from interbank flows. The table shows international positions by nationality of banks. On all counts the US and the UK banks are the largest. The U.S. dollar as the reserve currency is the funding currency for global banks. Around 160 foreign banks raise about one trillion dollars of wholesale dollar funding in US capital markets to send 600 billion dollars to head office. These interoffice assets of foreign bank branches in the US increased steeply since the nineties. They did fall sharply in 2008, but rose again the next year (Shin and Shin, 2011).

Table: International positions by nationality of ownership of reporting banks. Amounts outstanding (USDbillion) (End-September 2010)		
Parent country of bank	**Assets**	**Liabilities**
Developed Countries		
Australia	421	751.3
Canada	885	749.3
France	4,443.80	4,233.70
Germany	4,552.80	3,598.40
Italy	1,025.70	1,046.70
Japan	3,637.70	2,039.80
UK	4,570.20	4,492.00
US	4,043.20	4,570.30
Emerging Markets		
Argentina	NA	NA
Brazil	202.3	223.8
Chinese Taipei	258.5	275.9
India	142.1	168.5
Indonesia	NA	NA
Mexico	44.8	45
Russia	NA	NA
Saudi Arabia	NA	NA
South Africa	78.6	78.3
South Korea	222.2	225.1
Turkey	163.4	196.5
Source: Calculated from table 8A http://www.bis.org/publ/qtrpdf/r_qa1103.pdf#page=7		

Financial systems in EMs tend to be bank dominated. Banks and their lending have to expand with development, along with other legal, governance, and market reforms. Therefore, a solely bank-focused reform program hurts them disproportionately, while the neglect of shadow banking and liquidity creation hurts them again through volatility in capital flows. Therefore, better-balanced reform would bring EMs on board, even as it improves global financial stability.

To summarize, changes in financial regulations may be in the right direction, they are too small, too slow, too narrow and too dependent on individual country and regulatory discretion. Dodd-Frank can force more transparency, information sharing, reporting and auditing, in OTC markets, especially since suitable technology is available, only provided exemptions are not given. While teeth have been provided against SIFIs and the shadow banking system, there is no warrantee they will be used. Non-discretionary direct rules such as prompt corrective action against a troubled financial firm, or leverage caps, or removal of all exemptions on transparent trading of complex financial derivatives can be more effective. Without these, for example, exemptions for FX swaps could be used to structure swap transactions to avoid regulation to expand shadow banking activity and create systemic risks. Large areas of discretion in addressing systemic failures and cross border arbitrage by SIFIs imply a question mark over implementation.

One consequence of volatile cross border flows is high exchange rate volatility and rising foreign exchange reserves. These connections are explored in the next section.

IV. Global Imbalances, Capital Flows, and Currency Wars

In the post GFC period, the concern with global imbalances has morphed into the fear that countries will deliberately seek to depreciate their currencies in order to boost exports and create jobs. The Brazilian finance minister, Guido Mantega, coined the term ‘currency wars’ in 2010 as QE in the US and elsewhere generated sharp inflows that appreciated the Brazilian Real. The Brazilian response was to impose market based capital controls to discourage inflows. There was a reversal of capital account convertibility in many EMs.

Easy liquidity also contributed to a sharp recovery of oil prices even though global demand remained low. This hit oil importing EMs. For countries such as India, whose current account deficit (CAD) of the balance of payments widened as a consequence. Outflows of foreign portfolio investment that occurred in risk-off periods whenever global financial fragility rose, due to events such as the European debt crisis, made it difficult to finance the CAD. Episodes of rupee depreciation increased the import bill, given inelastic demand for commodities such as oil and gold.

The dollar carry trade, due to low US interest rates, is also a problem, especially for EMs with more open capital accounts. The portfolio decisions of the global banks, that equalize returns across regions, carry dollar liquidity across borders. Foreign bank branches borrow dollars from headquarters using their interoffice account or unsecured borrowing in the interbank market. These non-core or non-deposit liabilities of the banking sector, had also peaked in Korea before the financial crises in 1997 and in 2008, and were responsible for sharp depreciations of the Won in 2008 and 2010. So Korea imposed prudential taxes to reduce procyclical expansion of banks non-core liabilities. Shin (2011) argued for a tax on banks foreign and non-core liabilities, with a higher rate for short-term liabilities.

