OESTERREICHISCHE NATIONALBANK
EUROSYSTEM

WORKSHOPS

Proceedings of OeNB Workshops

Bretton Woods @ 70
Regaining Control of the International Monetary System

February, 27–28, 2014

Stability and Security.

No. 18

The issues of the "Workshops – Proceedings of OeNB Workshops" comprise papers presented at the OeNB workshops at which national and international experts – including economists, researchers, politicians and journalists – discuss monetary and economic policy issues. One of the purposes of publishing theoretical and empirical studies in the Workshop series is to stimulate comments and suggestions prior to possible publication in academic journals.

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Printing and production	*Oesterreichische Nationalbank, 1090 Vienna*

DVR 0031577

ISSN 2310-9610 (Print)
ISSN 2310-9629 (Online)

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Opinions expressed by the authors of studies do not necessarily reflect the official viewpoint of the OeNB.

Editorial

Franz Nauschnigg and Sandra Dvorsky
Oesterreichische Nationalbank

The papers in this OeNB workshop volume were presented at a conference jointly organized by the Austrian Federal Ministry of Finance, the Oesterreichische Nationalbank (OeNB) and the Reinventing Bretton Woods Committee. The conference took place in Vienna on February 27 and 28, 2014, to commemorate the 70th anniversary of Bretton Woods and its institutions, the International Monetary Fund (IMF) and the World Bank, and to look afresh at the future of the international monetary system.

At the conference, speakers delineated the history of the Bretton Woods system and outlined the role of the euro area in the international monetary system in the past decade. Further issues included global adjustment in an increasingly multipolar world, the management of capital flows, reserves and exchange rate volatility, in particular with respect to some emerging economies and the challenge of preventing the middle-income trap. Finally, speakers discussed the lessons learned from the Bretton Woods system and their relevance for the current crisis.

In his welcome remarks, *Ewald Nowotny,* Governor of the Oesterreichische Nationalbank, stressed the achievements of the EU over the past ten years, during which 13 new Member States joined, bringing the total number of Member States to 28. At the same time, the euro area – the very core of the European integration process – grew from 12 members in 2004 to 18 participating countries. Governor Nowotny emphasized that the euro was the second most important international currency after the U.S. dollar, a fully functional and internationally traded currency, shielding its individual Member States from speculative attacks. Throughout the recent crisis years, the unprecedented joint crisis management of the IMF and the EU had proved successful and could serve as a blueprint for future cooperation between the Fund and regional financial arrangements.

In his introductory speech, *Jochen Danninger,* State Secretary in the Austrian Federal Ministry of Finance, acknowledged the particular role of the World Bank Group as the most important, most influential and truly global development institution, which had sharpened its focus on poverty reduction as its overarching goal. He stressed that assistance provided by the World Bank Group was key not only in the poor countries of Africa or South Asia, but also on Austria's doorstep, in Southeastern Europe. In particular, Danninger emphasized that the World Bank recently had created a regional base in Vienna for its activities in Southeastern Europe and lauded the World Bank's Vienna Office as one of the big achievements in the relationship between the World Bank and Austria in recent years.

Marc Uzan, Executive Director of the Reinventing Bretton Woods Committee (RBWC), outlined the challenges of the current international financial architecture at the 70th anniversary of the Bretton Woods system: high exchange rate volatility, persistent large external imbalances, competitive devaluations, significant international reserve accumulation, the fragmentation of financial markets, financial repression and growing difficulties in maintaining a satisfactory international level of cooperation. Uzan pointed to the need to identify global trends, taking into account the rise of new creditor nations, such as China and other major emerging markets. Multilateral initiatives such as the BRICS' announcement of a new development bank and, more recently, a joint currency reserve pool as a protection against "unintended negative spillovers" could be seen as pragmatic steps toward providing alternative multilateral solutions to the international monetary system. Uzan argued in favor of a system based on a basket of both advanced and emerging currencies in the long run in order to avoid over-reliance on a single country's currency and policies.

Session I: Regaining Control at Bretton Woods

The first session of the conference provided a historical overview of the development of the Bretton Woods institutions.

Liaquat Ahamed, author of the book "Lords of Finance: The Bankers Who Broke the World," gave an overview of the negotiations at Bretton Woods, especially between Keynes and White. Both wanted a stable international monetary system, as trade wars were a consequence of currency wars. Both agreed that capital flows were destabilizing and that temporary financing for the balance of payments was necessary. The main differences of opinion between Keynes and White can be traced to the interests of their respective countries – the U.K. was a debtor country with an overvalued exchange rate and a current account deficit, whereas the U.S.A. was a creditor country with a current account surplus. So Keynes proposed a high amount of initial IMF funding (USD 26 billion), whereas White proposed only USD 5 billion and making devaluations difficult. In the short term, White won, as the settlement was USD 8 billion and the requirement that countries wishing to devalue had to get the approval of 75% of the IMF quota. In the long run, however, Keynes won, as the U.K. devalued already three years later. Ahamed concluded that nowadays, after the most recent crisis, IMF funds in real terms were close to what Keynes had proposed.

Edmund Conway, author of the book "The Summit: Bretton Woods and the Fight to Save the World's Economy" debunked some conventional wisdom about the negotiations at Bretton Woods. For instance, it had not been the U.S.A. that put the U.S. dollar into the IMF Articles of Agreement, thereby making it the dominant reserve currency, but the U.K. The U.S.A. had remained vague on this issue. Also, it was not true that White was a spy for the Soviet Union. He passed some information to the Soviets but that was rather some sort of private diplomacy than involvement in espionage. After all, he was no fan of the socialist system. Conway noted that the French, meanwhile dominating the IMF, had played a relatively irrelevant role at the negotiations at Bretton Woods. His lesson from history was: Beware of conventional wisdom, and the general public is not always aware of the importance of some events, just like Bretton Woods was not perceived to be a big event by the general public at the time.

Ruogu Li, President of the Export-Import Bank of China, stressed that the collapse of the Bretton Woods system showed that there were inherent flaws in an international monetary system which depended on a single currency. It faced the "Triffin Dilemma" and could hardly remain stable. Li argued that it was impossible to avoid the risk that the core country takes advantage of its special position of having the global currency to manipulate international finance. He stressed that the current international monetary system was unable to address the flaws of the old Bretton Woods system and had created new problems. Therefore Li advocated a new international monetary system that consisted of the major currencies, including the U.S. dollar, the euro and the Chinese renminbi, based on coordinated exchange rates and reasonable flexibility. The internationalization of the Chinese renminbi – the result of the growth of China's economy and its financial market – would contribute to a more diversified monetary system. At the end of day, the market would decide whether the Chinese renminbi becomes a really internationalized currency.

Eric Rauchway, Professor of History, University of California, stressed that focusing on the conflict between White and Keynes was misleading and impoverished our understanding of the fundamental shared ideas underlying Bretton Woods. He explained that there had existed a much deeper consensus, not only between Keynes and White, but also between Keynes and Roosevelt, over how to reform the international monetary system. This consensus had developed at the depth of the depression, at the time of Roosevelt's election. The elements of this consensus included the idea that exchange stability should be a secondary goal, subordinate to the promotion of sustainable economic growth, and that governments should be free to pursue policies to promote economic growth even at the expense of short-term stability. Ultimately, the way to stability lay in growth, an insight that policymakers and their advisors began to develop and express in the Great Depression.

The major features of what would become the Bretton Woods program – the international fund, the proposed international currency (which would, whether bancor or unitas, ultimately vanish, though it provided a basis for initial negotiations), the managed currencies, and above all, the desirability of international exchange stability and the insistence on the priority of prosperity over internationally stable exchange rates – were all in place in 1933. The main promise of Bretton Woods was that the monetary agreements would make full employment and rising real wages an international priority. The Bretton Woods system was sold to the world's governments and peoples as a flexible mechanism that would permit making prosperity a priority. Rauchway concluded that we could regard the Bretton Woods era a success in so far as these promises had been fulfilled; if we wished to recover it, however, we would do well to attend to these foundational pledges that general welfare should come first and lead to greater stability afterwards.

Session II: Regaining Control in the Euro Area

Michael Bordo, Professor of Economics, Rutgers University, examined analogies made by recent literature between the events in Europe in 2007–2012 and the collapse of the Bretton Woods System in 1968–1971. He found that a clearly more relevant analogy for the euro area's ongoing problems was that between the U.K. and Germany: The U.K. ran persistent current account deficits, was faced with ongoing deflationary pressure and eventually had to devalue in 1967, while Germany ran persistent current account surpluses over the same period, was faced with ongoing inflationary pressure and on two occasions was forced to revalue the Deutsche mark. Finally, Bordo suggested an alternative analogy to the TARGET imbalances in the euro area, namely the breakdown of the payments mechanism in the U.S.A. during the Great Depression. During the Great Contraction from 1929 to 1933 there were massive gold flows between regions, reflecting a substantial drain of gold from the interior southern and western regions hardest hit by the successive banking panics, to the safety of the eastern money centers, especially New York. Unlike in the recent financial crisis in Europe, the Fed did little to accommodate the demands for liquidity. By the fall of 1932, the breakdown of the payments system was so widespread that many of the U.S. states declared banking holidays to prevent depositors from making withdrawals from their bank accounts. Banking holidays spread from state to state as the authorities in neighboring states tried to prevent depositors who could not get cash in one state turn to banks in neighboring states. The contagion culminated with a nationwide banking holiday, which effectively ended the panic. The TARGET experience reflects learning from that experience.

Elena Flores, Director Policy Strategy and Coordination, European Commission, gave a comprehensive overview of the European Union's response to address the faults in the architecture of the euro area, which had been revealed by the crisis. She sketched the main features of the EU's improved framework for fiscal surveillance, economic surveillance (in particular of the newly established Macroeconomic Imbalances Procedure), the creation of emergency funds (e.g. EFSF; EFSM, ESM) as well as the launch of banking union. However, she cautioned that all these building blocks would not be sufficient, unless the euro area moved away from country-specific recommendations to policy measures that were needed for the entire currency union. In this vein, Flores mentioned the Blueprint for a Deep and Genuine EMU. She argued that monetary policy was an effective tool to deal with symmetric shocks in general; adjustment to asymmetric shocks, on the other hand, required deep reforms leading to greater flexibility and should be supported by other adjustment mechanisms. She argued that fiscal integration could be that mechanism and concluded that a genuine EMU involved further transfers of sovereignty to the European level, which must be accompanied by steps ensuring strengthened democratic legitimacy, accountability and scrutiny.

Gertrude Tumpel-Gugerell, former Member of the Board, ECB, took account of the successful reform steps that had been taken in the euro area in order to overcome the crisis. She focused on three areas of change – economic cooperation, convergence and financial sector reform. Economic cooperation had been fundamentally reformed by aiming at balancing the structural budget, reducing debt, addressing macroeconomic imbalances and putting more emphasis on competitiveness and structural reforms, including earlier corrective action. She welcomed the reform steps undertaken in the area of financial sector surveillance and the creation of new institutions in order to improve the resilience of the financial sector. She emphasized that these reform efforts had not been sufficient and that reflections on the future shape of the Union needed to be undertaken. Tumpel-Gugerell sketched two possible avenues of development: first, the creation or enlargement of a central fiscal capacity for the Union, and second, a further mutualization of policy risks and risk sharing, such as joint issuance of debt.

Dinner Speech by Fabrizio Saccomanni

Referring to the conference theme, *Fabrizio Saccomanni*, former Italian Minister of Finance, argued that control over the international monetary system had not been regained yet. Despite tighter global regulation on banking, the volumes intermediated by global financial markets had not been affected. At the same time, the shadow banking system had grown even further, as funds were increasingly shifted from the regulated to the unregulated sector of the international banking system. As a possible approach to solve this problem, Saccomanni suggested to strengthen macroeconomic policy coordination among the main actors on the global scene in order to promote stability in the global financial system. He proposed a form of target zones for the exchange rates of the major currencies. In his view, policy coordination should be moved away from the G-20 and be left entirely to the IMF, which is endowed with the necessary legitimacy.

Session III: Regaining Control: The Global Adjustment Question from Bretton Woods to a Multipolar World

Jean Boivin, Associate Deputy Minister in the Canadian Department of Finance, pointed to the increasing importance of global financial linkages and risk-taking channels. In order to integrate them into macroeconomic policy decisions, a better understanding of the link between macroeconomic policy and financial stability was needed. He concluded that the international monetary system did not need to be redesigned from scratch, but rather needed to be completed. As a concrete suggestion, countries vulnerable to swings in investor sentiment should deepen their domestic financial markets and strengthen their monetary policy frameworks in order to become more resilient to cross-border flows.

Jerome Booth, Chairman, NewSparta, introduced the term "core/periphery disease," meaning that mainstream analysis typically focused on the effects of the core, i.e. the developed world, on the periphery, i.e. emerging markets. Booth argued that we should actually ask the question the other way round, given that central banks and sovereign wealth funds of emerging markets own a major share of government bonds issued by developed countries. Booth suggested redesigning the international monetary system in a way to move to a multipolar reserve system where emerging market central banks diversify their reserve holdings toward trade-weighted shares, also given the increasing share of south–south trade in global trade (which has already reached 30%). In this context, China could play a leading role, and other emerging markets would follow. At the same time, Booth doubted the necessity of coordination via the G-20.

In his presentation, *Ibrahim H. Çanakci,* Undersecretary of Treasury of the Republic of Turkey, emphasized the growing importance of emerging market countries in the global context over the past two decades. Against this background, he lauded the ability of the G-20 to enhance coordination between advanced and emerging countries. He stressed the need to improve global financial safety nets in order to prevent in particular emerging economies from building up excessive reserves. He also pointed to the current representation gap weakening emerging countries' ownership toward the IMF and reiterated his call to the international community that the dynamic growth of emerging markets should be duly reflected in the international financial architecture.

Jose Antonio Ocampo, Professor of Economics, Columbia University, discussed two alternative ways to reform the international monetary system. The first option would be to enhance the multicurrency character of the current system, which could be accomplished by increasing, e.g., the use of the euro as a global reserve asset or, alternatively, to internationalize the renminbi. The second and most desirable option according to Ocampo would require moving to a fully SDR-based IMF with a clear counter-cyclical focus. This would include counter-cyclical allocations of SDRs and counter-cyclical IMF financing made entirely in SDR. Ocampo suggested using SDRs to finance IMF programs and, at the same time, introducing a substitution account where central banks could exchange their reserves in currencies they did not want to hold for SDRs. Thus, the SDR could be made complementary to a multicurrency system.

Session IV: Managing Global Finance, Preventing the Middle-Income Trap and Evaluating the IMF

Andy Haldane, Chief Economist, Bank of England, started by tracking back the evolution of global financial integration over the past century and pointed to the fact that particularly over the past thirty years global finance had changed spectacularly into a well-connected network, a genuine system. In order to improve the resilience of the international financial system, Haldane depicted four areas to move forward. First, global financial surveillance could be developed away from country-specific surveillance toward a tracking of the global flow of funds aiming at revealing financial risks in a timely manner. Second, Haldane put forward suggestions of how to improve country debt structures, including GDP-linked bonds or contingent convertible bonds. Third, he advocated enhancing macroprudential and capital flow management. Fourth, Haldane argued in favor of improving international liquidity assistance. In this context, he stressed the importance of the U.S.A. having ratified the 14th quota review. While regional financial arrangements had played a useful role in recent years, the financial system was a global, not a regional one and therefore needed global solutions, Haldane emphasized.

Hans-Helmut Kotz, SAFE Policy Center, Goethe University, Frankfurt and Center for European Studies, Harvard University, stressed that EMU was characterized by a rather distinct set-up: Monetary policy was supra-nationalized, financial markets were almost completely open, with strong capital flows from the center to the periphery – but banking politics remained largely nationalized. Most of the intra-European capital flows had been intermediated by banks. Those banks were largely funded in wholesale interbank markets – particularly vulnerable to herding and sudden directional changes of flows. Beginning with the Great Financial Crisis, jurisdictional (and supervisory) borders became important again. European financial markets fragmented. Completing Europe's monetary and financial union by creating a banking union should lead to the europeanization of banking policies. While the first pillar of banking union, the Single Supervisory Mechanism, is well advanced, the two other two pillars, dealing with troubled banks and underwriting retail deposits, still need some work to be done. But the restructuring and resolution regime now in place already compares very favorably with the ad hoc attempts at handling challenged banks with a cross-border dimension. Kotz also stressed that from a European perspective, macroprudential policy has a regional capital flow management dimension and will be very important.

Ousmène Mandeng, Managing Director, Pramerica Investment Management, linked the middle-income trap to the EU convergence methodology and discussed immediate and intermediate consequences of the middle-income trap for portfolio investments in emerging markets. He found that real convergence from middle- to high-income status remained rare. Mandeng concluded that the EU emerging markets, as compared to other emerging markets, had been particularly successful in raising income in absolute terms. As regards portfolio investments in emerging markets, he argued that, although they still remained small in relative terms, concerns about the middle-income trap could dampen potential portfolio investment flows. This could possibly fuel self-fulfilling expectations, which themselves contribute to the middle income trap. Looking at convergence patterns over a given time span, he concluded that low-income countries found it relatively easy to become middle income, while absolute income differences between middle- and high-income countries had remained large even within the EU. Post-unification Germany may serve as an example to understand actual limitations to convergence.

Ruben Lamdany, Deputy Director of the IMF's Independent Evaluation Office, examined the main factors that prevented the IMF from being able to detect and warn about the vulnerabilities in the years before the crisis. He identified three main reasons: First, cognitive biases, such as groupthink within the IMF macroeconomists, possibly contributed to "blind" the IMF. Second, Lamdany found governance and organizational impediments within the IMF, as its internal organization along vertical units constituted an obstacle to integrating the findings from multilateral and bilateral surveillance activities or to linking macroeconomic and financial developments. Third, he found analytical weaknesses, inter alia stemming from the IMF's insular culture of rarely referring to work by external analysts. He concluded that the IMF as an organization had already responded to these weaknesses and undertaken many reforms in this respect. As a consequence, the IMF's performance during recent crisis years was widely perceived as improving, in particular as regards its role in coordinated global action, raising its resources in a timely manner to ensure adequate funding of IMF programs or the creation of precautionary facilities.

Session V: Bretton Woods and the IMS in a Multipolar World?

In his keynote speech, *Jacques de Larosière,* former Managing Director of the IMF, stressed that an effective international monetary system (IMS) resulted in the enforcement of a common monetary policy by national states abiding by the "system." Historically, such systems had relied either on a "real" external anchor, like gold, or on a national, dominant currency.

After the demise of the Bretton Woods system, central banks had resorted to inflation targeting, which did not result in an IMS able to harmonize monetary policies. Inflation targeting had failed to achieve financial stability.

De Larosière saw a low probability of a "grand" reform of the IMS and believed that the world would evolve slowly over the years toward a more multipolar system. To avoid the repetition of crises in a world where currencies were free to misalign, he recommended a macroeconomic oversight system. He emphasized that central banks and regulators from around the globe must work together to identify and counter financial imbalances.

De Larosière warned against global capital requirements, which could be very costly in terms of reducing normal credit availability. In his view, sectoral and cyclical capital requirements and lending limits would be much more effective and less expensive than a "one size fits all" capital ratio approach. He saw systemic risk attention as the persistent missing link of our mindsets.

Richard Cooper, Professor of International Economics, Harvard University, pointed out that we had always lived in a multipolar world. Negotiations on trade and international monetary issues always involved several players. Recently, China, Brazil and India had become more important, but the world had not recently become multipolar because of the addition of those countries. Even the international use of currencies had never been unipolar. While the U.S. dollar has played the predominant role since the 1940s, the British pound was important into the 1970s; later the Deutsche mark grew in importance and was subsequently replaced by the euro, which has been playing an even greater role. Maybe the Chinese renminbi will be added to this list in the future, but this would take a long time.

Cooper expects the U.S. dollar to remain the dominant international currency for a long time because of the size of the U.S. economy and especially the size and the liquidity of U.S. financial markets, along with an independent and impartial judicial system for settling commercial disputes. Equally important were extensive network externalities that had been established through the historical use of the U.S. dollar, comparable to the use of English as a common means of communication, Cooper said.

In his view there was no effective alternative to the U.S. dollar. The euro, as the obvious competitor, had recently suffered a setback by economic troubles in Europe. In the longer run, Europe was in relative economic decline, much more so than the United States.

Jacob A. Frenkel, Chairman of the Board of Trustees, G30, stated that the original Bretton Woods conference was a success because it was the outcome of very detailed technical analysis. While there had been ambiguities in the initial drafting, no unintentional ambiguities were left in the Fund Agreement; they were a skillful way to bridge, maybe to cover, disagreements.

He recalled the practical preparations for the G-7 Louvre Agreement of 1987, which focused on internationally coordinated macroeconomic policies, thus going much beyond the Plaza Agreement of 1985, which had aimed at international exchange rate adjustments. On a more general note, policy cooperation could be instrumental in facilitating outcomes that internalize some of the externalities that prevail in the complex interdependent world and should create win-win outcomes rather than just a zero-sum game.

Finally, Frenkel briefly sketched the major challenges for the international financial system, such as the prevention of future financial crises, macroeconomic imbalances both within economic blocks as well as between them and the dramatic shift of economic power away from advanced industrial countries toward emerging markets.

Siddharth Tiwari, Director of the IMF's Strategy, Policy and Review Department, recalled that the IMF was formed in 1945 in response to global crises and the recognition that the international monetary system (IMS) would benefit from rules-based global financial cooperation. The IMF as an institution had been far from static and had adapted to a changing world economy. Global trends such as the dramatic increase in economic and financial interconnectedness, with more intense spillovers, the ongoing transition to a more multipolar global economy and the evolving multilayered global financial safety net were some of the challenges to which the IMF was still responding today in order to remain a relevant player in the future.

Tiwari emphasized that the global financial safety net had become a multilayered system. Besides IMF financing, central bank swap lines or regional financial arrangements (RFAs) provided additional layers. They helped increase the size of available resources and brought regional expertise and greater program ownership. They could, however, only offer limited risk pooling and so the stability of the IMS still necessitates a strong IMF at the center.

Bretton Woods @ 70: Regaining Control of the International Monetary System

Ewald Nowotny
Governor
Oesterreichische Nationalbank

Ladies and Gentlemen,
I am very pleased to welcome you to the conference on "Bretton Woods @ 70 – Regaining Control of the International Monetary System", which is hosted jointly by the Reinventing Bretton Woods Committee, the Austrian Federal Ministry of Finance and by the Oesterreichische Nationalbank.

I am particularly delighted that we have managed to attract so many distinguished speakers from around the globe, among them academics, market participants, as well as policymakers. You are all here in Vienna today to discuss with us, from different angles, the evolution of the international financial system, both in a historical and in a forward-looking perspective. Let me thank in advance to all our speakers for their contributions. I feel also honored that such a great number of participants have accepted our invitation to attend.

Our conference will be organised in six sessions. We will start out with a historical account of the role of the Bretton Woods system, including the Bretton Woods institutions, namely the International Monetary Fund (IMF) and the World Bank. Subsequently, session two will be devoted to the euro area's role in the international monetary system. The creation of the euro in 1999 was one of the biggest changes in the international monetary system since the breakdown of the Bretton Woods system in the early 1970s. Session three will take up the issue of global adjustment in an increasingly multipolar world. Session four will deal with the management of capital flows, reserves and exchange rate volatility, which is a topical issue given the current problems in some emerging economies. Session five will cover the topic of preventing the middle income trap. Session six shall draw conclusions and provide an outlook on the possible future role of the international monetary system and the lessons learned from the Bretton Woods System.

From the 60th to the 70th Anniversary: Taking Stock of the Past Decade

Almost exactly ten years ago, in June 2004, we held a conference here in Vienna, at that time to commemorate the 60th anniversary of the Bretton Woods institutions – some of you have joined us already at this conference.

I would like to use this opportunity and take stock of these past ten years, which have indeed been an interesting and equally challenging period, both for Europe and for the global community.

In spring 2004, the European Union had just been joined by ten new Member States. Since then, the EU has undergone two further enlargements, with the entry of Bulgaria and Romania in 2007 and of Croatia in July 2013, so that it now comprises 28 Member States.

