Munich Personal RePEc Archive

Global Financial Governance: Towards a New Global Financial Architecture for Averting Deep Financial Crises

Khan, Haider

University of Denver

August 2013

Online at https://mpra.ub.uni-muenchen.de/49275/
MPRA Paper No. 49275, posted 24 Aug 2013 12:26 UTC

Global Financial Governance: Towards a New Global Financial Architecture for Averting Deep Financial Crises

Haider A. Khan*
Professor of Economics, JKSIS
University of Denver
Denver, CO 80208
USA

Revised, August 2013

Paper for conference on Financial Crisis, Bali, Indonesia, Sep. 24-26, 2013

---

* I would like to thank Tanweer Akram, Ilene Grabel, Izumi Otomo and Derek Sarchet. All remaining errors are mine.

Abstract

This paper analyzes the problems of creating and expanding national macroeconomic policy space and economic governance for the developing countries in particular within a framework of overall global and regional financial architectures. It develops a critical constructivist evolutionary theory of international financial institutions and arrangements within a framework of dynamic complex adaptive economic systems(DCAES), and applies this particularly to the current problems of developing countries. More specifically, the paper analyzes the following aspects:

- Proposed BASEL III reforms for more stringent capital requirements and their implications for the developing world in particular.
- BIS proposals for better regulation of financial derivatives, including commodities futures, by moving away from OTC transactions towards organized exchanges.
- The IMF's response to recent and emerging global economic and challenges, and the evolving nature of its role.
- The most appropriate role of regional arrangements in financial stabilization, based on experiences with such arrangements in this and prior episodes of crisis.

The Basel reforms and the BIS proposals for regulating the derivatives markets have many positive features. However, they have not been designed with the needs of DCs and LDCs in mind. The consequences of Basel I and II and proposed Basel III are analyzed from the perspective of the developing countries. It turns out that specific concerns of developing countries have not received adequate attention within the Basel Reform Initiatives and more can be and needs to be done. Most importantly, the role of IMF under the present globalization arrangements and repeated financial crises is studied by following such a critical constructivist evolutionary theory of international financial institutions within a rigorous DCAES framework. Here, too, the key finding is that much more can be done to help the developing countries than has been done so far. Furthermore, the potential for such global reforms in the wake of the global financial crisis and the great recession is analyzed from a dialectical social constructivist viewpoint that combines the power of --sometimes conflicting--- norms and ideas with the underlying structural contradictions to produce a "critical-constructivist" analysis of the potential for change. It is shown that IMF must and can change in a direction which allows for greater national policy autonomy. It is also shown that the IMF needs complementary regional

institutions of cooperation in order to create a stabilizing hybrid global financial architecture that will be more democratic and pro-development in terms of its governance structure and behavior. Thus regional financial architectures will need to be integral parts of any new global financial architecture (GFA).The tentative steps taken towards regional cooperation in Asia since Asian financial crisis are discussed to illustrate the opportunities and challenges posed by the need to evolve towards a *hybrid* GFA. The opportunities and challenges arising from the current global crisis are also analyzed in this context.

Keywords: dynamic complex adaptive economic systems, financial crises, global financial architecture, regional financial architectures, a *hybrid* GFA, regional cooperation, BASEL III reforms, the BIS proposals, the IMF.

CONTENTS

1. Introduction and Background

2 Proposed BASEL III reforms for more stringent capital requirements and their implications for the developing world

3. BIS proposals for better regulation of financial derivatives, including commodities futures, by moving away from OTC transactions towards organized exchanges.

Pre-Crisis Buildup of Problems

4. Towards a Workable Development-oriented Global Financial Architecture with an Enabling Role for Regional Financial Arrangements

5. The Changing Role of the IMF within a Hybrid GFA

6. Summary and Conclusions

LIST OF ABBREVIATIONS

AESAN	Association of Southeast Asian Nations
AFC	Asian Financial Crisis
ASA	ASEAN Swap Agreement
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BITs	Bilateral Investment Treaties
BOP	Balance of Payments
BRIC	Brazil, Russia, India and China
CAR	Capital Adequacy Ratio
CCP	Central Counterparty
CDS	Credit Default Swap
CET	Constructive Evolutionary Theory
CFTC	Commodity Futures Trading Commission
CPSS	Committee on Payment and Settlement Systems
CRPRID	Center for Poverty Reduction & Income Distribution
CSO	Civil Society Organizations
DCAES	**Dynamic Complex Adaptive Economic Systems**
DHS	Demographic and Health Surveys
FCL	Flexible Credit Line
FTAs	Free Trade Agreements
FX	Foreign Exchange
FYDP	Five Year Development Plan
GDP	Gross Domestic Product
HDI	Human Development Index
HIPC	Heavily Indebted Poor Country
HDR	Human Development Reports
ICT	Information, Communication and Technology
IGO	Inter Governmental Organization
IMF	International Monetary Fund
INGO	International Nongovernmental Organization
IOSCO	International Organization for Securities Commissions
IPS	Integrated Package Services
LDC	Least Developed Country
LIC	Low-Income Country
MAG	Basel Committee Macroeconomic Assessment Group
MDGs	Millennium Development Goals

MDGR	Millennium Development Goals Report
MDRI	Multilateral Debt Relief Initiative
MICS	Multiple Indicator Cluster Survey
MOF	Ministry of Finance
BOJ	Bank of Japan
MPND	Ministry of Planning and National Development
MPO	Management and Planning Office
MTEF	Medium Term Expenditure Framework
NAPEP	National Poverty Eradication Programme
NEEDS	National Economic Empowerment and Development Strategy
NGO	Non Governmental Organizations
NPC	National Planning Commission
ODA	Official Development Assistance
OTC	Over the Counter
PC	Planning Commission
PRS	Poverty Reduction Strategy
PRSP	Poverty Reduction Strategy Papers
SBA	Stand-by Arrangement
SDR	Special Drawing Rights
SEC	Securities and Exchange Commission
SFT	Securities Financing Transactions
SIV	Structured Investment Vehicle
SPV	Special Purpose Vehicle
Stats SA	South Africa Statistics Office
TB	Tuberculosis
TWGs	Technical Working Groups
UNCT	United Nations Country Team
UNDAF	United Nations Development Assistance Framework
UNDG	United Nations Development Group
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
US	United States
VIE	Variable Interest Entity

1. INTRODUCTION AND BACKGROUND

Despite the initial bafflement as the world economy was hit by the biggest financial crisis since the Great Depression, by now there is broad agreement on the underlying causes of the crisis: banks and financial institutions indulged in excessive leverage and excessive risk taking while regulators did not provide an adequate regulatory framework. In the US, the proximate causes also included the Fed policy under Alan Greenspan of supporting an artificial housing boom after the bursting of the stock market bubble through low interest rates and lax regulations in the housing and financial sectors in particular. Through various channels, the crisis was transmitted to other sectors of the economy and to nations across the world, leading to significant human development impacts on the poor and vulnerable. As the "Stiglitz Commission report"(the Report of the Commission of Experts of the President of the United Nations General Assembly on Reforms of the International Monetary and Financial System), among other sources, emphasizes, the deeper causes relate to historic reversal of post-depression checks and balances of national and global economic governance.

As the Report of the Commission of Experts of the President of the United Nations General Assembly on Reforms of the International Monetary and Financial System put it:

> "…the standard policy nostrums—that countries should have sound macroeconomic policies strong governance, transparency, and good institutions – may be less than helpful. Countries that held themselves out as models of best practices have been shown to have had deeply flawed macroeconomic policies and institutions and to have suffered from major shortfalls in transparency."

Against this backdrop, there have been many calls for changes in the global financial and economic governance architecture that would lead to a more stable and less risky international financial system. For example, internationally, there is momentum around BASEL III, a package of proposals to strengthen global capital and liquidity regulations. The United States government and various EU countries had introduced legislation aimed at reforming financial institutions under their jurisdiction.

While these processes are underway, the crisis itself continues to evolve leading most recently to an anemic recovery. Paradoxically, some emerging economies face concerns about excessive financial inflows and overheating of their economies. On the other hand, several countries now face (or anticipate) debt sustainability issues of different degrees of severity. The prolonged crises in Southern Europe lingers on.

Among the IFIs, the IMF has played a prominent role through several measures including the establishment of flexible credit lines, changes in conditions attached to emergency funding and, more recently, in its interventions to support the Euro-zone economies. At the same time, several regional arrangements, such as currency swap lines, have also been put into place. Whether global or regional mechanisms are more useful in preventing financial contagion and to what extent these complement each other, remain open questions.

Changes in the world financial and economic order have consequences for developing countries directly, through banking regulations and global/regional policies, and also indirectly through the impact on developed countries themselves, which can affect lending, foreign investments as well as international aid. In this context, it is possible to find the motivations for undertaking a study that will examine the principal changes that have taken place (or are likely to do so) as a result of the financial and economic crisis. These changes can also include alterations in financial and economic governance mechanisms and policies given the general economic context in which countries, in particular developing countries, are operating.

This paper documents the nature and scope of these principal changes, and analyzes their consequences for developing countries in particular. It also explores the important policy space issue by exploring analytically the conditions for their most effective responses. Without being exhaustive, the developments covered include:

- Proposed BASEL III reforms for more stringent capital requirements and their implications for the developing world in particular.
- BIS proposals for better regulation of financial derivatives, including commodities futures, by moving away from OTC transactions towards organized exchanges.
- The IMF’s response to recent and emerging global economic and challenges, and the evolving nature of its role.
- The most appropriate role of regional arrangements in financial stabilization, based on experiences with such arrangements in this and prior episodes of crisis.

The methodological approach adopted here is a type of *constructivist* and *evolutionary* analysis of our complex international economic system and political economy. The technical work on aspects of this dynamic complex adaptive economic systems or DCAES in short, has been done in Khan(2004, 2011; Lin et.al. 2008) among other sources**.** The institutions I discuss and the alternatives I propose here are all path dependent, but in a non-deterministic manner . Social practices based on collectively held ideas by both elite and non-elite groups can matter in crucial ways. However, given the structural aspects of global financial and economic system and the conflicting ideas and norms, there are serious contradictions at all levels of the system. Recognition of such contradictions and conflicts at both ideational and material levels dialectically forms the "critical" part of my constructivist adaptive complex systems approach(Khan 2004,2006,2011).[1]

In analyzing the above in the context of the Developing Countries (DCs) in particular, the following features of DCs are highlighted among others:

a. DCs have fewer resources for coping with financial crises, particularly one which is global in its scope;
b. Most DCs lack automatic stabilizers due to the embryonic nature of their fiscal and social protection systems;
c. They have limited ability of borrow in international financial markets and this limits their ability to pursue countercyclical policies;
d. These threats are often exacerbated by global financial market integration and Free Trade Agreements (FTAs) and bilateral investment treaties(BITs). Many WTO commitments also affect the DCs adversely. IMF pro-cyclical Structural Adjustment Policies can also constrict the policy space.

The social and political construction of global and regional financial arrangements also depends critically on a supporting structure of complementary institutional network (CIN), norms, ideas

[1] At the same time corporate actors are legitimate under some conditions. In this my analysis is similar to Wendt's (1987, 1999) constructivist approach which does not contradict a deep and sophisticated version of Scientific Realism. Indeed, both Wendt and I build upon a scientific realist ontology avoiding narrow determinism. See also Khan (2003a,b; 2008c), Best(2010) and Abdelal (2007).

and practices. Global financial architecture (GFA) and Regional financial architecture (RFA) both depend on their respective CIN within a global system of nation states and international organizations. Given the real interdependence within the system, all actors have some stake in sustained growth and stability with equity. At the same time part of the complexity of the global financial system arises from various contradictions and asymmetries in the system itself. Thus the central argument of this paper is that sustainable policies at the national level require a supporting network of GFA and RFAs that go some distance towards resolving the key issues arising from such contradictions and asymmetries. Appropriate national policies in their turn can contribute to the sustainability of the GFA and RFA. It can be shown that following an evolutionary theory of international financial institutions, two broad types of possible Global Financial Architectures can be identified.[2] In this paper, following Khan (2002c) the first is called an *overarching type*, exemplified by the classical gold standard and the defunct Bretton Woods system. The second is called a *hybrid form* that allows for the existence and coevolution of some Regional Financial Architectures as well. The changing roles of the IMF and national economic policies can be examined within these two possible financial architectures under globalization. The ongoing politics of re/construction of IMF along a more functional and equitable line is and will remain complex and require a separate treatment that is beyond the scope of this paper and therefore is not attempted here. However, the tentative steps taken towards regional cooperation in Asia since Asian Financial Crisis (AFC) are discussed to illustrate the opportunities and challenges posed by the need to evolve towards a *hybrid* GFA. The opportunities and challenges arising from the current global crisis are analyzed in this context.

In light of the above observations, in this paper I will discuss the problems of creating and expanding national macroeconomic policy space and economic governance for the developing countries in particular within a framework of overall global and regional financial architectures. The context of the current global financial and economic crisis gives such an exercise an undeniable urgency. However, the theoretical approach towards a type of constructivist analysis which respects the structural complexities of a global real-financial economy with serious

[2] For specific models and arguments see those developed in Khan (2001, 2002c, 2004 and 2005,2006) and Khan *et. al*. (2008). Khan (2001; 2005) formalizes various types of path dependence. In Khan (2002c) a specific argument called “the extended panda’s thumb” is advanced to urge the utilization of the existing IMF with some modifications in a new, hybrid GFA. The arguments developed here also are consistent with Griffith-Jones(1998). See also Griffith-Jones et al.(2003,2006,2010 and 2013), Eichengreen(2013a,b;1999), and Eichengreen and Dincer(2013).

asymmetries, problems of managing risk and uncertainty and uneven development may have broader applicability beyond the current crisis. Whether state capacities exist for formulation and implementation of national economic policies may depend in large measure on the kind of global and regional financial architecture in existence at any point in time---with or without financial crises.

The structure of the paper is as follows. In section 2, the proposed Basel III reforms and their implications for the developing world are discussed. Controlling portfolio capital flows; particularly in the form of derivatives are an important dimension of preventive measures which can overlap with deregulated banking but still go beyond this. For this reason, section 3 takes up BIS proposals for better regulation of financial derivatives, including commodities futures, by moving away from OTC transactions towards organized exchanges in the context of the developing countries' special needs. Important as the issues in these two sections are, without a new and workable Global Financial Architecture, the prevention or even management of financial crises will be very likely be impossible for the developing countries in particular. Therefore, the remainder of the paper until the concluding part concentrates on the problems of a new GFA and presents the case for a hybrid GFA. The final section concludes.

2. Proposed BASEL III reforms for more stringent capital requirements and their implications for the developing world

The banking and finance world is now witnessing a transition from Basel I and II to Basel III. Drafted in 1988, the Basel I Accord was the first to set minimum capital requirements for international banks. The goal was to stop international banks from evading national regulators. Equity capital and published reserves from post-tax retained earnings (Tier I capital) were required to be equivalent to 8% of risk-weighted assets. Tier 2 capital requirements (reserves to cover losses, subordinated debt holdings, gains from the potential sale of assets, etc. were set at

the same levels for Tier I capital. Much of the accord focused on delineating the appropriate risk-weights for assets. Risk weights were drawn to privilege sovereign debt, public sector entities and long term claims on other banks. Mortgage and private sector debt were weighted much higher (50% and 100% respectively). The 1998 accord allowed national supervisors to implement stronger/supplementary measures of capital adequacy for nationally chartered institutions.

Drafted in 2004, Basel II represented a significant revision of the 1988 accord. It expanded the scope of the 1998 accord to cover alternative approaches to a variety of topics. The goal of the accord was to promote the adoption of stronger risk management practices by the banking industry. The three pillars rationale (minimum capital requirements, supervisory review and market discipline) was developed as a conceptual framework on the revision of the initial accord. While many of the key elements of the Basel I were kept in place (general requirement for banks to hold capital equivalent to at least 8% of risk-weighted assets, 1996 Market Risk Amendment, and the definition of eligible capital), a major change in the way risk was assessed was put into place. It allowed risk to be assessed under Bank's own internal models, thus relying upon banks to largely self-monitor their own risk-taking strategies. National supervisors were to buttress internal risk assessments by assuring minimum compliance to national standards. And banks were required to provide more public disclosures related to its capital positions. The Basel II framework was more risk sensitive than the 1998 Accord. Operational risk and market risk was separated from credit risk.

Table 1: Key Features of Basel I and II

Key Features	Basel I	Basel II
Capital Adequacy Requirements (CAR)	Tier I Capital Requirements: • Equity capital and Disclosed reserves • Had to be held at 4% of risk weighted assets Tier II Capital Requirements: • Miscellaneous debt • Held at 8% - Tier I holdings	1. Tier I & II requirements were not changed. 2. Assets of holding companies were included into requirements of banks. 3. Capital Reserves = 8% * Risk Weighted Assets + Operational Risk Reserves + Market Risk Reserves
Risk Weighting	Categories of risk weights: 1. 0%--included cash, sovereign debt held in domestic currency, OECD debt 2. 20%--development bank debt, OECD bank debt, short term non-OECD debt 3. 50%--mortgage debt 4. 100%--private sector debt	1. Sovereign debt was weighted according to its credit rating. 2. Bank debt could be indexed to sovereign debt ratings or to their specific ratings. 3. Private corporate debt rated junk was weighted at 150%. 4. Home mortgages were risk-weighted at 35%; corporate mortgages 100%.
Other Features	• Promoted the harmonizing of national regulations • Allowed national regulatory specificities into capital requirements	Banks could choose between three approaches to risk weighting: • Standardized Approach • Internal Ratings (IRB) Approach • Advanced IRB Approach Operational risk and market risk was separated from credit risk. Bank disclosures were made public. Regulators were given additional powers: • Creating capital buffers requirements • Intervene into internal risk modeling

Further Evolution: Going from Basel II to Basel III

Under Basel III, banks will be required to hold more capital against their assets than under Basel I and II. Among other things, this will have the effect of decreasing the size of their balance sheets and their ability to leverage themselves. The minimum amount of equity, as a percentage of risk-weighted assets, will increase from 2% to 4.5%. There is also an additional 2.5% buffer requirement, the so-called 'capital conservation buffer', bringing the total equity requirement to 7% [Caruana 2010, 4]. Total risk-adjusted capital requirements will remain unchanged at 8% [Demirguc-Kunt, Detragiache and Merrouche 2010, 4]. Deferred tax assets, mortgage servicing rights and other obscure forms of capital are now not allowed to be used to boost capital levels. Deployment of capital and payment of dividends will be constrained more. In effect, banks will be required to triple core Tier I capital ratios from 2% to 7% to hold against potential losses. They have until 2019 to implement these requirements [Masters, Hughes and Tait 2010].