US monetary policy, including the successive rounds of unconventional QE, sustains cross currency funding. Although the US is the largest net debtor it is a substantial net creditor for the global banking system. Its borrowing is long, as central banks invest in treasury securities, but lending is short through commercial banks. This lending facilitates cross-border spillovers in US monetary policy, making the latter global monetary policy. Non-core liabilities, reflecting interconnections among banks, and FX borrowing of banks are special sources of cross-border risks. These volatile flows impact currencies and force CBs to intervene (Shin and Shin 2011).

Talk of currency wars resurfaced in 2012 when the Swiss and the Japanese CBs took measures against the appreciation of their currencies. But hardly any country has a pure float. Market determined exchange rates often show sustained deviation from fundamentals necessitating intervention. Since narrow markets can be excessively volatile under a full float, EMs in particular, need to manage their exchange rates.

The Fund's mandate is to promote the stability of the international monetary system and exercise surveillance over exchange rate policies. But after the US abrogated the Bretton Woods agreement on fixed exchange rates in the 70's, countries became free to follow what exchange rate regime they choose; there was no enforceable agreement on exchange rates with the IMF unlike in the pre 1970's system. It had some power over countries with CADs that needed to borrow but none over countries running a current account surplus (CAS).

While current account restrictions have to be approved by the IMF, it does not have jurisdiction over the capital account. Article VI, of the IMF's Articles of Agreement, gives countries the right to impose capital controls if necessary. In September 1997, the governing body of the International Monetary Fund sought to extend the IMF's mandate to maintain free capital movements on the basis of Article VIII which covers members' obligations to maintain payments systems for current account transactions, avoid discriminatory currency practices, and allow convertibility of foreign held balances. But the repeated global financial crises made it difficult to force countries to open their capital accounts.

More countries, however, are seeking to restrict the capital account through the market, which is regarded as more acceptable. IMF views themselves have softened towards the use of capital controls. The use of the latter is now recommended in the face of volatile capital flows, but only as a last resort, and if other macroeconomic fundamentals are in order (Ostry et. al. 2010).

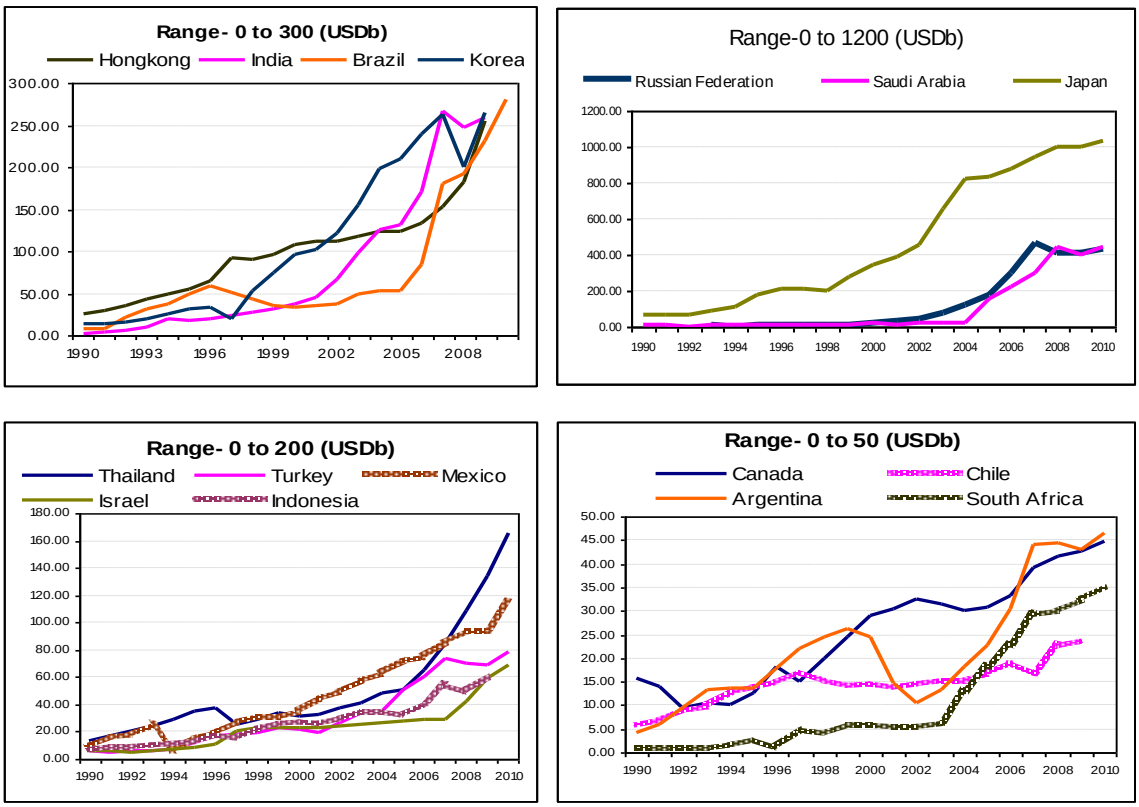
In the light of this history, the current debate on currency wars makes two errors. First, to assume any kind of intervention implies currency manipulation. Second, that any kind of restriction on capital movement is unwarranted disruption of markets. These presumptions cannot be correct when there is no legal international agreement on currency regimes, and when markets themselves are subject to persistent deviations from fundamentals.