Over the same ten years, the euro area of – then – twelve members (in 2004) has grown to eighteen participating countries and constitutes a milestone in the European integration process. The euro is a fully functional and internationally traded currency, which shields its individual Member States from speculative currency attacks. From its start, the euro has been the second most important international currency after the US-dollar. Despite the increasingly difficult environment in recent years, the relatively strong role of the euro on the global stage has remained broadly unchanged, with the euro's share in global foreign exchange reserves standing at around 24% at the end of 2012.

The year 2008, however, has marked a turnaround for the global economy. The US financial market turmoil of fall 2008 subsequently triggered the most severe economic crisis since the Great Depression of the 1930s. While the Bretton Woods institutions had to deal with a continuous series of financial crises over the previous decades, such as the Mexican or the East Asian financial crisis or the Russian debt default in 1998, this recent wave of crises was different insofar as it affected, for the first time, mainly advanced economies. Consequently, its effects were of a different magnitude and much more severe as compared to previous crises, and they are still lingering. While both the USA and the euro area underwent a period of stagnation in 2008 and, subsequently, a strong recession in 2009, the euro area was hit even stronger than the USA, with weaker growth in the following years and the emergence of banking and sovereign debt crises in several EU Member States from 2010 onward.

Dealing with the Crisis – A Joint Endeavour by the IMF and Europe

While the IMF, as most other institutions, was caught more or less by surprise by the outbreak of the current crisis, as well as by its severeness and its persistence, the crisis was weathered relatively well so far. This was accomplished thanks to an unprecedented spirit of cooperation and support, which we have witnessed since the beginning of the current crisis on the global level.

Already in April 2009, in response to the breakdown of international financial markets, the international community agreed to massively increase IMF resources to a total of USD 750 billion, with substantial worldwide contributions. Already in March 2009, the EU quadrupled its balance of payments support funds for non-euro area EU Member States to EUR 50 billion and the EU committed another EUR 75 billion (approx. USD 100 billion) in the form of bilateral loans to the IMF in order to support its lending capacity. This prompt increase of global and European firewalls constituted important stabilizing steps at this very early stage of the crisis, which were particularly important for Central, Eastern and Southeastern Europe (CESEE).

In a similar vein, the so-called “Vienna Initiative” had been launched already in January 2009 in order to create a framework for safeguarding the financial stability in CESEE. The „Vienna Initiative“ served as a forum for major international financial institutions, among them the IMF and the World Bank, the most important European institutions, home and host country regulatory and fiscal authorities and the largest banking groups operating in the region. The „Vienna Initiative“ helped to avoid a potentially region-wide systemic crisis in the CESEE banking sector.

In the following years, as the crisis had not abated, European firewalls for the euro area members, the ESFS and its permanent successor institution, the ESM, were established and their firepower was substantially increased in order to address the challenges arising from the banking and sovereign debt crises. Furthermore, in December 2011 the euro area and other EU Member States committed additional bilateral loans to the IMF of up to EUR 200 billion (USD 270 billion), thus strengthening once more the IMF’s firepower.

Global cooperation even went one step further and got a new political and institutional dimension. For the first time in history, the IMF and the EU jointly entered into macroeconomic adjustment programs for individual EU Member States. This implied that consistent and mutually agreed decisions had to be taken on the respective program financing, the initial program design including macroeconomic conditionalities as well as on program surveillance. This close cooperation between the IMF and the EU, which has posed numerous challenges for both sides, has proven mutually beneficial; in particular also due to the IMF’s longstanding expertise in macroeconomic programs as well as its well-established international credibility.

From 2009 to 2011, several EU Member States outside the euro area, such as Latvia, Hungary and Romania, were the first beneficiaries of such joint IMF-EU programs. From spring 2010 on, Greece was the first Member State within the euro area, which received a financial assistance package negotiated by the IMF and the

EU. By December 2010 and May 2011, respectively, Ireland and Portugal followed, and in May 2013 Cyprus was provided financial support.

This vast support of comparatively wealthy, advanced economies did not remain without criticism in the international debate. Notwithstanding, the unprecedented order of magnitude of some of these financing packages, I am convinced that it was the right approach that the IMF stood ready to provide financial support to its members, in these exceptional times, as need arose. As regards the issue of international burden sharing, I would like to emphasize that, as a rule, at least two thirds of the total financing for euro area Member States are provided by the EU itself. In addition to this direct involvement in program financing, the EU provides a substantial part of the IMF's share in program financing, via its contribution to IMF resources.

Challenges ahead: Designing Exit Strategies for Program Countries, Reforming the IMF's Governance, Preventing Future Crises

Looking at the challenges ahead of us, I am convinced that the IMF should continue to strive that program countries regain access to market financing as soon as possible in order to prevent a prolonged use of Fund resources. Ireland's successful graduation from its program a few months ago can certainly be seen as a positive example in this context. In a similar vein, sustainable exit strategies have to be defined also for other program countries over the next years, as well as for those which are benefitting from precautionary arrangements.

In view of the increasing economic importance of emerging economies, we support the IMFs governance reform which aims at increasing the representation of emerging market countries in the IMF Executive Board at the expense of advanced European countries. In this context, I would like to recall that in July 2012, Austria, together with other Central and Eastern European countries and with Turkey, established a new IMF constituency, thus contributing to achieve the aforementioned aim of the IMF's governance reform. This marks a historic milestone as it will place the dynamic Central and Eastern European region, in rotation with Turkey, directly on the map of the IMF's Executive Board.

Finally, in recent years it has become clear that the deregulation of financial markets has reached its limitations and that deregulated financial markets tend to be instable and are likely to trigger financial crises. The IMF (Laeven, Valencia, 2012) finds that over the period 1970 to 2011 the world's economies were confronted with a total of 218 currency crises, 66 sovereign debt crises and 147 banking crises. The authors show that dealing with crises causes high economic costs. They find cumulative output losses of 32.9% of GDP in advanced economies originating from banking crises, an increase in public debt levels by another 21.4 % of GDP and cumulated fiscal costs (i.e. fiscal outlays directed to the restructuring of the financial sector) in the order of 3.8% of GDP. Given these enormous costs related to banking crises, there seems to be a change of paradigm since the beginning of the current crisis in 2008, with a tendency to return to increase the degree of financial regulation and with a more active use of fiscal policies in order to counteract or avoid banking crises in advanced economies.

While the euro area Member States were protected against currency crisis by their common currency throughout the current crisis, as mentioned earlier, some EU Member States were, however, affected by banking and subsequently sovereign debt crises. In response to these developments, the EU has substantially strengthened its economic and fiscal governance over the past years, with the enhanced Stability and Growth Pact and the newly created Macroeconomic Imbalances Procedure. Furthermore, with the aim to prevent banking crisis for the future, the EU is currently preparing to establish a Banking Union, which will comprise the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM). I am confident that the completion of the Banking Union will contribute to break the negative feedback cycle between sovereign and banking-sector problems.

Concluding Remarks

The continuing global economic turmoil underscores the importance of the Fund as a forum for multinational dialogue as well as of its financing capacity also for the coming years.

The unprecedented joint crisis management, undertaken by the IMF together with Europe, over the past few years has served the common goal of stabilizing the European economy which helped to stabilize the world economy. Moreover, this cooperation between the IMF and Europe can possibly be seen as a blueprint for future cooperation between the Fund and regional financial arrangements.

Looking ahead, the IMF's longstanding surveillance function should remain at the core of its activities and will have to be even further developed. Given the increasing inter-connectedness of economies in the world, the Fund's policy advice on how to address policy spillovers needs to be systematically included into bilateral surveillance. Furthermore, we welcome the Fund's increased efforts to strengthen its surveillance of financial sectors. In particular, even more emphasis will have to be put on spillover effects from national prudential measures, in order to prevent increased financial fragmentation originating from inconsistencies across national jurisdictions.

Our goal should be to reform the international monetary system so that it is less crisis-prone in future. The Bretton Woods system has been very successful in avoiding financial crises and achieving high growth rates from 1945 to 1970.

I hope this conference can provide us with advice and examples how to reach this goal – a stable international monetary system, conducive to growth.

To conclude, I am looking forward to a fruitful and stimulating exchange of views during this conference and I wish you all an interesting stay here in Vienna.

Welcome Remarks

Jochen Danninger
State Secretary
Federal Ministry of Finance (Austria)

When in July 1944 delegates from 44 countries held the Bretton Woods Conference, two multilateral organizations constituting a framework for international economic cooperation after World War II resulted from it within 22 days: The International Monetary Fund (IMF) and International Bank for Reconstruction and Development (IBRD) or World Bank. Also to mention in this context is of course the General Agreement on Tariffs and Trade (GATT) becoming the main global trade organization in 1948 – which had a somewhat more difficult history. These organizations were part of a complex institutional framework to help manage the postwar global economy. In spite of some basic differences, the 44 countries could agree on the postwar international institutional order. Above all, they wanted to avoid a repetition of the interwar period experiences, when exchange controls and trade protectionism contributed to the 1930s Great Depression and consequently to World War II.

From today's perspective those decisions of policy makers to take action, learning from the past and shaping an effective international order, deserves our deep respect. The need for global multilateral institutions with a significant degree of influence in the economic sphere was clearly felt and they were put into reality.

But when the situation changed, the IMF and the World Bank were flexible enough to adopt appropriately and to continue their necessary global role under new circumstances.

The IMF lost one of its main functions when the fixed-exchange-rate system for currencies collapsed in the 1970s and was replaced by floating exchange rates. However, the IMF's role increased again in the 1980s and 1990s when it became the lead international agency for foreign debt and financial crises. Again, before the global financial crisis, the IMF faced decreasing demand and was downsized, only to bring it back to full strength when the global crisis hit in 2008.

Similar in the case of the World Bank: European reconstruction was a larger task than anticipated, and the United States established the European Recovery Program (or Marshall Plan) in 1948 to give bilateral aid to Western Europe. This and the fact that Western European countries quickly graduated from World Bank lending, made the World Bank shift the bulk of its financing to developing countries for economic development.

Let's not forget, there were the turbulences of the cold war and the institutions were not truly global for a long time, they were not free of error and of wrong or at least disputed approaches, they have been heavily criticized and at times fought against – but despite all possible mistakes they always remained a symbol of working and efficient international cooperation, they have always been seen as a basis for the delivery of some global public goods, they were always an expression of international solidarity to help those in need, and, not least, they have always been contributing to find a common way forward. They are an important part of an international cooperative insurance system, which has, against many odds, shown its usefulness and indispenability.

The World Bank Group falls specifically under our portfolio in the Ministry of Finance, and we have come, over the time, to form a very good and healthy relationship with it, finding a lot of linkages and areas of cooperation.

After the reconstruction phase in Europe, reconstruction has remained an important focus of the World Bank's work, given the natural disasters, humanitarian emergencies, and postconflict rehabilitation needs that affect developing and transition economies. But the World Bank has gone further and sharpened its focus on poverty reduction as its overarching goal. It has become a multidisciplinary and diverse institution. 40% of staff are now based in country offices in order to have direct and constant touch with the clients. The Bank has become far more complex, it turned into a Group, encompassing five associated development institutions, catering for the specific needs of different groups of countries and also taking into account the vital role of the private sector in development.

The World Bank Group has become the most important, most influential and truly global development institution. Even the fast growing middle income countries value IBRD-loans because of their favorable terms, the long maturities helping them to manage their overall sovereign debt and because of the knowledge which comes with them. The World Bank has become a knowledge institution and one of the major levers to spread knowledge from one part of the world to another. Still, middle income countries, despite their growing global economic role, are home of 70% of the world's poor and effectively benefit from the Bank's financing, its economic management advice and its technical expertise.

Even more so in the poor countries, in particular in Africa or South Asia, but even at our door step in Southeastern Europe: The concessional arm of the World Bank Group, the International Development Association (IDA) is the backbone of assistance to these countries to bring about inclusive growth, not only highly significant and reliable in volume, but also in quality, as international ratings of aid agencies demonstrate. It is exactly that quality of assistance that makes IDA so highly development effective. We are proud in Austria to deliver a strong portion of our ODA through IDA because we can be sure to get the highest development impact in poor countries for it.

The remaining three members of the World Bank Group deal with the private sector, giving it the proper recognition and support for the vital role it plays in the development process. Today, the private sector is on everyone's mind when we discuss development, but the World Bank was an innovative forerunner of making the private sector and the markets work for development and poverty reduction.

At the end of the period of the Millennium Development Goals we see that some goals have been achieved, but much still remains to be done in terms of poverty reduction. Whatever the post-2015 development regime will look like, it will contain many and difficult challenges and the World Bank Group will inevitably play a central role in it.

The global financial and economic crisis which started 2008, coming immediately after the food and fuel crises, resulted in sharp reductions in global growth, trade, and access to finance for developing countries.

The World Bank Group responded with record amounts of financing for education, health, nutrition, and infrastructure in developing countries, committing more than USD 189 billion between 2008 and the end of fiscal year 2011. Also the Europe and Central Asia region benefited significantly, enabling many countries to carry through with their most important investment projects, to keep the economy going and to stem against the downturn in employment. In straight cooperation with the European Commission it has even assumed some role in South European Countries in the context of crisis resolution.

The Bank Group's commitments to social protection for the poorest and most vulnerable exceeded USD 9 billion in 72 countries during fiscal years 2009-2011. That figure was more than seven times the pre-crisis level of USD 1.2 billion. Thus, human suffering and the deterioration of human capital as an obstacle for the after-crisis economic upswing could be effectively reduced.

Also in terms of food security and in order to respond to the critical and volatile global food situation, the Bank has provided annual financing for agriculture of USD 6 billion to USD 8 billion a year, up from USD 4.1 billion in 2008. Agriculture commitments in FY13 reached USD 8 billion, and the Global Food Crisis Response Program, established in response to the 2008 food crisis, has helped 66 million people in 49 countries.

We are very glad and proud that the World Bank unfolds its activities also from Vienna as a regional base for Southeastern Europe, and further in some instances. The Vienna Office is one of the big achievements in the relation between the World Bank and Austria in recent years. It took a long time to prepare, but we finally got there. Some of the architects and early implementers of that undertaking have moved on and only watch the fruits of their hard work from some distance. We remember them with warm feelings. Most of all we hope that the beneficiaries will be the clients in Eastern and Southeastern Europe which the World Bank serves from its Vienna base.

Today we see a World Bank very different than 70 years ago. We cannot think a world without it in terms of development and poverty reduction in middle as well as low income countries, it has demonstrated to be highly effective in crisis response and crisis preparation, directly and directly reaching even into the sphere developed countries and now, if we carefully follow the ongoing reform process under President Jim Yong Kim, it see fighting climate change and global warming emerging as a third strong focus and area of global World Bank action.

We believe, at 70 the World Bank Group is on the right track. It provides and will continue to provide solutions to reduce and manage global risks in these three major areas.

But the IMF and the World Bank might not be strong enough for all global challenges. Maybe some bold decisions like those 70 years ago in Bretton Woods would be needed in order to further strengthen our global governance.

Welcome Remarks

Marc Uzan

Director and Founder, Reinventing Bretton Woods Committee

With the global economy entering the 5th year since the start of the financial and economic crisis, policy makers, market participants and academics are shifting their focus from fire fighting to the reform of the financial system. At the centre of this debate lies the international monetary and currency system set up in 1944 at Bretton Woods, which set the ground for formation of the current multinational financial organisations and international monetary and currency coordination led by the United States. The conference at Bretton Woods set the scene for the US dollar to become the major international reserve currency as the Sterling's decline in significance.

The Bretton Woods system resulted in the creation of the World Bank and the IMF, which were tasked with post war reconstruction and orderly maintenance of the international financial architecture. Currencies were fixed but later freely convertible for trade related transactions. Governments were allowed to adjust their currencies to address balance of payment difficulties. They were allowed to maintain capital controls which were deemed harmful and volatile though overall, the system was designed and coordinated so that each member while adjusting for short term financing deficits were not allowed to undermine and harm other members' policies through exchange rate practices. Overall the system was designed to provide stability to the international payments and financial system, fostering stability and promoting long term trade, employment and growth.

Debate on the Bretton Woods System

The recent financial and credit crises has thrown the spotlight on the functioning and deficiencies of international financial system in a more critical manner than at any other time since Bretton Woods was established. Going into the Lehman credit crises with the international financial system experiencing considerable imbalances, questions are now being posed about the stability of the current system given the reliance of the global payments and financial system on a singular reserve currency, whose policies post 2008 have been criticized by some as being serving at the expense of its main trading partners and the long run stability of the system itself.

However, the debate on reform of the global financial system has so far been limited to fire fighting policies in response to the wave of credit and financial crises witnessed in the US and Europe. *Very little attention and debate has been devoted to the reform of the international monetary system and policy coordination.* There seems to be no policy design for the 21st century!

More importantly, little debate and policy coordination has been paid on how to

- accommodate a country which will be larger than the USA by 2020 in economic terms
- reform the international monetary system to accommodate for this change in a coordinated manner
- define the role of the multilateral institutions in the new economic order, including the role of the IMF
- treat capital flows in a world of two dominant serve currencies.

Indeed, the issue of global adjustment has not been resolved in such a context. While individual country and region specific reforms have been initiated to stabilise debt markets and introduce banking and financial sector reforms, issues such as the problems and fiscal vulnerabilities of the euro area have not been resolved. Some innovation seems to be happening on a bilateral basis, such as the opening of SWAP arrangements between China and various countries as a prelude to the internationalisation of the renminbi yuan. Multilateral cooperation seems to be absent with perhaps political impediment to debate making fragmentation dominate cooperation.

Despite the considerable evolution of global banking regulations, with improved capital and liquidity requirements and the growing maturity of macro- and micro-prudential policies and frameworks, much remains to be done to ensure future economic and financial stability. The interconnected, dynamic nature of the modern global economy means spillovers are inevitable, highlighting the urgent need for increased awareness, communication, cooperation, and collaboration between global policymakers.

The continued dominance of the US dollar as both a reserve and trading currency, not least in the current fiscal context in advanced economies, potentially poses a significant risk to global financial and economic stabilities going forward, particularly but not exclusively in the event of a significant re-pricing of US sovereign credit risk.

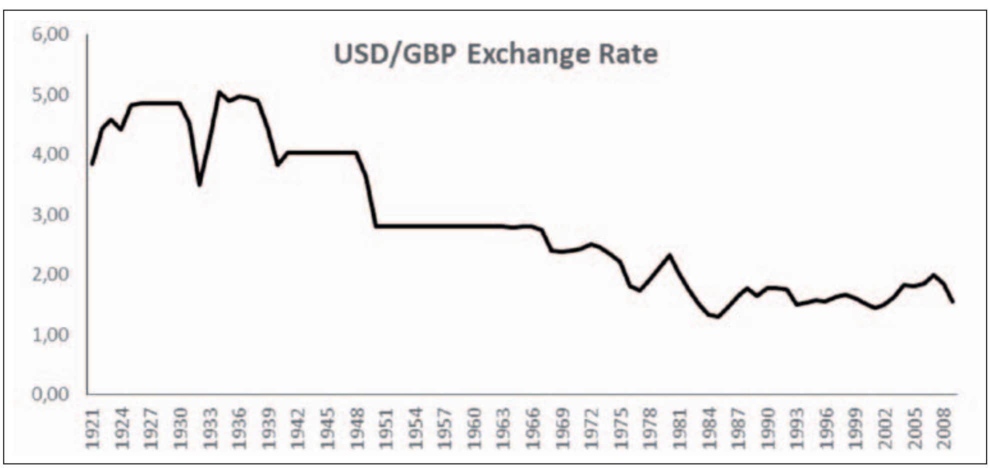
The current state and effectiveness of the global financial infrastructure must be re-assessed, and the rapidly increasing importance of emerging and developing markets must be recognized through greater participation in global decision-making, particularly within multilateral institutions.

The institution of a global currency or another credible alternative to the de facto US dollar standard has become more visible in policy reform forums. On international governance, the adequacy of current multilateral institutions and the extent of recent and ongoing reforms must be evaluated and re-assessed. Where governance gaps remain, effective measures must be speedily taken to adequately address perceived weaknesses. The need for new multilateral institutions must be identified and addressed where required, representing the interests of emerging and developing countries.

Parallels between 1944 and 2014

The decline of the British Empire coincided with formation of the Bretton Woods system and emergence of the US dollar as the main reserve currency after the war. By 1945, the US has emerged as the largest and most powerful economy. Although initially isolationist and reluctant to take the lead in the global economy, the Second World War spurred the US to take its responsibility in economic and political spheres. Meanwhile, the British Empire was in decline, bankrupted by the War, and with diminished reserves, the UK had to concede its leadership of the financial system as its economic influence declined and Empire diminished.

Chart 1: US Dollar/GBP Exchange Rate



Source: Bank of England.

Indeed, the status quo in 2014 has parallels to the pre-war situation: a new emerging economic power, reluctant to exercise its rising affluence to lead global currency coordination, and a declining power, becoming more and more indebted, and resorting to abusing its status as the issuer of the reserve currency in order to maintain its influence and affluence. These policies have obviously led to considerable system wide spillovers an unsustainable asset bubbles.

What Should the New System Look Like

In order to answer this question, however, one must first consider more fully what "Bretton Woods" and the IMF, the institution established to oversee the new monetary order, were intended to achieve. "Bretton Woods" has become almost synonymous with the fixed exchange rate system that prevailed from the time of the IMF's establishment until the abandonment of fixed rates in 1973. However, the visionaries at the Bretton Woods conference had broader objectives in mind. As stated in the IMF's Articles of Agreement, they were striving toward a system that would "promote international monetary cooperation", "facilitate the expansion and balanced growth of international trade," and "contribute thereby to the promotion and maintenance of high levels of employment and real income...." They also aimed to "promote exchange stability...maintain orderly exchange arrangements among members and... avoid competitive exchange depreciation." At the same time, they wanted to "assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions which hamper the growth of world trade." As these goals suggest, the purpose of "Bretton Woods" was above all to establish a more stable and prosperous world economy, and the role of the IMF *would* be to help promote the preconditions for this.

The feasibility of multilateral policy coordination today appears remote. The collapse of the fixed exchange rate system backed up by gold in 1973 led to the current system of a de-facto single reserve currency. Up to the time of the Nixon price shock, the former system worked well, reasonably but could not prevent the build-up of significant imbalances that eventually led to its collapse.

With the abandonment of the Gold standard, the United States had no incentive to limit the issuance of debt and the discipline of an exogenous monetary anchor disappeared. This new Bretton Woods system thus created a perverse incentive for the issuer of the de facto reserve currency to change its monetary base in order make external and internal adjustments while creating considerable spillovers to its main trading partners. In the early 1980s, as the second oil shocks took hold, leading to higher US fiscal deficits and inflation, capital still flew into the US due to the higher interest rate differentials with Europe and Japan. The main trading partners of the USA hence had to contend with the spillovers of higher rates as well as weaker growth.

1994, the 50th Anniversary of the Bretton Woods Conference, provided the opportunity for a thorough review of the functioning of the international monetary system. This took place in an atmosphere of satisfaction and complacency with the general operation of the system. Long gone were the complaints which characterised the 1970s about the monetary anarchy created by the collapse of the par-value regime for exchange rates and the calls for the IMF to regulate world liquidity through its multilateral new currency the SDR. Indeed, following the wave of deregulation and liberalisation, the concept of an international monetary system seemed increasingly inappropriate or even obsolete: if every country kept its house in order, floating exchange rates and free capital movement would cushion national economies while facilitating adjustment of international payment imbalances. Hence there would be no need for institutions to manage "systemic" issues. Very few voices were to be heard complaining about the current non-system and calling for a new Bretton Woods conference to reinvent the monetary system for the new millennium.