There is also agreement on tough new liquidity rules. With the so-called "*liquidity coverage ratio*, "for the first time that Basel rules have specified a notional global target for liquidity needs [Masters 2010]. The rule would require banks to hold enough cash and sovereign debt to survive at least a month-long market crisis. Banks will have to hold reserves equal to 100% of undrawn corporate borrowing lines. This could be potentially problematic for developing market banks in countries without liquid government bond markets. A second liquidity rule, the "*net stable funding ratio*," would seek to reduce banks' dependence on short-term funding. Like much of the agreement, there is considerable delay over when banks have to begin formally observing the rules. For the new liquidity rules, banks have until 2015 to put them into place [Masters 2010].

Basel III imposes tougher requirements on the bonds that banks can count towards their regulatory capital. So-called hybrid securities which sit between equity and debt and were intended to act as a buffer to soak up unexpected losses must now include a mechanism (so-called 'bail-in' mechanism) for taking losses. This would allow them to be converted into equity or written off [Hughes and Masters 2011]. This rule will have to be implemented domestically (through national regulatory laws) or individually (through each bond issue) by 2013. Hybrid forms of debt like this and preferred shares are used to bolster regulatory capital and are cheaper

to issue than equity. However, Basel III will force the phasing out of these types of protected forms of debt.

The Basel Committee has also proposed a countercyclical buffer that could be imposed when aggregate credit growth is rapid enough to build up system-wide risk [Caruana 2010, 5].The buffer would be as large as 2.5% of risk-weighted assets and would be released on the judgment of domestic authorities to help absorb losses. Systemically important banks may also be asked to operate under more stringent rules. Capital surcharges, contingent capital, bail-in debt arrangements and peer reviews are policies that could be employed under rules delineated for these kinds of institutions [Caruana 2010, 5]. Basel III also embeds a reciprocity agreement into the operation of the agreement's countercyclical capital buffer:

> "Consider the case of a country in the region receiving strong capital inflows and experiencing rapid credit growth and buoyant asset prices. Before Basel III, any tightening in capital required of locally incorporated banks would lead to the objection that foreign banks could lend to firms from offshore without being subject to the more rigorous capital requirements. With Basel III, however, internationally active banks would be required by their home regulators to calculate the countercyclical capital buffer add-on for exposures to the country whether booked in the local subsidiaries or offshore" [Caruana 2010, 5].

In 2008, the Basel Committee opened its membership to large emerging markets in the hope that a more globally relevant set of standards could be conceived [Taylor 2010]. In some ways, developing countries *were able* to help shape a couple of the rules. New capital rules would have penalized countries which require international banks to take on local partners by requiring these banks to strip equity held by local partners from their Tier I capital totals. However, in July of 2010, a compromise was agreed upon to the benefit of these emerging economies [Masters 2010]. For **key milestones** of Basel III upto 2018, the reader is referred to the **Appendix. As of July 22, 2013, the US and EU have accepted many provisions. For example, it was announced recently for the US:**

The federal banking agencies have just adopted comprehensive regulatory capital rules that will implement **Basel III** in the U.S. In turn, it is time for banking organizations to understand the new rules and bring themselves into compliance with them by the beginning of 2015 (2014, for the largest banking organizations). The new rules make important changes to the definitions and components of, and minimum requirements for, regulatory capital; revise the required regulatory deductions from, and adjustments to, regulatory capital; and create a new "standardized approach" framework for the risk-weighting of assets on the banking and trading books of U.S. banks. In addition, the federal banking agencies have made some important changes to the "advanced approaches" regulatory capital framework that applies to the largest U.S. banking organizations.

Topics of discussion will include:

- The revised minimum capital requirements, and the new definitions of capital;
- Required deductions from and adjustments to capital;
- The new "standardized approach" framework for the risk-weighting of on-balance sheets assets and off-balance sheet exposures;
- Changes to the advanced approaches capital framework;
- The major changes made in the final rules from the June 2012 proposed capital rules;
- The agencies' proposed supplemental leverage ratio requirements for the largest U.S. banks; and
- Other recent and prospective regulatory capital developments.[3]

However, Andrew Cornford is on the mark when he states:

While the inclusion of the leverage ratio in Basel III is an attempt to strengthen the Basel capital framework, it only sets regulatory minima and is soft international law.[4]

Capital Adequacy Ratios (CAR) and Developing Markets

Stricter definitions on what constitutes core Tier I capital is of interest to developing market banks. Banks are going to have to hold much higher levels of common equity to satisfy their Tier I requirements [Caruana 2010, 4]. Resilience and capability will be judged, then, by the soundness and depth of equity markets in developing countries. No doubt, domestic debt and equity markets must be strengthened to provide space for banks to raise fresh capital. Improving the quality and depth of debt and equity markets in developing countries will be quite a task, especially for countries who currently have very limited markets.

Boosting capital adequacy requirements may indeed lead to institutions being perceived as safer, lowering their costs of capital. Larger banks would benefit most by being able to issue debt more cheaply. Banks and corporate firms that are guaranteed through large banks will probably see their costs of issuing debt decrease. This will occur, because bonds issued by these institutions will be an attractive investment for firms wishing to purchase assets that are lower risk-weighted.

[3] See http://www.lexology.com/library/detail.aspx?g=5afa5218-6a75-4801-9efa-90699fd7d2af Last consulted on Aug. 1, 2013

[4] See the Triple Crisis Blog, http://www.triplecrisis.com/(last checked on Aug. 3, 2013) and also Cornford(2013) at the IDEAS site http://www.networkideas.org/news/jul2013/news19_Basel_III.htm (last checked on August 3, 2013)

The effects of higher CARs on banks are nuanced and difficult to tease out. Simulations done on the effects of Basel II and increased capital adequacy ratios on the Brazilian and Mexican economies showed that GDP in each country would be adversely affected [Barrell and Gottschalk 2010]. The analysis showed that a credit crunch would occur in each of these cases, and accompanied by an increase in lending rates. Although the Basel II reforms were never implemented fully, marginal changes in the nature of capital requirements will most likely not affect the results of the econometric analysis. If anything, tougher capital restrictions and more stringent ratios might affect GDP even more adversely.

From a different perspective, econometric evidence by Ediz, Michael and Perraudin (1998) showed that UK banks responded to regulatory pressures to add to their individual CARs not by lowering their risk or lending profile, but by actually increasing their capital provision. As a result, risky portfolios were complemented by raising new capital [Gottschalk and Sen 2010, 22]. In the wake of Basel III then, it might be more difficult to tease out how even the developed country banks could respond to more stringent capital requirements. That the success of raising capital in equity markets was buoyed in 2010 can be noted here. As regards developing countries, banks in search of returns may therefore not shy away from ramping up lending and investment operations. Indeed, it is feasible that the total amount of credit to developing countries may continue to increase. More important, where and to whom will that credit go?

This result should be compared against the finding by Montgomery (2005) which indicated that since Basel I was implemented, international banks based out of Japan reduced their risk profile. This was, in part, caused by regulatory pressures from the MOF and BOJ.

Econometric analysis on developing country banks showed that poorly capitalized banks reduced risk when under regulatory pressure (from Basel I and II regimes), as opposed to raising new capital [Gottschalk and Sen 2010, 23]. More stringent CARs under Basel III will force poorly capitalized banks in developing countries to make difficult choices over how they will provision capital and furthermore, how they will dole out credit.

Banks in large developing markets have had to hold CARs higher than the 8% minimum under Basel for some time now [Gottschalk and Sen 2010, 24]. This is a result of domestic regulatory regimes which were more stringent than Basel I and II regimes. As a result of these regulatory regimes, higher banking concentration occurred in Brazil. Credit to the private sector declined, and holdings of sovereign securities went up significantly [Gottschalk and sen 2010,

25]. This is directly related to the risk-weighting formula imposed by earlier Basel regimes. The same effects have also been seen in India [Gottschalk and Sen 2010, 28-29]. Increases in bank credit have notably lagged behind increases in deposits and holdings of sovereign debt by large Indian banks. Credit towards SMEs (as a percentage of total credit) fell by half between 2000 and 2007 [Gottschalk and Sen 2010, 29].

Credit Access under Basel III

New leverage requirements on Tier I and Tier II capital may mean that banks will be induced to reduce both their exposure to riskier assets to a significant degree [Gottschalk and Sen 2010, 20]. For developing economies, the implications are serious for much of the formal economy. Evidence of credit rationing from earlier Basel implementation is pertinent here. The introduction of Basel I in Brazil and India in the 1990s helped lead to a continual decline in total credit (as a percentage of GDP). Credit expansion in India slowed over the same period [Gottschalk and Sen 2010, 17]. Under Basel II simulations, access to household credit in large developing nations did fall significantly. However, higher interest charges vis-à-vis higher capital ratios would most likely lead to a decrease in household wealth and consumption [Barrell and Gottschalk 2010]. Basel II accords meant that domestic and foreign banks in emerging markets would have to ration credit away from SMEs and towards larger institutions (for standard risk and information-gap reasons) [Calice 2010].

Under Basel III, pressure from regulatory authorities may lead to further rationing in developing markets by commercial banks. Less credit to SMEs in the formal sector and to others in the informal sector will obviously play a role in reducing the overall economic activity of the country in question. Informal sector-formal sector linkages may further exacerbate the problem, as the SAM-CGE modeling in another context by Sinha and Khan(2010) shows.[5]

Developing World Banks and Competition under Basel III

Basel II had already presented tremendous implementation challenges for banks in developing countries [Gottschalk 2010, 3]. The challenges included the need to build large databases to run sophisticated risk models and to import the human capital necessary to assess,

[5] See Anushree Sinha and Haider A. Khan, 2010. “The Gains from Growth for Women in India: A SAM- and CGE-based analysis,” in Amelia Santos-Paulino and Guanghua Wan ed. *The Rise of China and India: Development Strategies and Lessons*, Palgrave/Macmillan,

monitor and act on such models [Gottschalk 2010, 4]. These costs were detrimental to competition against large foreign banks which had the resources to use these models to their advantage. Complying with Basel II meant that developing country banks had to divert resources away from activities that directly benefit economic growth and poverty alleviation in developing countries [Gottschalk 2010, 7]. Some of the PRSP documents allude to this problem. Clearly, this has implications for MDG goals and MDGRs that will need further exploration for which the LDCs in particular are poorly equipped.[6]

Technically, Basel III is going to be very difficult to implement for banks in the developing world. Proposals involve sophisticated stress testing that goes beyond the capacities of banks in developing markets [Taylor 2010]. While banks have until 2019 to meet Basel III requirements, domestic financial markets will face global concerns that will constrain their ability to meet requirements. Loose monetary policy in the developed world will continue to funnel cheap money to developing markets. Reigning in this money by meeting Basel III standards would be beneficial and relatively painless. Emerging markets, though, face pressure to continue to allow cheap credit to flow in and not risk alienating foreign investors [Taylor 2010].The unevenness and asymmetry of the current global economy and finance is particularly striking in this context.

Because developing country banks are going to be held to the same risk and regulatory standards as banks in the developed countries, it will be critical to see to what extent developing country banks can realistically handle all of these new requirements.. The Basel Committee "has raised the bar for the supervisory review of risk management practices" [Caruana 2010, 3]. Areas that are more fully addressed in the new management rules include: firm-wide governance[7], capturing off-balance sheet exposure risk and securitization activities, valuation processes for financial instruments, stress testing programs, risk concentrations and aligning risk and return incentives. Transparency is also being stressed. New rules from the Committee require that banks "disclose all elements of the regulatory capital case, the deductions applied and a full reconciliation to the financial accounts" [Caruana 2010, 3].

---

[6] See Haider A. Khan, 2006b. "An In-Depth Review of the Country Millennium Development Goals Reports,"(submitted to UNDP) which anticipates some of these problems.

[7] This was already an issue in the aftermath of the AFC for the Asian economies. See Khan (2004) chapter 6, pp.98-144 on corporate governance for a detailed discussion.

As regards capital requirements, leverage ratios for Tier I capital will not probably be of much relevance to developing market banks which rely mostly on equity, reserves and deposits. Their Tier I ratios are already high. Most big banks in China and India hold core Tier I ratios above 9% [Masters 2010]. A slowdown in the proliferation of financial products means less to these kinds of banks.

One of the major critiques against Basel I and II was its bias towards bank concentration and towards less diversity in financial sectors in terms of ownership, role and size. Financial innovation was also hampered [Gottschalk 2010, 4]. Unless developing market banks can, over this decade, bring up to speed the risk-management and supervisory capacity that exists elsewhere, they face serious competitive issues. Further liberalization of financial markets in accordance with the Washington consensus will only compound this issue. This has serious implications for borrowers who may get shut out if international finance comes to predominate in domestic banking systems. The most serious problems may arise in the SME financing for employment and development.

States as Collective Corporate Actors and Basel III

National regulatory authorities will have to begin incremental implementation of Basel III on January 1, 2013. Implementation will end on January 1, 2019 [Caruana 2010, 6]. To implement the new rules, authorities must be able to engage in an ongoing dialogue with senior bankers on business and risk models, have a more intensive and effective presence in the banking sector and be capable of developing the capacity to have broad power for early intervention and corrective action [Caruana 2010, 7]. Regulators will need clear mandates, independence, accountabilities, tools and resources adequate enough to do their job in using Basel III to strengthen domestic financial and banking systems. Risk management systems to be imposed domestically by Basel III face serious impediments in developing markets. Implementing and monitoring such systems require high levels of human capital and other things not readily available in emerging markets: independence, legal protections and integrity to challenge corruption at the State level [Taylor 2010].

Domestic banking systems which implemented Basel I and II saw a distinct trend towards higher banking concentration, more distinct division of labor between larger and smaller banks (and between foreign and domestic banks)' and changes in banks' portfolios away from credit to

the private sector and towards government securities. These systems also saw a trend away from corporate credit and towards consumer credit [Gottschalk 2010, 2]. Basel II had an implicit bias against SME borrowers towards larger corporations. As capital requirements and definitions are more stringent this time around, the major focus for States will be how to make up for the impending problem of credit rationing by domestic banks away from small but productive businesses in the economy.

To address this problem, some options do exist under Basel III. States in the developing world will see their ability to issue sovereign debt buoyed by Basel III. Because sovereign debt carries a very low risk weight, it will continue to be a preferred method of asset creation through loan expenditure by international banks. Developing countries must thus be wary of the attractiveness of its sovereign debt to banks that are looking to manipulate their capital and risk structures. Simulations done on the effects of Basel II on sovereign access to credit and spending showed that countries would be more likely to increase their spending and deficit levels [Barrell and Gottschalk 2010]. As we already know, Basel capital requirements have forced banks to disburse an increasing portion of priority credit towards more profitable, but not necessary productive, endeavors [Sen and Ghosh 2010]. These sources include many forms of consumer credit. "Social priorities of credit" have been negatively affected by the Basel regimes [Gottschalk 2010, 12]. Fiscal policy, whether direct or through policy banks may not be able to make up for the credit gap that forms as Basel regimes hit smaller banks in developing countries. The attractiveness of sovereign debt then could provide means for the State to channel more financing towards State development banks or to firms directly. As such, they must traverse a thin line between excessive and perhaps anti-developmentalist fiscal conservatism and one that promotes expenditures/lending for pro-poor and development activities without much fiscal prudence. Critical to this cause, the IMF and the World Bank must allow for countries to use their policy space to further promote growth and development priorities, especially under the new Basel regime.

Thus for developing market banks, States will have to find creative and reliable means for their banks to meet capital requirements more easily. For this purpose, the nurturing of nascent equity and bond markets will be critical. Developing new instruments and financial markets are tedious and time- and resource-consuming. If developing market banks are not able to increase their buffers through equity or bond markets, then they face serious competitive

issues from international rivals. This will especially be the case in countries that have liberalized their financial markets. The Basel Committee has sought to allay these worries by lengthening the time over which the developing country banks need to come into compliance. With that said, any push to strengthen financial market depth and maturity could lead to fewer resources going to generate sustainable growth and pursue poverty- reduction.

It must also be emphasized that inadequate regulatory capacity will make it difficult for developing markets to cope with financial innovation, and ultimately to keep the financial system stable. Multilateral institutions will have to be ready to provide technical support and resources to help countries deal adequately with the implications of Basel III on regulatory authorities. States will also have to find ways to hang onto to critical regulatory staff. Regulatory staff proficiency has been a recurrent problem in developing countries, because many competent staff are hired away into the private sector [Prasad 2010, 13].

Finally, the Basel Committee Macroeconomic Assessment Group (MAG) has produced an estimate of the implications of Basel III on the global economy. Its results show a maximum decline in the world's GDP of 0.22% over the next decade from its baseline forecast [MAG 2010, 2]. These estimates include the potentiality of spillovers across countries. Countries that rush to put Basel III in place may face relatively larger reductions in GDP and growth [Prasad 2010, 6]. Firms that are already well stocked with capital and/or are able to shift their risk profile towards safer assets will fare much better over the next decade. They will be able to offer debt more cheaply and avoid cutting back on lending volumes [MAG 2010, 2].

Lending volumes are projected to fall by 1.4% relative to baseline estimates over the next decade [MAG 2010, 5]. Lending spreads are projected to widen by 15.5 basis points during the same period. To ensure positive effects of spreads and lending volumes on future growth is critical. Based on the MAG models, tighter lending requirements in the face of Basel III could have a larger negative effect on world GDP than in models that weight the effect of credit spreads on volumes more heavily. Models also forecast that growth will be lower for countries that do not (or cannot) employ monetary policy to address the effects of higher capital requirements [MAG 2010, 6].

In light of these econometric estimates, further emphasis here is placed on the ability of States to use fiscal and monetary policy to support the growth of their economies. Because poor States are already fiscally constrained (whether through tax capacity, IMF/WB conditionality,

economic shocks/hardships), Basel III further complicates the growth and poverty-alleviation picture. Unfortunately, it means that these States will need to become more reliant on each other to implement the reforms and support regional development initiatives. Failure to do so will then mean that States will have to become more reliant on international technical expertise and resources. In this light that fact that the States have a full decade to delineate and implement a proper course is not as long a time horizon as it first appears to be. Even if the banking sector is adequately reformed, the proper use of financial markets will also require an enabling global financial architecture and an overall reduction of systemic risk. In the next three sections I take up these topics. The next section discusses risks arising from the OTC derivatives markets. The two sections following discuss the role of a reformed IMF and regional financial architectures in promoting financial stability for pursuing development policies leading towards equitable and sustainable growth and poverty reduction.

3. BIS proposals for better regulation of financial derivatives, including commodities futures, by moving away from OTC transactions towards organized exchanges.