At the very least, it is essential to distinguish countries with a CAD from those with a CAS. If a country has a persistent CAD its exchange rate cannot be undervalued. Countries with a very large persistent CAS that creates spillovers for other nations do have a moral obligation to adjust. The discussion on imbalances and exchange rate regimes is dominated by China, which has above 3 trillion dollars of reserves and a large current account surplus so the exchange rate may be undervalued. But it is not true that all countries with rising reserves have a current account surplus. Among the G 20 countries with rising reserves and a deficit are South Africa, Mexico, Israel, India, and Brazil. Therefore the mercantilist, or export encouraging, motive is ruled out for these countries.

Countries are forced to use a variety of measures to protect themselves from excess volatility of capital flows. These responses to inadequacies in the current GFA should not be regarded as currency manipulation.

Reserve accumulation as a self-insurance mechanism, however, is expensive as well as has limited utility. Countries whose reserves were based on inflows did not use the reserves during the months of the GFC when outflows were large, preferring to depreciate exchange rates instead (Aizenman, 2009). The tendency to add to reserves but not to let them fall, suggests a hoarding motive. Most countries fear market interpretations of a fall in reserves, and the possible downward spiral it may set off. Rating agencies give too much weight to measurable aspects and tend to downgrade a country whose reserves fall, since the latter are regarded as a signal of strength. So the precautionary use of reserves is limited then only to the signal. In addition, psychological pressures, such as bettering one's own past record, tend to keep raising the threshold for reserves.

Graph: Rising thresholds in FX reserves



Annual data for the G-20 shows that except for US, UK, Euro Area, Chile and Argentina, reserves have tended to increase steadily since the nineties, the period of large inflows. All EMs had a substantial rise in reserves over 2009-2011 (IMF 2012, Table A13, pp.214). The graph shows countries in the 0-50 USD billion range of reserves to be Chile, Argentina, Canada, and South Africa. Those in the 0-200 range were Thailand, Turkey, Mexico, Israel, and Indonesia. India, Brazil, Korea, Hong Kong were in the 0-300 range and Russia, Saudi Arabia and Japan in the 0-1200 range.

Only countries in an inner financial circle have ready access to US Fed swaps and other reliable international liquidity support. They did not raise their reserve holdings. Mutual vulnerabilities and interests is a precondition for availability of swap lines. Moreover, they are giver not user driven, are typically of short duration, and limited by moral hazard considerations.