By 2004, the 60th anniversary of the institutions, however, the landscape had changed dramatically. The wave of financial crises in emerging markets in the previous decade Mexico in 1994/95, East Asia in 1997, Russia, Brazil 1998, Argentina 2001 – had generated growing discontent with the system. This debate, which took place under the label of reform of the *international financial architecture,* passed through various phases. Initial radical thoughts for setting up a global central bank or a world financial authority, were rejected as impractical. Subsequent thinking coalesced around more pragmatic measures designed to help prevent financial crises and to manage those that occurred better. An important part of the reform was the establishment of comprehensive standards, representing best global practices toward which all countries participating in the global system would strive. At that time, some observers argued that we had re-entered "the old paradigm ". Professor Michael Dooley and his colleagues argued that the previous system was never actually destroyed, just put into hibernation. Just as Europe and Japan benefited from fixed exchange rates in the 1950s and 1960s, the reasoning went, so Asia was now profiting from the same. The success of China and India in exporting goods and services respectively was certainly built in part on undervalued currencies. Some Asian currencies kept fixed rates, some had a managed float, but all of them continued to intervene in exchange markets to maintain relatively stable exchange rates. The insight of Dooley's team was that this was a contract, like Bretton Woods, not the operation of a free market. China had the potential to be a source of strength as well as vulnerability in reinforcing the precarious stability that had returned to the international financial system, and in underpinning the recently interrupted move toward a genuinely global system of open finance.

Emergence of the Euro as a Reserve Currency

The European Monetary System and the euro were conceived as pillars of the European Union, fostering greater trade, growth and income convergence through a common monetary policy. While the creators of the euro were correct to foresee its rise as also a reserve currency, they did not anticipate the problems of internal adjustment and political integration currently plaguing the common currency. Indeed, precedence seems to have been given to "convergence" over "confidence, adjustment and liquidity". Policy makers have thus been focused forced to reverse engineer some of these deficiencies following the euro crisis, unforeseen at the time of conception.

Regardless of these recent adjustments, the euro area will be only become a true monetary and currency area once political and fiscal integration becomes complete. While flexibility of product and labour markets lie at the heart of a successful currency union, they alone are not sufficient to guarantee its long term viability.

It was Robert Mundell who advocated the creation of true currency areas as opposed to pseudo currency areas[1]. In a true currency area, such as a metals or gold standard, there is an automatic commitment to stability and adjustment during peace time. In other systems, such as Bretton Woods and EMU system, countries may not automatically adjust and parities could be changed with ministerial decisions. In a true currency area, interest rates converge and stabilization occurs through changes in forward exchange rates. According to Barry Eichengreen[2], the euro lacks both an internal adjustment process to correct for imbalances and the automatic provision of liquidity required of a reserve asset. In other words, there is a shortage of "safe assets" in the EMU armoury.

Both the euro and the US dollar are now being questioned over their roles as reserve currencies. While the euro faces existentialist doubts given the gravity of the challenges faced at such an early stage in its life, the US dollar meanwhile seems to be facing a structural decline, in line with the rise of Asia in trade and commerce and lack of global adjustment.

In 2014, as we approach the 70th anniversary of the Bretton Woods conference, pessimism has returned. The global financial system continues to stumble from crisis to crisis. From the great recession of 2009, to the longest financial crisis in history, to the travails of the euro area, there is no end in sight. There is a growing feeling that the major challenge for the new generation of policy makers will be to regain control of the international monetary system. Today the philosophy of the global financial system seems to rely on each country managing its own economy in what it perceives to be its own best interest without giving much attention to global consistency. This is the age of fragmentation and divergence. Supporters of "muddling through" hope that this will lead to a satisfactory outcome for the world, just as, given certain conditions, the actions of individuals who follow their own self-interest leads to a socially efficient outcome. And so far the world has indeed muddled through in this way, without a disaster comparable to the global depression

[1] *Robert Mundell,* Currency Areas, Common Currencies and EMU, American Economic Review, Volume 87, Issue 2, Papers and Proceedings of the One Hundred and Fourth Meeting of the American Economic Association, (May 1997), p. 214–216.

[2] *Barry Eichengreen,* Implications of the Euro's Crisis for International Monetary Reform, Berkeley, January 2012.

of the 1930s. Yet many observers feel that it would be wrong to accept this for two reasons: first, the output losses from the great financial crisis have been appallingly high; secondly, there is no guarantee that the next crisis may not be even more severe.

Regaining Control

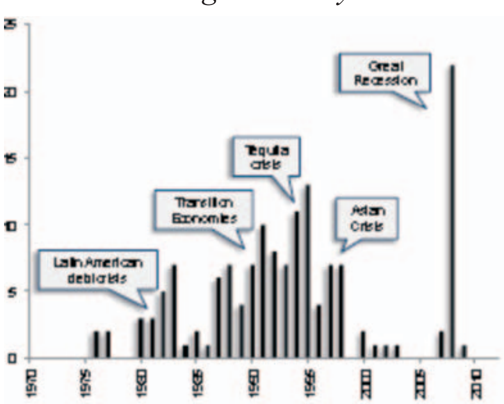
The features of the international monetary system today reveals high exchange rate volatility, persistent large external imbalances, competitive devaluations, significant international reserve accumulation, fragmentation of financial markets, financial repression and growing difficulties in maintaining a satisfactory international level of cooperation.

Moreover, there is a need to identify global trends, taking into account the rise of new creditor nations. Any likelihood of regaining control of the financial system will depend on having the correct tools and system in place to correctly measure and influence trends on financial markets. For example, questions which arise include whether such the size of the global financial system should also fall in order to regain control combined with enhanced policy tools? What should the role of the IMF be in such a system? Failure to correctly frame these issues will only result in more costly crises in the future. It is perhaps important to tale not of past crises in order to put in perspective what is at stake.

Costs of Crises

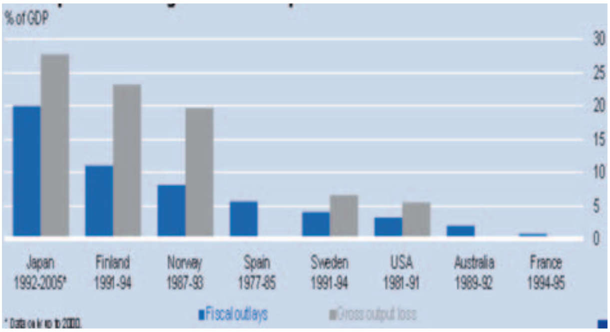
Since the advent of the de facto US dollar standard, both the frequency and severity of systemic banking crises have increased markedly, as attested by Laeven and Valencia (2012) and World Bank data.

Chart 2: Banking Crises Cycles



Source: Author's calculations.

Chart 3: Cost of Previous Banking Crises in Developed Countries



Source: World Bank.

According to a recent paper by the Dallas Fed, the total cost of the recent crisis to the US economy is estimated at 40% to 90% of GDP (Atkinson, Luttrell, and Rosenblum (2013)). Each successively stronger "Minsky moment" has subsequently drawn progressively lower interest rates, with increasingly accommodative monetary policy culminating in today's zero lower bound environment.

Policy Coordination

What is different now from the 1980s concerns the coordination of policy. While the Plaza accord in the mid-1980s was an example of a compromise to adjust currencies without a big adjustment in US consumption, it appears unlikely today that the main power blocks may reach any such agreement. China has taken Japan's place in terms of the main "culprit" of the US high current account deficit. China has however asserted that the fixed exchange rate level of the renminbi yuan is not to blame for this, but instead is a result of excessive, leverage-driven consumption in the USA. China has also pointed out that while it indeed has a current account surplus with the USA, it has a deficit with other countries as it needs to import raw materials and intermediate goods.

In this light, multilateral initiatives such as the BRICS' announcement of a new development bank and more recently, a joint currency reserve pool to protect against "unintended negative spillovers", may be seen as pragmatic steps towards providing alternative, multilateral solutions. The continued dominance of the US dollar as both a reserve and trading currency, not least in the current fiscal context in AME, potentially poses a significant risk to global financial and economic stability going forward, particularly but not exclusively in the event of a significant re-pricing of US sovereign credit risk. The development and growth of local currency bond markets in EMEs, along with increasing liquidity and currency convertibility provide a growing new source of diversification of reserves for central banks and sovereign wealth funds.

The medium-term challenges facing the US economy has raised a number of concerns globally, exposing the vulnerability of the current de facto US dollar standard and the over-reliance in a single country's currency and policies. In the absence of a de jure global currency, an international system based on a basket of both AME and liquid EME currencies would potentially provide lower volatility going forward, while providing a more accurate reflection of the modern global economy and current trade flows. The IMF may consider adapting and developing its Special Drawing Rights towards this end, potentially establishing it as a Global Currency Unit benchmark, akin to the World Currency Unit proposed by Lok Sang Ho. The significant developments in local currency bond markets in many emerging economies, as outlined in our last background paper, have potentially crucially increased the viability of such a project. At the margin, the mere diversification away from any single country's policies would likely result in a less volatile currency, with potential for truly multilateral, complementary and synergistic coordination of domestic policies and greater global stability going forward.

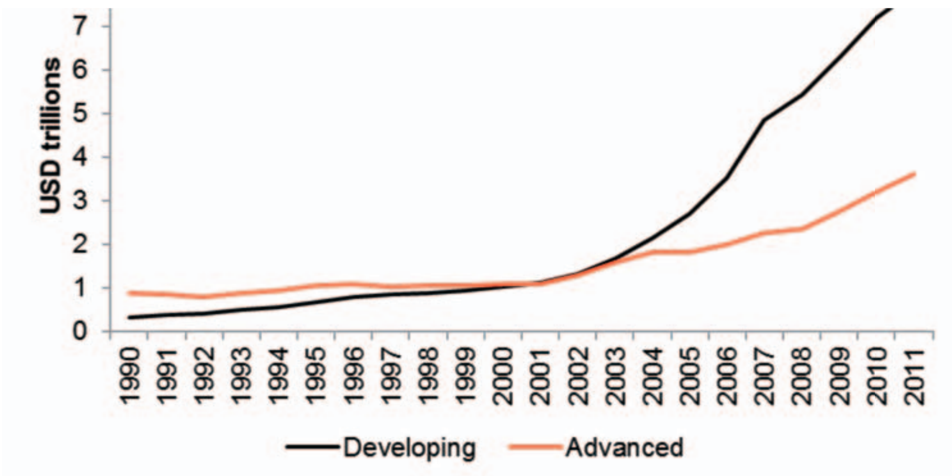
Today, policymakers globally face a new set of challenges in determining domestic policy, balancing national and international interests at an unprecedented pace. They are accountable to and have a duty and responsibility towards their own populace, but also have the obligation to consider the global consequences of their own actions, as well as those of others. Cooperation, coordination and collaboration entail clear communication and common objectives, with synergies among the potential rewards. Countries undergoing necessary structural reforms with clearly defined, sustainable policies should be actively encouraged to do so by its partners, which may contemplate and coordinate potentially supportive and mutually-beneficial measures. Correcting global current account imbalances requires internal as well as external adjustments; higher-surplus countries are expected to do their part in decreasing domestic savings and increasing domestic demand, while their higher-deficit counterparts are expected to curb heated domestic consumption in favor of higher domestic savings and investments to increase real potential output.

The stability provided by the positive spillover effects of unconventional MP thus far must not instill complacency in policymakers, and greater progress must be made towards designing, implementing, managing, and coordinating cogent macro- and microprudential policies both in AME and EME. For open-capital-account EME in particular, care must be taken to avoid the development of localized bubbles during unconventional MP, and clear and robust legal and institutional frameworks are required to minimize potential negative spillover effects in the eventual normalization of monetary policy.

Creditor Nations Matter

Ultimately, it will be the creditor nations which will drive this new currency and policy coordination. China is also the largest net external creditor nation while the USA and Europe have become more indebted. As seen by the charts below, emerging nations, led by China are now net creditors, especially vis-à-vis the current reserve currency issuer.

Chart 4: Foreign Exchange Reserves (including Gold)

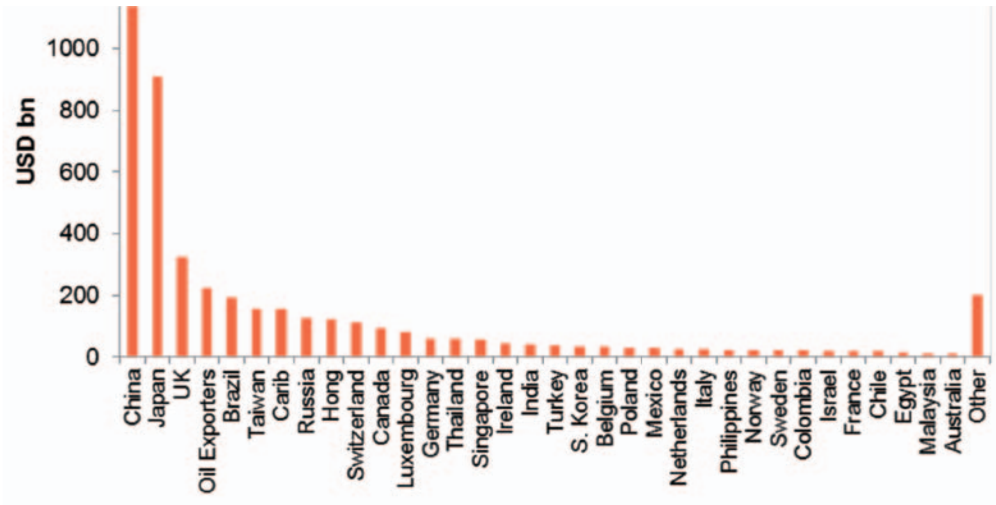


Source: World Bank.

We expect emerging nations, which are less indebted to take this lead in defining a new system of reserve coordination as the current system has become too asymmetric.

Against this background, the project's concept can be simply summarized. Looking ahead to the 70th anniversary, public officials, private sector practitioners, and academics from around the world will convene in a number of meetings to develop a new normative and practical agenda. During the course of the year, a series of discussions, supported by commissioned research, will aim to improve the clarity of thinking and broaden the area of common ground on steps needed to adapt the international financial architecture to current challenges. The process – in effect, a rolling public-private international workshop – will culminate in a final report prepared by the Secretariat of RBWC summarizing the proceedings and providing an analysis with recommendations, including suggestions aimed at reviving global cooperation in an age of market fragmentation and policy divergence. The final report will be supplemented by publication of the commissioned working papers.

Chart 5: Foreign Holdings of US Sovereign Debt



Source: World Bank.

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Bretton Woods: Keynes versus White

Liaquat Ahamed[1]

Thank you, Kurt. I do not have a hand-out, and I am just going to make some very brief remarks.

I want to start out by asking the following question: What problem did they think they were trying to solve at Bretton Woods? Now, Bretton Woods emerged out of two years of negotiations between two men: John Maynard Keynes and Harry Dexter White. So I believe to understand Bretton Woods, you have to understand what problems each of them was trying to solve.

Let me start with what they both agreed on. Both believed that the key to an open multilateral trading system was to get the international financial system working properly. They viewed the protectionism of the 1930s as essentially a product of currency problems. Essentially, the trade wars were the consequence of currency wars. Secondly, both believed that the excessively free capital flows of the 1920s and 1930s had been destabilizing. And so both endorsed some form of controls on short-term capital flows. Thirdly, both recognized that some mechanism for providing temporary financing to countries running balance of payments deficits – was necessary. And it was necessary because in the 1930s, countries had not had access to short-term assistance and therefore had to impose highly deflationary policies on themselves.

But the two men also had major differences. These differences in part stemmed from their different national interest. The U.K. was a deficit country and a major international debtor after the Second World War; the U.S.A. was a surplus country and the biggest creditor in the world. But it also, I think, emerged from their different experiences. Keynes had been deeply affected by the problems of the 1920s for Great Britain. By contrast, White was more concerned about the problems of the 1930s.

So, what did Keynes see as the key problem? He saw the key problem in the 1920s as insufficient global liquidity, and secondly, as a misallocation of global liquidity. During the First World War, between 1913 and 1920, even after the

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deflation of 1920, there had been a 75% increase in U.S. dollar prices. Meanwhile, total gold reserves held by the four major countries, Britain, France, the U.S.A., and Germany had gone from USD 5 billion to USD 6 billion. So, in effect we had had a 30% fall in the value of global reserves. Secondly, there was the misallocation of reserves. Before the war, the U.S.A. had about 40% of global reserves; after the war, it had close to 75%. Keynes believed that it was this combination of inadequate reserves and their misallocation that had been responsible for the deflationary policies forced upon the U.K. and Germany when international borrowing dried up in 1931. So the Keynes plan essentially involved creating USD 26 billion in additional global reserves with the stroke of a pen. Now, what is USD 26 billion in 1944? U.S. GDP at the time was about USD 250 billion. So Keynes's plan would have handed out de novo the equivalent of 10% of U.S. GDP in additional global reserves. The equivalent today would be about USD 1.6 trillion.

The second key problem of the 1920s, he believed – and in this regard he was heavily influenced by British experience – was the problem of rigid exchange rates. Britain had gone back to the gold standard in 1925 at an overvalued exchange rate and had never been able to adjust to that overvalued exchange rate and had forced upon itself deflationary policies. Interestingly enough, in the U.K, the 1920s were almost as bad as the 1930s. So, Keynes was determined to introduce a mechanism for greater exchange rate flexibility at Bretton Woods.

Here he ran up against White. Harry Dexter White believed, as did most of the American delegation, that the big problem was the competitive devaluations of the 1930s. Britain had gone off the gold standard in 1931, followed by the U.S.A. in 1933. Thereafter, had followed a period where exchange rate instability had led to trade restrictions. After Great Britain and the U.S. A. went off the gold standard and devalued, the countries of Europe including Germany and France faced a major problem. They did not believe they could follow and go off the gold standard, because having experienced hyperinflation during the 1920s, they were terrified that were they to go off gold, there would be a massive collapse of confidence in their currencies. So the only way they could reconcile their decreased competitiveness from the depreciation of sterling and the U.S. dollar and the fact that they felt compelled to tie themselves to gold was to impose heavy protection. Germany became the most autarkic country in the world, France resisted for a long time, imposed protection, but eventually went off gold in 1936.

The irony, actually, is that the U.S.A. was one of the worst culprits in the initiation of this currency war. The devaluation of the U.S. dollar in 1933 was viewed by every country in Europe as an incredibly selfish act . After all the U.S.A. was running a significant trade surplus. The comparable step would have been if China in 2008 had devalued its currency. Within the U.S.A., the perception was that in order to deal the very high unemployment they needed to be able to ease monetary policy and to do that they felt compelled to break from the gold standard.

Why was there so much focus in 1944 on the problems of currency instability and competitive devaluations? I think the U.S.A. was mainly worried that it was the main surplus country and feared that everyone would try to devalue against it. And so Bretton Woods was an attempt to ensure that what countries could do with their exchange rates were heavily circumscribed. Initially, White's proposal included a clause that in order for a major currency change the country had to get approval of 75% of the IMF's quota. But Keynes believed that was totally unacceptable because that would have completely tied Britain's hands. And more importantly, the U.S., both the State Department and the Treasury, were committed to re-establish an open trading system. And they believed that putting constraints on what countries could do with their currencies was the key to that.

In the short run, White won. The IMF, when it was actually formed, got the total resources White had proposed, Keynes had proposed USD 26 billion, White had proposed USD 5 billion; they ended up with a number much closer to White's. I think it was USD 8 billion. The irony, I suppose, is that when we look now at the size of the IMF and other sorts of international firewalls, we are actually at numbers much closer to the ones that Keynes had recommended. The question remains: are those still inadequate for the modern day financial system?

On exchange rates, White's win was short lived. He tried to impose restrictions on what Great Britain could do with pound sterling. Three years later, sterling devalued by a major amount. Eventually the IMF ended up permitting a lot more exchange rate flexibility than White had wanted at the beginning. The ultimate irony is that we now have a system where exchange rate flexibility is the norm. So, the story of Bretton Woods, I think, is that White may have won in the short run, but Keynes won in the long run. Thank you.

Seeing the Woods for the Trees – Preconceptions and Misconceptions about Bretton Woods

Edmund Conway
Economics Editor, Sky News

"It's a great spot for a murder."

So spoke a newspaper editor as the delegates, reporters, secretaries and economists made their way to the Mount Washington Hotel in the summer of 1944.[1]

Take a step back and you can see what he meant. Here were hundreds of highly-strung men from more than forty countries, each with their own agenda, many of them determined not to speak to each other, let alone negotiate. Almost all of them had plenty to gain and about as much to lose from the settlement that would be decided at Bretton Woods.

And here they were: cooped up in a decrepit hotel in the middle of nowhere, with the taps running, the paint from the renovation work barely dry and the temperature rising. Amid this chaos they were expected to craft and seal the most important agreement in international monetary history.

There are plenty of accounts of the Bretton Woods conference, all the way from Richard Gardner's *Sterling-Dollar Diplomacy* to Armand Van Dormael's 1978 work to Benn Steil's book from last year, *The Battle of Bretton Woods*. However, while many of these previous books are excellent analytical works and good accounts of the negotiations, few of them attempt to portray the experience of the negotiators. They tend either to ignore the pressure-cooker atmosphere of the conference, or to treat it as an incidental detail, rather than something endogenous that might have affected the agreement itself.

Though you wouldn't guess it to read most of the other accounts, the war, which was still being fought fiercely in Europe and the Pacific, was a constant presence. One of the Greek delegation, Alexander Argyropoulos, had only just escaped from a prisoner-of-war camp. His arrival in the USA the week before Bretton Woods had been the first time he had seen his wife and daughter in four years.[2] One of the Indian delegation (Sir Theodore Gregory, actually a British national) had to

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[1] 378 Envoys, 500 Newsmen Due at Monetary Parley, *Boston Globe*, 2 June 1944.
[2] Kaity Argyropoulo, *From Peace to Chaos, A Forgotten Story*, New York, 1975.

share his plane to the conference with a cargo of unexploded Japanese bombs.[3] Englishman Bob Brand was on edge throughout the proceedings as his son, Jim, was among the soldiers involved in Operation Overlord.[4]

In fact, the very arrival of the British delegation in the USA was delayed because of D-Day. On the day they left, London was waking up from the first night of the second Blitz, as it came under heavy bombardment from Hitler's new V1 bombs. One of the delegates would later confess that he thought Britain would have been defeated by the bombs had Overlord not succeeded.[5] In the parties and drinks receptions around the hotel, the Russians and British would exchange what they called "atrocity stories", and an odd macho hierarchy developed, whereby anyone whose country hadn't seen direct conflict wasn't taken quite as seriously.[6]

Somewhere at the very bottom of this pyramid were the French, whose delegate, Pierre Mendes France, was a truly brilliant man (he would later become Prime Minister) but found himself in an invidious position. Charles de Gaulle had insisted to him that he should not negotiate with the Americans at Bretton Woods, "at any cost". The country his delegation was representing was still not recognised as a sovereign state, much to their chagrin. So the best he could do was to wave the French flag as often as possible. Though he spoke perfect English he would insist on speaking French through a translator at the official sessions, which led to a number of awkward moments of mistranslation. At one stage he attempted to get the entire Bretton Woods articles of agreement published in French as well as English, on what he called "sentimental grounds".[7] Given how much the French have come to dominate the International Monetary Fund throughout much of its life, it is rather ironic – or perhaps not – that at its inception they were at such a low ebb.

At the very centre of the action, on the other hand, were the two lead protagonists in the drama: Harry Dexter White and John Maynard Keynes. They had spent most of the past couple of years fighting, in person and in print. Their backgrounds were almost diametrically opposite: Keynes from a privileged Imperial British family, sent to Eton and Cambridge, inculcated from pretty early on in life to believe that he could have and achieve anything he wanted. White was the absolute inverse: short and stocky where Keynes was tall, Jewish where Keynes was anti-semitic, self-made while Keynes had it all. Keynes had refused to fight in the Great War. White had signed up at the first possible opportunity.

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[3] Bank of England Archives, OV38/8.

[4] Brand Papers, Bodleian Library, various.

[5] Goldenweiser Papers. 1945. Library of Congress. Conversations and Reflections in Europe. Summer.

[6] Susan Howson and Donald Moggridge (eds.). 1990. *The Wartime Diaries of Lionel Robbins and James Meade*, 1943–45. New York. p. 178.

[7] National Archives, Kew, FO317/40917, 12 July 1944.

The long process of drafting and redrafting that led to the Bretton Woods agreement had begun not long after the start of the war. The pair began from a common starting point: that the post-war world needed a set of institutions to manage international monetary relations and reconstruct the world economy on a fairer basis.[8] But their solutions were quite different. Keynes's involved an international currency – Bancor – and a system of rules which would ensure countries with current account surpluses would be penalised: not just those with deficits. He wanted a genuine global central bank through which international monetary transactions should pass, levying charges on countries with excessive imbalances. As we all know, this was in no small part influenced by the fact that Britain, once one of the world's great creditor nations, had ceded that position to the United States some decades earlier.