Pre-Crisis Buildup of Problems

Recently BIS annual report summarized its current position as follows:

> Since 2007, actions by central banks have prevented financial collapse. Further accommodation is borrowing time for others to act. But the time must be used wisely. The focus of action must be on balance sheet repair, fiscal sustainability and, most of all, the economic and financial reforms needed to return economies to the real growth paths authorities and the public both want and expect (Chapter I). After reviewing the past year's economic developments (Chapter II), the remaining economic chapters of the 83rd Annual Report cover the critical policy challenges in detail: reforming labour and product markets to restore productivity growth (Chapter III), ensuring the sustainability of public finances (Chapter IV), adapting financial regulation to ensure resilience of the

increasingly complex global system (Chapter V), and re-emphasising the stabilisation objectives of central banks (Chapter VI). [8]

The hallmarks of the global financial crisis were the contagion and counterparty risks taken on by financial institutions. Both of these arose at least in part from banks involving themselves in capital market activities for which they did not carry enough capital. Securitization and its warehousing on and off-balance sheets proved to be an intractable problem even for the firms involved. In the U.S., Variable Interest Entities (VIEs) to which banks are linked had to be consolidated onto balance sheets if banks became insolvent or if liquidity of funding became problematic. Capital regulations simply could not cope. Similarly, counterparty risk became a major issue with the failures of Lehman Brothers and AIG [Blundell-Wignall and Atkinson 2010, 5].

During the pre-crisis period, financial firms were able to increase the asymmetry of information and costs for consumers in the OTC and exchange-traded derivatives marketplaces through the internalization of information. This led to higher bid-ask spreads that benefitted financial firms' fee schedule. Customers were left in the dark on the intricacies of contracts, the risk of holding such contracts and were forced to pay more for the contracts than they would otherwise. Had these contracts been transparent and competitive, the price would have been much lower. This lack of transparency and a noncompetitive, imperfect market structure is coupled with sheer size of the derivatives industry. At its peak in June 2008, the outstanding notional amount of contacts stood at $760 trillion, equivalent to the value of everything produced on Earth in the previous 20 years [Financial Times 2010].

Emerging Markets

Daily turnover in derivatives in emerging markets has expanded fourfold over the past decade, to over 6% of emerging market GDP [Mihaljek and Packer 2010, 44]. Daily turnover derivatives was about $1.2 trillion daily last year [Mihaljek and Packer 2010, 44]. While this daily turnover is still less than a tenth of the turnover in advanced economies, the figures are notable. Since 2001, turnover has increased by over 300%, a faster rate than the increase in the daily turnover in advanced financial markets (~250%). Both OTC and exchange-traded

[8] See http://www.bis.org/publ/arpdf/ar2013e.htm
Last consulted on August 1,2013.

transactions are substantial. Most of these derivatives are foreign exchange derivatives (around 50% of the total daily turnover) [Mihaljek and Packer 2010, 45].

A growing majority share of these transactions are being completed cross-border and offshore. Counterparties to FX derivatives trades are increasingly doing cross-border business; cross-border shares have risen to 67% in 2010 from 59% in 2004 [Mihaljek and Packer 2010, 48]. This ratio now mimics that found in advanced economies. Offshore trading of currency has increased substantially as well. For example, more than 90% of trading in the Brazilian real, the Mexican peso, the Hungarian forint, the Polish zloty and the Turkish lira takes place offshore [Mihaljek and Packer 2010, 55].

OTC markets are more important for derivatives trading in emerging markets. Half of turnover occurs on OTC markets in these countries. In advanced countries, the ratio is more like 60/40 [Mihaljek and Packer 2010, 44]. Of the OTC derivatives transactions in emerging markets, nearly 90% are foreign exchange derivatives [Mihaljek and Packer 2010, 45]. This makes any proposals coming out of the BIS on OTC reform especially important for derivatives markets that are maturing in emerging economies.

The financial crisis did not work to reverse the proliferation of OTC and exchange-traded derivatives in emerging markets, unlike in advanced economies. The total daily turnover of derivatives (both markets) increased by a quarter from 2007 to 2010 [Mihaljek and Packer 2010, 46]. Notable and expected, lightly-regulated traders (pension, insurance, hedge funds) have increased their share of total turnover by nearly a third during this time period as commercial and investment banks have had to slow operations. Reporting dealers constituted only 43% of daily turnover in OTC FX trading in 2010 [Mihaljek and Packer 2010, 49]. This could be particularly problematic as reform on these transactions goes further.

As countries continue to develop their financial markets and their economies grow, the proliferation of OTC and exchange-traded derivatives markets will occur making the institution of a proper regulatory structure a clear imperative[Mihaljek and Packer 2010, 55].

Financial Derivatives

World OTC derivatives markets have seen shrinkage in volume during the last couple of years. Despite the proliferation in OTC markets in emerging markets, the value of outstanding contracts fell 4% in the BIS latest figures [Van Duyn 2010]. Most of the shrinkage has been in

the market for credit default swaps, as companies and countries have largely (save Europe) been able to recover from the financial crisis.

Leading regulatory figures have stressed that derivatives markets must become more transparent, not only amongst themselves, but with the public as well. In the wake of the crisis, firms which have large derivatives trading desks have had to vastly increase the information they provide to regulators about their positions [Mackenzie 2010]. More is going to be asked of these traders in the future. It is hoped that greater transparency will allow customers to both have more knowledge of these products and be able to demand smaller bid-ask spreads [Mackenzie 2010]. As part of new Basel III proposals, banks will be required to apply tougher and longer margining periods as a basis for determining regulatory capital when they have large and illiquid derivative exposures to a counterparty [Blundell-Wignall and Atkinson 2010, 9].

Commodity Futures

Financial market dynamics have played a part in fuelling the most recent commodity-boom. Regression analysis has shown that commodities are uncorrelated or negatively correlated with traditional asset classes of equities and bonds. Such analysis has allowed investment portfolios to hold commodities to reduce risk and enhance returns. More non-traditional players have entered the market as the financial crisis deepened and spread.

Global turnover in commodity derivatives has grown significantly over the past several years [Kiang 2008, 1]. According to BIS statistics, the notional value of OTC commodity derivatives contracts outstanding reached $6.4 trillion in mid-2006, about 14 times the value in the late 1990s [Domanski and Heath 2007, 53]. By the middle of last decade, the share of commodities in overall OTC derivatives trading reached nearly 2% [Domanski and Heath 2007, 53]. Outstanding commodity derivatives contracts peaked in 2008 ($13.3 trillion notional amount outstanding) and have declined rapidly in the wake of the crisis. In June 2010, the notional amount outstanding was around $3 trillion [BIS Quarterly Review 2010, A121]. Compared with physical production, the volume of exchange-traded derivatives was around 30 times larger for major minerals in 2005 [Domanski and Heath 2007, 54]. At that time, 90% of swaps and options trading in oil was done in the OTC market. Speculation on U.S. commodity exchanges now probably constitutes the majority of all interest/positions on these markets.

Fund managers and other investors have also piled money into commodities markets. During asset bubbles or even during a partial downturn, the return on going long in these markets is compared with many other asset classes [Domanski and Heath 2007, 55-56]. High commodity prices will continue to shape manufacturing decisions and future trade flows. Elevated shipping costs and scarcity in some commodities markets raise the stakes on ensuring that exchanges and markets in the future are conducted in a fair and licit manner. Needless to say, prolonged political turmoil can inevitably complicate the picture.

Thus commodities markets now are very similar to mature financial markets and exchanges. The BIS admitted as much in a paper on financial investors and commodity markets back in 2007 [Domanski and Heath 2007, 54]. The increasing diversity and complexity of financial instruments in commodities markets demand an increasing need for infrastructure and regulation to protect actual supply and demand interests [Kiang 2008, 2]. The 2007 BIS paper acknowledged that evidence pointed to price levels and volatility in commodities markets that could not be justified by economic fundamentals [Domanski and Heath 2007, 61-62]. Prices were supporting speculative investor/ interests, as opposed to sound commercial interests.

Organized Exchanges for OTC transactions

Counterparty risk arising from the use of OTC derivatives was one of the key hallmarks of the crisis. Regulatory arbitrage and shifting promises was an important contributor to the explosion in credit default swap(CDS) use. Tax arbitrage too has allowed promises to be transformed with strong implications for bank on- and off-balance sheet activity. In 2009, key regulatory officials from the BIS and around the world sought to discuss and then formulate ways to regulate OTC markets. As it stands, the interest rate swap market is the only OTC derivatives market in which actors and financial institutions rely on central clearing mechanisms in any way. Forty five per cent of this market is based in London. The uses of clearing houses for other OTC transactions are virtually non-existent [Cecchetti 2010]. Currently, only about 11% of positions have been shifted to CCPs, exchanges or clearing houses [Van Duyn 2010].

The BIS has specifically called for the requirement that all standardized OTC derivatives be cleared through central clearing houses [BIS 2010, 61]. In their “Review of the Differentiated Nature and Scope of Financial Regulation,” the BIS stressed that these CCPs impose robust margin requirements, necessary risk controls and minimize the use of customized OTC

derivatives [BIS 2010, 61]. It also stressed that unregulated traders in these markets (hedge funds, SPVs etc.) ought to be placed under a regulatory architectures, especially given their proliferation in CDS and insurance markets in the past several years [BIS 2010, 70]. Collateral requirements on derivatives exposure (even for firms with high credit ratings) is another option being debated within the BIS.

The chief economist at the BIS and the US Fed Chairman Bernanke both have spoken about the need to require corporate derivatives users to rely on central clearing houses. Encouragement would come through requiring additional capital for contracts not cleared through a CCP [Cecchetti 2010; French *et. al*. 2010]. CCPs would have to be very well designed (strong operational controls, appropriate collateral requirements, sufficient capital, etc.) to guard against the issue of concentrating risk onto the clearing houses. Officials also spoke of the need to encourage market participants to create standardized exchange traded derivatives for all risk types currently handed in OTC transactions. Non-standardized contracts would then be place higher capital requirements on financial institutions. In the future, more serious consideration could be given towards the introduction of product registration and 'consumer' protection for financial innovations, products and contracts. This kind of consumer protection, product registration scheme would be akin to a "pharmaceutical style warning system" [Financial Times 2010].

Another goal of early discussion would be to increase transparency in the CDS market so as to improve the ability of market participants to identify potential problems [Cecchetti 2010]. Increasing transparency would have to involve targeting the "index and single-name CDS contracts that are relatively liquid and standardized…[and] introducing trade-reporting similar to that in the TRACE system, which provides post-trade price transparency for US corporate bonds" [Cecchetti 2010].

U.S. And EU legislation will require financial institutions to trade through CCPs, but many market participants would be exempt from any legislation. Regulators are pushing for a narrow exemption rule to be into place that only allows non-financial end-users to be exempt from having to clear through exchanges or clearing houses [Mackenzie 2010]. Dodd-Frank Act implementation will mean that many of the world's largest derivatives traders will be subject to have transactions cleared through CCPs and other types of exchanges [Van Duyn 2011]. Specific rules for firms doing business within the U.S. should be set this summer. Dodd-Frank will place

two agencies, the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC), in charge over directly overseeing these OTC markets [Van Duyn 2011]. Delineation of rules by these agencies will certainly play an important role in how the BIS and other regulators will oversee these markets in the years ahead.

Critical to the BIS proposal to move OTC transactions onto organized exchanges, banks under the new Basel III regime will qualify for a 2% risk weight for counterparty risk exposure if they deal with centralized exchanges (that meet regulatory criteria). Qualifying CCPs will receive a low risk weight (2%) [BIS CCP Proposal 2010, 1]. Default fund exposures to a CCP will be capitalized according to the estimated risk from such a default fund. This proposal creates incentives to use these centralized exchanges since higher risk weight charges will apply for bilateral OTC derivatives:

> As part of the Basel III reforms, the Committee has materially changed the CCR regime. These changes significantly increase the capital charges associated with bank OTC derivatives and SFTs and thereby create important incentives for banks to use CCPs wherever practicable. [BIS CCP Proposal 2010, 2].

Rules arising from the consultation on the BIS proposal will be finalized in September this year (following an impact study) and plans to be implemented beginning in 2013. CCPs will ultimately under the regulatory reach of the CPSS-IOSCO. Any CCP that does not qualify under CPSS-IOSCO rules will force any financial institution to hold significantly more capital to protect against default of that CCP [BIS CCP Proposal 2010, 6]. The use of trade repositories (TRs) will also be boosted. TRs for CDS and interest rate derivatives already exist. They feature electronic databases of open OTC positions and publish statistics on volumes and market activity. Very little of this information is available, however [Cecchetti 2010].

In addition, the CPSS-IOSCO has issued recommendations on improving the accessibility and capacity of trade repositories. Augmenting trade repositories would provide much greater transparency to OTC derivatives markets by making available data on open trades available to the public [CPSS 2010]. Repositories standardize and make information widely accessible to all market actors.

It should be emphasized that the pervasive discussions and many proposals on OTC markets, commodity rules and CCPs are in their relative infancy. Most of the specifics are still in the consultative phase. It is hoped that by September of this year[9], a more thorough regulatory

[9] That is, 2011.

regime will be developed. There are many controversial areas as Blundell-Wignall and Atkinson (2010) and others have pointed out. According to the former:

Prior domestic and international regulatory regimes were unable to properly gauge to what extent securitization dampened (hid) balance sheet credit growth in the past, leading to false signals that there were no leverage problems. The same could very well occur in Basel III, where future developments in the shadow banking system could lead to similar distortions that would be impossible for supervisors and other policy makers to identify.

They also claim:

> Measures/proposals from Basel and the BIS to get more OTC derivatives onto exchanges should create more reliable traded price data and improve the modeling of some of these exotic instruments. Firm-specific requirements of non-financial and financial firms for tailor-made derivatives suitable to individual needs, however, will likely contribute to the already large size of the OTC market. Individual derivatives (continually innovating) are neither conducive nor really able to be traded on exchanges. This presents a significant regulatory problem in the future [Blundell-Wignall and Atkinson 2010, 11].

The argument that there may be over-regulation of securities and derivatives markets has also been advanced. The OECD points to the activity of hedge funds, who act like "capital-market oriented banks" [Blundell-Wignall and Atkinson 2010, 13]. They are lightly regulated, issue securities in their own name and invest with leverage on behalf of investors. Market discipline in the absence of public guarantees help keep leverage ratios significantly lower for these institutions. If regulations on banks are ramped up (especially on diverse, exotic transactions), there will be a corresponding shift in the quantity and nature of business conducted within the shadow banking system [Blundell-Wignall 2010, 14].

Despite the proposal to move OTC transactions onto exchanges, Basel III "does not deal with the most fundamental regulator problem identified: that the 'promises' that make up any financial system are not treated equally – in particular banks can shift them around by transforming risk buckets with derivatives (particularly credit default swaps) to minimize their capital costs – including shifting them beyond the jurisdiction of bank regulators – e.g. to the insurance sector in a least regulated jurisdiction. The extent of activities in the shadow banking system also a part of the problem related to how similar promises are treated by regulators. This has many implications for the reform process" [Blundell-Wignall and Atkinson 2010, 21].

It has also been claimed that increasing capital requirements on counterparty risks provides a strong incentive to push OTC transactions onto CCPs and other exchanges. It is likely

that a significant amount of activity will be pushed here, concentrating risk onto members of the clearing houses and onto the clearing houses themselves. The total risk might be lower overall, but its concentration introduces new systemic concerns over the integrity of exchanges [S&P 2010, 6].

Furthermore, questions can be asked about the ability of CCPs and other exchanges to effectively manage the centralization of risk onto their books [Financial Times 2010]. Lack of availability of prices, limitations of market liquidity and product differentiation is going to make it hard for any exchange to model and contain risk. Lack of liquidity within these markets may arise if capital requirements on counterparty risk are increased. This could adversely affect the integrity of the clearing system [Financial Times 2010]. Tighter derivatives markets may be good for the future of the entire financial system, but it will certainly have a short- to medium-term impact on real economic activity.

As Das [Financial Times 2010] thoughtfully remarks:

> The credit quality of the CCP is crucial. Currently, private clearing houses are contemplated. The CCP's capitalisation and financial resources as well as the risk management systems will be important in ensuring its credit standing. Commercial motivation (for market share and profit) may conflict with risk management requirements. It is not immediately apparent how these competing pressures will be accommodated. The US believes that privately-owned clearing houses are the solution. The CCP is designed to reduce systemic risk but in reality, the CCP may become a node of concentration. The heavy investment required to establish the infrastructure to clear contracts through the CCP will mean that a few large derivative dealers (probably US and European) will quickly dominate the business. Other dealers will inevitably be forced to clear and settle trades through these dealers creating different counterparty credit risk and perversely increasing systemic risk. Maximisation of benefits of central clearing requires a single clearing house. Currently, multiple CCP appear likely, as different commercial clearing houses compete for the latest frontier land grab in financial markets. National prejudices, inherent mutual distrust, promotion of national champions as well as feared loss of sovereignty and control of financial markets will mean multiple CCPs located in different jurisdictions. This will require, if feasible, inter-operability, cross margining and clearing arrangements between exchanges and jurisdictions. Instead of decreasing risk, this may create new and complex exposures. For example, international regulators are yet to agree on the definition of a standardised contract or the market participants required to transact through the CCP. It is also not clear who will regulate and oversee the system, especially where it transcends national boundaries.

From the perspective of DCs and LDCs these controversies point to an increasing need for multilateral solutions within a global framework. This leads us to a consideration of the need for a new GFA and its possible structural requirements. In the following two

sections, first, in the next section, the discussion leading to a somewhat novel analytical framework is motivated by looking at some aspects of the AFC. Following through, we can then view *the current IMF reforms* underway within the analytical framework that is developed. Section 5 then presents a more in-depth analytical look at the role of a reformed IMF along with appropriate RFAs in managing crises in a way that will recognize the problems of development and be beneficial to the developing countries.

4. Towards a Workable Development-oriented Global Financial Architecture with an Enabling Role for Regional Financial Arrangements

4.1 A Constructive Evolutionary Theory (CET) of GFA: two evolutionary types of GFA---AFC as a Critical Case for a CET of GFA

It should be mentioned at the outset here that the Constructive Evolutionary Theory (CET) of GFA developed here is an example of evolution within a dynamic complex adaptive economic system that operates globally. The dynamic instabilities in such a system can arise in both the real and the financial parts of the system and in interactions between them. In my earlier work in the bounded rationality context using neuro-fuzzy models I was able to show the crucial role of social learning in order avoid to at least the possibility of deepening the crises if not entirely averting them. However, given the endogenous role of uncertainty and lack of coordination in a complex capitalist economy, crises can not be completely averted. The pragmatic question is how to ensure that they are not deep crises.

Malthus, Sismondi and Marx in the 19th century and Keynes and Kalecki in the 20th century analyzed some aspects of the possibilities of crisis without formalizing the complexity as such. Both Keynes and Kalecki presented models of aspects of endogenous crises from the real side. But these did not formalize complexity as such. Keynes had crucial insights about the fragile nature of a monetary economy and the role of uncertainty as opposed to insurable risk in making private and socially uncoordinated investment decisions crisis-prone, leading to periodic deficiencies in effective aggregate demand. Minsky pioneered modeling financial fragility and many of his followers have done the best work in advancing the modeling of financial fragility in a complex monetary economy.