Capital-account management policies that reduce short-term inflows can be a substitute for costly reserve accumulation. Any type of tax on inflows implicitly subsidizes the costs of reserves held, funding the accumulation of reserves by the activities that create the need to self-insure by these reserves.

The premises in the currency wars debate that all intervention is manipulation and all controls market distorting, tend to force EMs to follow exchange rate regimes appropriate to AEs although EMs may not yet be ready for them. In the 2012 G-20 meeting finance ministers agreed not to manipulate exchange rates for competitive advantage, but interest rate or liquidity boosting policy in response to domestic needs, which AEs typically use, was not to be regarded as manipulation. But measures such as intervention and controls, that EMs with less developed markets are forced to use should also not be regarded as manipulation.

AEs also use other types of policies to affect exchange rates. For example, Mr Abe's campaign promise to aid export-dependent manufacturers by bringing down the value of the yen, became self-fulfilling since traders acting in advance of expected action depreciated the yen 15 percent against the dollar after November 2012. It is a stretch to fit these in interest rate or liquidity boosting policy, but G-20 interpreted it as a

response to domestic needs. It follows domestic needs of EMs should also be recognized.

The AEs tend to take a view that whatever is good for AEs growth will eventually be good for EMs. That is true, but even so action should be taken to moderate costs imposed on EMs, since slower EM growth in turn with reduce recovery in AEs. What is good for EMs can also be good for AEs. Action, such as simple uniform types of financial regulation, can moderate spillovers from AE policies in the shape of risk-on risk off capital flows, and commodity price bubbles.

Just exchange rate adjustment will also not resolve reserve imbalances. If exchange rates drove the current account, imbalances with China should have been largest for Europe. But many European countries did not develop a CAD, even as the Renminbi, fixed to the dollar, depreciated against the Euro with the depreciation of the dollar. Extreme views want an appreciation of Asian exchange rates relative to the dollar large enough to compensate for lower Asian wages. But the real exchange rate has to be relatively depreciated to the extent the average real wage is lower in an EM. A rise in real wages is a pre-condition for appreciation. Without that, slower growth in wages and prices could convert a nominal appreciation into a real depreciation. If wages are not in line with productivity, unemployment would rise. It follows exchange rates cannot bear the entire burden of adjustment. Adjustment has to come partly from raising domestic absorption in Asia and partly from reducing deficits in AEs (Goyal, 2005).

Improving the nature of international financial integration and confidence in the GFA is the better way to reduce imbalances. Credible global governance is required for this. The changes at present are inadequate.

V. Global governance and reform

The G-20 was very successful in coordinating a global monetary-fiscal stimulus after the GFC. But conflicts between AEs and EMs because of different speeds of recovery, and a loss of focus on financial reform, made it less effective over time. Even so, regular dialogue among a broader set of participants did serve a useful purpose— in particular in preventing formal restrictions on international trade.

The G-20 did produce comprehensive reform lists. But these rely on international institutions to monitor or implement, and therefore require governance reform at these institutions for full credibility. In April 2009 the G-20 trebled the IMF's resources. EMs made sizeable contributions, but representation in the fund's executive board remains incommensurate with their growing economic power. Quotas, votes, and voice of EMs all have to change suitably. The IMF continues to have a European head, even as it focuses more resources on Europe. Since March 2009 the IMF has made a new flexible credit line (FCL) available, without strings attached, to countries with a track record of sound macroeconomic policies and institutions. This proved useful for East and South European countries in distress.

There are some improvements. The membership of the Bank of International Settlement (BIS), and the Financial Stability Board (FSB), has been made more representative. The IMF began conducting a regular Financial Sector Assessment Programme (FSAP) for all systemically important countries.

A new Integrated Surveillance Decision aims to make IMF surveillance more effective. Member countries' obligations under the IMF's Articles of Agreement cannot be changed but it does enhance the existing legal framework by making Article IV consultations a vehicle for multilateral as well as bilateral surveillance, to also cover spillovers from member countries' policies that may impact global stability. Even without legal commitments, this can bring peer pressure to bear on countries whose imbalances create spillovers on others.