White's conception was rather different. At its centre was a stabilization fund whose job was less to sit at the apex of international transactions than to step in, like a referee, when a country was facing a balance of payments crisis. It was the emergency room to Keynes's health salon and, crucially, it would not penalise creditor nations. Nominally at least, debtors would have to pay the price when their economies were in trouble.

Underlying this was a parallel struggle. Britain was no longer the world's undisputed economic superpower. That much had become pretty obvious in the inter-war period. It was clear to everyone around at the Mount Washington Hotel that what would happen at Bretton Woods would formalise the United States' role as the world's undisputed economic power.

Both White and Treasury Secretary Henry Morgenthau were determined that, in particular, London's crown as the world's financial centre would soon be taken by New York.[9] They were both cold towards the British, particularly in the early stages of the negotiations. After all, they considered themselves to have been extraordinarily generous to the United Kingdom already, handing it aid through Lend-Lease, despite what they and most of the American people considered to have been a default on World War I debts. So it hardly went down well when Keynes entered the discussion on post-war arrangements and presumptuously expected his plans to be adopted unquestioningly by the Americans.

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8 It's worth remembering that, even in the post-war multilateral-focused world, even this was hardly exactly a universal standpoint.

9 In a private meeting during the conference, Morgenthau said: "Whether it is done between governments or whether it is done here, this thing is a matter of postponing the day of reckoning ... the financial center of the world is going to be New York and we don't want to postpone this thing until another day where we may not be in as advantageous a position and maybe have then to get in a horse-trading position and maybe end up by having it in London. Now the advantage is ours here, and I personally think we should take it." (Morgenthau Diary 753, p. 162).

This combination of factors meant that the relationship between Britain and the United States was a testy one. Keynes and White would fight ferociously throughout their early negotiations in 1943. Difficult as it was, however, it was hardly the only significant dynamic at the conference. In fact, most of the two countries' battles had already been fought and, in Britain's case, lost, by the time they arrived in New Hampshire.

While the participants had plenty of their own individual difficulties, they all shared one common complaint: that it was *extraordinarily* hard work. Most of the delegates at Bretton Woods were perfectly used to long, gruelling days. Since the war began Lionel Robbins had been mostly living in the Cabinet Office. Back home, 18 hour working days were pretty common.

But even by their standards, the work at the conference was exhausting, difficult, and emotionally-draining. At one stage, Fred Vinson, Morgenthau's deputy, described the British delegation as completely "fagged". White admitted that he was "cracking up" and Ned Brown, the 20-stone Chicago banker who was the most macho of all the delegates, burst into tears in full view of everyone during one session.[10]

Part of the problem was that even though much of the preparatory work had been done many months earlier – largely by the Americans – attempting to get agreement on everything, from the structures of the monetary system to the quotas for each nation, within three weeks, was nigh-on impossible. And the owners of the hotel were insistent that the very latest the delegates could leave was July 24th when a new batch of guests was arriving.[11]

It is tempting, for some economic historians, to treat details such as all of those above as mere anecdote and noises-off, fundamentally irrelevant to the actual economic decisions made at the conference – and that is broadly what most accounts of Bretton Woods have done. To do so is a mistake, however. What was agreed at the Mount Washington in July 1944 was an astonishing achievement. In the course of those three weeks the architects devised a system of rules which would preside over the world economy for decades. As Michael Bordo has documented, during the Bretton Woods era the international economy grew more rapidly, with more stability and fewer banking crises or economic imbalances than in any other comparable period – though as we all know those yardsticks do disguise a multitude of sins.[12]

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[10] Morgenthau Diary 755, p. 81.

[11] What the hotel owner, David Stoneman, didn't reveal was that the reason for the forced departure was that the hotel was hosting another conference for none other than the American Banker's Association – the lobby group which was most determined to destroy the Bretton Woods agreement (*Louis Rasminsky unpublished memoirs*).

[12] Bordo, M., B. Eichengreen, D. Klingebiel and M. S. Martinez Peria. 2001. Is the crisis problem growing more severe? *Economic Policy*. Vol. 16(32). 51–82.

However, what was agreed at the Mount Washington was also pockmarked with mistakes, peppered with inadvertent clauses which would later either become redundant or would cause problems. It is remiss to consider this great but imperfect system without considering the sometimes histrionic circumstances under which it was constructed, and the mindset of those who were building it.

Why? Because neglecting to do so can lead to major misconceptions. Take one example, something which some historians have pinpointed as a seminal event, perhaps *the* central event of the conference: the moment the dollar sign was incorporated into the Articles of Agreement. White's strategy, in Van Dormael's telling, involved replacing the term "gold and convertible exchange", which was in the text whenever it wanted to refer to a benchmark yardstick of value, with the term "gold and the US dollar".[13] Doing so would effectively crown the US dollar as the world's most important currency, but the process of getting it past the dastardly British would involve a few crafty steps.

The account continues as follows: on the morning of July 13, midway through the conference, White enigmatically informed his American colleagues that that afternoon's meeting was "extremely important. This is where we either fish or cut bait on most of these things." And, lo and behold, that very afternoon the question of what that enigmatic phrase "gold and convertible exchange" actually meant came up; it was indeed changed to "gold and US dollars". The changes were inserted into the articles of agreement at one of the late night drafting sessions. The upshot, so this version goes, is that White managed, surreptitiously, to insert the US dollar into the official Bretton Woods agreement, against the will of most other delegates, including the British. America's place at the pinnacle of the economic pyramid was thus cemented for years to come.[14]

One can see why such a version of events seemed compelling in the 1970s, given that the dollar's place in the international monetary system had been responsible in large part for the dissolution of the Bretton Woods system. However, the 1970s international monetary mindset was quite different to the one which reigned in the 1940s.

More importantly, this version of history simply doesn't stand up to proper scrutiny. It's certainly convenient, in that it reinforces the notion that Bretton Woods was primarily a battle between White and Keynes. But when you examine the day's events in more detail they present a rather more ambiguous story. For the delegate who brought up the question of what to do with that complex term, "convertible exchange", was not an American but an Indian delegate. The delegate who sug-

[13] Steil, B. 2013. *The Battle of Bretton Woods*. Princeton. 214.

[14] The transcripts are available in the IMF Archives and in: Kurt Schuler and Andrew Rosenberg. 2012. *The Bretton Woods Transcripts*. 2012. New York.

gested inserting the dollar sign in there was not an American but a Briton – and not just any Briton: Dennis Robertson, one of the country's most venerable economists.

For the reason why, one must recall one of the important back-stories to the conference: India had been pressing Britain throughout Bretton Woods, attempting to secure some sort of commitment that it would be allowed to convert its sterling debt into dollars. For Britain, such a prospect would be disastrous; for London the c-word – convertibility – had become a byword for financial disaster.

Robertson took matters into his own hands. The dollar was the only convertible currency in the world; it would almost certainly remain so for some years yet. So, rather than leaving a loophole open for India to leap through after the conference, he suggested doing away with the disconcertingly vague phrase "convertible exchange" and replacing it with "US dollars", which no-one would mistake for sterling. This was hardly whimsy – he continued to press for these changes both at the late night drafting committee and in the full commission meeting the following morning.

In other words, the evidence suggests that the reason the US dollar was legally enshrined as the world's reserve currency was due as much to a spat between India and Britain as it was to a grand American plan. Well, either that or Harry Dexter White really was the finest tactician of the past century, managing to recruit the Indians and British as operatives while keeping the entire plan a secret from his closest American colleagues[15].

But this, too, seems unlikely.

For if there was one person who was aware of the problems posed to the rest of the world by formalising the dollar's role in the international monetary system, it was White. In the course of my research I came across some intriguing unpublished documents written by the architect of the IMF shortly before his death. In them, he argued that the USA should consider changing the gold value of the dollar from the USD 35 an ounce level effectively formalised at Bretton Woods to the old gold standard value of USD 20.67. The suggestion, he wrote, "will doubtless seem startling to many", but if the United States failed to do so, he added, there would be a "terrific price to pay". His concern, at the time, was that the US dollar was under-valued – as opposed to the overvaluation it would later suffer from in the 1960s and

[15] He did not mention the plan at this, or indeed any other private meeting of the American delegation. Indeed, even in their (even more private) planning meetings at Atlantic City the previous month he and Bernstein agreed that "gold convertible" would be best translated as "gold or its equivalent". Except for a briefing document for Morgenthau, which replaced the phrase with "dollars" in an effort not to confuse the Treasury Secretary, there is simply no evidence that the Americans intended to make this change. To believe that White really planned such a change, one also has to believe that he was capable of widespread deceit – which perhaps helps explain why some historians remain convinced that White was a determined Communist spy, rather than the indiscreet private diplomat the evidence largely paints him as.

1970s. All the same, this equivocation is wildly at odds with the depiction of White as someone determined to implant the dollar sign into international legal frameworks, whatever the consequences.[16]

Why do these misconceptions matter? Because they reinforce the erroneous notion that at least a handful of the men and women at the Mount Washington Hotel had a masterplan, and a pretty good idea of how it would end up performing. They didn't. There was a broad plan. There were broad objectives. But the final product was hardly a thing of beauty. The articles were warped and misshapen by the fraught nature of the negotiations at the hotel. It wasn't just Dennis Robertson's amendment. Pierre Mendes France's complaints eventually elicited a permanent seat for France on the IMF board. The Russians were kept happy with a stream of amendments, most of which still sit, redundant, in the official IMF and World Bank articles.[17]

If there was an American masterplan, it was to keep the Articles of Agreement as vague as possible. Time and time again, Keynes attempted to get White and his assistant Eddie Bernstein to be more specific about what their system would involve. He accused them of writing the whole thing in what he called "Cherokee" – an opaque kind of legal jargon. But the "Cherokee" wasn't purely a hallmark of the strong American legal tradition – it also served a purpose. White and Bernstein were well aware that the more specifics there were in the Articles, the more pinch-points there would be which could serve to undermine the stability of the system.

The US dollar clause is a good example: whether or not it was in there, the US currency would have become the world's reserve currency anyway, with all the "exorbitant privilege" this entailed; Nixon would almost certainly have closed the gold window as he did in 1971. But while giving the currency a formal role within the articles may have seemed logical to most of the participants at the time, it ultimately made the agreement more fragile. The same went for a whole range of areas where the 1944 authors were simply off-ball with the details: the size of quotas and the projected amounts that would be made available to recipient countries, to give just two examples. The IMF's post-war survival depended on its officials quietly bending many of these rules rather than obeying them.

So one obvious lesson for anyone considering what a 21st international monetary agreement might look like is that the more specific it is, the more fragile it is likely to be. Any framework that snugly fits today is unlikely to fit well tomorrow. A second lesson – a challenge really – goes back to those circumstances under which

[16] White Papers, Princeton, Box 9/18, undated notepad.

[17] Even the Russians were taken aback with their success at the conference. One confidential account, hitherto unpublished, exclaims that when it came to one clause about the Soviet Union being able to control its own exchange rate, "The Commission Chairman, White, railroaded our wording so quickly and without any discussion, that the majority of the delegations that took part in the meeting of the Commission on the Monetary Fund were not aware of the substance of this change."

Bretton Woods took place. The world was at war. The international monetary system had been in disarray for most of the previous couple of decades. And there was a single superpower with the authority to impose new rules. It is hard to imagine all of those criteria being in place any time soon. And yet they were essential elements. Even the authors themselves were well aware that there was a very limited time window within which a new monetary system could be laid down. White admitted that "within a few years after the end of the war you won't be able to get an international arrangement of this kind any more than you could fly."[18]

This would suggest that it is impossible to construct another Bretton Woods style system today – and indeed almost every policymaker I spoke and listened to, from Olivier Blanchard and Adair Turner to Mervyn King and Paul Volcker, thought that the notion of imposing anything as comprehensive and far-reaching as Bretton Woods today was essentially fantasy. Nor is there much public enthusiasm for such reforms. Indeed, when one reads the coverage of the financial and economic crisis of the past five years, it is only occasionally that one hears people make the point that much of what happened since 2007 was due to dysfunctions in the international monetary system. Instead bankers, errant politicians and lax regulators are the usual scapegoats. For those who hope that this could have been a wake-up call, the prelude to a new Bretton Woods, such sentiments are no doubt mildly depressing.

On the bright side, however, there is at least some reassuring evidence from the past. Even in the depths of the 1930s, in the midst of the world's greatest economic catastrophe, even among the most educated financial practitioners, no-one much cared about the international monetary system either. When Harry Dexter White came to London and met Keynes for the first time he found it "surprising to find so little concern – almost a complete lack of interest – in exchange problems, gold standard, and the like, among the business men."[19]

As the Bretton Woods agreement was being formulated, the news on the front pages of many of the papers, the Office of War Information in the United States sent its correspondents out to survey public opinion about this monumental achievement. Some days later they came back.

"There is virtually no public opinion about the Bretton Woods conference," they concluded. "Not one in a thousand even knows there was a Bretton Woods conference," reported one of their staff. "Most of them think it had something to do with fuel question. Sorry but that's facts." The conference and its "swank environment", added another, "has an aura of mystery, it has sinister implications with a dime novel drop curtain".[20]

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[18] Morgenthau Diary 749, p. 161.

[19] White Papers, Princeton, 7/1, Summary of conversations with men interviewed in London, 13 June 1935.

[20] Morgenthau Diary 752, pp. 279–280.

In other words, don't be fooled into thinking that when the Bretton Woods agreement was agreed in 1944, it happened against a far more permissive, understanding backdrop of public opinion. The circumstances may have been different – the economic and political systems may have been far more ravaged than they are now. But it happened not because it was inevitable, but because a small group of economists and policymakers thought it was the right thing to do. So perhaps it's not entirely impossible today either.

Remarks on Regaining Control at Bretton Woods

Ruogu Li

Chairman and President, The Export-Import Bank of China

Good afternoon Ladies and Gentlemen,

It gives me great pleasure to attend today's conference and exchange views with you on the past, present and future of the international monetary system. I will address the following four issues:

First, a Review of the Bretton Woods System

As an old Chinese saying goes, "to grasp the trend of future development, one must first of all learn from history". Before we discuss ways to improve and develop the international monetary system, we need to take a hard look at the problems in the old system and draw lessons from them. A review of history shows that the Bretton Woods system, established in 1944 with the United States in the driver's seat, played a key role in the evolution of the international monetary system over the past century and more. This system gave a strong boost to post-war economic recovery. Although it is no longer in operation, its experience and lessons have given us much food for thought.

First of all, the collapse of the Bretton Woods system shows that there are inherent flaws in the international monetary system that depends on a single currency. An international monetary system dominated by a single currency is bound to face the "Triffin Dilemma" and can hardly remain stable. Second, it is impossible to avoid moral risk arising from attempts made by the core country to take advantage of its special position as having the global currency to manipulate international finance. Moreover, the collapse of the Bretton Woods system also demonstrates the importance of making institutional arrangements for making dynamic adjustments in response to the changing global economy. The stability of the international monetary system that centers only on a single currency depends heavily on the economic strength of the issuing country of the currency. The decline of the economic power of the issuing country will inevitably lead to instability in this system. It is therefore highly necessary to develop an international monetary system that consists of multiple currencies and has reasonable flexibility.

Second, an Assessment of the Current International Monetary System

In the 1970s, the Unites States, without prior consultation with the international community and the consent of the IMF, unilaterally announced the suspension of the convertibility of the US dollar into gold, thus abandoning its solemn commitment to the world of making the US dollar an international currency. The reason behind such an irresponsible act is that the dollar is the currency of the United States rather than the currency of the international community.

The international monetary system then entered the era of the "floating exchange rates". But because of the inertia in the world economic system and the special position of the United States in the global economy, the US dollar has remained the major currency of international reserves, credit, pricing and settlement. In fact, it has continued to serve as the dominant international currency. The current international monetary system is unable to address the flaws of the old Bretton Woods system; what is more, it has created new problems, as shown in the following two aspects:

First, actions taken by the issuers of major reserve currencies are not bound by law, and there is a disconnection between the benefits gained by the relevant countries and their obligations. The United States enjoys huge economic benefits brought about by the US dollar's status as the world's de facto dominant currency, but undertakes no corresponding responsibilities and obligations to maintain the stability of the US dollar. When the Fed makes monetary policy, it takes into consideration only the needs of the United States but not the macroeconomic policy needs of other countries. In other words, there is a mismatch between the demands of other countries for the US dollar and the decision of the United States to increase or decrease the US dollar supply. This mismatch has been one of the major triggers of international economic crises. Since the outbreak of the current economic crisis, the United States, Europe and Japan have injected massive liquidity into the market by adopting quantitative easing policies. This is quite similar to what the Fed did in the 1960s. What these countries have done has made it impossible for developing countries to guard against exchange rate fluctuations and negative impacts on the world economy caused by unilateral policies pursued by the issuers of major reserve currencies. The developing countries have been forced to share the costs and risks caused by economic restructuring of major currency issuing countries. Their unilateral monetary policies have also greatly undermined the growth and stability of the global economy.

Second, there is a lack of benchmark for floating exchange rates. The floating rate system is used in quite a few countries, but the absence of a reference for "floating" makes the so-called "floating exchange rate regime" a self-deceiving one. Because under such a system, only the US dollar can float freely, while other currencies can only respond passively. This arrangement has become a major factor causing numerous economic and financial crises of varying degrees.

As for some of the arguments raised about Bretton Woods II, I don't think the root cause of the so-called imbalance is the exchange rate of the yuan renminbi; rather, it is the inequitable US dollar-based international monetary system. Only by reforming this inequitable system can the so-called imbalance be addressed. This is a view that I have expressed on many occasions. In today's world where countries are highly interdependent economically, it is impossible for developed economies like the United States, the EU and Japan to turn for the better without economic growth and import expansion of China and other emerging market economies. Since the exchange rate reform was introduced in China in 2005, the yuan renminbi has appreciated by over 35%, and China's current account surplus to GDP ratio has dropped from over 10% in 2007 to 2% at present. However, US trade deficit with China continues to rise. This fully shows that the current account deficit of the United States has little to do with the exchange rate of the yuan renminbi. Many countries, including developed ones, have seen their export to China grow substantially, giving a strong boost to international trade growth. Still, some countries, in disregard of the fact that China is world's second largest importer, refuse to recognize China's market economy status. They keep using discriminatory trade regulations and investment policies against China. The reality, however, is that it is the quantitative easing policy pursued by major Western countries that has exerted substantive impact on the international foreign exchange market. Don't you think this is exchange rate manipulation? The repeated signals sent by Fed recently to taper its quantitative easing policy has led to a big drop in the exchange rates of the currencies of many developing countries and a sudden slowdown in their economic growth, with only the yuan renminbi remaining stable. Therefore, neither the reform of the international monetary system nor re-balancing of the world economy should target the exchange rate of the yuan renminbi. What the major reserve currency issuing countries need to do now is to conduct domestic structural reform to regain economic competiveness by cutting welfare benefits and income, reducing fiscal deficit and changing policies that hinder trade and investment liberalization.

Third, on the Reform of the International Monetary System

History shows that all the changes in the evolution of the international monetary system, from the gold standard to the Bretton Woods system and then to the current floating-rate system, reflect profound changes in the global economy. The world economy has now entered a new era of multi-polarity, and there is an urgent need to build a new international economic order. In keeping with economic polarity, the focus of the endeavor to reform the international monetary system is to make it a diversified one that is internally well regulated and externally coordinated. The ultimate goal is to form a unified international monetary system based not on a single currency, but on a stable and sustainable currency arrangement.

In the mid-term, the international community should seriously consider creating a diversified monetary system consisting of major currencies, including the US dollar, euro and the yuan renminbi and based on coordinated exchange rates. Since an exchange rate stabilization mechanism is central to the international currency order, to form a diversified international monetary system, it is important to strengthen policy coordination among major currency issuing countries to ensure stability of exchange rates among major currencies. It is therefore necessary to impose greater legal restraints on and conduct tighter supervision over the domestic macroeconomic and monetary policies of major currency issuing countries so as to prevent them from pursuing expansionary monetary policies to solve their domestic structural problems.

The reform of the international coordination mechanism and financial institutions is essential for reforming the international monetary system, and the focus of such reform should be to ensure that the governance structure of the international financial institutions truly reflect changes in world economic structure and the interests of emerging and developing economies. However, the IMF and other international financial institutions do not have any mechanisms in their governance structure to regulate monetary policy-making in major currency issuing countries. Despite the remarkable growth of their overall strength in the world economic system, emerging economies still have much less influence in the international economy and financial system than developed economies and cannot influence policy-making of developed economies. It is thus hard for emerging economies to promote and uphold their development interests.

To advance the reform of the international financial institutions and the supervision and coordination mechanisms, three steps are called for:

First, increase the say, voting rights, and management power of emerging economies and developing countries so as to address power imbalance between developed and developing countries through replenishing resources in the World Bank and the IMF and other international financial institutions. During this process, it is particularly important that developed countries should be open and not hostile in their position.

Second, promote regional cooperation and policy coordination in finance and currency among emerging economies and developing countries so that they will become important participants in the international economic and financial order.

Third, strengthen functions of the IMF and other international financial institutions to ensure that they are capable of coordinating policy-making of developed countries and that the macropolicies of developed and developing countries are more compatible with each other.

Fourth, on the Internationalization of the Yuan Renminbi

Lastly, I would like to address the internationalization of the yuan renminbi. According to a report released by the Bank for International Settlements, the yuan renminbi has become one of the top 10 global trade currencies. In recent years, it has become an increasingly active player in the international market and is well on its way to becoming a major international currency. The internationalization of the yuan renminbi will not only facilitate trade and investment between China and other countries, but also promote both regional and global financial market stability. It may also provide support for a more diversified future international monetary system. Obviously, this meets the common interests of both China and other countries.

The internationalization of the yuan renminbi is the result of the growth of China's economy and its financial market. At the end of the day, it is the market that will decide whether the yuan renminbi will be internationalized. This process cannot be accelerated if conditions are not ripe; but neither can it be stopped when conditions are in place. China will, in light of changing domestic and overseas conditions, create an enabling environment for using the yuan renminbi in cross-border trade and investment transactions. One step we can take is to further adjust policies on cross-border use of the yuan renminbi and liberalize relevant regulations. Another step is to further improve China's financial market by deepening its reform and opening-up. By taking these steps, we can create more favorable market conditions for the internationalization of the yuan renminbi. This is also a priority target for financial reform set at the Third Plenum of the 18th Central Committee of the Communist Party of China in November 2013. Capital account convertibility is a long-term goal pursued by China. Our next step is to further open the capital account provided that risks are under control. Here, I would like to point out that a certain degree of capital account regulation will not hinder the internationalization of the yuan renminbi. International currencies such as the US dollar, Japanese yen and Deutsche mark were all internationalized when their capital accounts were not yet fully convertible.

Ladies and Gentlemen,

It is always necessary for us to view things from a long-term perspective. This is what all of our countries should do in our efforts to reform the international monetary system and reshape the international financial system. Let us bear in mind our common interests, build consensus, strengthen policy coordination and work together towards our shared goal.

Thank you!

Growth as a Means to Stability: The Consensus of Bretton Woods

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We live in a world increasingly beset by crises. Even if the international financial system has on the whole handled these crises well, it would be nice to have fewer of them to avoid the lost money, the unemployment, the risks of contagion, the air of uncertainty and fragility they generate.[1] In the face of these crises a great many policymakers have sought to restore control by seeking budgetary balance, on the grounds that reduced debt and low inflation will increase investors' confidence, thus increasing investment and encouraging growth. These policies have not succeeded, and instead we see sluggish growth in safer investments, with capital drawn to high returns in riskier ventures that prove unsustainable, leading to burst bubbles and yet further crises. Experience is teaching us a counterintuitive lesson: the way to control leads away from stability. Aim at growth – moderate growth in safer quarters, even if it means a bit of inflation and debt – and we will achieve stability. It is a lesson that our predecessors learned in the Great Depression, and which led them to establish the Bretton Woods system for precisely those purposes.[2]

When we talk about Bretton Woods, quite often we emphasize the conflict before and at the conference between the UK and the USA, and generally between the persons of John Maynard Keynes and Harry Dexter White, the principal architects of the two nations' competing plans for what became the International Monetary Fund. White's plan, which was the more conservative, won out – not because it was intellectually superior, but because the United States had more money and power and US congressmen wanted to see a plan that looked like it was more sparing of American resources. The White plan did not survive – in 1947, the

1 On the successful operation of international financial institutions in recent years see Daniel W. Drezner, *The System Worked: How the World Stopped another Great Depression* (Oxford University Press, 2014).