In order to motivate the discussion that follows empirically, we can revisit some aspects of AFC before discussing the current reform moves within the IMF. In distinguishing among the countries that managed to survive the AFC and those that did not, John Williamson, one of the proponents of the "Washington consensus," pointed out that whether or not these countries had liberalized their capital accounts could be construed as crucial. Those that had not, survived.[10]

All Asian crisis countries had accepted the IMF's Article VIII obligations, as evident from the historical documents. But as some[11] have pointed out, liberalizing trade and liberalizing financial sector have different policy implications. In line with the discussion in the previous section, theoretically, one should carefully distinguish the welfare impacts of financial market liberalization in an uneven world from such impact in a smooth world of equals with information symmetry. Indeed, next to unevenness, the most critical element is the role and the presence of *asymmetric information*. In a financial market, gathering, selecting, using and providing information are central to its proper functioning, yet it is precisely here that market failures from asymmetric information can arise.[12]

But the constructive evolutionary theory with appropriate attention to structure goes further than simply cataloguing moral hazard and adverse selection problems. On the *explanans* side are also *the asymmetries in the size, structure and capabilities of the economies and polities*. These asymmetries constrain some polities, particularly the economically disadvantaged ones from developing as quickly as possible in an equitable manner. The UNCTAD reports on the poorest underdeveloped countries point this out empirically.[13] The theoretical significance of these features of the real world is that no uniform set of rules can work for all the economies and polities in the world. *A fortiori*, it follows that for GFA and RFAs to serve these poor countries as well as the rich countries equally well, special provisions should be in place.

It may appear that the least developed countries are only a special case. But that is not the whole truth. The NIEs, the European social democracies, Japan etc. each in its own way is also different. This poses the real theoretical challenge: how can we even attempt to theorize in the face of such diversity? The way out is through a consideration of the basic needs of the system

[10] John Williamson (1998), *passim.*
[11] See for example, Bhagwati(1998).
[12] Stiglitz has been one of the pioneers of such "information theoretic" approach. For further analysis, see Stiglitz (1994).
[13] See UNCTAD(2002,2003 2007).

and asking if these can be satisfied better under arrangements that are different from the old IMF and the "Washington Consensus."

Further work by Barry Eichengreen and others[14] show that it is possible to move beyond the post Bretton Woods and pre-(global)crisis situation. In contrast with the conservative Meltzer report after the AFC, all of these authors emphasize the need to strengthen the IMF in certain dimensions. However, not all of them recognize the crucial need also for the RFAs and the role they can play in creating an enabling environment for the state to implement beneficial economic policies. A completely constructive evolutionary theory of GFA recognizes the need for RFAs from both an *evolutionary* and a *structural* perspective. Given the lack of political resolve, a point made forcefully by Eichengreen among others, there is little chance of creating *institutional structures* in the manner of the 1944 Bretton Woods agreement. The recent path of the world economy does not lead to this immediately. At the same time, the recent path does not lead to only neoliberalism. It is possible to both reform the IMF, as Eichengreen suggests, and to create new RFAs to complement such reforms. Thus this theory leads to the question of identifying a spectrum of GFAs. Most important among these are those that combine the GFAs like a reformed IMF with appropriate RFAs.

Formally, the heuristic argument presented above can be established via a careful consideration of *path dependence* during evolution of the GFA. In order to do this in a conceptually rigorous manner, the concept of *path dependence* itself has to be refined and formalized in a specific way. I have developed this idea elsewhere, and will only sketch the

---

[14] See in addition to Eichengreen (1999) cited earlier, Azis, Iwan J (1999) *Do We Know the Real Causes of the Asian Crisis?* Global Financial Turmoil and Reform: A United Nations Perspective, The United Nations University Press, Tokyo.
Khan, Haider A. 2004 *Global Markets and Financial Crisis: Towards a New Theory for the 21st Century* Palgrave/Macmillan.
Sachs, Jeffrey D., A. Tornell., A.Velasco. (1996) *Financial Crises in Emerging Markets: The Lessons From 1995*, Brookings Papers on Economic Activity, No 1.
Sachs, Jeffrey D, and Wing Thye Woo (2000). *Understanding the Asian Financial Crisis*, in Woo, Wing Thye, Jeffrey D. Sachs, and Klaus Schwab (eds), The Asian Financial Crisis: Lessons for a Resilient Asia, The MIT Press.
Summers, Lawrence H (2000). *International Financial Crises: Causes, Prevention, and Cures,* American Economic Review, Vol 90, No.2.
Tobin, James., and Gustav Ranis (1998). *The IMF's Misplaced Priorities: Flawed Funds*, The New Republic, available online at the following address: http://www.thenewrepublic.com/archive/0398/030998/tobin030998.html
Yoshitomi, Masaru and Kenichi Ohno (1999), "Capital Account Crisis and Credit Contraction: Towards a Better Management of Systemic Currency Crisis", Paper presented at ADB Annual Meeting, 29 April 1999, Manila.

conceptual path to be followed briefly.[15] Briefly, there can be completely deterministic(CD), completely stochastic(CS), and partially deterministic (PD)characterizations of path dependence. Eschewing the formal apparatus of graph theory and neural network dynamics which can be used to describe these rigorously, we can simply say that in deterministic path dependence there is only one choice of path. Everything is as it should be, since there are no bifurcations at any point in history. In fact, we can make a stronger statement. At *no* point in history is there even a *possibility* of even a bifurcation. Most people will see this as an extreme, and in case of human institutional design, perhaps as an unrealistic case.

The purely stochastic case is all *random mutation*. Again, there is no way that conscious choice can play a role here either. Blind chance determines the outcome. The last type of path dependence, i.e., the PD variety leaves some room for evolution to be a result of at least some kind of bounded rational human activities. In this case, a complex set of human activities including learning and improving policy making capabilities can influence which network of paths are followed over time. While the number of available paths at any point in history may be large, they are never infinite. Therefore, combinatorial mathematics will in most cases show the existence of the most likely evolutionary outcome. However, the caveat that large, seemingly random fluctuations (e.g., a war) can throw these calculations off is always a (rare) possibility.

Fortunately, barring such events as wars, revolutions, complete meltdowns of financial systems etc. there are not at present an unmanageably large number of outcomes that are possible for the GFA. In fact, if we are willing to assume a continuum with nothing but an overarching *global* architecture for international finance with regional impurities added as another type we have just two types of possible evolutionary outcomes for the institutional history of GFAs from a theoretical point of view.

The first type, which can be created at special evolutionary moments, can be called *Overarching GFAs.* Gold standard under the UK hegemony and Bretton Woods under the threats of a postwar depression are two examples. Recent history does not support the hope that such events are about to happen again. Therefore, a second type of evolutionary path resulting in a hybrid form should be recognized. This is the hybrid coexistence of a GFA together with one or many RFAs. We can call this type a *hybrid GFA* for shorthand reference. Once again, Asia after the AFC is a good place to begin the analysis.

[15] See Khan (2001 and 2002c)

In the Asian case, as many have observed, the financial sector liberalization followed the pre-AFC neo-liberal GFA by default. There were some short-term gains of the policy, but ultimately it resulted in severe instability. More generally, as Kaminsky & Reinhart[16] show, based on the episodes of 76 currency crises, of which 26 are also characterized by banking crises, financial sector liberalization can result in a boom-bust cycle by providing easy access to short-term financing. Proponents of liberalization suggested some sort of micro sequencing in order to prevent such adverse consequences. With some variations, the most commonly suggested sequence was: improve the quality of regulation, make sure they are enforced, and then improve the supervisory mechanisms. Once the markets are liberalized, the level of bank's minimum capital requirements could then be brought closer to what the *Basel Accord* required.

As one author,[17] who, of course, does not use the same terminology as developed here, nevertheless points out, there is a contradiction in this type of GFA arrangement.

But when the Asian crisis countries liberalized the financial sector in 1980s, the aforementioned preconditions (assumptions) were not in place. Yet, they were rushed to liberalize by the IFI. Ironically, when at the early stage the policy showed favorable impacts, e.g., higher economic growth; greater access to financial services, the IFI applauded it. But when the crisis hit, the very same countries previously praised were swiftly placed into the category of those with misplaced development strategies. All of a sudden, nothing was right with these countries. When confronted with such an embarrassing contradiction, the international institutions are quick to claim that they actually *saw* the faults, and *already reminded* the governments about the existing flaws (e.g., weak banking system, unsustainable exchange rate system, and widespread corruption).[18]

IMF recommendation during this period led to the increase in interest rates. Because of the common prescription under the GFA this occurred in all Asian crisis countries. Such high rates created more moral hazard and adverse selection problems, thus showing that the incentive system has indeed been altered, and led to the undertaking of bad risk by the banking sector[19]. As Azis correctly points out:

> Under these circumstances, the amount of investment credits going to risky sector rose (adverse selection), the incidence of bail out in the absence of free-exit scheme also increased (moral hazard),

---

[16] See Kaminsky and Reinhart (1999).
[17] Azis (2002c).
[18] Azis(2002c) p.3
[19] See Hellman, Murdock and Stiglitz (2000)

and the subsequent banks' franchise values (expected returns) declined. All these are precisely what the "pre-conditions prior to liberalization" are expected to avoid. Thus, the implicit logic is inherently self-conflicting, i.e., expecting bank's prudent behavior while allowing 'franchise value' to fall. The suggested preconditions, although seemingly logical, simply do not match with the prevailing institutional conditions.[20]

Azis points out further:

> The IMF persistently argued for liberalizing the sector and meeting the pre-conditions simultaneously. A study by the Fund on the sequencing of capital account liberalization using the case of Chile, Korea, Indonesia and Thailand, for example, stresses the importance of proper sequencing if benefits from the liberalization are to be achieved and the risks to be minimized. The study also argues that financial sector liberalization, especially capital account liberalization, should be a part of a coordinated and comprehensive approach, in which the sequencing of regulatory and institutional reforms is critical. The design of macroeconomic and exchange rate policies should also play a vital role (Johnston, Darbar, and Echeverria, 1997). While intuitively making sense, such conclusions are too broad, far from being practical. No one would argue against the importance of making liberalization policy (or any policy for that matter) consistent with the prevailing macroeconomic policy. But how do you do it, remains unanswered. The information contained in such a study is of limited value to policy makers. Yet, while many countries still had problems to meet the stated preconditions, they were pushed to accelerate the liberalization policy by recommending one or two new measures to safeguard. More often than not, these measures are based on the practice of developed countries that have different institutional conditions.(emphasis mine)[21]

Here the author correctly pinpoints the failure to recognize unevenness as a key feature of the failure of the IMF to prescribe the correct medicine. In fact, IMF did much worse--- it prescribed the wrong medicine, a set of measures that worsened the impact of the AFC. This situation illustrates the danger of being in the grip of a (pseudo-) universalistic theory that simply cannot be applied in the real world of unevenness without serious distortions that may cause great harm. An alternative is to work with our type two hybrid combinations of GFA and RFAs. Again, Asia can be used as an illustration.

Prior to AFC, the borrowing in short-term market and the increased flow of foreign capital both occurred almost simultaneously in these countries. As the real exchange rate appreciated, competitiveness suffered, and vulnerability to sudden reversals of capital flows increased. It must be emphasized that these were systemic features that went largely unnoticed by the IMF or the private sector. As is well known, in a nonlinear system the vulnerability to sudden shocks is a logical possibility. In case of Asia, this became an empirical reality of nightmare proportions.

With most debtors being in the corporate sector during the AFC, the capacity to invest became severely constrained. The debt-deflation scenario became the reality because the price

[20] Azis(2002c) p.3
[21] Azis (2002c) pp.3-4

effects of depreciated exchange rates did not occur until much later, if at all. Hence, the initial currency crisis became first a more general financial crisis and then a full-blown economic crisis. In Indonesia it also became a social and political crisis

The Asian crisis showed that, the composition of capital flows matters. The fact that there were sudden reversals of capital flows during 1997 and 1998 led many to believe that most capital flows in the region were of portfolio investment type. Reversals of such capital can strain the region's financial system sufficiently to cause or exacerbate its collapse [22]. However, while it is true that portfolio investment was on the rise, data indicate that foreign direct investment (FDI) remained the largest in all Asian crisis countries. In all Asian crisis countries foreign debts increased persistently until the onset of the crisis. These were debts of the private sector from foreign private lenders. Regional monitoring with the help of a theory such as the one proposed here could have caught the problem and a regionally, ultimately globally, coordinated solution could be attempted. But this was never a possibility under the then existing circumstances. We now know that financial and balance-of-payments crises became interlinked precisely because of the existence of foreign-currency-denominated liabilities (foreign debt) in the domestic financial system.[23] This hindsight can be used to develop RFAs in Asia, Latin America and a few other regions.

In Asia, a "Washington Consensus" policy mix of monetary tightening and fiscal restraints was imposed as part of the IMF conditionalities. The experience during the Mexican crisis in 1995 had convinced the Fund that such a policy mix was appropriate for Asia as well, despite the fact that the pre-crisis conditions in Asia were quite otherwise.[24] Another element emerged in Asia that was indeed new, the IMF suggested a rather radical and fundamental change in the countries' institutional structure. [25] In the event, neither set turned out to have been well-conceived.

As already observed, the Fund's insistence on severely tightening the monetary policy by raising the interest rates turned out to be incorrect and counterproductive. Its arguments for

[22] See for example, Rodrik and Velasco (1999)
[23] See Krueger (2000)
[24] James Tobin and Gustav Ranis (1998) were among those who believed that the IMF programs in Asia were based on the Fund's experiences with Mexico in 1994.
[25] Azis (2002c) suggests: 'The experience with policy adjustments of this kind in Eastern Europe and the former Soviet Union (from communism to market economy) had inspired the Fund to do the same thing in Asia.' (p.7)

remaking many institutions in Asia did not make evolutionary sense although all would agree that ending corruption, curtailing special business privileges, and imposing the practice of good governance, including good corporate governance were good overall goals.[26] But quite apart from the well known fact that this falls outside the Fund's mandate, such adjustments at the time could result in further instability. In the words of Morris Goldstein, an ex-IMF staff member: "…both the scope and the depth of the Fund's conditions were excessive…They clearly strayed outside their area of expertise…]If a nation is so plagued with problems that it needs to make 140 changes before it can borrow, then maybe the fund should not lend." [27] Although not a conscious advocate of the evolutionary theory advanced here, Goldstein's long experience and solid sense of institutional matters led him to the right conclusions in this matter.

Before leaving the question of the analytical distinction between the two types of GFAs it is instructive to ask whether the theory of the second best is relevant in making this distinction. Although the language of evolutionary theory is different, this can be done in a way that throws further light on why the hybrid form is important. In a first best world without frictions, information problems and market imperfections an overarching GFA is indeed optimal. However once we depart from any of these we are in the second best world. Interestingly, given these imperfections, at least along some dimensions, a hybrid architecture with RFAs can (locally) improve upon the surveillance problems that an overarching GFA will face. As long as local information gathering and monitoring can be improved under a (local) RFA, there is an advantage to having an RFA. In the world of second best this can be called "the principle of localism".[28]

4.2 Towards a Workable Hybrid GFA: RFAs, the IMF and National Policy Management under Fractured Globalization

But how is the transition towards a hybrid GFA to be effected? What conceptual modifications are necessary in the way to which we have become accustomed to thinking under the present institutional order? The present and following sections are all intended to answer these questions. The present section will consider steps taken by the IMF during the global crisis and some general issues and the possible formation of RFAs stemming from the AFC and the

[26] See Khan(1999a, b; and 2001) on Asian corporate governance reform, and the sketch of an evolutionary theory.
[27] New York Times, October 21, 2000.
[28] I am grateful to Barbara Stallings for very helpful discussion on this point.

current crisis, while sections five and six will address more rigorously how the IMF needs to be modified and what such a modified IMF together with several RFAs could do. I do this strategically by discussing the counterfactual of what a hypothetical RFA in Asia could have done to handle the situation before, during and after the AFC. This turns out to have broader applicability in the 21st century global crisis management. But in order to build the argument for a hybrid GFA fully, first the recent tentative but potentially important reformist steps of the IMF deserve consideration.

4.2.1 The IMF's Response to the Global Economic Crisis and its Evolving Role

The IMFs loss of stature after the Asian financial crisis

After the Asian financial crisis, the Fund lost much of its credibility with developing countries. As a result, the Fund's program portfolio diminished significantly for much of the last decade. Prior to the most recent crisis, demand for the Fund's resources was at an historic low. Major borrowers had repaid their outstanding debt to at the time of the most recent crisis, leading the Fund to contract its staff by around 15% [Grabel 2010, 3; Kapur and Webb 2006; Thomas 2009]. The Fund's loan portfolio shrunk from $105 billion to less than $10 billion in the space of five years (2003-2007) [Weisbrot, Cordero and Sandoval 2009].

Many have pointed to the Fund's continued insistence on using *ex ante* and *ex post* conditionality as a major reason as to why countries shied away from going to the institution for help. The historical use of conditionality within IMF programs meant that developing countries had to acquiesce to dominant Western thinking on correct fiscal and monetary policy formulae. Embarrassment at having to ask the IMF for assistance during crises also played an important role in dissuading developing countries from ceding control over their fiscal and monetary policy over to the Fund. Over the past decade or so, developing countries were able to resist relying upon the IMF through:

- The over-accumulation of reserves
- International private capital flows
- Bilateral swap arrangements
- Regional banks and financial arrangements
- South-South financial assistance.

4.2.2 Regaining Relevance

In December of 2008, the IMF was thrust into the global financial crisis through its stand-by arrangement with Iceland. The Fund package with Iceland totaled $2.1 billion, with over $800 million made available immediately for the country [Anderson 2008]. IMF policy prescription was used to explicitly stem the fall of the Icelandic krona to ward off the potential of massive defaults in foreign denominated currency. Monetary and fiscal policy space was left largely open by the Fund. The IMF also provided assistance in the restructuring of the entire Icelandic banking and financial structure.

Since providing assistance to Iceland, the Fund has been very active in providing financial assistance to member states all over the globe. Notably, the global nature of crisis has meant the Fund is being seen in areas of the world (most especially Europe) for the first time in quite a while. With that said, the majority IMF's response to the crisis was built around a sharp increase in the amount of concessional lending to low- and middle-income countries.

Lending to low-income countries during the crisis period was 4 fold larger than historical levels [IMF 2009]. In late 2009, concessional resources for low-income countries to meet projected demand were increased to nearly $17 billion through 2014 [IMF 2009]. Relief on interest payments by LICs to the IMF through 2011 has been approved. Additionally, LICs now can access double normal limits on annualized draw-outs from the Fund. The IMF approved a $250 billion allocation of SDRs that will be distributed to all of the member countries at the Fund according to their quota levels. As such, more than $18 billion will be available to LICs to augment their foreign exchange reserves to alleviate financing and BOP constraints [IMF 2009].

In the wake of the global financial crisis, the Fund has become relevant again. It is also trying to regain credibility in global financial governance---an effort that actually started with the AFC (Khan 2002c, 2004, 2006; Best 2010). It has served as a "first responder" to financial crises in countries throughout the globe [Grabel 2010, 3]. The restoration of the Fund to its 'proper place' in the international financial system was seen in its speedy response to the Icelandic crisis and from the boost it received from G-20 nations. Indeed, the G-20 meeting in April 2009 reaffirmed the Fund's mandate and provided new and large amounts of funding commitments ($1.1 trillion for the crisis; $750 billion through the IMF) to support the institution's efforts [Grabel 2010, 3]. Even China and Brazil, notable critics of the Fund's governance policies, committed new

resources and lending to the institution. These new commitments will facilitate greater interaction and sharing of resources between the IMF and regional development banks.