A Pilot External Sector Report assesses, in addition to exchange rates, current accounts, balance sheet positions, reserves adequacy, capital flows, and capital account policies.
It seeks to go beyond cyclical factors to identify the impact of policy distortions, other structural and country-specific factors on a country's current account. It asks whether the home country's policies need to change or whether other economies should change course[8]. A IMF staff discussion paper takes the position that while a country

[8] See http://www.imf.org/external/pubs/ft/survey/so/2012/POL071912A.htm

can give greater weight to domestic concerns over international spillovers, where the later impose costs on other countries there is a case for multilateral coordination that can either ask for a reduction in capital controls or ask lenders to partially internalize the risks of volatile capital flows (Ostry et. al. 2012). It says the latter is 'much thornier'!

It will be a major step towards symmetry if the onus for capital flow volatility is put on source countries also instead of the current system where the entire burden of adjustment is borne by recipient countries. But it is not clear that actual adjustment will be symmetric. After the East Asian crisis EMs reformed, but developed countries did not. Nor was the GFA modified. AEs take the position that asset bubbles are not due to QE but to EM demand, again putting all the onus on EMs. While EMs are allowing currency appreciation and stimulating domestic demand to correct global imbalances, deficit reduction in AEs has been indefinitely postponed.

In the June Toronto G-20 meet AEs committed to "at least halve deficits by 2013 and stabilize or reduce government debt-to-GDP ratios by 2016". But at the 2012 summit in Mexico City, it was admitted this target would not be achieved. Moreover, it was said to be not advisable to reduce deficits given continued global uncertainties. Instead AEs only committed to "ensure that the pace of fiscal consolidation is appropriate to support the recovery"[9]. The argument that in a balance sheet recession when the private sector is deleveraging, and there is a possibility of a debt deflation trap, the government must spend has some validity. Reducing debt and deficits is easier when growth is higher. But if feasible future growth is overestimated, the stimulus given today can be excessive and recreate conditions that led to the GFC.

In the absence of meaningful reform in the GFA, and given dangers from volatile and poorly regulated capital flows, EMs are forced to continue with costly self-insurance. Participating in regional initiatives may help ensure a better balance of power and more symmetric adjustment. Then the financial reforms necessary to reduce spillovers

[9] See news report at http://www.ft.com/cms/s/0/c68ff436-279b-11e2-abcb-00144feabdc0.html#ixzz2NE3OIMeL

of QE policy and strengthen the GFA may be implemented, and EMs gain more freedom to follow context specific macroeconomic policies.

Capacity building is especially important for EMs and global standards must be sensitive to context. Market deepening is in EMs own interest, but more opening has to be calibrated and is conditional on a better GFA, market institutions, and symmetric adjustment.

VI. Conclusion

The paper analyzes the process of change in the GFA, lacunae in the process and potential improvements. Although there has been some post GFC improvement in the GFA, and the institutions underlying it, it is far from adequate or complete. They have more voice now but EMs lost an opportunity to improve global stability, and contributed to a diffusion of the G-20 agenda, by not insisting on a more even sharing of adjustment costs. They accepted strongly held AE positions without pushing for modifications that could moderate the spillovers from AE actions. Pressure from AEs also led to inappropriate macroeconomic policies in some EMs.

At present, financial reform proposals are more complex than necessary, and subject to continuing dilutions and delay, while monetary and exchange rate policies imposed are often simpler than required in the EM context. For example, despite having robust financial regulation without the disincentives that full or no liability involves, India is imposing stringent, expensive Basel norms not suited to its bank-led system with underdeveloped credit. If, instead, global standards adopted these features the GFA would improve.

Monetary-fiscal policy was too loose initially in following the international stimulus despite continuing high food inflation. Then first monetary and later fiscal policy was forced to tighten excessively. Growth fell even as oil shocks and sudden brakes in inflows due to global conditions and to the hands off exchange rate policy, again followed on global advice, contributed to steep exchange rate depreciations and to inflation. This is unfortunate because understanding EM context and helping them to follow appropriate policies will help AEs. Lower growth in EMs harms recovery in AEs.

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