2 On the relation between secular stagnation and repeated crises, see e. g. Paul Krugman, „Istanbearish," *New York Times* 1/30/14. http://krugman.blogs.nytimes.com/2014/01/30/istanbearish.

international monetary system became more Keynesian, with the Marshall Plan, and in 1969 more Keynesian still, with the introduction of Special Drawing Rights as a reserve asset. Despite this early and lasting convergence on a Keynesian consensus, scholarly discussion of Bretton Woods generally focuses on the initial conflict and its detrimental impact specifically on Britain.[3]

Focusing on this conflict is misleading and I believe impoverishes our understanding of the fundamental, shared ideas underlying Bretton Woods. Attending to the conflict masks a much deeper consensus, not only between Keynes and White, but between Keynes and the administration of Franklin Roosevelt – indeed between Keynes and Franklin Roosevelt himself – over how to reform the international monetary system. This consensus developed at the depth of the depression, at the time of Roosevelt's election, and it remained largely undisturbed over the subsequent eleven years, when it became an internationally accepted basis for the Bretton Woods institutions. The elements of this consensus included the idea that exchange stability should be a secondary goal, subordinate to the promotion of sustainable economic growth, and that governments should be free to pursue policies to promote economic growth even at the expense of stability, so long as they agreed to cooperate in restoring stability afterward. Or, as I have suggested in the title of

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[3] For accounts that focus on this conflict see Peter J. Clarke, *The Last Thousand Days of the British Empire: The Demise of a Superpower, 1944–*1947 (Allen Lane, 2007); Robert Skidelsky, *John Maynard Keynes: Fighting for Britain: 1937–1946* (Macmillan, 2000), Richard N. Gardner, *Sterling-Dollar Diplomacy: The Origins and the Prospects of Our International Economic Order*, expanded edition (McGraw-Hill, 1969), Armand van Dormael, *Bretton Woods: Birth of a Monetary System* (Holmes and Meier, 1978); also Benn Steil, *The Battle for Bretton Woods: Harry Dexter White, John Maynard Keynes, and the Making of a New World Order* (Princeton University Press, 2013). For the evolution of the international monetary system after the war see Frederick Stirton Weaver, *The United States and the Global Economy: From Bretton Woods to the Current* Crisis (Rowman & Littlefield, 2011); Francis J. Gavin, *Gold, Dollars, and Power: The Politics of International Monetary Relations, 1958–1971* (University of North Carolina Press, 2004); Kevin M. Casey, *Saving International Capitalism during the Early Truman Presidency: The National Advisory Council on International Monetary and Financial Problems* (Routledge, 2001); Harold James, *International Monetary Cooperation since Bretton Woods* (Oxford University Press, 1996); Karl Brunner, Otmar Emminger, Guido Carli, Jerry L. Jordan, and Wilson Schmidt, The International Monetary System: A Symposiac Examination, *Journal of Monetary Economics* 4:2 (April 1978): 389–434; Fred L. Block, *The Origins of International Economic Disorder: A Study of United States International Monetary Policy from World War II to the Present* (University of California Press, 1977); Robert Solomon, *The International Monetary System, 1945–1976: An Insider's View* (Harper & Row, 1977); Charles A. Coombs, *The Arena of International Finance* (Wiley, 1976); Alfred E. Eckes, *A Search for Solvency: Bretton Woods and the International Monetary System* (University of Texas Press, 1975).

this paper, that the way to stability lay through growth, an insight that policymakers and their advisors began to develop and express in the Great Depression.[4]

As the depression neared its depth in 1933, proponents of recovery policy divided into two camps. The first, which included many officials of the Herbert Hoover administration including most notoriously Andrew Mellon but which also included important advisors in the early Roosevelt administration like Lewis Douglas and James Warburg, held that the crisis could only resolve itself by the liquidation of bad debts. Policymakers should fix exchange rates and balance budgets until confidence in the safety of the economy increased. With a rise in confidence would come a rise in the volume of investment. Then productivity and employment would at last also increase. The second group held that although this plan of deleveraging and deflation might work, it would entail too high a human, and consequently political, cost – that the scope of suffering involved in so great a project of defaults and foreclosures would not only lead to individual harm but, in the aggregate, to a loss of faith in democratic institutions – a worry exacerbated by the course of politics in Germany in early 1933.[5] In an early struggle within the Roosevelt administration, this second group won.

The most succinct, and frequent, statements of the conflict between these two views came from an agricultural economist at Cornell named George F. Warren, who eagerly sought and soon obtained access to the inner circle of the Roosevelt White House. During the months between Roosevelt's election and inauguration, Warren spoke and wrote frequently about the strategies the administration might pursue. "There are really only two ways out of the depression," he said in February 1933. "One is to raise the price level to the debt level. The other is to lower the debt level to the price level. Our choice is between deflation or reflation. There is no alternative."[6] Warren believed that deflation, although an arithmetically sound solution to the problem of the depression, would prove ruinous. "If we follow the deflation procedure," he wrote to the president-elect, "the chief characteristics

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[4] For an excellent, general study of the link between the New Deal and World War II for the Roosevelt administration, including an emphasis on the ways in which Bretton Woods reflected the New Deal ethos of pragmatic experimentation, see Elizabeth Borgwardt, *A New Deal for the World: America's Vision for Human Rights* (Belknap Press of Harvard University Press, 2005).

[5] The best recent summary of these two views is in Anthony J. Badger, *Franklin D. Roosevelt: The First Hundred Days* (Hill & Wang, 2008); see also David M. Kennedy, *Freedom from Fear: The American People in Depression and War, 1929–1945* (Oxford University Press, 1999), particularly the discussion of inflation beginning on 154.

[6] George F. Warren, Two Ways Out of the Depression, WHA Radio Circular, Extension Service of the University of Wisconsin (February 1933), p. 8, George F. Warren Papers Box 28 folder 15. See also similar talks in December, and January, in the same folder and in Box 28 folder 14.

of the next three or four years will be bankruptcies and unemployment, because unemployment will continue until the worst part of the bankruptcies are completed."[7] Moreover, surveying European politics, he thought that the ruin to individual citizens would result in support for dangerous politics. "It seems to be a choice between a rise in prices or a rise in dictators."[8] Whatever harm inflation might do – and as he indicated in his 1933 book, he was sensible of the disadvantages inflation presented – it was preferable to deflation.[9]

Warren believed the best way to achieve inflation was to alter the gold content of the dollar so as to alter commodity prices. Since 1930, more than a dozen countries had gone off gold, including Britain in 1931. They had seen relief from the depression. Warren noted that Denmark managed commodity prices so they remained a bit higher than Britain's, in an evidently successful effort to relieve the depression there.[10]

In the general outline of his beliefs, Warren had support from John Maynard Keynes. Managed currencies might enable a prosperous economy in the future, Keynes suggested in 1933. Even if gold remained in the vaults of central banks, it would no longer remain a fixed standard for note issue. Rather, an "international institution" might manage an "international fiduciary note issue, based on and equivalent to gold" as reserve money for central banks. With an internationally managed global reserve currency, exchange restrictions and tariffs might be lowered, and world commerce increase.[11]

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7 George F. Warren to Franklin D. Roosevelt, 1/12/33, George F. Warren Papers Box 28 folder 15.

8 George F. Warren to Secretary of Commerce (Daniel Roper), 9/14/33, George F. Warren Papers. Box 28 folder 23.

9 George F. Warren and Frank A. Pearson, *Gold and Prices* (Wiley, 1933). On Warren, see Bernard F. Stanton, *George F. Warren: Farm Economist* (Cornell University, 2007); Scott Sumner, Roosevelt, Warren, and the Gold-buying Program of 1933, *Research in Economic History* 20 (2001), 135–172; F. A. Pearson, W. I. Myers, and A. R. Gans, Warren as Presidential Adviser, *Farm Economics* 211 (December 1957), 5597–5676; F. A. Pearson and W. I. Myers, The Fact Finder, *Farm Economics* 208 (February 1957), 5470–5516.

10 George F. Warren to Secretary of Commerce (Daniel Roper), 9/14/33, George F. Warren Papers Box 28 folder 23. On the gold standard, see especially Barry Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression, 1919–1939* (Oxford University Press, 1992); Lester V. Chandler, *American Monetary Policy, 1928–1941* (Harper & Row, 1971); William Adams Brown, Jr., *The International Gold Standard Reinterpreted, 1914–1934* (NBER, 1940).

11 John Maynard Keynes, Should Britain Compromise on the Gold Standard, *Daily Mail* 2/17/33, *Collected Writings* 21:229–233. The case of Keynes v. Warren is another where there is too much emphasis on conflict. Keynes did not approve of the Warren method of devaluation, which Roosevelt adopted in the latter part of 1933. But he did support the substantive idea of devaluation as a recovery measure.

For the moment, the Americans were persuaded that with other currencies depreciating against the dollar, while the dollar remained tied to gold, the United States suffered a disadvantage. American exports fell, as did national income.

Therefore, on his first full day in office, Franklin Roosevelt took the USA off the gold standard. He did it with the advice and assistance of Hoover administration officials who had drafted plans to suspend gold payments, and thereby to stop the banking panic of that winter. Hoover had, in the last months of his presidency, declined to take this action, even with emergency justification. Roosevelt not only took this action, but he took it as the first step in a process of permanently redefining the dollar's relationship to gold, in consultation with Warren. As observers close to the White House reported, the gold embargo would not be short-lived and probably not even temporary. "The suspension of gold payments under the President's proclamation is, of course, a departure from the international gold standard. It would be vain to suppose that the United States can or should return to the international gold standard at the end of this week. The United States has adhered to that standard until it was forced off it. It has paid the price of its adherence.… Having been forced off, it is now entitled, without being open to any charge of breach of contract, to consider calmly and deliberately, as an act of policy, under what conditions it will return to an international standard."[12]

The president himself confirmed these reports, speaking off the record. Asked by reporters in his first press conference about the gold standard, Roosevelt explained it at length, concluding that he was ready to bid it farewell: "In other words, what you are coming to now really is a managed currency, the adequateness of which will depend on the conditions of the moment. It may expand one week and it may contract another week." Pressed to clarify whether his move off the gold standard was a temporary expedient or something longer-lasting, he said, "It ought to be part of the permanent system – that is off the record – it ought to be part of the permanent system so we don't run into this thing again."[13]

In April, Roosevelt would confirm for the record what he had already said off the record: The dollar would become a managed currency, with a notional gold value that could change in response to domestic economic needs. Deflationists within the administration, like Lewis Douglas and James Warburg, protested that this was "the end of civilization."[14] Roosevelt responded that money never really rested on gold; gesturing at a ten dollar bill, he asked, "How do I know that's any good? The fact

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[12] Walter Lippmann, Today and Tomorrow: A Good Crisis, LAT 3/7/33, p. A4; also Ralph West Robey, New Deal Got Bad Break, NYEP, 3/6/33, p. 15.

[13] Press conference #1, 3/8/33, CPPC 1:1–13.

[14] Raymond Moley's secretary, Celeste Jedel, attributed the remark to James Warburg; Warburg to Lewis Douglas. See Celeste Jedel Diary, 4/18/33 and James Warburg Diary, 4/18/33, in James Warburg Oral History, 497–498; James Warburg Oral History, 505.

that I think it is, makes it good."[15] To reporters, he reaffirmed his inflationary purpose: "The whole problem before us is to raise commodity prices." In response to inquiries, he replied that indeed he did intend, having raised prices and produced a recovery, to get back on "some form of gold standard."[16] But his choice of indefinite words indicated clearly he did not mean to go back on the traditional gold standard.

Within a day of coming into office, Roosevelt had taken the dollar off the gold standard and begun a move to a managed currency, which would fluctuate in volume in order to keep commodity prices at a level that would spur economic growth. Within six weeks he had confirmed his intentions publicly, and indicated that international exchange stability, while desirable, was a secondary goal to the goal of sound domestic economic policy. He retained this position through the summer, with regard to the World Economic Conference in London.

As Roosevelt instructed the US delegates to London, the purpose of the conference was to move toward a "larger and more permanent program," which as he saw it was establishing "a means of exchange among all nations." The president told reporters he envisioned this means of exchange as a managed international currency, "an imaginary coin that would not be coined." But exchange stability would remain a secondary goal to economic growth. "Remember that far too much importance is attached to exchange stability by banker-influenced cabinets," he warned his delegates.[17]

Proponents of a return to the gold standard regarded Roosevelt's proposals with alarm, but he had an intellectual ally in Keynes, who in his earlier works – the *Tract on Monetary Reform* and the *Treatise on Money* – had already made the case for a "Supernational Bank Money" denominated in gold, but managed so as to maintain a consistent value in terms of a price index.[18] Keynes understood Roosevelt to hold views compatible, if not derived from, his own. "[T]here is one man in the world who seems to take seriously the business in hand to which others do not more than pay lip service, namely, President Roosevelt," Keynes wrote. "And the paradox is that we are all talking as though that man is defeating the alleged objects of the conference, who in fact is the only one to take definite measures to accomplish

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15 Celeste Jedel Diary, 4/18/33. Jedel seems to have written Pipeville, but Pikeville, TN, is the actual bank.

16 Press conference #13, 4/19/33, CPPC 1:153-161.

17 Acting Secretary of State (Wm. Phillips) to Hull, 6/20/33, from the President, 6/20/33; FRUS 1933, 1:650. See also RM, *First New Deal*, 6/20/33; Clavin, *Failure*, 129; Press conference #27, 6/7/33 CPPC 1:353–354.

18 *Collected Writings* 6:360. Keynes's views on the management of international money go back at least as far as his appreciation of Indian monetary policy in his first book, *Indian Currency and Finance* (1913), *Collected Writings* 1.

them." Keynes supported the president's policy of devaluation to promote recovery, and then seeking stabilization afterward.[19]

Roosevelt's subsequent message to the conference, often described as a "bombshell," stated his priorities. "The sound internal economic system of a nation is a greater factor in its well being than the price of its currency in changing terms of the currencies of other nations." The president placed economic recovery ahead of stability, though he said both were desirable.[20] He believed the way to achieve both goals was to have some kind of internationally managed exchange. The proponents of the gold standard in his administration, like James Warburg, felt shocked anew. Warburg told the president he thought the message "very bad." Roosevelt responded that "the American people had liked it." Warburg said, "It was not sent to them." Warren observed of this exchange, "Warburg has another guess coming" – the president did mean the message for the American people, as a commitment to raise prices in line with domestic needs, and to place international exchange stability as a second priority. He wanted to preserve the expectation of inflation.[21]

By the end of the summer of 1933, Roosevelt had already given voice to a clear set of monetary policy goals. He had ended the gold standard, except in notional terms. He had reserved to the US government the right to regulate the value of the dollar in any of a variety of ways, in keeping with its own domestic policy goals. He outlined a future plan of international cooperation to establish a new medium of international exchange – not gold – to keep exchange rates stable, so long as that program of cooperation and stability did not thwart domestic programs to ensure prosperity. Keynes shared this vision and, as his *Collected Writings* and his biographers attest, had been developing it since his first book, through several others, and a series of newspaper articles.

This consensus, established publicly through Roosevelt's policy moves and Keynes's pronouncements, informed the first work Harry Dexter White ever did for the US Treasury, in 1934. In a lengthy report titled "Selection of a Monetary Standard for the United States," White echoed Keynes's writings and Roosevelt's policies. Exchange stability was desirable, but not paramount – an established exchange rate could be altered "when the alternative presents serious interference with domestic policy[.]"[22]

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[19] Keynes Advises Economic Isolation, NYT 6/19/33, p. 2.

[20] Roosevelt to Phillips, 7/2/33, FRUS 1933 1:673–674.

[21] Pearson, Myers, and Gans, 5619. The important of managing expectations figured in Keynes's *Tract* as well; see *Collected Writings* 4:34–35.

[22] Harry Dexter White, Selection of a Monetary Standard for the United States, Box 4, Harry Dexter White papers of Princeton University. Citations from Folder 4, pp. 229–263. Note also David Rees writes that White's "conclusions but endorsed what Roosevelt and Morgenthau had already decided," Rees, 55.

The major features of what would become the Bretton Woods program – the international fund, the proposed international currency (which would, whether bancor or unitas, ultimately vanish, though it provided a basis for initial negotiations), the managed currencies, and above all, the desirability of international exchange stability but the insistence on the priority of prosperity over internationally stable exchange – were all thus in place in 1933, uppermost in the minds of Franklin Roosevelt and of John Maynard Keynes.

For us thus to recognize the early origins of the Bretton Woods consensus serves several purposes. First, it puts the focus properly on practical lessons that policymakers learned about monetary policy. Roosevelt arrived at a Keynesian position by making policy decisions designed to relieve a crisis. Keynes arrived at his own position by extrapolation and imagination, but also by observing the actual monetary policies pursued by India and other countries – he had long ago discovered that he did not so much favor abolition of the gold standard as a recognition that it barely ever existed. Second, this recognition – I believe properly – allows us mostly to let go of the fixation on Harry Dexter White that rather plagues discussion of Bretton Woods's origins.[23] White arrived in the Roosevelt administration after all these ideas had been expressed and set into policy.

Even more important, I think, recognizing this firm, early, and lasting consensus reminds us of the original scheme of priorities behind Bretton Woods. It informed the campaign to get Bretton Woods accepted by the American voters and the US Congress, who heard again and again from the Treasury that Bretton Woods was, first and foremost, a job-creation program. And lest there be doubt as to whether this consensus survived the subsequent dozen years, let us consult White's interpretation of the International Monetary Fund agreement, written in 1946. Calling attention to the clause in the Fund charter referring to the desirability of "high levels of employment and real income," he identified these as the "primary objectives of economic policy." That language appeared there because, White wrote, "the representatives of many countries feared the sole purpose of the Fund might be misunderstood to be *stability* of exchange rates." But stability was not an end in itself, he wrote – merely "a means to achieving" prosperity. Nations should let their

[23] As I've elsewhere written, I think White was a Soviet spy (whether legally or not, I don't know, but for practical definitions of the term „spy," certainly) but that his passing of information to them had little or no effect on Bretton Woods or other major Roosevelt policies. How the Soviets Saved Capitalism, *Times Literary Supplement* April 5, 2013, pp. 12–13. See especially John Earl Haynes, Harvey Klehr, and Alexander Vassiliev, *Spies: The Rise and Fall of the KGB in America* (Yale University Press, 2009); also R. Bruce Craig, *Treasonable Doubt: The Harry Dexter White Spy Case* (University Press of Kansas, 2004), John Earl Haynes and Harvey Klehr, *Venona; Decoding Soviet Espionage in America* (Yale University Press, 1999), and Allen Weinstein and Alexander Vassiliev, *The Haunted Wood: Soviet Espionage in America – The Stalin Era* (Random House, 1999).

currencies devalue if there was "less than stable optimum employment and optimum real national income." The Fund, White wrote, should not seek to prevent inflation by restricting nations' access to its resources or attempting to influence national budgetary policies. If the Fund were to do so, it would be "doomed to play a minor, and probably an unfortunate role in future economic developments."[24]

These warnings, coupled to an understanding whence they came, may help us set practical priorities for the future of monetary policy and prosperity. Permitting moderate inflation may lead to the recoveries we desire, and see the more stable growth in safer investments that will divert us from the road of constant crises. Moreover, as Warren observed early in 1933, such commitments contribute to the political legitimacy of the democratic regimes that make them. The architects of Bretton Woods promised the ratifying legislators and their constituents that the monetary agreements would make full employment and rising real wages an international priority. To the extent that the agreements have an original intent, we can find it there – among the sovereign peoples whose representatives ratified it, and not in the minds of the few insider policymakers who drafted the agreement.[25] The Bretton Woods system was sold to the world's governments and peoples as a flexible mechanism that would permit making prosperity a priority. To the extent that we can regard the Bretton Woods era a success, it is because these promises were fulfilled; to the extent that we wish to recover it, we would do well to attend to these foundational pledges that the general welfare should come first, and lead afterward to greater stability.

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[24] Harry Dexter White Notes on Articles of Agreements of the IMF, May 1946, Harry Dexter White papers Box 9 folder 14. The clause he is discussion is in Article I (i).

[25] On the question of where we can find original intent in fundamental charters, see Charles A. Lofgren, The Original Understanding of Original Intent?, 117–150 in *The Debate over Original Intent*, ed. Jack Rakove (Northeastern University Press, 1990).

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Tales from the Bretton Woods

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1 Introduction

During the recent euro area crisis, an analogy was made by Hans Werner Sinn and Timo Wollmershaeuser (2011) and Wilhelm Kohler (2012) between the events in Europe between 2007 and 2012 and the collapse of the Bretton Woods System (BWS) between 1968 and 1971. The build up of Target balances in the Eurosystem of Central Banks after 2007 (with the GIPS countries, referring to Greek, Ireland, Portugal and Spain) having large liabilities and Germany (and several other countries) with large claims is compared to the burgeoning balance of payments deficits by the United States, the center country of the Bretton Woods gold dollar standard, corresponding to growing balance of payments surpluses in Germany (and other continental countries). As reserve currency center the USA did not have to adjust its payments deficit. It would be settled by the issuance of dollars held as international reserves by the other countries of the system. In the face of rising US inflation after 1965, growing payments imbalances and inflationary pressure on the surplus European countries, the BWS collapsed between 1971 and 1973.

Another Bretton Woods analogy with relevance to the euro area's problems is between the United Kingdom, which ran persistent current account deficits, was faced with ongoing deflationary pressure and eventually had to devalue in 1967, and Germany which ran persistent current account surpluses, was faced with ongoing inflationary pressure and on two occasions was forced to revalue the Deutsche Mark.

Which analogy is more apt? And are there other analogies which may be even more relevant?

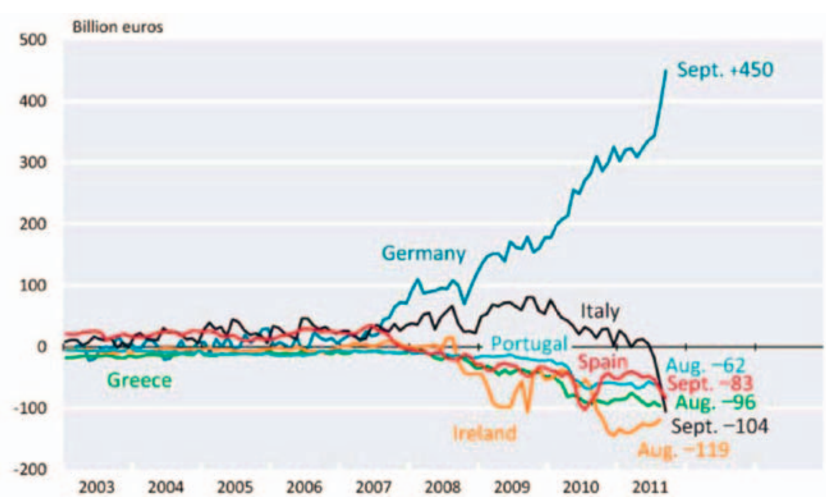
2 Analogy 1: The Euro Area Crisis and the Collapse of Bretton Woods

In the European Monetary Union, the European Central Bank and the Eurosystem of National Central Banks operates a real gross time payments settlement account called TARGET (Trans-European Automated Real-Time Gross Settlement Express

Transfer). TARGET has many similarities to the US Federal Reserve System's ISA (Interdistrict Settlement Accounts) which operates in the US monetary union. In both systems, in normal times, net claims between different countries central banks (Fed districts) tend to cancel out. However during major crises like between 2007 and 2012 when shocks hit unevenly across the monetary union, settlement imbalances between countries (districts) tend to build up as the central bank(s) finances the demands for liquidity.