The G-20 has backed the partial devolution of funding commitments from the IMF to regional development banks to allow resources to be available in a more timely fashion to countries in need. This kind of development speaks to a small, but growing, consensus that the IMF might be better served in the future to serve as a central figure in a network of intergovernmental finance with regional development banks and institutions [Vols and Caliari 2010].

In 2009, the IMF also began issuing its own bonds to boost its available resources. $90 billion of the $500 billion in new resources for future IMF lending will come from BRIC countries and South Korea [Grabel 2010, 4]. The development is important in two ways:

1. Lenders from emerging and developing markets can use their new lending capacity to exert greater influence over policies of the Fund.
2. Buoyed by new commitments from the BRIC reaffirms the central role the Fund will continue to play as a lender of last resort.

4.2.3 Current Arrangements

As of January, 2011, the Fund had 19 Stand-by Arrangements with different member countries. These arrangements involved the potential draw-out of over 70 SDR billion, of which nearly 35 SDR billion had already been delivered. These arrangements included member states from Africa, the Caribbean, Europe, Central America, Central Asia, the Middle East, and South Asia. The Fund also had four extended arrangements with member states, with nearly 20 SDR billion in resources were being utilized through these facilities. Three countries (Colombia, Mexico and Poland) had already begun taking advantage of the IMF's new Flexible Credit Line facility. These three arrangements had already seen nearly 48 SDR billion in BOP assistance being given out by the Fund. The above arrangements, totaling over 125 SDR billion, were all relatively recent; all of these facilities were initiated in the last three years [IMF Financial Activities Update 2011].

In addition, the Fund as of February 2011 had 28 Extended Credit Facility Arrangements on its books. The value of these arrangements was around 2.5 SDR billion, a billion of which had already been drawn upon. Over the past decade, the Fund had committed over 6 SDR billion in

debt relief through its Heavily-Indebted Poor Country (HIPC) and Multilateral Debt Relief Initiative (MDRI) programs. These programs had involved arrangements with over 60 countries [IMF Financial Activities Update 2011].

Changes in the IMF's conditionality regimes

In the wake of the global crisis, the IMF has introduced a number of new financial programs aimed at allowing countries to have more agency in delineating their loan/policy structures. The IMF has stated that these facilities "will be more flexible and tailored to the increasing diversity" of member countries [IMF 2009]. New instruments include:

- Extended Credit Facility – medium-term support and flexibility program
- Standby Credit Facility – addresses short-term and precautionary needs
- Rapid Credit Facility – emergency support with limited conditionality
- Flexible Credit Line – support for BOP pressures for countries with strong macroeconomic track records; no ex post conditionality [IMF 2010d]
- Precautionary Credit Line – lower standards of qualification than for the FCL; less ex ante qualifications, but stronger ex post conditionality

Each facility and credit line has its own conditions, term structures, borrowing capacity and availability. The IMF has strongly pushed to make its credit facilities more low-cost for member economies. Conditionality is being streamlined to "focus on core objectives" [IMF 2009], and applies primarily to structural reforms. Conditionality is not supposed to affect countries' fiscal policies that directly target poverty alleviation, growth and pro-poor spending. Programs now are supposed to accommodate larger fiscal deficits, looser monetary policy and increased inflation targets. Additionally, countries will not need to seek waivers for access to funds if reforms are not completed by a specific date.

In addition to paying lip service towards granting more policy autonomy to countries with IMF facilities, the Fund has softened its stance on capital controls and other macro-prudential measures [see, Ostry, *et. al* 2010]. The Fund, and its sister organization the World Bank, have indicated that the targeted and temporary use of capital controls can be an effective way for countries to defend themselves against exogenous financial shocks and preserve monetary policy space [Beattie 2010; Ostry, *et. al* 2010]. This is a far cry from the Fund's reaction to the controls put into place by Malaysia during the Asian financial crisis. As part of

the Iceland's 2008 Stand By Agreement (SBA), the IMF explicitly advocated the use of such controls [Anderson 2008]. Nonetheless, one of the Fund's most recent papers on economic liberalization [Shah and Patnaik, 2011] indicts the use of controls in India for their ineffectiveness in shielding the economy from exogenous shocks and their bias against small- and medium-sized private firms.

In reality, a close study of conditionality 'reforms' confirms that they are more *ad hoc* and piecemeal than might otherwise appear. Many of the recent studies of SBAs and other facilities negotiated during the crisis have shown that the IMF has continued to promote pro-cyclical macroeconomic policy targets or structural adjustments [UNICEF, 2010; Van Waeyenberge, Bargawi and McKinley, 2010; Muchhala, 2009; Solidar, 2009; Weisbrot et al., 2009]. Questions have already arisen as to what fiscal programs count as targeting 'poverty alleviation, growth and pro-poor spending'. Does the subsidizing of basic energy inputs for the poor (kerosene, heating oil, etc.) count under these spending exceptions? The evidence emanating from the IMF is mixed at best. Public outcries in Pakistan and the Kyrgyz Republic over the ending of energy input subsidies are important examples of how IMF policy prescription can directly lead to public unrest. In the midst of the crisis, the Hungarian government's public spat with the IMF over program conditionality was especially notable, illustrating the unease within governments to work under the Fund's rules [Bryant 2010].

4.2.4 Governance Reforms at the IMF

The IMF has recently seen a change in the share of voting quotas. In November and December of 2010, IMF member countries agreed to an unprecedented doubling of quotas to SDR 476.8 billion [IMF 2010a]. This doubling of quotas was complemented with changes in the quota shares amongst the members. As a result, more than 6 percent of quota shares will be shifted to "emerging market and developing countries" and away from over-represented European countries. The shifting of shares will not impact the voting power of the Fund's poorest members. Starting from 2012, the Fund's 10 largest contributors and quota shareholders will more accurately reflect the countries' contributions to world GDP. The total shift in voting share to developing countries, when combined with the 2008 quota reform, will be 5.3% [IMF 2010c].

Changes to the IMF governance structure will also come via the Executive Board. The size of the Board will remain at 24 members. However, advanced European countries will reduce their contribution to the Board by two. Developing countries will up their contribution by the same amount. Further, from 2012, the Executive Board will consist only of elected Executive Directors, "following entry into force of the proposed amendment of the Fund's Articles of Agreement, end the category of appointed Executive Directors (currently the members with the five largest quotas appoint an Executive Director)" [IMF 2010c].

4.2.5 Supervisory Role in the World Economy

Key leaders at the Fund have acknowledged that the institution has not done a good enough job at understanding the effects of financial flows on the financial system, and in particular, the effects of flow velocity on contagion and crisis. While not a self-indictment per se, the Fund has been very vocal about the ways in which it can better serve the international financial system. Generally, the Fund has communicated that it must clarify the Fund's mandate and improve the role of the Fund in promoting global stability. On three issues in particular (cross-border research on capital flows, systemic changes in financial regulatory structure, taxes on flows), the Fund has focused a large amount of attention.

Fund Directors have noted that volatile capital flows played an important role in the transmission of shocks towards the depth of the current crisis. As it is the Fund's mandate to oversee international monetary stability, the institution acknowledges that it must strengthen its ability to "advance in bilateral and multilateral surveillance and policy advice for member countries, based on extensive analytical work and taking into account country specific circumstances and relevant experiences" and "develop a coherent Fund view and inform policy guidance on capital flows" [IMF 2011]. The Fund has initiated work on *Cross-Cutting Themes from Recent Country Experiences with Capital Flows* as a starting point from which it can further elaborate its views on how to deal with cross border flows. In particular, the Fund has highlighted the need for its research and surveillance to focus on the potential spillovers of capital flows and the implications for the international monetary system as a whole.

The Fund has been very vocal on the need for global policy cooperation in the international monetary and financial system [IMF 2010b]. Directors at the Fund see it necessary that, for the global recovery to accelerate, cooperation on financial regulatory architecture must

be prioritized. The Fund is currently working hard with member states to guard against protectionist and mercantilist policy measures. In doing so, the Fund plans on delivering spillover reports for the world's major economies that assess the impact of domestic policies of systemic countries beyond their own borders [IMF 2010b]. Part of this larger surveillance effort involves an enhanced understanding of macroeconomic and financial risks and their associated linkages. Similarly, the Fund has also produced research and policy proposals on the resolution of cross-border banking institutions [Hagan and Vinals, 2010].

IMF directors have stressed the need for member states to develop a global financial safety net to protect against the threat of future shocks. Much of this discussion has centered around the ways in which such a safety net could be initiated. The Fund has been at the fore in assessing the potential regulatory and tax policies that could be used to develop such a safety net [IMF/G-20, 2010 (There is no link for this cite…it is a leaked paper, but I have access to it on my computer, so I can send it to you via e-mail)].

After losing much of its relevance after the Asian financial crisis, the IMF has suddenly become the most important financial and monetary institution in the world economy (save perhaps the Bank of International Settlements). Its loan portfolio has swelled to historic levels. New commitments from member states and direct borrowing by the Fund have meant that available resources are also at an all time high. Dozens of countries from every continent on the globe have credit arrangements with the Fund currently. The Fund's geographic reach has put it in a unique position to monitor financial and economic developments. Critical research and surveillance by the Fund can help us better understand the linkages between financial flows and policies within and among member states. Greater voice has even been given towards the use of the Fund's SDR as future reserve currency.

Such importance and responsibility requires that the Fund seriously consider the weight of its continued use of conditionality on member states. No doubt, the Fund is carefully considering the viability of its lending model along with the potential easing of terms and conditionality in its programs. Recent quota and governance reforms indicate that the Fund is at least beginning the process of granting more agency to developing countries on the appropriateness of fiscal consolidation and tight monetary policy.

As the crisis comes to an end, it will be important if reforms to the Fund's governance and program/facility structure will be long-lasting or *ad hoc*. Indeed, countries have been granted

more autonomy over their decision making in the wake of the crisis. Only time can tell whether or not such change is really serious.

4.2.6 Some Key Propositions

If the argument—motivated and illustrated by both the AFC and its aftermath and the recent global crisis and its aftermath, particularly the still ambiguous but nevertheless serious reform-talk at IMF itself--- presented so far is valid, then several propositions can be accepted. First, there may be more than one evolutionary possibility; so there may not be a unique, global optimum set of institutions. Second, the goal of achieving stability and sustainable growth in a world of scarce resources leads to exercising prudence as a principle, particularly when costs are distributed unevenly over space and time. Third, a combination off global institutions with regional and national level institutions may provide more public good than focusing simply at the global level. The case for RFAs has so far rested implicitly on the third proposition. I now wish to elaborate more on this point and link it to the formulation of national economic policies and institution building at the national level as well. It is best to focus again on a concrete case such as the post-crisis Asia to give substance to the formal argument.

After the AFC, and again after the recent global crisis, the IMF, the World Bank, BIS and the national policy making bodies were in intense consultation. The current discussion regarding reforms in some ways mimic the individual East Asian economies responses after the AFC in that they took numerous measures such as improving bank supervision, allowing greater exchange rate flexibility etc. to inoculate themselves against future capital account shocks. However, individual countries now just as the Asian economies after the AFC are still vulnerable to large negative capital account shocks. The national strategy of having a very large stock of foreign reserves to deal with large capital flight may work but it is an extremely expensive strategy. As the recent global crisis shows, no one can foretell how frequent such crises may be, and how expensive; but if the past is any guide, even infrequent crises can be quite expensive to manage in this manner. This is not to say that such measures should not be taken. On the contrary, these measures are and should be a part of the transitional national management strategy. However, more is clearly needed. It seems that following this logic, an increasing number of developing country policy makers are realizing that although they may not have the capacity to change the international financial architecture immediately, creating a regional

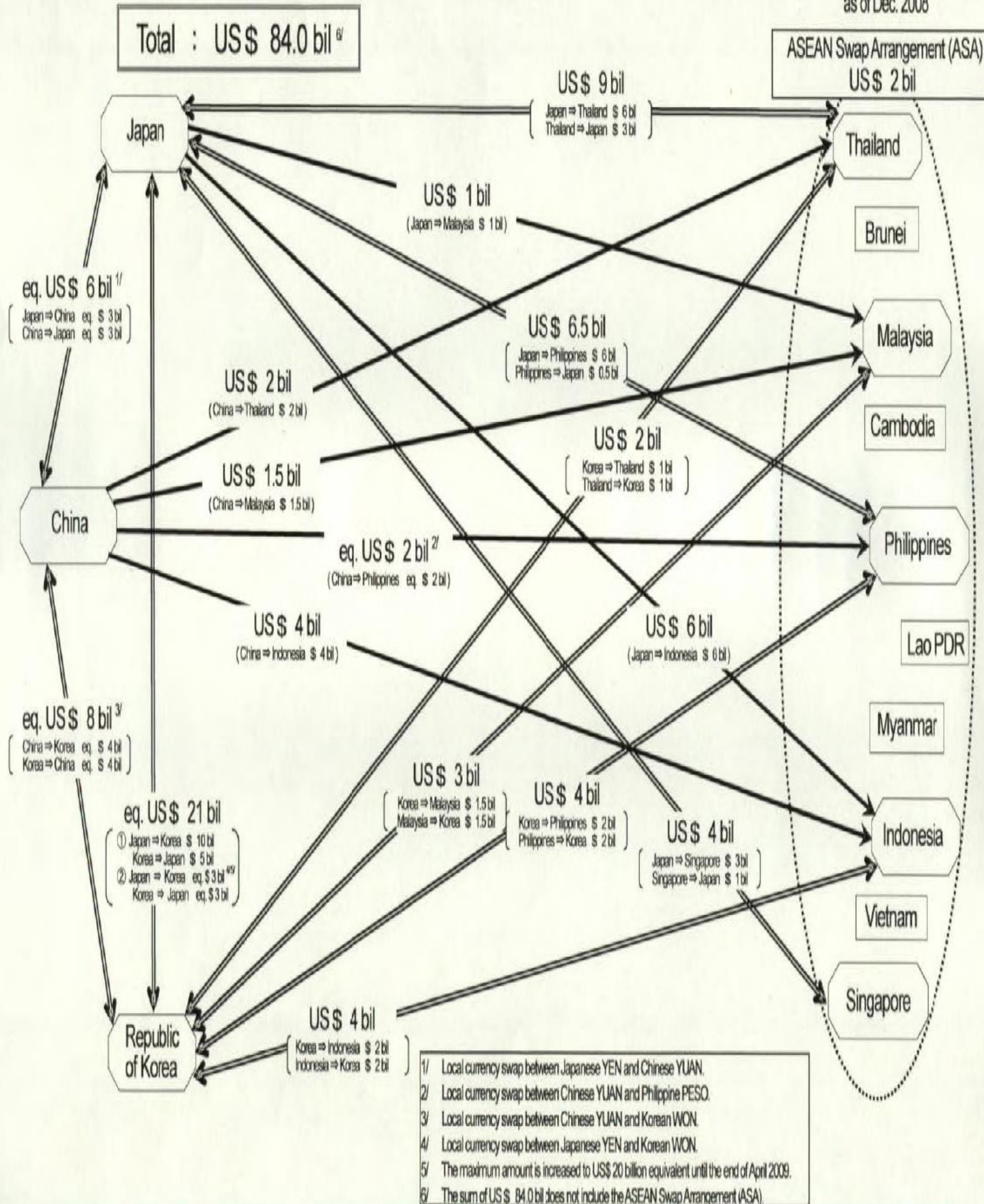
financial architecture may be an attainable goal. There can be a whole range of regional financial cooperation policies leading to more permanent institution building. These could begin with a peer review process such as the G7 or preferably, the G20 process. Using this as the reference point, a move to mutual liquidity provision and some form of enforcement mechanism could be adopted. These could be enhanced through exchange rate coordination and enhanced surveillance process. Ultimately, such a process could evolve into an RFA that could have its own institutional and organizational structure.

In the Asian case, such an evolutionary process had already started after the AFC. The most important steps taken then were: the Manila Framework Group Meeting, the ASEAN Surveillance Process, the ASEAN+3 Surveillance Process, and the Chiangmai Inititative-related Surveillance Process.

It has to be said that the performance of Manila Framework Group as a mechanism for regional financial cooperation and regional financial surveillance has not yet reached its potential. The reasons are related to institutional incapacity which has prevented the parties from specifying clearly the objectives of information exchange and surveillance. Consequently, no priorities, targets, and rules have been set for the process of information exchange and surveillance. Most importantly, there is no actual peer review process; the surveillance process seems to be simply general discussion of the global and regional economic outlook. Finally, there seems to be no attempt to formulate any country-specific or region-wide recommendations for policy actions---a point to which I will return at the end.

The other processes also have much room for improvements and the actual prospects for improvement, as shown by the Chiangmai Initiative-related Surveillance Process. In addition to an expanded ASEAN Swap Arrangement (ASA) that includes all ASEAN members and a network of bilateral swap agreements among ASEAN countries plus China, Japan and South Korea, the initiative has opened the door for further discussion about concrete policy coordination and institution building. In so far as the swap arrangements are concerned, currently 10 percent of the swap arrangements can be disbursed without the IMF involvement. Figure 1 below shows the network of ASA during 2008.

Figure 1: Network of Bilateral Swap Agreements under CMI
Source BOJ



Network of Bilateral Swap Arrangements (BSAs) under the Chiang Mai Initiative (CMI)
as of Dec. 2008
Total : US$ 84.0 bil 6/
ASEAN Swap Arrangement (ASA)
US$ 2 bil
Japan
China
Republic of Korea
Thailand
Brunei
Malaysia
Cambodia
Philippines
Lao PDR
Myanmar
Indonesia
Vietnam
Singapore
US$ 9 bil
Japan ⇒ Thailand $ 6 bil
Thailand ⇒ Japan $ 3 bil
US$ 1 bil
(Japan ⇒ Malaysia $ 1 bil)
eq. US$ 6 bil 1/
Japan ⇒ China eq. $ 3 bil
China ⇒ Japan eq. $ 3 bil
US$ 6.5 bil
Japan ⇒ Philippines $ 6 bil
Philippines ⇒ Japan $ 0.5 bil
US$ 2 bil
(China ⇒ Thailand $ 2 bil)
US$ 2 bil
Korea ⇒ Thailand $ 1 bil
Thailand ⇒ Korea $ 1 bil
US$ 1.5 bil
(China ⇒ Malaysia $ 1.5 bil)
eq. US$ 2 bil 2/
(China ⇒ Philippines eq. $ 2 bil)
US$ 4 bil
(China ⇒ Indonesia $ 4 bil)
US$ 6 bil
(Japan ⇒ Indonesia $ 6 bil)
eq. US$ 8 bil 3/
China ⇒ Korea eq. $ 4 bil
Korea ⇒ China eq. $ 4 bil
US$ 3 bil
Korea ⇒ Malaysia $ 1.5 bil
Malaysia ⇒ Korea $ 1.5 bil
US$ 4 bil
Korea ⇒ Philippines $ 2 bil
Philippines ⇒ Korea $ 2 bil
eq. US$ 21 bil
① Japan ⇒ Korea $ 10 bil
Korea ⇒ Japan $ 5 bil
② Japan ⇒ Korea eq. $ 3 bil 4/5/
Korea ⇒ Japan eq. $ 3 bil
US$ 4 bil
Japan ⇒ Singapore $ 3 bil
Singapore ⇒ Japan $ 1 bil
US$ 4 bil
Korea ⇒ Indonesia $ 2 bil
Indonesia ⇒ Korea $ 2 bil
1/ Local currency swap between Japanese YEN and Chinese YUAN.
2/ Local currency swap between Chinese YUAN and Philippine PESO.
3/ Local currency swap between Chinese YUAN and Korean WON.
4/ Local currency swap between Japanese YEN and Korean WON.
5/ The maximum amount is increased to US$ 20 billion equivalent until the end of April 2009.
6/ The sum of US$ 84.0 bil does not include the ASEAN Swap Arrangement (ASA).