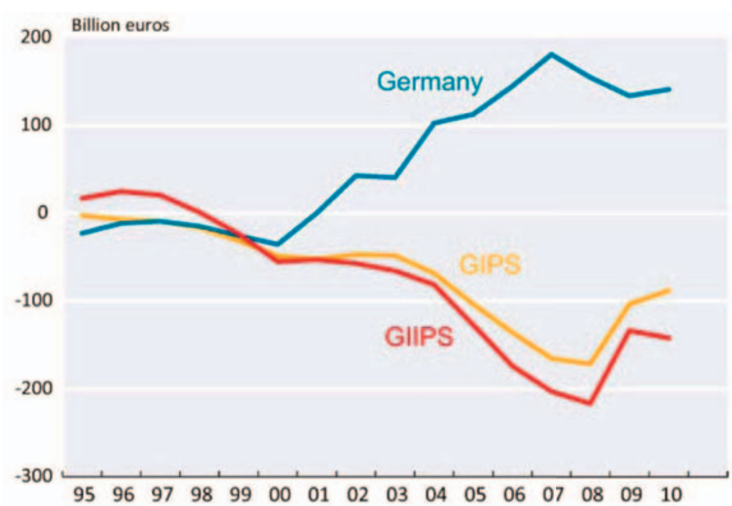
Beginning in 2007, TARGET liabilities in the peripheral countries of Europe (Greece, Ireland, Portugal, Spain) with the reversal of capital inflows and the global seizing up of interbank markets (chart 1). At the same time TARGET claims on Germany (and the Netherlands) increased. This process was worsened by the Greek Sovereign Debt crisis in 2010 and similar (less dramatic) events in Portugal, Ireland, Spain and Italy. Sinn and Wollmershaeuser (2011) also show that TARGET balances are highly correlated with current account imbalances between the GIIPS countries (with deficits) and Germany (with surpluses) (chart 2). Sinn and Wollmershaeuser express concern that the growing TARGET imbalances pose a risk to Germany in the event of a sovereign default and exit from the euro area. They are also concerned that the provision of TARGET liquidity would prevent the peripheral deficit countries from making the necessary structural adjustments to reduce their imbalances. They and Kohler (2012) make the analogy to the events in the final years of the Bretton Woods system when the continental European countries became increasingly reluctant to absorb the dollars that resulted from the persistent and growing US balance of payments.

Chart 1a/1b: Net Claims of the NCBs Resulting from Transactions within the Eurosystem



Source: Sinn and Wollmershaeuser (2011).

Chart 2: Annual Current Account Balances



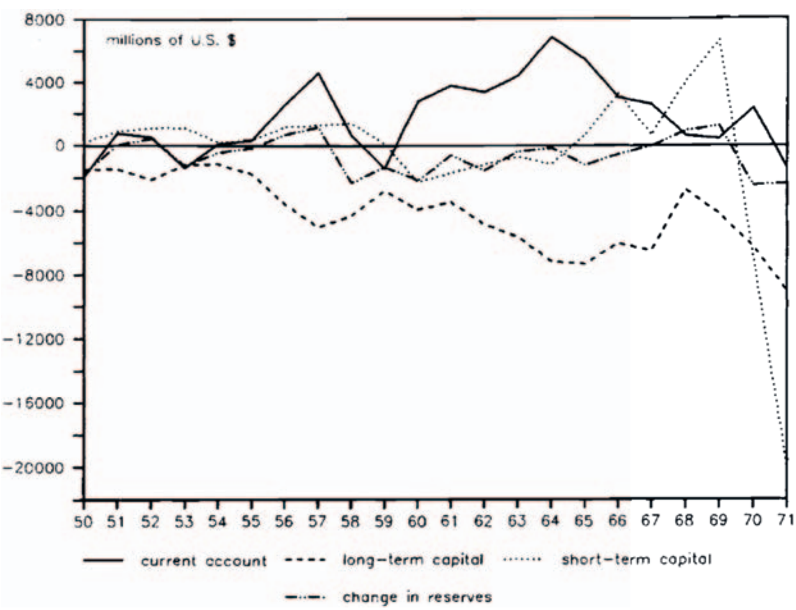
Source: Sinn and Wollmershaeuser (2011).

Under the Bretton Woods System, members would declare a par value in terms of US dollars (peg their currencies). The USA would peg its currency to gold at the fixed price of USD 35 per ounce. The rest of the world would use dollars (and until

1968 pounds) as international reserves. The USA maintained extensive gold reserves as backing for the dollar. The Bretton Woods system (BWS) also incorporated an adjustable peg whereby members could change their parities in the event of a "fundamental disequilibrium" aka persistent structural imbalance. The BWS also prescribed capital controls.

The Bretton Woods System became fully operative in December 1958 when many European countries declared current account convertibility. As time elapsed, it evolved into a gold dollar fixed exchange rate system which embodied an asymmetric adjustment mechanism under which the USA did not need to adjust to a balance of payments deficit by contracting aggregate demand. The deficit would be financed by dollar outflows to be absorbed as international reserves by surplus countries. The USA had official settlement balance of payments deficits from 1958 until the end of Bretton Woods (with the exception of 1968) (chart 3). With the exception of 1959 the USA had a current account surplus until 1970. The balance of payments deficit arose because capital inflows exceeded the current account surplus (Bordo 1993).

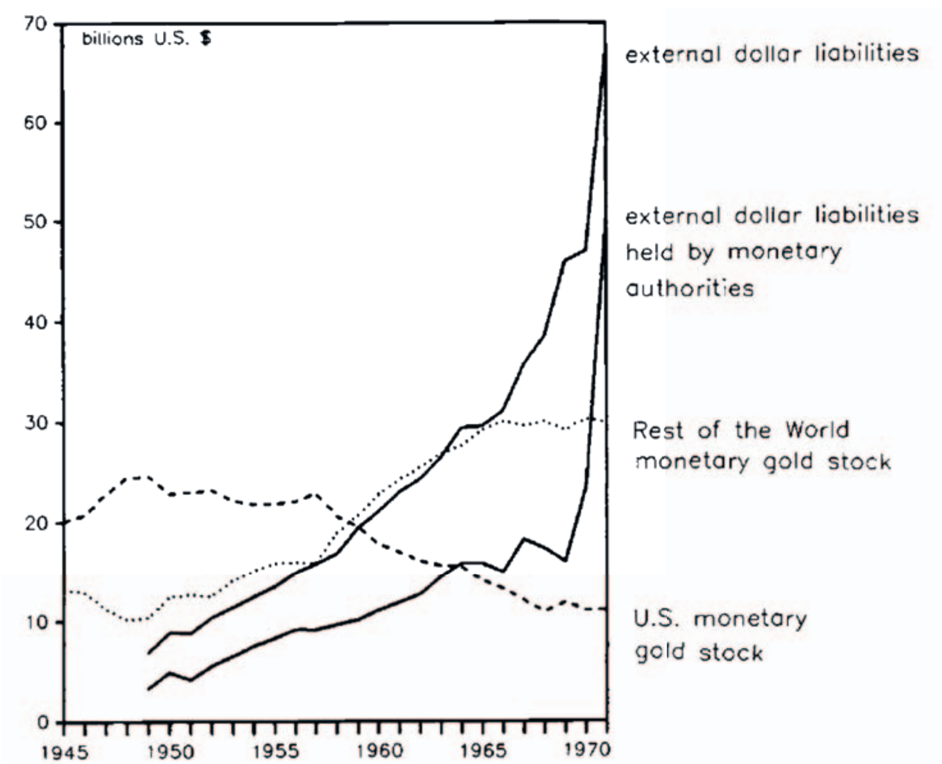
Chart 3: Balance of Payments, United States, 1950–1971



Source: Bordo (1993).

The balance of payments deficit was perceived as a problem by the US monetary authorities because of the effect on confidence. As official dollar liabilities held abroad increased with successive deficits the likelihood would increase that US dollars would be converted into gold and the US monetary gold stock would reach a point low enough to trigger a run. By 1959, the US monetary gold stock equaled total external dollar liabilities and the monetary gold stock in the rest of the world exceeded the US monetary gold stock. By 1964 official US dollar liabilities held by foreign monetary authorities exceeded the US monetary gold stock (chart 4). A second reason the US balance of payments deficit was perceived as a problem was the dollar's role in providing liquidity to the rest of the world. Eliminating the US deficit would create a worldwide liquidity shortage (Triffin, 1960).

Chart 4: Monetary Gold and Dollar Holdings, the United States and the Rest of the World, 1945–1971



Source: Bordo (1993).

For the Europeans, the US balance of payments deficit was a problem because, as the reserve center country, the USA did not have to adjust its domestic economy to the balance of payments. As a matter of routine, the Fed automatically sterilized its US dollar outflows. The Europeans resented the asymmetric adjustment. The Germans viewed the USA as exporting inflation to the surplus countries through its deficits. They wanted the USA to pursue contractionary monetary and fiscal policies. The French (Charles de Gaulle) resented US financial dominance and the seigniorage earned on outstanding liabilities. In 1965 acting on this perception, France began systematically converting its outstanding US dollar liabilities into gold (Bordo, Simard and White 1996).

The policy response to the growing deficit by the US monetary authorities included; controls on capital exports; measures to improve the balance of trade; altering the monetary fiscal mix (Operation Twist); instituting measures to stem conversion of outstanding dollars into gold (the Gold Pool).

The Bretton Woods system collapsed after 1968 in the face of rising US inflation driven by expansionary monetary and fiscal policies (financing the war in Vietnam and the Great Society). US inflation was transmitted abroad by the classical price specie flow mechanism augmented by capital flows (Bordo 1993, p. 77). As US dollar reserves accumulated in Germany and other continental countries and Japan, they were sterilized to prevent the domestic money supply rising, leading to inflation. As the process continued it became increasingly difficult to sterilize the reserve inflows leading to a dramatic increase in money and inflation. The only alternative to importing US inflation for Germany and the other surplus countries was to float, which they did in 1971. The collapse of the system began in August 1971 when France and the UK signaled their intention to convert their dollar assets into gold leading President Nixon to close the gold window on August 15.

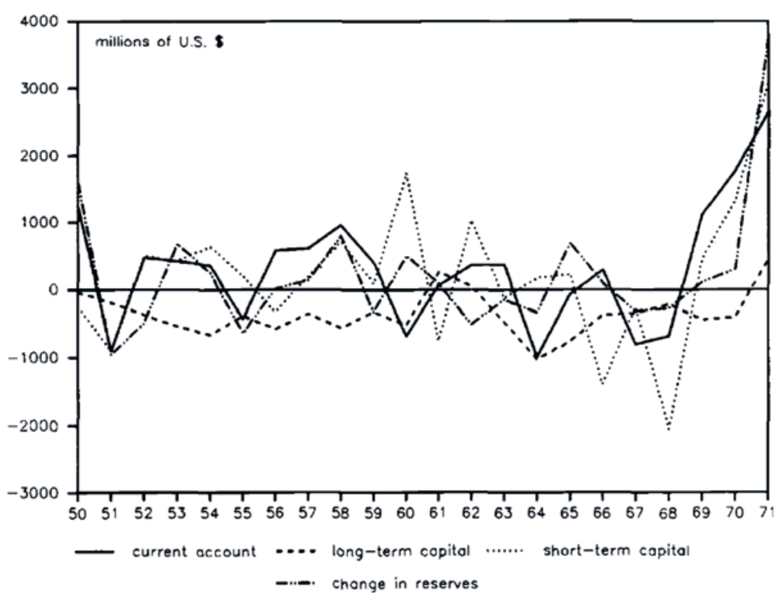
3 Analogy 2: Persistent Imbalances within the Bretton Woods System

In addition to the imbalance between the USA and the rest of the world emphasized by Sinn and Wollmershaeuser (2011) and Kohler (2012), another Bretton Woods imbalance has important relevance to the ongoing problems of the euro area. It was between major European countries prone to persistent deficits (e.g. the U.K.) and countries prone to surpluses (e.g. Germany). This reflected significant fundamental structural and policy differences between countries. The U.K. had a lower underlying productivity and real growth rate and tended to follow expansionary monetary and fiscal policies to maintain full employment. Its exchange rate was persistently overvalued. Germany had faster productivity and real growth and a "stability culture" which deplored excessive monetary growth and inflation. The Deutsche Mark was persistently undervalued.

The United Kingdom from 1959 to 1967

Between 1959 and 1967, the UK alternated between expansionary monetary and fiscal policy designed to maintain full employment and encourage growth, and austerity programs when a balance of payments crisis threatened – a policy referred to as stop-go. Expansionary monetary policy and rapid growth in 1959 led to a current account deficit in 1960 and a crisis in 1961, resolved by a USD 1.5 million standby from the IMF and austerity (chart 5). The balance of payments improved and was followed by an expansionary policy in 1962/63. By 1964 the current account deteriorated and international reserves declined. The incoming Labour government refused to devalue, imposed an import surcharge in October 1964 and kept expansionary financial policy. The balance of payments again deteriorated, reserves dropped followed by a speculative attack on sterling and a USD 4 billion rescue package by the G10 and the IMF. Expansionary policy continued through 1966 and pressure on sterling led to a massive austerity package in July 1966 and assistance from the Federal Reserve. The stop-go pattern continued until a massive deterioration in the balance of payments in the summer of 1967 led to a USD 3 billion rescue package. It was insufficient to stop the pressure on sterling until a devaluation of 14.3% was announced in November 1967. That action was the beginning of the end of sterling's role as a reserve currency.

Chart 5: Balance of Payments, United Kingdom, 1950–1971

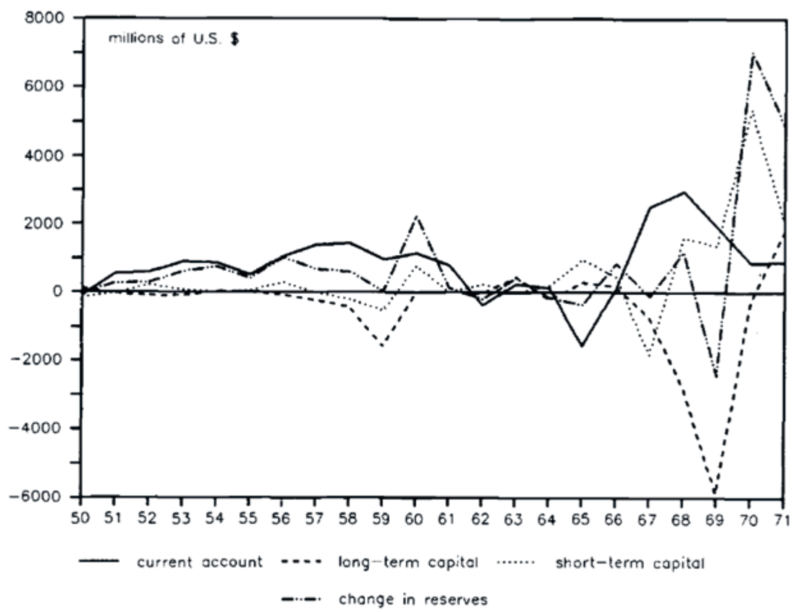


Source: Bordo (1993).

Germany 1959 to 1968

West Germany ran persistent balance of payment surpluses and had opposite problems to the UK. It had rapid growth in real output and exports and a lower underlying rate of inflation. This led to a series of current account surpluses and reserve inflows throughout the 1950s. Concern over the inflationary consequences of balance of payments surpluses led the German monetary authorities to tighten monetary policy and institute measures to prevent capital inflows: a prohibition of interest payments on foreign deposits and discriminatory reserve requirements on foreign deposits (Bordo 1993, page 54).

Chart 6: Balance of Payments, Germany, 1950–1971



Source: Bordo (1993).

Tight monetary policy led to recession and further reserve inflows in 1960. In 1961, the Deutsche Mark was revalued by 5%. With the exception of two years, 1962 and 1965, the current account was in surplus until the end of 1965. The package of tight money and capital controls was repeated in 1964, 1966 and 1968. Opposition to further revaluation, largely by exporters, increased throughout the 1960s. Thus Germany resisted adjustment during Bretton Woods. The German monetary authorities believed that the key problem of the international monetary system was inflation imported from abroad. This was the case at the end of the 1960s but not before.

Some Lessons

The UK, German story is an important analogy for the euro area's ongoing problems.

The periphery euro area countries, like the UK in the 1960s have had lower productivity and real growth, higher inflation and overall uncompetitiveness compared to the core countries of Western Europe. This has led to a build up of imbalances in the euro area – current account deficits in the periphery and surpluses in the core. This is a classic case of maladjustment. But, unlike under Bretton Woods, the euro area countries with imbalances can not adjust their exchange rates and nominal and structural rigidities have impeded real adjustment. Nor can a one size fits all monetary policy be very effective in a monetary union with such large real imbalances and rigidities. Hence in the absence of a fiscal union the periphery has needed to adjust by internal devaluation. The global financial crisis of 2007/08 exacerbated the dilemma. Ongoing recession and expansionary fiscal policy (and a housing bust in Ireland and Spain) created a debt crisis and a banking crisis in the periphery.

4 Which Bretton Woods Analogy is More Relevant?

The Bretton Woods System was an adjustable peg international monetary system with member countries having independent monetary and fiscal policies. It also had restrictions on capital flows. By contrast, the euro area is a monetary union with perfectly fixed exchange rates with no option for adjustment. Members do not have access to monetary policy as a palliative and capital is freely mobile.

Under Bretton Woods the adjustable peg allowed some adjustment between deficit and surplus countries and independent monetary and fiscal policies, the IMF and capital controls gave members with imbalances some temporary respite. For the USA as reserve center country, devaluation would require raising the price of gold (as advocated by France). This was strongly resisted by the USA on the grounds that it would be time inconsistent and would benefit the pariah states USSR and South Africa. As it turned out, ending the system was the only way out.

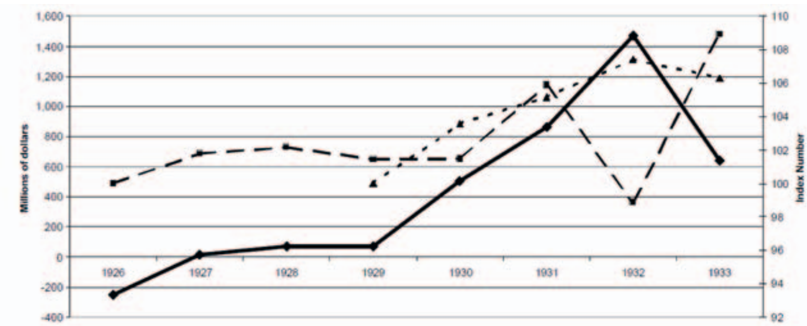
The euro area is not a pegged exchange rate system nor is one member's currency used as a reserve currency. The Maastricht Treaty abolished members' currencies and created a new currency, the euro, and a new common central bank, the ECB. The escape valve of the Bretton Woods adjustable peg is not present. Moreover, unlike national monetary unions like the United States the euro area does not have a fiscal union or a Eurobond to facilitate adjustment. But a more important difference between the Bretton Woods breakdown analogy and the crisis in the euro area is the existence of a payments clearing mechanism, the TARGET system and the Eurosystem of national central banks and the ECB. In the Eurosystem a key mandate is a uniform currency across the euro area – that a euro always be worth the same in every member country (Cour Thimann, 2013). Thus under TARGET, country imbalances are financed by access to the liquidity facilities of the Eurosystem of national central banks using the ECB as a clearing platform.

What happened in the euro area after 2007 is that the TARGET liabilities in the periphery (and the TARGET claims in the core) built up because the ECB acted to prevent the breakdown of the payments system after the interbank market collapsed and private capital flows disappeared (Cour Thimann, 2012). The Federal Reserve performed the same function in the 2007/08 crisis in the USA Bretton Woods did not have an international central bank to act as a clearing mechanism as Keynes wanted with his International Clearing Union. If it did perhaps the outcome would have been different. Clearly, the Bretton Woods breakdown analogy (1) is less relevant than the persistent imbalances between countries analogy (2).

5 An Alternative to the Bretton Woods Analogy: The Payments Crisis in the USA in the Great Depression

An alternative and perhaps more appealing analogy to the TARGET imbalances in the euro area than Bretton Woods is the breakdown of the payments mechanism in the US during the Great Depression. The Federal Reserve System established in 1914 had a clearing mechanism between the member Reserve banks called the Gold Settlement Fund. The Fund recorded the flow of funds among Federal Reserve districts. During the Great Contraction 1929-33 there were massive gold flows between regions (See Chart 7). This reflected a substantial drain of gold from the interior southern and western regions hardest hit by the successive banking panics which closed thousands of small unit banks, to the safety of the Eastern money centers, especially New York (Rockoff 2004).

Chart 7: The Flow of Gold to Eastern Financial Centers on Private Accounts, 1926–1933



Source: Rockoff (2004).

Unlike in the recent financial crisis in Europe and the USA, the Fed did little to accommodate the demands for liquidity. By the fall of 1932, the breakdown of the payments system was so widespread that many of the US states declared banking holidays to prevent depositors from making withdrawals from their bank accounts. Banking holidays spread from state to state as the authorities in neighboring states tried to prevent depositors who could not get cash in one state turn to banks in neighboring states. The contagion culminated with Franklin Delano Roosevelt, right after he was inaugurated as President in March 1933, declaring a nationwide banking holiday which effectively ended the panic (Friedman and Schwartz, 1963). The TARGET experience reflects learning from that experience.

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Regaining Control in the Euro Area – Speaking Points Supporting the Presentation

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Faults in the Architecture Exposed by Crisis

- Faults in the architecture of the euro area did not provide warning signals sufficiently in advance on the deep macroeconomic and structural imbalances that grew in many Member States magnifying the exposure to the crises and slowing the adjustment of the economy.
- Indeed, the crises exposed a number of important gaps in EMU's architecture:
- Both, the public and private sector accumulated too much risk in good times. For example, windfall government revenues were often not used to decrease public debt and macroeconomic imbalances – such as private sector debt, housing bubbles, and external debt – were allowed to grow unchecked. These developments highlighted the need to increase risk prevention.
- The crisis also underlined the risks of financial instability within the euro area. We witnessed contagion effects between fragile Member States, as well as between non-financial corporations, the financial sector and public finances, creating powerful negative feedback-loops. The need to improve crisis resolution was strongly underlined.

EU Response

- Important work to address these challenges has been done in the Member States as well as at the EU and the euro area level.
- The Commission developed extensive analysis, including three rounds a year of fully fledged forecast aiming at building up a shared analysis. It also filled the gaps in the surveillance framework with some key pieces of legislation.
- The so-called Sixpack, Twopack and Fiscal Compact provide broader surveillance, better prevention mechanisms, stronger enforcement and greater national ownership of the rules.

- In the area of budgetary surveillance. More attention is paid to the operationalization of the debt reduction rule, with the so called 1/20th reduction target. New sanctions were introduced that will be phased in more gradually. And reversed qualified majority voting in the Council was introduced. The twopack introduced the notion of ex-ante assessment of draft budgetary plans on which the Commission would make an opinion on planned budgets before they would be voted. In case of "particularly serious non-compliance with the budgetary policy obligations laid down in the Stability and Growth Pact", the Commission can now request for a new draft budgetary plan. And it can also issue autonomous recommendations in case there is a risk that countries will miss their fiscal targets. Moreover, national fiscal governance frameworks have been significantly strengthened by sixpack, twopack and fiscal compact which should ensure more sound national decision making processes. Most of the rules have only been recently introduced, but so far, the Commission's assessment is broadly positive.
- In the area of economic surveillance, the addition of the Macro-Economic Imbalances Procedure has significantly strengthened our surveillance toolbox. The Procedure allows for an early warning system of the build-up of macro-economic imbalances with a view of detecting so that remedial policy action can be taken to avoid the potential imbalance causing systemic damage and unwarranted social consequences. In this context, the European Commission prepares an in depth analysis where relevant and can propose preventive recommendation but can also suggest to the Council a more corrective approach. For euro area Member States, this corrective approach comes with a rigorous enforcement toolkit consisting on the possibility to send back corrective action plans or in case of (repeated) insufficient action sanctions.
- The emergency funds – EFSF, EFSM and ESM – provide liquidity under the conditions of an adjustment programme.
- The Banking Union has been launched
- The importance of these steps should not be underestimated. Significant progress has been made in a short amount of time to improve the architecture of the EMU and prevent future crisis. This has contributed to restore confidence and anchor stability.

Financial Support

Also on the financial support side, a lot has happened since the crisis. At the outset, only temporary firewalls existed that were limited in time. With the ESM, a permanent and sizeable firewall was erected with appropriate governance arrangements. As stipulated by the Twopack countries that require funding of the ESM are to adopt a macroeconomic adjustment programme and the associated intensive monitoring by the Commission, the ECB and the IMF.

- The different stability mechanisms show an unprecedented level of financial solidarity. Reform efforts by the programme countries are of a similar size, however. Policy conditionality in all countries focused on four broad areas: fiscal policy, financial sector repair, labour market reforms and product market reforms. Correcting internal and external imbalances proved more challenging than expected and had to take place in a more difficult global and euro area environment. But despite these heavy headwinds, disorderly default was avoided and time was bought to build firewalls and prevent further contagion. More recently, the macro and financial situation is gradually stabilising in the programme countries, market confidence is being restored and Ireland has exited its programme. Despite this positive news, the social and economic situation for these countries remains challenging.

Rationale for Banking Union

- In the financial sector the main challenge from an institutional perspective relates to the euro area's highly integrated financial system in the context of large banking sector vulnerabilities and limited national fiscal space.
- A related problem is the fragmentation of the euro area's financial systems. Credit conditions have become highly divergent across the euro area, thus constraining recovery, especially in the more vulnerable economies, and impairing monetary transmission channels.
- Bank balance sheets need to be further strengthened in several Member States, and profit generation remains a challenge for many banks. The weak economic outlook and subdued corporate earnings, especially in countries under stress, imply asset quality deterioration and additional loan impairments.
- Specific efforts should also be made to restore credit flow to SMEs, which are the main driver of investment and employment in Europe and have been overly hit by financial fragmentation.

A Genuine Banking Union

- A genuine banking union would help break the vicious link between the sovereign and the banks.
- It is also critical to ensure financial stability, reverse the process of financial fragmentation and restore the flow of credit to the corporate sector.
- A critical step towards restoring the full functionality of the financial system is the repair of bank balance sheets. This requires both transparency regarding the current health of bank balance sheets and proper recapitalisation where needed.

- The asset quality review and stress tests, ahead of the agreed launch of the single supervisory authority, will be instrumental in this respect. Recapitalisation will have to be underpinned by appropriate backstops.
- Significant progress has already been made with the agreement on the Single Supervisory Mechanism.
- But a full Banking Union will also require a Single Resolution Mechanism with a resolution fund and a credible fiscal backstop.
- The Banking Union alone is not a panacea and while we are constructing the Banking Union, the policy debate does not stop. Following the Liikanen report, the Commission has launched a proposal on the banking structure. The proposal would stop the biggest and most complex banks from engaging in the risky activity of proprietary trading. The new rules would also give supervisors the power to require those banks to separate certain potentially risky trading activities from their deposit-taking business.
- Work undertaken by, for example the OECD, demonstrated that the banking structure of banks is an important element to address complementary to the Banking Union for example enhancing the efficiency of the resolution process.

Specific Initiatives on Small and Medium-sized Enterprises and Long-term Financing

- The new Multinational Financial Framework (MFF) 2014-20 also foresees a specific programme for SMEs: the "Programme for the Competitiveness of Enterprises and SMEs" (COSME) to strengthen the competitiveness and sustainability of the Union's enterprises.
- In addition, the research arm of the MFF has specific instruments for SMEs: SMEs are encouraged to participate across the whole Horizon 2020 programme. They can engage in collaborative projects as part of a consortium and they are supported through a new dedicated SME instrument designed specifically for highly innovative smaller companies.
- A capital increase of EUR 10 billion was agreed for the European Investment Bank. The capital increase would target four focal areas for additional EIB action and would provide up to EUR 60 billion of additional financing over a 3–4 years period – additional to the EIBs current lending volume of EUR 50 billion a year. 1/4th of the additional loans are earmarked for SMEs.
- The EU-EIB SMEs Initiative is designed to complement actions already prepared at EU level by combining resources of EU level financial instruments (more specifically COSME and Horizon 2020) with EIB/EIF own resource and European Structural and Investment Funds (ESI funds).
- The planned capital increase of the European Investment Fund (EIF) will provide a boost to the EIF based on two pillars: firstly, a capital increase of EUR

1.5 billion subscribed capital, including a cash contribution of EUR 560 million; and secondly, a mandate through which the EIB will make available up to EUR 4 billion in support of additional guarantees to be issued by the EIF over the next 7 years.
- The Greek Presidency has announced that it will take up this issue in the informal ECOFIN in Athens based on the follow-up communication on the green paper on long-term financing of the Economy foreseen for March, also discussing the report of the high level expert group on SME and infrastructure financing which was published in January.

Remaining Challenges in the Three other Building Blocks

- Despite the major governance overhaul strengthening fiscal governance, strengthening the preventive surveillance of imbalances and preventing contagion with the stability funds, Banking Union will not suffice and work should proceed on the three other essential building blocks of EMU.
- The urgency of the crisis and time pressures have prevented the euro area so far from moving from the consideration of country-specific recommendations to the consideration of policy measures and reforms that are needed for the well-functioning of the common currency as a whole.
- National policy making is being changed by Europe's new economic governance. There is a need for national processes to take active account of these developments, including stepping up interactions with the European level. In many Member States, there is a need for greater involvement of national parliaments, social partners and civil society in the process in order to increase ownership and improve the track record on the implementation of country specific recommendations. To address these problems the Commission proposed the contractual arrangement and ex-ante coordination in its Blueprint for a Deep and Genuine EMU.
- In general, monetary policy is an effective tool to deal with symmetric shocks. However, adjustment to asymmetric shocks can on the other hand be difficult, which is what we see currently. Adjustment to assymetric shocks requires deep reforms leading to greater flexibility and can be supported by other adjustment mechanisms. Given the size of shocks and their capacity to freeze up markets a role for a zone-wide insurance mechanism seems justified. Fiscal integration can be that mechanism, providing an ex ante framework for enforced fiscal discipline and temporary transfers and hence for more certainty that shocks will be contained. In this area, the Blueprint launched the discussion on having Eurobills and a redemption fund but also on a fiscal capacity for the euro area.
- A genuine EMU involves further transfers of sovereignty to the European level, which must be accompanied by steps ensuring strengthened democratic legitimacy, accountability and scrutiny.

Addressing the Challenges in the Euro Area

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Professor Bordo held a conference on Bretton Woods 20 years ago, and in the introduction to this conference, he described the Economic and Monetary Union (EMU) as a project of stabilization, one could say very much in the spirit of Bretton Woods. But the purpose of a conference like this is to reflect not only on what was achieved – and I think a lot was achieved, and it has been described already – but also on what still needs to be done. The euro area faced two crises: the loss of confidence in the banking system in 2008, which was a global event, and the loss of confidence in European sovereign debt and the euro as a regional stabilization policy in 2010 until 2012. And when Professor Bordo held his conference, controlling the exchange rate was seen as a promising way to achieve macrostability. And this was achieved. Inflation rates were low, interest rates were low. But why did the system not get to macrostability in a much broader sense? One of the explanations could be that in the thinking of the early 1990s, when EMU was conceived, several developments were not yet fully visible. First, the impact of global capital account liberalization, the deregulation of the financial sector, the globalization of trade, and the fact that fixing the exchange rate does not lead automatically to optimal policies; it even takes away pressure and incentives.

So, why did the alarm bells not ring much earlier or not much more broadly? I think two wrong beliefs existed. The first one was that the financial sector can control its risks, and the second one, that integration will stabilize the system. Integration did not go far enough, and therefore it even was a problem that we still had too much home bias, and therefore integration created additional risk because it was not far-reaching enough. This was one of the problems in the banking system that we had a lot of investment in domestic government debt.

What has changed since 2008? It was described already. I think the framework of cooperation in the euro area has been fundamentally reformed. Balance the structural budget, reduce the debt, address macroeconomic imbalances, focus more on competitiveness and structural reforms, and try to get earlier corrective action. Will it work? I think it's too early to say. It certainly needs a lot of commitment and sufficient commitment. And the second point is that, I think, the concept of convergence has to be rethought, because when the euro area was established, the surveillance framework was anchored on monetary and fiscal convergence. Competitiveness and current accounts were not so much in the forefront of the debate.

Why was this framework not sufficient? Because the idea of convergence ignores the behavioral effects, the reform efforts were mandatory before joining EMU, and there was a clear incentive: The benefits were rewarded even before the monetary union started. FDI and cross-border capital flows fostered growth, which made fiscal positions look more favorable than they were in structural terms.

Globalization lowered inflation. The Great Moderation was the result. It was not a European phenomenon alone, however, it was reinforced in the euro area due to the convergence process. I think we have to consider more of living this diversity of regional economies and face the challenge of achieving better growth, attracting investment, creating job opportunities in all regions, and this cannot be achieved by the public sector alone.

The third point of change that has been achieved is the stabilization of the financial system. Resilience was increased by higher capital levels; coherent supervision, restructuring and resolution regimes are in the making; the creation of a common backstop at euro area level is an important element; and compared to the U.S.A., the European banking system is still large and much less concentrated. Reintegration in the financial system should ensure the provision of loans and better diversify the risks, if it succeeds.

Having touched on three areas of change – economic cooperation, convergence, and financial sector reform – the question arises: Will the European stabilization efforts stop here or what could be the next steps in the effort of regaining or strengthening control, as the title of our session suggests?

If fiscal policy remains national – and this is the assumption for the foreseeable future – then two avenues of development are possible: The first is creation or enlargement of a central fiscal capacity. At the moment, the EU budget is 1% of GDP, and no central macrostabilization facility exists apart from the European Stability Mechanism (ESM), which is an intergovernmental arrangement, or the Resolution Fund, and the European Investment Bank (EIB). And, of course, one could think that the EIB could play an even larger role in the future, as managing an intervention tool, countercyclical intervention policy with targeted investments, maybe not only in infrastructure or highways, but also more in the field of education, for instance, qualification, etc.

A second possible avenue is the reflection on further mutualization of policy risks and risk sharing. And let's assume the new fiscal rules are applied and confidence emerges in each other's policies, then the way to make the system more stable would be/could be joint issuance of debt or also of debt from the past or debt in the future. This is, of course, a very big step in the evolution of the system and has to be discussed in the context of the broader debate, which Elena Flores has mentioned, which will take place on the future development of the Union, which was also started, I think, a year ago – this debate with the blueprint.

Let me conclude: Until now, the euro area has regained control, has strengthened its control by reforming fiscal rules, broadening macroeconomic surveillance (which were traditional tasks of the IMF and the OECD), by reforming financial sector surveillance and creating new institutions and improving the resilience. But reflections on the future shape of the Union have to be undertaken. The issue of how much common budget you need in such a Union, what is the role of intervention tools like OMT (Outright Monetary Transactions) or prevention tools like the Single Supervisory Mechanism (SSM) – all these tools mean that more decisions are taken at the European level. Coming back to my introduction: A lot has been achieved, unusual measures were taken and institutional changes implemented, but the spirit of Bretton Woods requires thinking in more holistic terms. Thank you.

Are Governments Regaining Control of the International Monetary System?

Fabrizio Saccomanni
Former Minister of Finance, Italy

I am very grateful to the organizers of this conference for having invited me to deliver a speech tonight. I suspect that the main reason for inviting me at this celebration of the 70th Anniversary of Bretton Woods had to do with my age and with the fact that I have been associated for a long time with the IMF. I was actually born before the Allied Nations International Monetary Conference was held at Bretton Woods on July 1, 1944, but I was only one and a half year old then and was not much interested in monetary affairs, yet. But when the US Government forced the collapse of the Bretton Woods regime on August 15, 1971, I was working as an economist at the IMF, just a few blocks away from the White House, where the decision was taken. I was quite shocked to witness the end – by the stroke of a pen – of one of the most ambitious and comprehensive experiments of international economic and financial cooperation in modern history.

I then took part as a junior member of the Italian delegation in the so-called Committee of 20 in the ensuing efforts by the IMF to revive the Bretton Woods regime. Almost five years were spent in highly complex and difficult negotiations, but to no avail. In the end, as is well known, the United States obtained what they wanted: a system based on floating exchange rates and on rather vague commitments to follow stability-oriented macroeconomic policies. Despite the valiant efforts conducted by Jacques de Larosière of the French Treasury and by Rinaldo Ossola of the Bank of Italy, European countries did not succeed in their objective of rebuilding an international monetary system based on rules that would ensure monetary and exchange rate stability through a balanced sharing of responsibilities between deficit and surplus countries. When negotiations were concluded with the Jamaica Agreement of 1976, the US Treasury Secretary, William Simon, dryly remarked: “All is well that ends.”

For a few years, the new arrangements seemed to work well. But by the mid-1980s renewed tensions emerged in the relationship between the US dollar, the main European currencies and the yen. A coordinated policy action was mounted by the G7 countries in the context of the Plaza and Louvre Agreements. The overvaluation of the dollar was indeed corrected, but the exercise of policy coordination was abandoned soon afterwards as it allegedly had given rise to problems in other areas of the world economy, such as causing deflation in Japan. This was to me a hasty and unfounded conclusion reached by the G7 essentially for reasons of domestic political expediency. Be that as it may, episodes of international financial instability continued to plague the world economy in the 1990s, eventually leading to the global financial crisis of 2007 onwards. The response of the international community to the global crisis focused on strengthening regulation and increasing transparency in financial markets and transactions. New regulations in banking and finance have been introduced in the major industrial countries. New institutions to promote on a global scale harmonisation and transparency in regulation have been created.

But, going back to the question implicit in the theme of this conference: "have we regained control of the international monetary system?" Frankly, I do not think so and I shall try to explain why. Twenty years ago, at a conference celebrating the 50th Anniversary of Bretton Woods, Tommaso Padoa-Schioppa and myself argued that a "market-led international monetary system" had gradually replaced the old Bretton Woods system.[1] We argued that, under the new system, global financial markets determined the creation and distribution of international liquidity and the level of exchange rates. We believed it was essential for national and international monetary authorities to improve their understanding of the unwritten rules and conventions of the new market-led system and of their implications for the stability of the world economy. In subsequent work, I concluded that a key factor in the recurrent bouts of international financial instability had been the interaction between the monetary policies (both current and expected) of the major countries and the working of global financial markets.[2] Moreover, a central role in determining the intensity and the implications of this interaction had been played by the behaviour of exchange rates of these same countries.

Predictably, global markets have been guided in their operations by risk-and-return considerations, shifting the huge amounts of assets under their management in relation to changes in expectations regarding interest rates, exchange rates, and the creditworthiness of their counterparts, be they banks, corporations, or governments. In this constant reassessment of the appropriate combination of risk and return, markets tend to overreact, in some cases paying attention only to yields, in some other cases only to risks. Thus, markets can oscillate between two extremes:

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[1] Tommaso Padoa-Schioppa and Fabrizio Saccomanni, Managing a Market-led International Monetary System, in P. B. Kenen (ed.), *Managing the World Economy. Fifty Years after Bretton Woods,* Institute for International Economics, Washington DC, 1994.

[2] Fabrizio Saccomanni, *Managing International Financial Instability. National Tamers versus Global Tigers,* Edward Elgar, Cheltenham UK – Northampton, MA, USA, 2008.

one in which all assets are regarded as safe, including junk bonds and the like; and one in which all assets, with a few exceptions, are unsafe, irrespective of the yield they promise to pay to the investor. Bubbles can thus quickly develop, and burst equally quickly, in stock and real estate markets. Exchange rate movements tend to play an important role in market overshooting, as they respond with great speed and intensity to changes in the political, economic and social environment of individual countries. An investment in an asset denominated in a rapidly depreciating currency becomes quickly very risky and unsafe, even if the yield is very high. Conversely, an investment in an appreciating currency can become very attractive even if the yield is very low.

Developments in banking and financial regulation and supervision since the crisis have not significantly altered the functioning of the international monetary system. The pool of international liquidity managed by global intermediaries has sharply increased as a result of the expansionary monetary policies pursued by the Fed, the ECB and the Bank of Japan. Tighter regulation on banking, involving higher capital requirements, limits on proprietary trading, stricter risk management procedures, have not affected the volumes intermediated by financial markets: if anything, it has led to the further growth of the shadow banking system. The latest monitoring report by the Financial Stability Board (October 2013) estimates that shadow banking rose by USD 5 trillion in 2012 to reach the level of USD 71 trillion. Shadow banking represents 24% of total global assets and 117% of global GDP. I would expect these numbers to show further increases in 2013, as funds are shifted from the regulated to the un-regulated sector of the international banking system. The mobility of international capital flows has not abated. Large outflows were recorded from the euro area in connection with the sovereign debt crisis in 2010-11. Large inflows in Emerging Economies took place at about the same time pushing up their exchange rates and prompting accusations of a "currency war", allegedly waged by countries like the United States and Japan through their aggressive monetary policies. Again, huge outflows from emerging markets and inflows into Europe were recently recorded at the first hint of a very gradual and carefully communicated "tapering" of Quantitative Easing by the Fed.

Not surprisingly the Buttonwood column on *The Economist* of January 25, 2014 was entitled "The inevitability of instability". In fact the column reviewed two interesting analytical works, again with very relevant titles: the first one, by Marcelo Madureira Prates, of the Central Bank of Brazil, explains "Why prudential regulation will fail to prevent financial crises: a legal approach"; the second, by Lord Adair Turner argues that there is "Too much of the wrong sort of capital flow".

Are these indications that a new approach to the management of the international monetary system is in the making? I would hope so but I am too old to believe in fairy tales. The refusal of the US Congress to ratify even the modest institutional improvements agreed within the IMF at the inception of the crisis is a clear indication that a far-reaching reform of the international monetary system is not currently possible. Moreover, most academic economists still continue to argue that banking and financial crises can be avoided with stronger regulation and more effective enforcement.[3]

Of course, it would be good to have a system that would impose some degree of discipline on national economic policies, to be enforced in a uniform and symmetrical manner; that would act a global anchor to stabilize inflationary expectations and to ensure a monetary stance appropriate on a global scale; that would provide an internationally managed reserve asset to meet the demand for official reserves and whose value would not change as a result of the domestic policy objectives of any individual country. It would be good but it is not likely to happen any time soon. At the same time it is difficult to accept without some resistance a system that is bound to produce recurrent phases of "boom and bust"; that obliges countries to accumulate huge amounts of official reserves for precautionary purposes, thus imparting a deflationary bias to the world economy; that does not ensure adequate financing for the real economy and long term investment despite the abundance of liquidity. In the end, these flaws are likely to result in trade protectionism and financial fragmentation with a negative impact on the growth of output and employment, and with dangerous implications for political and social stability.

In conclusion, it is not easy to provide a concrete and positive answer to the question raised in this conference. Although, I am sure there will be many valuable contributions from the participants. As a former central banker and former finance minister, I have had the opportunity in my long professional career to take part in all the main fora of international cooperation, from the IMF to the BIS, the G20, the G7, the ECOFIN, the ECB. I am therefore fully aware of the limits that any reform proposal has to respect and will make only a couple of modest suggestions in terms of substance and of procedure.

On substance, I see no alternative to strengthening macroeconomic policy coordination among the main actors on the global scene as a way to promote stability in the international monetary and financial system. It is not easy to achieve, but we all hear politicians constantly repeating the mantra that global challenges require global approaches. It's about time to act in that direction. I think it would be essential to include exchange rate policies in the coordination exercise. I am not advocating a

[3] See, for example, Alan Blinder, *After the Music Stopped: The Financial Crisis, the Response and the Work Ahead,* The Penguin Press, New York, 2013; and Anat Admati and Martin Hellwig, *The Bankers' New Clothes: What's Wrong with Banking and What to Do About It,* Princeton University Press, Princeton, 2013.

return to fixed exchange rates, *à la* Bretton Woods,[4] but neither am I convinced that it is efficient to allow individual countries to pursue domestically oriented monetary and fiscal policies and then let the global foreign exchange market reconcile the inconsistency that is likely to result. Time and again this so-called "house in order approach" has proved to be unable to ensure international financial stability.

The foreign exchange market is considered to be the best approximation to perfect competition, but it is well known that foreign exchange is increasingly traded as a financial asset, *per se,* with little relation to the real flow of commercial and investment transactions between the currencies paired in the exchange rate. Exchange rate movements therefore may not necessarily reflect underlying changes in the economic fundamentals of countries and in their competitive positions. Moreover, the market is not immune from the risk of collusion among traders and manipulation. As reported in the *Financial Times* of February 17, 2014, nine major international banks are conducting internal probes into alleged collusion and manipulation charges in their trading centres in London, New York, Tokyo and Buenos Aires and the investigation could result in multi-billion dollar fines from regulators, as in the case of the Libor scandal.

In the end, an international agreement on some form of soft target zones for the major exchange rates may well be the best way to ensure that exchange rates provide a contribution to the adjustment of payment disequilibria without being themselves a factor of instability. A few years ago, in an important lecture on exchange rate stability, Paul Volcker stated: "My sense is that we will find success easier than feared by so many – that the market will more often than not respond constructively to a firm and intelligent lead by governments and that exchange rate stability will reinforce prospects for growth. One thing is for sure: without trying, we will never know".[5] Please note the carefully chosen adjectives: *firm* and *intelligent* lead by governments. Translated into the currently prevailing lingo, Volcker would seem to endorse a "forward guidance" approach to exchange rates. Indeed if the approach works for interest rates, I do not see why it would not work for exchange rates.

My second suggestion is on the procedural arrangements for policy coordination. In recent years important analytical work on this issue has been conducted both by the IMF and by the G20. Some degree of competition among institutions is apparently beneficial also in the field of international cooperation. The practical

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4 Benn Steil, *The Battle of Bretton Woods,* Princeton University Press, 2013, recalls that, as early as 1941, J. M. Keynes felt that fluctuating exchange rates were not a viable alternative model for underpinning trade relations among nations and that "depreciation is a bad method which one is driven to adopt failing something better" (p. 140). Thus, the Bretton Woods regime would be more appropriately defined in subsequent years as a regime of "fixed but adjustable exchange rates".

5 Paul Volcker, *The Quest for Exchange Rate Stability: Realistic or Quixotic?,* The Stamp 50th Anniversary Lecture, University of London, 1995.

results of these efforts, however, have been modest so far, to say the least. A reconsideration of the respective roles of these two bodies may be in order. No doubt the G20 can provide the political leadership that is required in times of crisis, as was the case in 2009, and it should operate mostly at the level of Heads of State and Government. But the conduct of the exercise of policy coordination should be left entirely to the IMF and its policy making International Monetary and Financial Committee, where Finance Ministers and Central Bank Governors are involved. It is essential that this delicate task is entrusted to an institution endowed with the legitimacy deriving from its constitutional charter, the Articles of Agreement, namely an international treaty ratified by the Parliaments of the IMF member states.

These suggestions are far from implying a fundamental reform of the international monetary system. But their implementation would send to financial markets the signal that monetary and financial authorities are willing and ready to play a role in orienting the operation of the system towards stability, hopefully, with a "firm and intelligent lead".

Risk-Taking, Global Financial Integration and Multi-Polarization[1]

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Today's IMS: Incomplete and Under Pressure

Pressures on the International Monetary System (IMS) are likely to intensify as the global economy enters a period of ongoing transition[2]. The shockwave sent through global financial markets in the spring of 2013, triggered by the anticipation of the slowing of asset purchases by the Federal Reserve, has shed light on vulnerabilities inherent in an evolving IMS. The rise of emerging market economies has coincided with their financial systems becoming more integrated with the global financial system. This has brought with it both greater opportunities and potential for higher volatility[3]. Overlaying these events is a legacy of large debt burdens in advanced economies along with high leverage in their financial systems. These imbalances have begun to unwind, in part due to global financial regulatory reform efforts[4], but the deleveraging process has been slow[5] and will likely remain a key drag on global growth. These risks are elevated as they could potentially unfold in an IMS that is incomplete.

Addressing these challenges require commitments and actions. The objective going forward is to take the necessary steps to address the key gaps in the IMS, such as following through on international reform commitments, increasing our collective understanding of complex macrofinancial linkages and risk-taking channels as well as strengthening international cooperation.