Even with this modest beginning, there is now a need for the swap-providing countries to formulate their own assessments about the swap-requesting country. Costs of such information gathering can be economized through regional cooperation. Such a move will also make it possible to pre-qualify members for assistance if and when the need for such assistance arises. This will also help fight contagion and prevent capital flight when actions are taken promptly before a crisis point is reached because of avoidable delays. Acting in accordance with the principles of prudent management stated earlier, there could be a regular policy dialogue at the deputy minister level. Finally, at the organizational level, the evolutionary approach could lead to the establishment of an independent surveillance unit to serve as the core of an RFA, and to lead the policy dialogue. The proposed policy dialogue process should pay particular attention to the root problems in East Asia's weak financial systems (e.g. prudential supervision, risk management, and corporate governance), and actively promote the development and integration of long-term capital markets. At this point, it is not essential to pinpoint any further the precise organizational blueprint for such an RFA; but the point that the process underway can result in an appropriate institutional structure with proper organizational design is important to grasp. A critical constructive evolutionary economic theory suggests that an open architecture will be better able to absorb future shocks, learn from them, and modify itself. [29]

In light of the foregoing analysis of AFC and subsequent attempts at an incipient Asian RFA, at a concrete policy making level, one could make the case for Asian countries lobbying for the formalisation and regularisation of ASEAN Chair's and ASEAN Secretary-General's participation in the G20 Summits. There is also a regional logic for holding policy dialogue meetings of an "expanded" ASEAN+3 (regular 13 members plus India, Australia and New Zealand) in general but particularly before the G20 Summits for coordinating policies and developing common positions to support the ASEAN representatives at the G20 Summits. Furthermore, supporting and joining the informal Global Governance Group (3G) convened by Singapore under the auspices of the United Nations to coordinate Asian position with developing countries in other regions of the world. Another regional institution building possibility is that once the ASEAN+3 Macroeconomic Research Office (AMRO) is established in Singapore (by May 2010). AMRO can coordinate the policy dialogue meetings of the

[29] Although the terminology used is different, Kuroda and Kawai (2002) describe the case for strengthening regional financial cooperation in East Asia in terms that lend support to the "open architecture" view with a regional component advanced here from an evolutionary perspective.

"expanded" ASEAN+3 overall. Specific moves could include designing coordination in order to support participation of the ASEAN Chair and the ASEAN Secretary-General in the G20 Summits.

There are two key aspects of such an interrelated architecture that will crucially affect the workability of a possible RFA in Asia or in any other region. First, the willingness of a reformed IMF to permit the RFAs to have a certain degree of regional autonomy. For this the complementarily and burden sharing aspects of the GFA with RFAs need to be recognized. This is a special case of complementary institutional network (CIN). Second, and another instance of CIN, is the viability and cooperation at the national level. A slogan accompanying globalization is that the nation state can no longer act on its own. This may be true in certain areas of macroeconomic policy, but on a wide range of issues from tax policies to environmental policies the national governments can within limits formulate and implement policies. In the area of finance, even under WTO rules, there are possibilities of not only policy maneuvering but also of institutional reform and new institution building. In addition to addressing such matters as prudential supervision, risk management, and corporate governance the need for building other institutions for risk sharing, human development and policy dialogues within the nation loom large as tasks during the transitional management at the national level.

One final observation regarding the creation of an RFA within Asia is necessary before moving to a discussion of the future of the IMF in the next section. To put it in the most concrete and perhaps provocative way, could the Chiang Mai initiative foreshadow an East Asian Monetary System?

The AFC led to a collapse of the dollar pegging most of the economies in East Asia had before the crisis. The East Asian economies prefer a certain amount of exchange rate stability due to their trade multilateral dependence. They also see some advantages to be gained from coordination against speculative attacks, and preventing competitive devaluations in the region. However, fixing rates with respect to one another like the EMS earlier also carries dangers. Furthermore, the US dollar is still the most important vehicle currency in the region. Therefore, whether something like a yen bloc or even an Asian Currency Unit (ACU) can be created in the near future is doubtful.

At the same time, the experience of the AFC points towards closer coordination and a concerted effort to reduce volatility in the currency and financial markets. Since there are

asymmetries among the countries in the region, the more advanced countries need to take the lead and ensure that in times of asymmetric shocks, the less advanced countries will have resources to call upon. Thus any kind of steps towards an RFA will have to involve adequate reserves and the ability to provide liquidity and other resources to countries that need these in times of crisis.

5. The Changing Role of the IMF within a Hybrid GFA:

In this section I want to address what is perhaps the most important institutional and policy question that arises from the proposal for a hybrid GFA. What will be the role of IMF, and how will this new role differ from its present or neoliberal role? As mentioned already, the handling of the AFC by the IMF had raised important issues of global governance. The Fund had been criticized by the left, the right, and also the center. The global financial crisis has elicited mixed but on the whole potentially constructive responses from the IMF. I have already alluded to some of the ways in which the IMF will need to change its ways if the hybrid form of GFA I am suggesting here is to become a viable option for institution building. Elsewhere[30], I have pointed out the need for adhering to some basic principles as the IMF transforms itself consistent with a critical social constructivist approach. Chief among these principles are the principle of symmetry and the principle of burden sharing. These are described briefly below:

1. *The principle of symmetry,* i.e., the surplus and deficit countries should be treated equally. However, it was not realized in the past; nor is it likely to be realized in the near future. However, there are various ways to pursue this as a goal even under the current set up of the IMF. If serious efforts are made to follow this principle by a reformed IMF, that will be an important step towards a new and better GFA.
2. *The principle of burden-sharing,* i.e., during episodes of crisis management the IMF will share the management burden with the RFAs and through them also with the affected countries and their neighbors.

It should be kept in mind that in keeping with the critical constructivist argument developed so far both the principles recognize the practical impossibility of the IMF being transformed into a global central bank in the near future. What the IMF cannot do now and will not be able to do in the foreseeable future is to follow Bagehot's dictum to lend freely against good collateral at a high interest rate in time of crisis. Unless SDRs become the commonly accepted and easily expandable means of settlement, this role will remain foreclosed. It is unlikely that the principal

[30] See Khan (2002c).

shareholders of the IMF will allow such a change to occur.[31] Also, compared to a national central bank dealing with a problematic domestic financial institution the IMF has a limited ability to force corrective action. Yet, there will clearly be a role for IMF lending, and the consequent moral hazard will need to be recognized. But just as the moral hazard from having fire fighters ready to fight fires does not compel thoughtful communities to abolish fire stations, the global community also cannot abolish the IMF, or reduce its resources simply because there is a moral hazard problem associated with such institutions. The second principle above, the principle of burden sharing with the RFAs, national governments and the private sectors should go some distance towards both increasing the overall resources available, and mitigating the moral hazard.

While the Fund cannot now, or even in the near future be expected to act as a global central banker, pressures for increasing the net supply and poor country allocations of SDR will have beneficial effects. Even if the increases are not significant in the short run, the tendency will keep alive the eventual goal of forming a global central bank, as Keynes had envisioned. More practically, putting pressures on the IMF to emit new SDRs in order to finance the stabilization of primary (and perhaps other) commodity prices will lead to benefits for both the developing and the developed countries in the intermediate run. The stabilization of these prices will help many developing countries avert BOP disasters. Furthermore, to the extent that the unusual price increases, such as the oil price increase in the 70s, create general inflationary pressures such pressures can also be averted. A smooth international transactions pattern will thus be consistent with domestic price stabilization as well.

In addition, the Fund can make a concerted effort to manage the private creditors. Most important from the point of view of managing crises will be the incorporation of new provisions on loan contracts so that orderly work out procedures become feasible. The Fund can also lend into arrears as a means to provide debtor-in-possession financing. Such a provision, along with more direct measures vis-à-vis the creditors, can help to bring the creditors to the bargaining table during a crisis.

Such measures to manage the creditors should also be complemented by increased surveillance of financial markets. Strengthening supervision is one aspect. Arriving at independent assessments of financial risk is another, related aspect of moving in this direction. However, it is

[31] However, this should not be ruled out completely. Pressures for increased supply of SDRs will be beneficial in specific ways as argued below.

important to realize that even after adopting this stance, the risk of crises will still remain. Not all crises can be foreseen, much less prevented. The best that can be done is to draw the countries, the private sector and the RFAs together in an effort to strengthen the financial structures, including information gathering and processing capabilities. A cooperative structure where the Fund recognizes the need for hybridity will also help to reduce the reaction time.

Reducing the reaction time can help only if the policies undertaken cannot do much harm even if they are not successful in achieving their positive aim. The IMF has been correctly criticized for suggesting a "one-size-fits-all" policy package. Here again, a changed institutional structure with a more flexible IMF will mean a case-by-case approach where the RFAs will play a significant role. National economic policies such as requiring borrowers to unwind positions in increasingly risky situations, curbing excessive foreign borrowing, limiting portfolio investment, cautionary policies towards derivatives and off- balance sheet items may need to be examined as serious policy options. Tobin tax, or individual country taxes of the Chilean variety should also be given serious consideration. The *mantra* of free capital movements together with the refrain that there is no alternative needs to be revised appropriately to incorporate the available tools that the Fund can help countries use to mitigate the risks arising from such capital movements.

It is not clear that the Fund can do much in instituting a more stable exchange rate regime. The pegged rate system, advocated among others, surprisingly by the Wall Street Journal, will create one-way bets for speculators. Free floating, on the other hand, can lead to disasters when exchange rates collapse suddenly instead of finding a new stable equilibrium. Such perverse dynamics was observed during the AFC, particularly in the Indonesian case. The inability of Greece to use exchange rate policy during its own crisis shows how the EU and particularly the ECB may not be a model to emulate for crating future RFAs. Neither currency boards nor perfect flexibility can prevent vulnerable currencies from collapsing. Rather a managed float before any signs of crisis appear together with a prudent management of the financial and real sectors would seem to be both pragmatic and feasible at this point. Strengthening the capacities of central banks will have better pay off here than urging the IMF to twist the arms of the countries through conditionalities.

In Asia, in addition to the high interest rate standard recipe, the IMF seized the crisis as an opportunity to dismantle what remained of the particular mix of institutions that had historically evolved to create the so-called "Asian Model of Development". Widespread and massive bank

closures, enterprise restructuring, opening up sectors to foreign ownership, tearing down labor institutions in the name of flexibility, and attack on living standards seemed to be a part of an overarching agenda. This type of radical restructuring under duress is not the way to apply the principles that are being advocated here.

In spite of widespread criticism from many quarters, the IMF still remains committed to capital account liberalization as *an ultimate* goal. The AFC and similar crises have merely given it pause to consider proper sequencing before liberalization. The critical constructive evolutionary theory developed here, point to a more nuanced, less global approach. Some economies may be ready for capital account liberalization; others are not. The IMF needs to distinguish among them carefully, and not adopt capital account liberalization as a principle enshrined in its revised articles of agreement.

It goes without saying that proper sequencing, better monitoring and management of debt, greater transparency in both the government and private sector operations, more effective regulation of of domestic financial institutions are all desirable policy goals. Also desirable are domestic tax policies that do not encourage excessive reliance on short-term capital inflows. However, in a world of unevenness some countries may also require temporary capital controls through various means. The IMF, instead of taking a dogmatic approach that says "no" to any form of capital control should set up facilities for examining the impacts of different alternatives. In doing so, it should also pay attention to the principle of symmetry so that the borrowing countries do not always and everywhere have to take the initiative. At the same time both capital inflows and outflows need to be controlled to some extent

A reformed IMF together with the RFAs could take the leadership in providing the overall framework within which individual countries could pursue policies most advantageous from a systemic point of view .For example, as alluded to already, the hybrid GFA could have a framework agreed to by the member countries of the IMF so that when a crisis hits lenders would be subject to credit standstills and orderly workouts. This would clearly force the creditors to shoulder some of the responsibility for the crisis. Such an arrangement, in all likelihood, will also reduce the need for large IMF loans. Another part of the new IMF responsibilities could be the collection of a global Tobin tax. Although no panacea, such a tax would almost certainly reduce returns to very short-term capital movements. A further consequence of a Tobin tax could be a somewhat more stable exchange rate system. Adoption of a securities transactions tax is also

not a far-fetched idea. Even Lawrence Summers wrote academic articles before he joined the government advocating modest taxes on these transactions. [32]As any international monetary economist knows, the “impossible trinity” of international capital mobility, fixed exchange rate system and an independent monetary policy can not all be pursued together although Mundell’s carefully specified context for “the assignment problem” and his solutions may be applicable in specific instances. Slowing down short term capital movement need not prevent long term capital from flowing across borders. However, fixed exchange rates must be given up if countries are still to pursue independent monetary policies. Thus, a return to the old IMF is neither necessary nor desirable. The transformation of the IMF as a handmaiden of the neoliberal agenda in the 1980s shows that something like a constructivist process was already at work in the post Bretton Woods system IMF. Given sufficient political wisdom and will that process can be reversed towards creating a transformed IMF that can serve the cause of financial stability for global prosperity much better than it has done during the last decades of the twentieth century. This new IMF will adopt a more flexible approach towards national policies. It will recognize that in periods that seem to be leading towards a crisis there may need to be policy shifts such as a shift towards some types of capital controls. The present articles of the IMF actually allow some forms of capital controls when countries are in distress. Instead of dismantling, these provisions have to be made realistic and applicable whenever the financial system seems vulnerable. Thus flexibility and context-dependent policy making will be the key features of a hybrid system. To begin with, debt rescheduling, moderation in fiscal-monetary policy mix with an expansionary bias for most economies and gradual restructuring of corporate sectors with strengthening of standards and corporate governance are steps that IMF can encourage the economies to take without interfering directly with the policy making in specific countries.

Other measures that the IMF can allow or even encourage national governments to pursue could include requiring lending institutions to hold different levels of provisions for countries with different estimated levels of riskiness measured by such factors as the state of the banking system and the level of reserves relative to short-term debt. As many have observed, risk assessment by the credit rating agencies also leaves much to be desired and could be improved if IMF provided some guidance and input. Another, more practical measure would be to impose

[32] See Summers and Summers (1989).

different levels of taxation on earnings from overseas investments with different maturities. Although as stated in the previous sentence, it will not be so sensitive to individual country risk; it will nevertheless curb some of the tendencies towards short-termism. It should be mentioned that the Basel Committee regulations in effect during the AFC may have been a culprit in this respect. These regulations gave a lower weight to short-term foreign lending (20 per cent) for capital adequacy purposes than for loans with a maturity period of over one year (100 per cent). A new IMF could make such rules less biased by coordinating its guidelines with BIS, and being guided by a better theory than the one underlying the Washington consensus. Here some of the Basel III guidelines, if they check the currently systemic dysfunctional pro-cyclical tendencies can be helpful.

6. Summary and Conclusions

The history of financial crises shows that they cannot be prevented once and for all in a globalized monetary economy with unpredictable ebbs and flows in capital movement. This history also shows that financial markets have short memories and limited long-term learning capacity. Thus there needs to be--- within the limits of human fallibility--- a well-designed set of institutions capable of dealing with the tendencies towards financial instability and crisis.

Given the unevenness in the structure of the global economy, the developmental consequences of financial crises are particularly important to analyze when designing institutions to contain and manage such crises. In this paper, particular attention has been given to the fact that the negative consequences for output growth, employment, income distribution and poverty reduction are relatively more severe for the DCs and LDCs. At least partly this occurs because of the following characteristics among others:

a. DCs and LDCs have fewer resources for coping with financial crises, particularly one which is global in its scope;
b. Most DCs and all LDCs lack automatic stabilizers due to the embryonic nature of their fiscal and social protection systems;
c. They have limited ability of borrow in international financial markets and this limits their ability to pursue countercyclical policies;
d. These threats are often exacerbated by global financial market integration and Free Trade Agreements (FTAs) and bilateral investment treaties (BITs). Many WTO commitments also affect the DCs adversely. IMF pro-cyclical Structural Adjustment Policies can also constrict the policy space.

In areas such as the derivatives markets and portfolio capital flows, the shortfall in regulatory capacities for these countries can leave them vulnerable. Even in banking, the well-intentioned Basel regulations can either not be implemented, or worse, as this paper illustrates, there are aspects of Basel II and Basel III that can harm the developmental processes. Thus a careful rethinking of these issues and further capacity building for DCs and LDCs will be necessary.
In light of the econometric estimates discussed earlier, this paper emphasizes the need for enhancing ability of DCs and LDCs to use fiscal and monetary policy to support the growth of

their economies. Because poor States are already fiscally constrained (whether through tax capacity, IMF/WB conditionality, economic shocks/hardships), Basel III further complicates the growth and poverty-reduction picture.

The analysis here leads to the conclusion that these States will need to become more reliant on each other to implement the reforms and support regional development initiatives. Failure to do so will then mean that these States will have to become more reliant on international technical expertise and resources which may or may not be forthcoming. This may be the time for multilateral agencies to devote significant resources towards building capacities in DCs and LDCs with the help of experts with combined technical and area specializations.

In this light, the fact that the States have a full decade to delineate and implement a proper course is not as long a time horizon as it first appears to be. Even if the banking sector is adequately reformed, the proper use of financial markets will also require an enabling global financial architecture and an overall reduction of systemic risk.

As an earlier paper (Khan2009) showed, analyzing the challenge of meeting the MDGs which justifiably, has high priority in both the UN and the affected countries presents us with the fact that some important gaps still remain.[33] In one way or another, these all involve problems of capacity building and cooperation among national, sub-national and international actors both at the governmental and civil society levels. Related to this, the interests of those who live in rural areas, more remote regions and are disadvantaged for that reason would need greater representation. The combined disadvantages of gender, location and ethnic identification raise particularly salient issues for widespread deliberation. Concrete step-by-step plans of action with identifiable outcomes need to be communicated clearly, and followed through properly. All these are made much more difficult if not impossible to achieve specially for LDCs during times of crisis and global contraction.

In times of crisis, there are well-meaning suggestions of radical institutional restructuring that fade away when the immediate crisis is over. Only a few farsighted or worrying types may still voice lingering concerns. Following this literature, but more importantly, the recent global crisis and the history of the AFC motivate my proposals for moving away from an *overarching type* of GFA--- to use the terminology developed here.

[33] This applies particularly to those countries targeted to receive Integrated Package Services (IPS).

Given the features of the real economic world, an evolutionary approach admits of multiple evolutionary equilibria, and a need for realistic institutional design that recognizes path dependence and the role of alternative theories and interpretations without the disabling and in most cases incorrect slogan that there is no alternative. Although social and political construction of new institutions and arrangements are difficult, except for rare circumstances, there are usually more than just one possibility. Real struggles among competing ideas, norms and politics at different levels are necessary aspects of the process of choosing among these possibilities. Such a critical constructivist approach applied to the recent international financial and economic history leads to the identification of two broad categories of global financial architectures. The *hybrid* variety advocated here on the basis of both realism and systemic efficacy and equity will nevertheless involve much institution building that is always fraught with the danger of politics-gone- awry.

The dismantling of Chilean capital controls in 1998 is a case in point. In this particular instance, a balance of payments crisis prompted the loosening of capital controls instituted earlier(Agonsin 1998). It can be argued that the situation of policy and institutional reversal occurred because the interest groups favoring liberalization following a particular world view were strengthened. Such interests in Chile included at that time holders of foreign exchange, exporters, foreign creditors and investors, and the IMF and other international financial institutions. Thus the political problems of coalition building and ensuring the least cost cooperative outcome need attention. The limited achievements and remaining problems that can be seen from the Asian example discussed here should provide concrete motivation to think further about such problems of designing institutions in the real world currently.

Even under a far-from-complete RFA in Asia, the current global financial crisis has made the benefits of having an RFA structure obvious to the Asian central bankers and other players. All the surplus countries carry too much hard currency reserves which is costly. In particular the developmental opportunity costs from foregoing developmental projects are deemed to b e quite high, as critics from China in particular stress. It is to be kept in mind that these foregone projects are not just in the reserve country, but in many DCs and LDCs outside of the borders of the Asian surplus economies. Thus the developmental opportunity costs of the current excess reserve-holding system are quite high indeed.

One way to assess the utility of an RFA for Asia is to raise a counterfactual question. From the policy perspective, it is interesting and important to know if the existence of an Asian RFA would have helped in any way during the AFC. The counterfactual question then asks: suppose there existed an RFA for Asia during the AFC, how would it have responded to the crisis that would have been different?

In contrast with the behavior of the IMF, within the proposed hybrid GFA, a regional financial architecture, had it been present could have done at least the following on the basis of applying an evolutionary theory of financial instabilities under globalization:

1. Through constant regional monitoring it would have sensed the danger ahead of time. Even a regional monitoring unit alone would have been able to do better than the IMF team in Asia.
2. Through constant formal and informal contact with the officials in member governments and the private sector, it would have sized up the possible extent of the problem earlier and better than did the IMF.
3. Through prompt and early action it would have provided liquidity to the system, and punished bad management in coordinated measures with the national governments.
4. It would have been able to start regional discussions about bankruptcy and work out procedures by keeping in close touch with the history and legal issues facing particular countries.
5. It would have been in a position to use both moral suasion and toughness to keep both regional creditors and debtors in line.

The fundamental requirement for this, however, was an actually existing RFA with enough liquidity and technical expertise. The Asian Development Bank provided quite a bit of liquidity to Korea in particular, but did not even have a monitoring unit when the crisis broke out. Furthermore, the autonomy and integrity of any future RFA, in Asia and elsewhere are issues that need discussion. The relationship between the RFAs and the IMF also needs to be further specified. These are matters that are of necessity evolutionary by nature. In this paper, I have tried to specify some principles that may help in selecting the more beneficial evolutionary path.

Once there is a full-fledged regional financial architecture for Asia, for instance, it could be a regional lender of last resort. It could also perform effective surveillance functions. In addition, it

could promote financial and corporate restructuring that is necessary, but almost impossible for the IMF to do. Finally, in the event of a future global or regional crisis, a more timely response could come from such an RFA already in place. In addition to East Asia such useful RFAs could be constructed in South Asia, the MENA region, Sub-Saharan Africa and Latin America. In EU, ironically, a deconstruction towards a more flexible RFA through a reform of ECB and a construction of a more benign federalist revenue-sharing fiscal structure may be what is needed.[34]

The critical constructivist argument developed so far points to the possibility of using our knowledge, interpretative flexibility within reasonable limits and political skills and ingenuity to utilize existing institutions together with some new ones to achieve desirable goals of global financial governance. In case of GFA, this argument strengthens the case for developing the hybrid variety. Using both the existing global institutions such as the IMF, albeit in a modified form, and building upon existing regional initiatives may offer a better chance of creating a beneficial makeshift hybrid GFA than the textbook type pie-in-the-sky schemes correctly dismissed by Eichengreen. However, Eichengreen does not consider the role of RFAs in his otherwise excellent analysis. One way to read the present paper is to see it as filling this gap by using an evolutionary constructivist argument for a hybrid GFA. A set of realistic reforms of the IMF together with the formation of RFAs will offer the best chance for the global economy to achieve stability and prosperity with equity.

[34] See Underhill, Geoffrey. 2011 (forthcoming). "Paved with Good Intentions: Global Financial Integration and the Eurozone's Response," European Political Science, 3.

Appendix

Basel III Key Milestones

Capital requirements

Date	Milestone: Capital Requirement
2014	**Minimum capital requirements:** Start of the gradual phasing-in of the higher minimum capital requirements.
2015	**Minimum capital requirements:** Higher minimum capital requirements are fully implemented.
2016	**Conservation buffer:** Start of the gradual phasing-in of the conservation buffer.
2019	**Conservation buffer:** The conservation buffer is fully implemented.

Date	Milestone: Leverage Ratio
2011	**Supervisory monitoring:** Developing templates to track the leverage ratio and the underlying components.
2013	**Parallel run I:** The leverage ratio and its components will be tracked by supervisors but not disclosed and not mandatory.
2015	**Parallel run II:** The leverage ratio and its components will be tracked and disclosed but not mandatory.
2017	**Final adjustments:** Based on the results of the parallel run period, any final adjustments to the leverage ratio.
2018	**Mandatory requirement:** The leverage ratio will become a mandatory part of Basel III requirements.

Liquidity requirements

Date	Milestone: Liquidity Requirements
2011	**Observation period:** Developing templates and supervisory monitoring of the liquidity ratios.
2015	**Introduction of the LCR:** Initial introduction of the Liquidity Coverage Ratio (LCR), with a requirement of 60%. This will increase by ten percentage points each year until 2019.
2018	**Introduction of the NSFR:** Introduction of the Net Stable Funding Ratio (NSFR).

References

Agonsin, M. 1998. Capital inflows and investment performance: Chile in the 1990s, in Ffrench-Davis, R. and Reisen, H. (eds), 1998
Ahamed, Liaquat. 2009. *Lords of Finance*, New York: Penguin
Akyuz, Y. and Cornford, A. 1995. International capital movements: some proposals for reform, Michie, J. and Grieve Smith, J. (eds), *Managing the Global Economy*, Oxford, Oxford University Press

Alchian, A. and H. Demsetz (1972), "Production, Information Costs, and Economic Organization", *American Economic Review*, vol 65(5), pp. 777-795
Alonso, José Antonio and José Antonio Ocampo. 2012. Development Cooperation in Times of Crisis, New York: Columbia University Press.

Anderson, Camilla. 2008. "Iceland Gets Help to Recover from Historic Crisis." *IMF Survey Magazine*, December 2. http://www.imf.org/external/pubs/ft/survey/so/2008/int111908a.htm.

Aoki, Masahiko and H.K. Kim (eds) (1995), *Corporate Governance in Transitional Economies: Insider Control and the Role of Banks*, Washington D.C.: The World Bank

Aoki, Masahiko, H.K. Kim and Masahiro Okuno-Fujiwara (1996*), The Role of Government in East Asian Economic Development: Comparative Institutional Analysis*, Oxford: Clarendon Press

Arestis, P. and Sawyer, M. 1999. What role for the Tobin tax in world economic governance?, in Michie, J. and Grieve Smith, J. (eds), 1999

Ariyoshi, A., Habermeier, K., Laurens, B., Otker-Robe, I., Canales-Kriljenko, J., and Kirilenko, A. 2000. *County Experience with the Use and Liberalization of Capital Controls*, Washington, DC, IMF

Azis, Iwan J (1999) *Do We Know the Real Causes of the Asian Crisis?* Global Financial Turmoil and Reform: A United Nations Perspective, The United Nations University Press, Tokyo.

___________(2000) *Modeling the Transition From Financial Crisis to Social Crisis,* Asian Economic Journal, Vol. 14, No.4.

____________(2001a) *Modeling Crisis Evolution and Counterfactual Policy Simulations: A Country Case Study,* ADB Institute Working Paper, No 23, Tokyo.

____________(2001b) *Cautions Surrounding Financial Sector Liberalization: A Modeling Approach*, "Asia Policy Forum on Sequencing Domestic and External Financial Liberalization," Asian Development Bank Institute, Tokyo, December 20-2**1.**

___________(2002a). *What Would Have Happened in Indonesia if Different Economic Policies had been Implemented When the Crisis Started?"* The Asian Economic Papers, MIT Press.

___________(2002b). *IMF Perspectives and Alternative Views On the Asian Crisis: An Application of Analytic Hierarchy Process and Game Theory Approach*, in Partha Gangopadhyay and Manas Chatterji (eds), Globalization and Economic Reform, Edward Elgar Publishing.

__________ (2002c) Financial Sector Liberalization and the Asian Financial Crisis: The IFIs Got It wrong Twice, Working Paper, Cornell University, Ithaca, NY

___________ and Willem Thorbecke (2002). *The Effects of Exchange Rate and Interest Rate Shock on Bank Lending,* mimeo, Cornell University, January.

Baker, D., Pollin, R., and Schaberg, M. 1995. 'The Case for a Securities Transaction Tax', Mimeograph, Department of Economics, University of Massachusetts

Balin, Bryan. 2008. "Basel I, Basel II, and Emerging Markets: A Nontechnical Analysis." *Policyarchive.org*. http://www.policyarchive.org/handle/10207/bitstreams/11484.pdf.

Bank for International Settlements (BIS). 2005. "Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework." http://www.bis.org/publ/bcbs118.htm.

Bank of International Settlements (BIS). 2010. "Table 19: Amounts outstanding of over-the-counter (OTC) derivatives." *BIS Quarterly Review*, December 2010. http://www.bis.org/statistics/otcder/dt1920a.pdf.

BIS. 1988. "International Convergence of Capital Measurement and Capital Standards." *BIS: Basel Capital Accord*. http://www.bis.org/publ/bcbsc111.pdf.

Barrell, Ray and Sylvia Gottschalk. 2010. "Capital Adequacy Requirements in Emerging Markets." In (Gottschalk Ed.), *The Basel Capital Accords in Developing Countries: Challenges for Development Finance*. New York: Palgrave Macmillan.

Basel Committee on Banking Supervision. 2010. "Review of the Differentiated Nature and Scope of Financial Regulation: Key Issues and Recommendations." *Bank of International Settlements*. http://www.bis.org/publ/joint24.pdf.

Basel Committee on Banking Supervision. 2010. "Capitalisation of bank exposures to central counterparties." *BIS Consultative Document*, December 2010. http://www.bis.org/publ/bcbs190.pdf.

Beattie, Alan. 2011. "World Bank backs efforts to counter rapid inflows." *Financial Times*, January 13. http://www.ft.com/cms/s/0/ca0df71e-1e71-11e0-87d2-00144feab49a.html#axzz1BG96TMA0

Bernanke, Ben. 2010. "Remarks on the "The Squam Lake Report: Fixing the Financial System"." *Speech prepared for the Squam Lake Conference*, June 2010. http://www.federalreserve.gov/newsevents/speech/bernanke20100616a.htm.

Best, Jacqueline. 2010. "Bringing Power Back In: IMF's Constructivist Strategy in Critical Perspective", in Rawi Abdelal, Mark Blyth and Criag Parsons eds., *Constructing the International Economy*, Ithaca, NY: Cornell University Press.

Blundell-Wignall, Adrian and Paul Atkinson. 2010. "Thinking Beyond Basel III: Necessary Solutions for Capital and Liquidity." *OECD Journal: Financial Market Trends*, 2010(1). http://www.gem.sciences-po.fr/content/publications/pdf/Blundell_Atkinson_Thinking_Beyond_Basel_III062010.pdf.

Bryant, Chris. 2010. "Hungary PM rejects new IMF deal and austerity." *Financial Times*, July 22. http://www.ft.com/cms/s/0/bb43ff2c-95c2-11df-b5ad-00144feab49a.html#axzz1BG96TMA0.

Bekaert, Geert., Campbell R. Harvey, and Christian Lundblad (2001), *Does Financial Liberalization Spur Growth?*, NBER Working Paper, No. 8245, Cambridge, Massachusetts.

Berg, Janine, and Lance Taylor (2000), *External Liberalization, Economic Performance, and Social Policy*, Working Paper, No. 12, Center for Economic Policy Analysis (CEPA), New York.

Bhagwati, Jagdish(1998), "The Capital Myth", *Foreign Affairs*, May/June

Blustein, Paul (2001). The Chastening: Inside the Crisis that Rocked the Global Financial Sytem and Humbled the IMF, Public Affairs, New York.

Calice, Pietro. 2010. "Basel II and Development Finance: Establishing Regional Guarantee Funds to Ease Access to Credit for SMEs." In (Gottschalk Ed.), *The Basel Capital Accords in Developing Countries: Challenges for Development Finance*. New York: Palgrave Macmillan.

Calvo, Guillermo A.; and Enrique G. Mendoza (1999). "Regional Contagion and the Globalization of Securities Markets," *NBER Working Paper* No. W7153 (June).

Caruana, Jaime. 2010. "Why Basel III matters for Latin American and Caribbean financial markets." *Financial Stability Institute, Bank for International Settements*. http://www.bis.org/speeches/sp101125.pdf.

Cecchetti, Stephen. 2010. "Making OTC derivatives less OTC." *Prepared for the conference "The Squam Lake Report: Fixing the Financial System*, June 2010. http://www.bis.org/speeches/sp100616.htm.

Chang, H.-J. 1998. Korea: the misunderstood crisis, *World Development*, vol. 26, no. 8

_______, H-J. Park and C. G. Yoo(1998), "Interpreting the Korean Crisis: Financial Liberalization, Industrial Policy and Corporate Governance", *Cambridge Journal of Economics*, Vol.22, No. 6, November.

Chang, Roberto, and Andres Velasco (1998). *The Asian Liquidity Crisis*, NBER Working Paper, No. W6796, November.

Chinn, Menzie D (1998). *Before the Fall: Were East Asian Currencies Overvalued?* NBER Working Paper No. W6491, April.

Committee on Payment and Settlement Systems (CPSS). 2010. "Considerations for trade repositories in OTC derivatives markets." *CPSS and the Technical Committee of the International Organization of Securities Commissions*, May 2010. http://www.bis.org/publ/cpss90.pdf.

Cornford, Andrew (2013) , More Details from the Basel Committee Concerning the Basel III Leverage Ratio, IDEAS http://www.networkideas.org/news/jul2013/news19_Basel_III.htm (last checked on August 3, 2013)

Demirguc-Kunt, Asli, Enrica Detragiache and Ouarda Merrouche. 2010. "Bank Capital: Lessons from the Financial Crisis. *IMF*. http://www.imf.org/external/pubs/cat/longres.cfm?sk=24494.0.

Demirgüç-Kunt, Aslï and Ross Levine (1996), "Stock Market Development and Financial Intermediaries: Stylized Facts", *World Bank Economic Review*, vol. 10, no. 2, pp. 291-321

Diamond, D. (1991), "Debt Maturity Structure and Liquidity Risk", *Quarterly Journal of Economics*, vol. 106, pp. 709-737

Domac, Ilker and Giovanni Ferri (1998). *The Real Impact of Financial Shocks: Evidence from Korea*, unpublished manuscript, East Asia Pacific Region, the World Bank, Washington D.C.

Domanski, Dietrich and Alexandra Heath. 2007. "Financial investors and commodity markets." *BIS Quarterly Review*, March 2007. http://www.bis.org/publ/qtrpdf/r_qt0703g.pdf. pgs. 53-67.

Eichengreen, Barry (1992), *Golden Fetters: The Gold Standard and the Great Depression, 1919-1939*, New York: Oxford University Press.

Eichengreen, Barry (1999) *Toward a New International Financial Architecture : A Practical Post-Asia Agenda*, Washington DC: Institute for International Economics.

------------(2002). Financial Crises and What to Do about Them, Oxford: Oxford University Press.

----------(2011), *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System*, New York: Oxford University Press

−−−−−−−−−−−−"Macroeconomic and Financial Policies Before and After the Crisis," in Maurice Obstfeld, Dongchul Cho and Andrew Mason (eds), *Global Economic Crisis: Impacts, Transmission and Recovery*, Cheltenham: Edward Elgar (2012).

-----------------"Implications of the Euro Crisis for International Monetary Reform," *Journal of Policy Modeling* (2012).

-----------------"European Monetary Integration with Benefit of Hindsight," *Journal of Common Market Studies* (2012).

----------------2013a"Currency War or International Policy Coordination?", *Journal of Policy Modeling*, May/June .

----------------"The Bretton Woods System," in Randall Parker and Robert Whaples eds, *Routledge Handbook of Major Events in Economic History* (Routledge 2013b).

----------------and Nergiz Dincer ,"The Architecture and Governance of Financial Supervision: Sources and Implications", *International Finance* (2013).

---------, Bergljot Markbu and Ashoka Mody "Financial Crises and the Multilateral Response: What the Historical Record Shows?" *Journal of International Economics* (2012).

-------- and Raul Razo-Garcia "How Reliable are De Facto Exchange Rate Regime Classifications?", *International Journal of Finance and Economics* (2012).

-----------, Ashoka Mody and Luio Sarno "How the Subprime Crisis Went Global: Evidence from Bank Credit Default Spreads", *Journal of International Money and Finance* (2012).

-------------, Hiro Ito and Menzie Chinn "Rebalancing Global Growth" , in Otaviano Canuto and Dani Leipziger (eds), *Ascent After Decline: Regrowing Global Economies After the Great Recession*, World Bank (2012).

.

Financial Times. 2010. "Regulation and the derivatives markets." *Q&A with Satyajit Das*, June 2. http://www.ft.com/cms/s/0/833a0994-6e32-11df-ab79-00144feabdc0.html#axzz1CGnZeAlJ.

Financial Times. 2010. "The long road to financial stability." September 13. http://www.ft.com/cms/s/0/d30c0114-bf6a-11df-965a-00144feab49a.html#axzz1BhSkwAMd.

Fischer, Stanley (2001). *Asia and the IMF,* a speech delivered at the Institute for Policy Studies, Singapore, June 1.

Gallarotti, Giulio (1995), *The Anatomy of an International Monetary Regime: The Classical Gold Standard, 1880-1913*, New York: Oxford University Press.

Haas, Peter, ed. (1992), *Knowledge, Power and International Policy Coordination*, Columbia: University of South Carolina Press.

Goldfajn, Illan and Taimur Baig (1999). *Monetary Policy in the Aftermath of Currency Crises: The Case of Asia*, IMF Working Paper, WP/98/170, Washington D.C.

Gottschalk, Ricardo. 2010. "Introduction: Why Basel Matters." In (Gottschalk Ed.), *The Basel Capital Accords in Developing Countries: Challenges for Development Finance*. New York: Palgrave Macmillan.

Gottschalk, Ricardo and Sunanda Sen. 2010. "Prudential Norms for the Financial Sector: Is Development a Missing Dimension? The Cases of Brazil and India." In (Gottschalk Ed.), *The Basel Capital Accords in Developing Countries: Challenges for Development Finance*. New York: Palgrave Macmillan.

Gould, David M and Steven B. Kamin (1999). *The Impact of Monetary Policy on Exchange Rates During Financial Crisis,* paper presented at the 1999 Pacific Basin Conference, San Francisco, September.

Grabel, Ilene. 2010. "Promising Avenues, Flase Starts and Dead Ends: Global Governance and Development Finance in the Wake of the Crisis." *PERI Working Paper Series*, No. 241, November. http://www.peri.umass.edu/fileadmin/pdf/working_papers/working_papers_201-250/WP241.pdf

Griffith-Jones, Stephany(1998) " The East Asian Financial Crisis: its Causes, Consequences, Policy and Research Implications", IDS Discussion Paper Draft, Sussex.

Ocampo, JA, Kregel, J, and Griffith-Jones, S .,2006 **International Finance and Development**, Orient Longman: United Nations,

Stephany Griffith-Jones and Ricardo Ffrench-Davis (eds).2003 **From Capital Surges to Drought, Seeking Stability for Emerging Economies,** Palgrave.

Stephany Griffith-Jones ,José Antonio Ocampo and Joseph Stiglitz,2010, *Time for a Visible Hand: Lessons from the 2008 World Financial Crisis*, , Oxford University Press.

Griffith-Jones, Stephany, Matthias Kollatz-Ahnen, Lars Andersen, Signe Hansen,2012 Shifting Europe from austerity to growth: a proposed investment programme for 2012-2015 FEPS – IPD – ECLM Policy Brief

Hagan, Sean and Jose Vinals. 2010. "Resolution of Cross-Border Banks—A Proposed Framework for Enhanced Coordination." *IMF Legal and Monetary and Capital Markets Departments*, June 11. http://www.imf.org/external/np/pp/eng/2010/061110.pdf

Hughes, Jennifer, Brooke Masters and Nikki Tait. 2010. "Bankers fear race to toughen Basel III." *Financial Times*, September 13. http://www.ft.com/cms/s/0/be491ff6-bf64-11df-965a-00144feab49a.html#axzz1BhSkwAMd.

Hughes, Jennifer and Brooke Masters. 2011. "Basel hardens bank hybrid bond rules." *Financial Times*, January 13. http://www.ft.com/cms/s/0/4151fcaa-1f4c-11e0-8c1c-00144feab49a.html#axzz1BhSkwAMd.

IMF. 2011. "IMF Financial Activities Update," January 6. http://www.imf.org/external/np/tre/activity/2011/010611.htm.

IMF. 2010a. "IMF Board of Governors Approves Major Quota and Governance Reforms." *IMF Press Release*, No. 10/477, December 16. http://www.imf.org/external/np/sec/pr/2010/pr10477.htm.

IMF. 2010b. "Global Cooperation Role Takes Center Stage in New IMF Work Program." *IMF Press Release*, December 2. http://www.imf.org/external/np/sec/pr/2010/pr10466.htm.

IMF. 2010c. "IMF Executive Board Approves Major Overhaul of Quotas and Governance." *IMF Press Release*, No. 10/418, November 5. http://www.imf.org/external/np/sec/pr/2010/pr10418.htm.

IMF. 2010d. "The IMF's Flexible Credit Line (FCL)." *IMF Factsheet*, October 5. http://www.imf.org/external/np/exr/facts/fcl.htm.

IMF. 2010e. "The Fund's Mandate—An Overview of Issues and Legal Framework." *IMF Public Information Notice*, No. 10/33, February 26. http://www.imf.org/external/np/sec/pn/2010/pn1033.htm.

IMF. 2009. "The IMF Response to the Global Crisis: Meeting the Needs of Low-Income Countries." *IMF Background Note*. http://www.imf.org/external/np/lic/2009/072909.htm.

Johnston, Barry, R., Salim M. Darbar, and Claudia Echeverria (1997). *Sequencing Capital Account Liberalization - Lessons from the Experiences in Chile, Indonesia, Korea, and Thailand,* IMF Working Paper WP/97/157, Washington D.C.

James, Harold (1996), *International Monetary Cooperation since Bretton Woods*, New York: Oxford University Press.

Kaminsky, Graciela L. and Carmen M. reinhart (1999), *The Twin Crises: The Causes of Banking and Balance-of-Payments Problems*, American Economic Review, 89/3, p. 473-500

Kapur, Devesh and Richard Webb. 2006. "Beyond the IMF." Paper for G-24 Technical Group Meetings, March 2006. www.g24.org/weka0306.pdf.

Kashyap, Anil K.; Jeremy C. Stein (2000), *What do a Million Observations on Banks Say About the Transmission of Monetary Policy*, American Economic Review, Vol 90, No. 3, June.

Khan, Haider A.(1999a) "Corporate Governance of Family Businesses in Asia: What's Right and what's Wrong?" ADBI paper no. 3, Tokyo,1999.

_________________(1999b) " Corporate Governance in Asia: Which Road to Take?", paper presented at 2nd high level symposium in ADBI, Tokyo

____________________(2001) " A Note on Path Dependence", unpublished manuscript

___________________ (2002a), " Can Banks Learn to Be Rational?", Discussion Paper no. 2002-CF-151, Graduate School of Economics, University of Tokyo

___________________ (2002b), " Corporate Governance: the Limits of the Principal –Agent Model", Working Paper, GSIS, University of Denver.

___________________(2002c) "The Extended Panda's Thumb and a New Global Financial Architecture: an evolutionary theory of the role of the IMF and Regional Financial Architectures, University of Tokyo CIRJE Discussion paper No. 2002-CF-163

----------------------------2003a. "Technology, Modernity and Development: Creating Social Capabilities in a POLIS ", Peter Brey et al. eds *Technology and Modernity: The Empirical Turn,* The MIT Press

------------------------- 2003b. "On Paradigms, Theories and Models" in Problemas del Desarollo, no. 131.

-----------------------------(2004) *Global Markets and Financial Crisis: Towards a Theory for the 21st Century*, Basingstoke, UK:Macmillan/Palgrave

-----------------------------(2006). "Managing global risks and creating prosperity : the role of the IMF and regional financial architectures" in Junji Nakagawa,ed. *Managing Development: Globalization,Economic Restructuring and Social Policy,* Routledge:17-41.

----------------------------(2008a) "Can Obama Do It?" in *Globalization, Development and Democracy* , http://gddn.blogspot.com/ Last accessed Feb.11,2011.

----------------------------(2008b) "Making Globalization Work: Towards Global Economic Justice. MPRA , Munich, Germany. http://mpra.ub.uni-muenchen.de/7864/ Last accessed Feb. 11, 2011.

-----------------------------2008c. "Causal Depth contra Humean Empiricism: Aspects of a Scientific Realist Approach to Explanation" http://ideas.repec.org/p/pra/mprapa/8297.html Last accessed Feb.11, 2011.

-------------------(2009), "MDGs: For whom does the bell toll?" Unpublished paper, JKSIS, Denver.

------------------(2011), " Analyzing the Impact on Financial Crisis on Developing Countries," Report submitted to the UNDP, NYC

Kiang, Lim Hng. 2008. "Issues, challenges and opportunities presented by commodities." Speech by Mr. Lim Hng Kiang, Deputy Chairman of the Monetary Authority of Singapore at the Global Financial Market Summit, July 9. http://www.bis.org/review/r080716f.pdf.

Kim, Hyun E. (1999). *Was Credit Channel a Key Monetary Transmission Mechanism Following the Recent Financial Crisis in the Republic of Korea?*, Policy Research Working Paper No. 3003, the World Bank, Washington D.C.

Knight, Malcolm (1998). "Developing Countries and the Globalization of Financial Markets," *IMF Working Paper* WP/98/105 (July).

Krueger, Anne O. (2000). *Conflicting Demands on the International Monetary Fund*, American Economic Review, Vol. 90, No 2. May.

Krugman, P. (1999). *Analytical Afterthoughts on the Asian Crisis*, mimeo, MIT.

Kuroda, Haruhiko and Masahiro Kawai (2002), " Strengthing Regional Financial Cooperation in East Asia", Revised paper presented in the seminar on regional economic and financial cooperation, April.

Lane, Timothy., A. Gosh., J. Hamman., S. Phillips., M. Schulze-Ghattas., and Tsidi Tsikata (1999). *IMF-Supported Programs in Indonesia, Korea and Thailand: A Preliminary Assessment*, IMF, Washington DC.

Lin, C.-S., H.A. Khan,R.-Y. Chang and Y.-C. Wang, .(2008) "A New Approach to Modeling Early Warning Systems for Financial Crises" (2008) , *Journal of International Money and Finance*,: 1098-1121.

Lopez-Cordoba, Ernesto and Christopher Meissner (2003), "Exchange Rate Regimes and International Trade: Evidence from the International Gold Standard, 1870-1913," *American Economic Review* 93, pp.344-353.

Mackenzie, Michael. "CFTC chief presses for derivatives transparency." *Financial Times*, June 3. http://www.ft.com/cms/s/0/88128966-6f2011dfa2f700144feabdc0,s01=1.html#axzz1CGnZeAlJ.

Macroeconomic Assessment Group. 2010. "Final Report: Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements." *Bank for International Settlements*. http://www.bis.org/publ/othp12.pdf.

Masters, Brooke. 2010. "Basel III: emerging market banks get off lightly, for now." *Financial Times*, September 13. http://blogs.ft.com/beyond-brics/2010/09/13/basel-and-emerging-markets/.

Masters, Brooke. 2010. "Relief over delay to Basel liquidity rules." *Financial Times*, September 13. http://www.ft.com/cms/s/0/269cfa5c-bf13-11df-a789-00144feab49a.html#axzz1BhSkwAMd.

Mihaljek, Dubravko and Frank Packer. 2010. "Derivatives in emerging markets." *BIS Quarterly Review*, December 2010. http://www.bis.org/publ/qtrpdf/r_qt1012f.pdf. pgs. 43-58.

Muchhala, Bhumika. 2009. "The IMF's Financial Crisis Loans: No Change in Conditionalities." Third World Network. http://www.twnside.org.sg/title2/par/IMF.Crisis.Loans-Overview.TWN.March.2009.doc.

Ocampo JA (2006). " Regional Financial Cooperation: Experiences and Challenges", in Ocampo JA, ed. *Regional Financial Cooperation*, UN ECLAC-Brookings Institution Press, Ch.1.

Ohno, Kenichi, Kazuko Shirono, and Elif Sisli (1999). *Can High Interest Rates Stop Regional Currency Falls?,* Working Paper, Asian Development Bank Institute (ADBI), No 6, December.

Olsen, Mancur (1965), *The Logic of Collective Action*, New Haven: Yale University Press.

Omori Takuma, "Suffolk Banking System against the Crisis of 1837-39 ---the Spontaneous Development of "Lender of Last Resort" by a Commercial Bank---", June 2002. University of Tokyo, Graduate School of Economics Discussion Paper No. 2002-CJ-79.

Ostry, Jonathan, Atish Ghosh, Karl Habermeier, Marcos Chamon, Mahvash Qureshi and Dennis Reinhardt. 2010. "Capital Inflows: The Role of Controls." *IMF Staff Position Note,* SPN/10/04. http://www.imf.org/external/pubs/ft/spn/2010/spn1004.pdf.

Pauly, Louis (1992), "From Monetary Manager to Crisis Manager: Systemic Change and the International Monetary Fund," in Roger Morgan, Stefano Guzzini and and Anna Leander (eds), *A New Diplomacy in the Post-Cold War World*, New York: Macmillan/St. Martins, pp.122-130.

Persson, Torsten and Guido Tabellini (1995), "Double Edged Incentives: Institutions and International Coordination," *Handbook of International Economics*, Amsterdam: Elsevier, vol. 3, pp.1973-2030.

Peters, Guy (1999), *Institutional Theory in Political Science*, London: Continuum.

Polanyi, Karl (1944), *The Great Transformation*,New York, Rinehart & Co.

Prasad, Eswar. 2010. "Financial Sector Regulation and Reforms in Emerging Markets: An Overview." *Institute for the Study of Labor (IZA)*. Discussion Paper No. 5233. http://ftp.iza.org/dp5233.pdf.

Rodrik, Dani(1997) *Has Globalization Gone too Far?* Washington DC: Institute for Internationaql Economics

___________ (1998a), "The Global Fix: A Plan to Save the World Economy", *New Republic*,November.

___________ (1998b), "Symposium on Globalization in Perspective: An Introduction", *Journal of Economic Perspectives,* Fall .

Roubini, N. and S. Mihm.2010.*Crisis Economics*. NY: Penguin.

Sachs, Jeffrey D., A. Tornell., A.Velasco. (1996) *Financial Crises in Emerging Markets: The Lessons From 1995*, *Brookings Papers on Economic Activity,* No 1.

Sachs, Jeffrey D, and Wing Thye Woo (2000). *Understanding the Asian Financial Crisis*, in

Solidar. 2009. Doing a decent job? IMF policies and decent work in times of crisis, http://www.eurodad.org/uploadedFiles/Whats_New/Reports/Doing%20a%20decen t%20job.pdf, October 5.

Smith, Michael (2004), "Institutionalization, Policy Adaptation, and European Foreign Policy Cooperation," *European Journal of International Relations* 10, pp.95-136.

Standard & Poor's. 2010. "Basel III Proposal To Increase Capital Requirements For Counterparty Credit Risk May Significantly Affect Derivatives Trading." *Global Credit Portal: RatingsDirect*, April 15. http://www.bis.org/publ/bcbs165/spccr.pdf.

Stiglitz, Joseph E. (1994). *The Role of the State in Financial Markets*, Proceedings of the World Bank Conference on Development Economics 1993. Washington D.C: World Bank.

Stiglitz, Joseph E. (1998). *Knowledge for Development: Economic Science, Economic Policy, and Economic Advice, he Role of the State in Financial Markets*, paper presented at the Annual World Bank Conference on Development Economics, Washington D.C., April 20-21.

Stiglitz, Joseph.2010. *Freefall*, NY:W.W.Norton.

Strange, Susan (1980), “Germany and the World Monetary System,” in Wilfrid Kohl and Giorgio Basevi (eds), *West Germany: A European and Global Power*, Lexington and Toronto: Lexington Books, pp.45-62.

Summers, Lawrence H (2000). “International Financial Crises: Causes, Prevention, and Cures”, *American Economic Review,* Vol 90, No.2.

____________ & Victoria Summers(1989), “ When Financial Markets Work Too Well: A Cautious Case for Securities Transactions Tax,” *Journal of Financial Services Research*, Dec.

Taylor, Michael. 2010. “Basel III is bad news for emerging economies.” *Financial Times*, October 14. http://www.ft.com/cms/s/0/2265459a-d7cb-11df-b478-00144feabdc0.html#axzz1BhSkwAMd.

Thomas Jr., Landon. 2009. “Known for tight spending, IMF may loosen reigns.” *New York Times,* April 5.

Tobin, James., and Gustav Ranis (1998). *The IMF's Misplaced Priorities: Flawed Funds*, The New Republic, available online at the following address: http://www.thenewrepublic.com/archive/0398/030998/tobin030998.html

Triple Crisis Blog, http://www.triplecrisis.com/(last checked on Aug. 3, 2013)

Toniolo, Gianni (2005), *Central Bank Cooperation at the Bank for International Settlements 1930-1973*, Cambridge: Cambridge University Press.

Tsebelis, George (1992), *Nested Games*, Berkeley: University of California Press.

UNCTAD.2002, 2003, 2007. Report on LDCs, Geneva, Switzerland.

UNICEF. 2010. “Prioritizing Expenditures for a Recovery with a Human Face: Results from a Rapid Desk Review of 86 Recent IMF Country Reports.” Social and Economic Policy Working Brief.

United Nations..2009. *Report of the Commission of Experts of the President of the United Nations General Assembly on Reforms of the International Monetary and Financial System*, New York

Van Duyn, Aline. 2010. “Marked fall in OTC derivatives volumes.” *Financial Times*, November 16. http://www.ft.com/cms/s/0/63a722d4-f1d5-11df-84ef-00144feab49a.html#axzz1CGnZeAlJ.

Van Duyn, Aline. 2011. “Derivatives still in flux as Dodd-Frank deadline looms.” *Financial Times*, January 28. http://www.ft.com/cms/s/0/6211d098-2b07-11e0-a65f-00144feab49a,s01=1.html#axzz1CGnZeAlJ.

Van Waeyenberge, Elisa, Hannah Bargawi, and Terry McKinley. 2010. “Standing in the Way of Development? A Critical Survey of the IMF’s Crisis Response in Low-Income Countries.” Eurodad and Third World Network. http://www.eurodad.org/whatsnew/reports.aspx?id=4083.

Vols, Ulrich and Aldo Caliari (Eds.). 2010. *Regional and Global Liquidity Arrangements*. Bonn: German Development Institute and the Center for Concern. http://www.coc.org/node/6613.

Weisbrot, Mark, Jose Cordero and Luis Sandoval. 2009. “Empowering the IMF: Should Reform be a Requirement for Increasing the Fund’s Resources?” Center for Economic and Policy Research: Issue Brief. www.cepr.net.

Wendt, Alexander.1987. “The Agent-Structure Problem in International Relations Theory”, International Organization 41: 101-117.

-----------------------. 1999. *Social Theory of International Politics*. Cambridge: Cambridge University Press.

Woo, Wing Thye, Jeffrey D. Sachs, and Klaus Schwab (eds), *The Asian Financial Crisis: Lessons for a Resilient Asia,* The MIT Press.

Yoshitomi, Masaru and Kenichi Ohno (1999), "Capital Account Crisis and Credit Contraction: Towards a Better Management of Systemic Currency Crisis", Paper presented at ADB Annual Meeting, 29 April 1999, Manila

Zhuang, Juzhong(1999), Corporate Governance in Asia: Some Conceptual Issues, Manila: Asian Development Bank