1 Thank you to Tim Scholz and Glenn Purves for their contributions.
2 IMF. 2013. World Economic Outlook. Transitions and Tensions. October.
3 See Chapter 2 of the IMF April 2014 Global Financial Stability Review (April 2014).
4 For an update see the FSB Chair's Letter to G20 Ministers and Governors on financial reforms (February 2014).
5 Bank of International Settlements. 2014. Global Liquidity: Select Indicators. March.

Gaps in the IMS

There are, in my view, five key gaps in the IMS, four of which are well documented, and addressing them is largely an issue of implementation. The first is insufficient progress on exchange rate flexibility. A more efficient mechanism to enable the adjustment of relative prices is a necessary release valve that reduces pressures on the system as a whole. The next is strengthening the resiliency of the domestic and global financial system to absorb crossborder capital flows and put them to productive uses. Third, there is a necessity for robust macroeconomic policy frameworks that keep inflation low and stable, preserve sound public finances and facilitate the efficient allocation of resources across the economy. There is also a strong international component including an effective global financial safety net (GFSN) that enables countries to have their liquidity needs met as they undertake necessary economic adjustments. The IMF plays an instrumental role in this regard but alternative liquidity avenues such as Regional Financing Arrangements (RFA) are increasing in prominence, and their integration into the GFSN remains a work in progress[6].

Increasing Importance of the Risk-Taking Channel

The fifth and last element is critical yet more complex, and one that I believe requires further consideration in policy circles. It is developing a better understanding of global financial linkages and risk-taking channels, and using this information to feed into policy decisions. There has been important research on this topic in the last few years such as the role of global factors in driving asset prices[7] (charts 1 and 2), investor herding[8] (table 1), cross-border lending[9] and carry trades[10], as well as investors searching for yield[11] and taking on greater credit risk[12] in a low interest rate environment. These channels imply an important link between macroeconomic policy setting and financial stability, and contribute to what are sometimes referred to as "spillovers" or the cross-border impact of policies implemented for domestic purposes. These have featured prominently in G20 discussions over the past few

6 For key topics see RFA discussions in Washington (April 2013) and the G20 Seoul Conference (December 2013).
7 Rey, H. 2013. Dilemma not Trilemma. VOX. August.
8 Rajan, R. 2005. Has Financial Development Made the World Riskier? NBER Working Paper 11728. November.
9 Bruno, V. and H. S. Shin. 2014. Cross-border Banking and Global Liquidity. January.
10 Burnside C., M. Eichenbaum and S. Rebelo. 2011. Carry trade and momentum in currency markets. April.
11 For example, Rajan (2005), Stein (2013), Shin (2013).
12 Jiménez et al. 2011. Hazardous Times for Monetary Policy. June.

years[13]. That policy makers are beginning to pay greater attention to the risk-taking channel and its cross-border manifestation is a good thing. They are increasingly important to the functioning of the IMS but, as much of the research above suggests, there is a risk that they are insufficiently integrated into our formal macroeconomic models and policy decisions.

In Canada, we have developed a robust framework for integrating risk-taking channels and their spillovers into our macroeconomic policy decisions. This framework is anchored in a flexible approach to inflation targeting whereby the Bank of Canada seeks to return inflation to its medium-term target, while mitigating volatility in other dimensions of the economy that matter for welfare, such as employment and financial stability[14]. Nevertheless, imbalances can arise in specific sectors and can be exacerbated by monetary policy settings. The first line of defense against a buildup of such imbalances is regulatory and supervisory policy, or what might be termed "microprudential" policy. In the case of more systemic risks, deploying a broader macroprudential buffer can further increase the resilience of the system and lean against excessive imbalances. Lastly, in some exceptional circumstances, the Bank of Canada might have to take financial stability into consideration even more directly[15]. It is important to note that Canadian monetary and financial authorities work in close cooperation with one another which fosters a common understanding of risks, timely sharing of information and ensures de facto coordination. This should be true not only within a country, but also across countries.

Conclusion: Need of a Complete IMS, Not a New One

To summarize, we have an IMS where international linkages are stronger than ever before. While this is generally a good thing, policies in one country can generate challenges such as excessive risk-taking elsewhere. A lack of exchange rate flexibility and other distortions create greater pressures on the system as a whole, while failure to account for international risk-taking channels can amplify policy spillovers and create tensions.

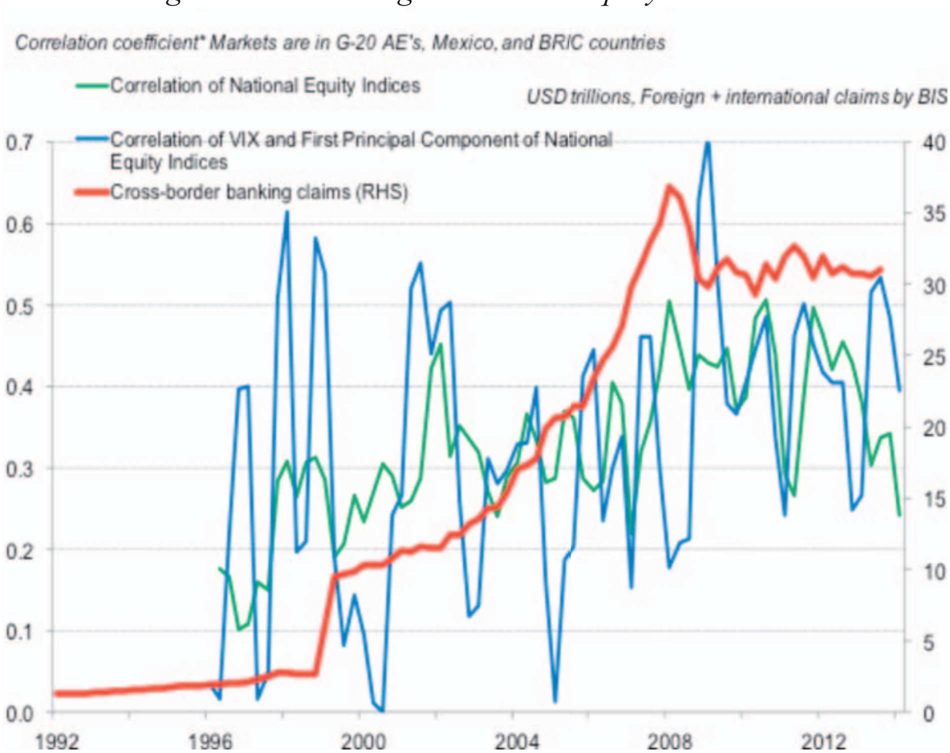
The solution, in my view, is not to start from scratch or re-think old and discredited ideas like the gold standard. Rather, policy makers need to finish the job they have started to ensure that the IMS supports broadbased economic growth by facilitating smooth external adjustments, the efficient allocation of capital and greater resiliency to shocks. This requires following through on key G20 commitments to allow greater exchange rate flexibility and complete core elements of the

[13] In Los Cabos 2012, G20 Leaders committed to minimize the negative spillovers on other countries of policies implemented for domestic purposes.
[14] Bank of Canada. 2011. Inflation Targeting Renewal. November.
[15] Bank of Canada. 2011. Renewal of the Inflation Target. Chapter 4. November.

financial reform agenda. Countries that are vulnerable to swings in investor sentiment should take steps to deepen domestic financial markets and strengthen monetary policy frameworks. Lastly, policy makers should work together to develop a firmer grasp of evolving global financial linkages and risk-taking channels, and how they impact the real economy.

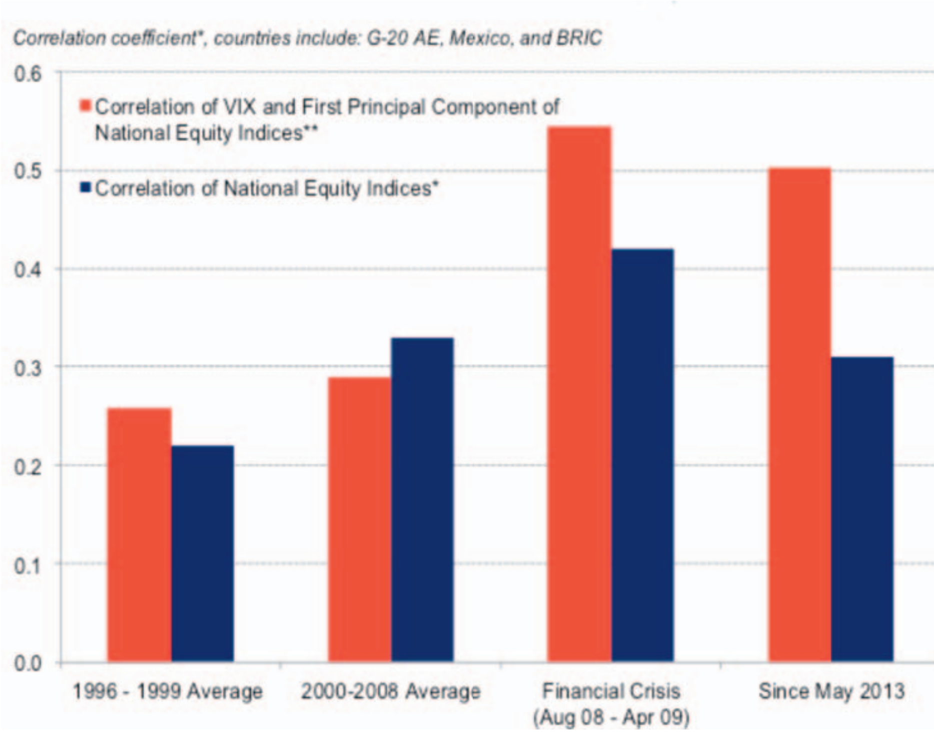
Annex

Chart 1: Integration and Linkages in Global Equity Markets



Source: BIS; Blommberg Haver Analytics, Finance Canada Calculations.
Note: Average of 6-month rolling correlation of weekly movements p. p. Absolute value used for VIX correlation.

Chart 2: Co-Movements and Global Factors in Equity Markets



Source: BIS, Bloomberg Haver Analytics, Finance Canada Calculations.
Note: Average of 6-month rolling correlation of weekly movements p. p. Absolute value used for VIX correlation.

Table 1: Co-Movement in Emerging Market Economies' Currencies Post-Tapering

	May-2013 to Present						2001 to Apr-2013					
	Real	Rupee	Rupiah	Lira	Ruble	Rand	Real	Rupee	Rupiah	Lira	Ruble	Rand
Brazilian real	-	-	-	-	-	-	-	-	-	-	-	-
Indian rupee	0.80	-	-	-	-	-	0.10	-	-	-	-	-
Indonesian rupiah	0.75	0.71	-	-	-	-	-0.09	0.27	-	-	-	-
Turkish lira	0.82	0.65	0.88	-	-	-	0.04	0.70	-0.04	-	-	-
Russian ruble	0.82	0.56	0.59	0.82	-	-	0.32	0.75	0.19	0.59	-	-
South African rand	0.85	0.61	0.76	0.93	0.87	-	0.16	0.54	0.42	0.29	0.45	-

Source: Bloomberg and Finance Canada calculations.

Challenging Perceptions: Why We Need a Multi-Polar Monetary System

Jerome Booth[1]
Chairman, New Sparta
Former Head of Research, Ashmore Group plc

I have got only a few notes. My perspective is really from having several decades as an asset manager and talking to not just policymakers but pension funds and asset allocators and reserve managers.

If we are thinking about this theme of moving towards a multipolar world, I suppose the first question in terms of international architecture is: Are we agreed on where we want to go? And we are probably not. But even if we were, I think how you get there is very problematic. And I think we are facing substantial risks at the moment of repeat crises. We do have problems of imbalances still in the global economy.

The way I see the build-up towards the problems in 2007/08 was one of a massive increase in savings flow from the emerging markets, and these net savers were basically pushing down yield curves in the developed world, and this was creating, together with, frankly, poor regulatory oversight, a massive leverage-induced frenzy based on unrealistic views of risk.

What I have tried to do in my new book – it has taken me a long time to write in part because I think some of the basic problems are very deep in the way we think about markets – is, (and I am with Milton Friedman on this) if a theory neither has realistic assumptions nor any predictive power, then it is frankly useless. But far too much of finance theory falls into that category. And what academia can say is, well, it doesn't matter because we've stated very clearly the assumptions. That is quite true, but the practitioners go and use it anyway. And the actual practice of asset allocation, I would say, has distorted global capital flows very substantially.

Whereas the norm, I suppose, is to think as economists and as regulators in terms of aggregates, I think what we need to do is think much more at a granular

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1 Jerome Booth recently published his book: Emerging Markets in an Upside Down World: Challenging Perceptions in Asset Allocation and Investment.

level, about who owns what and why they behave as they do, and what their prejudices are as well.

We also have, I think, clearly a world which is much different to the one we had after the Second World War. We do not have a world dominated by the USA as 50% of GDP, and that is ever changing. We are going to see the emerging markets more and more dominant. They already have 85% of the world's population, and using purchasing power parity, already about 50% of GDP, and clearly the bulk of growth, clearly the bulk of reserves. They are also actually the world's net savers. We have got to stop thinking about them being the recipient of the behavior of Western investors.

There is a thing I called Core/Periphery disease, and I call it a disease because it is a meme, it is a deep-seated virus in our brains. It is very, very deep. And this Core/Periphery disease has been with us several hundred years. This is the idea that the Core, the developed world (or what I call the HIDCs, the Heavily Indebted Developed Countries, because their average debt to GDP – if you count private debt – is about 250%, ten times what is in the emerging markets) we assume, affects the Periphery, but we ignore the effect of the Periphery on the Core. I remember reading an IMF paper shortly after 2008 asking the question what would happen, if there was another major crisis in Europe, to emerging markets? And we have seen a bit of this questioning again in the last few months. People rush out of emerging markets. At that time they estimated that there might be USD 15 billion potentially leaving emerging markets in a future crisis. That sounds like an awful lot of money. Core-periphery disease is not asking the question the other way round – How much emerging market money might leave the developed world? Because when you ask the question the other way round you realize that central banks and sovereign wealth funds in emerging markets own USD 11 trillion of the supposedly liquid treasuries and European government bonds. Then you realize that actually that is the thing we should be worried about.

The fact that recently central banks in emerging markets have been complacent, and have not acted (and as a result some modest foreign exchange volatility has been observed), is not I think the guide to the really big risks in the future. If you have several hundred billion US dollars in reserves, frankly you can alter your exchange rate at will. If you find it inconvenient to bother intervening in the short term that does not mean that you are not going to do something if there is a more serious threat in the future. Foreign exchange volatility today may thus be a counter indicator of future major risks.

I think there are different versions also of history which reflect this Core/Periphery disease. Take the swap lines extended to the four emerging market countries shortly after the crisis. Were these mainly to help these countries out, or was it to persuade/prevent them from selling US Treasuries and causing a problem back home in the USA?

At the outbreak of World War I, which currencies rallied? Pound Sterling and the French franc did. The US dollar came off. Why was that? Well you can interpret the situation just as we can after 2008 when the dollar went up temporarily. This is perhaps because countries like the UK and France in 1914 – they had the problem - their investors who are invested abroad, brought money home in order to cover the hole at home. That's not a flight to quality or flight to safety. That's a flight to liabilities. So I think Core/Periphery disease, as I call it, affects, it perverts, it distorts our view of the world.

The world is also not easily categorized into risky and non-risky. The term "risk-free investment" – we use that term a lot in asset management – is an abuse of language. There is no such thing as a risk-free investment. If something is called risk-free, that means that the risk is not perceived. It does not mean there is not any risk. In Mr Li's presentation yesterday, he made an important point. If all the currencies in the world are going up and down at the same time and they are highly correlated, this sounds very worrying. Say not just in the emerging countries but also the developed countries, all currencies are going up and down pretty correlated against the US dollar. Are they all volatile and highly correlated, or is it actually the US dollar that is volatile? Thinking the US dollar stable and the rest of the world risky in such a scenario is a facet of Core/Periphery thinking.

And if I am standing on a mountain top and I have got some device to measure some flying object and I am measuring this all the time, in markets we might call the angle of view to the object a spread. As the spread moves we think this object is more risky, then less risky, more risky, etc. But then suddenly we have this revelation that we are not standing on a hill at all – we are actually on the deck of a ship. And we have been becalmed, but are now in a gale. It is us that is moving. So we have to rethink our view of the world. And when we do that, I think, we shall realise we have some major avoidable risks because pension funds and reserve assets are far too focused on developed economies.

I also think one of the reasons correlation has been very high particularly in 2007/08 is due to leverage, and that leverage has mainly been in the HIDCs as we know.

David Swensen's Yale model is taught in business schools all over the world and has massively improved the way we think about asset allocation. But for me we are, in using his more sophisticated ideas like the cavemen that discover fire: massive technological invention, but we are still troglodytes. The great innovations of the Yale model include that we should maybe do more than two asset classes, we can invest abroad and we can invest in stuff that is not liquid. But where is macroeconomics in asset allocation? Nowhere. Where is the idea of thinking strategically? Where is taking what we know about behavioral finance, behavioral biases and adjusting the way that we asset allocate? Where is our picture of our world? Why do we use indices to asset allocate at all? Just doesn't make any real sense – because indices are massively biased.

I have not got time here (though I do in the book) to go through some history of finance theory starting with Markowitz in 1959 and how his and others' simplifications have led us to this ridiculous position where we equate volatility with risk. Most people, if they are managing their own money, not other people's money, and they are not day traders, would probably care more about large permanent loss than volatility. And yet from the conventional way that assets are managed, this is simply not part of the equation. And likewise, I think regulators are falling into this trap as well because they think about volatilities equating to risk. Volatility is not risk, it is a part of it. It might in certain circumstances equate to risk, but not in all circumstances.

So I think we need to think about our assumptions and when these assumptions that we use are valid and when they might not be. Because we have a tendency, like small children, like infants: If they cannot see something, it does not exist. If we can't measure it, we just ignore it.

We have ignored uncertainty. We have denied uncertainty as opposed to risk, we have ignored all sorts of other aspects of reality, we have ignored macroeconomics, politics, a lot of things in the way that we asset allocate and regulate capital flows.

Because of this, I think we need to start mapping who owns what - at a micro-level. We cannot just budget this thing called risk (actually observed past volatility) and merely think about excess risk taking so defined. I would be thinking about who owns what and what their liabilities are and then, if you want to move one level further, I would try to map not just who owns what but what their prejudices are, what their world views are.

By the way prejudice is a fascinating thing in the sense that it tends to live with you until you die and you have to wait therefore for people to die for a new paradigm to become universal – Thomas Kuhn wrote about this. And there is often long-term arbitrage in markets affected by deep prejudice. But people can also change their minds at once. It does happen occasionally. We can get a group of homogenous investors, who do, if you like, all think that the emperor has got no clothes quite suddenly.

We need to redesign the international monetary system, precisely because we have a very skewed system overly based on the US dollar. Finance theory and misperceptions of risk have obscured our view on this issue, as with asset allocation more generally. We need to reduce likelihoods of crisis scenarios currently made uncomfortably possible by the dominant position of emerging market central bank reserve managers in the structure of the external US Treasury investor base. And we need to move towards a multi-polar reserve system. And how do we get there? Well, because we don't agree on the goals, it probably is not realistic to pin our hopes just on the G-20 and on coordination. I think we have to take unilateral action. And I think that starts with those excess reserves, with the big reserves. And that is emerging-market central banks. The message is to them: that they should start opening their eyes to the real risks of holding tons and tons of US Treasuries. The average 10-year yield on a US Treasury for the last six decades was around 6%. If yields go to 6% this could cause extensive Treasury portfolio losses. So that is hardly risk-free. And that is not including the currency losses that are likely.

If your trading pattern, like Brazil's, is only 10% with the United States, why would you have 80% of your reserves in US dollars? Ah, liquidity of course. But liquidity is also, I think, misunderstood. Future liquidity is very different to past liquidity. And I think there are three warning signals for liquidity suddenly drying up. One is a homogenous investor base, and I have a theory (in the book) of investor bases becoming homogenous due to perception changes. Also it should be noted that financial repression, by capturing domestic savings and forcing institutional investors into government bonds, and so artificially reducing yields can create greater homogeneity in an investor base. The second warning signal is a misperception of risk. Calling something risk-free for a start is a misperception of risk. And the third is leverage – a clear danger signal. If you look at the history of liquidity (Keynes writes about the fetish of liquidity) it is obviously not a God-given right. It is a function of supply and demand. And if all the demand is suddenly not there when a large homogenous group of holders changes its collective mind that's when you get a liquidity crisis. The world's reserves are frankly now too large for the U.S. Treasury market. And the euro is no alternative, I do not disagree with that. I am not saying there is an alternative. I am saying, we need to go to a multipolar system.

The Chinese central bank and other central banks are arguably already moving towards at least trade-weightings in their reserve holdings (and world trade has moved from maybe 10% South-South trade to now 30%). Further diversification is in effect coming through increased use of swaps. Also, as emerging currencies become more widely held as reserves they will become much more liquid and stable.

I also see currency wars as actually largely a "south-south phenomenon". For me, tapering is really like bad weather: emerging markets can complain about it, but they should just put on a Macintosh or have an umbrella and stop whining – the policy tools to mitigate the impact of the problem are in their hands.

This is in part because, of course, the liquidity created by quantitative easing is just going round a circle anyway. It has been designed to help the banks, not to stimulate the economy, which it has not done that well. And tapering is very different to raising interest rates.

Of great importance for emerging markets is that they do not want to appreciate six months before their export competitors. So we are all watching the Chinese. But once they start to appreciate against the dollar and diversify reserves more, I think you will see more and more acceleration of diversification of reserves by others, selling US dollars in order to buy each other's currencies. And that is a healthy gradual process which can reduce systemic risk in the whole system over time. And that is what I think we should be going towards.

My scare scenarios are just to give you a bit of drama. I do not know whether they are going to happen, and I hope not. But if they do not then it will be because we do focus on their possibility and move gradually away from the precipice; because the more gradual process of reserve diversification I have alluded to will happen. And it does not require coordination through the G-20.

Thank you very much.

Regaining Control: The Global Adjustment Question from Bretton Woods to a Multipolar World

Ibrahim H. Çanakci
Undersecretary of Treasury
Republic of Turkey

I would like to start by thanking the Reinventing Bretton Woods Committee, the Oesterreichische Nationalbank, and the Austrian Federal Ministry of Finance for organizing this highly relevant and timely conference.

Following the comprehensive remarks by Jean Boivin and Jerome Booth, I would like to provide an emerging market perspective on the global adjustment question.

In my remarks today, I will start with a very brief overview of the rising weight of the emerging market economies in the global economy and then I will spend more time on the linkages between international financial architecture reform and global adjustment issue.

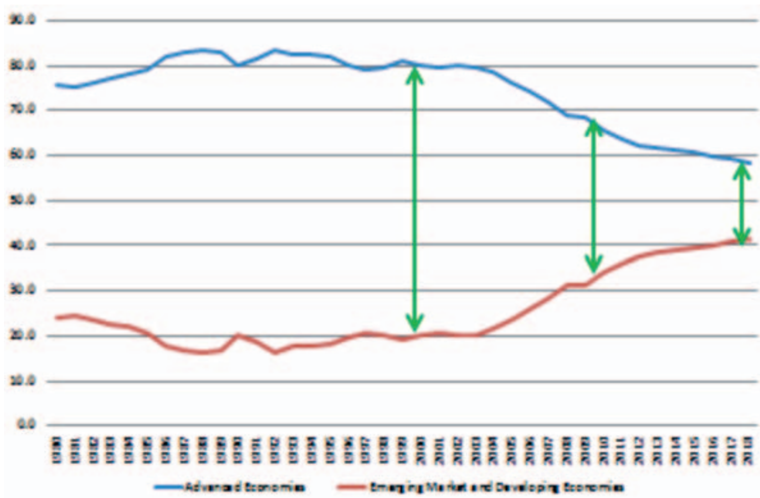
I don't have a full power-point presentation on my remarks today. But I have only two slides to share with you to show the rapid shift in the role of EMEs in the global economy.

As the first slide on the screen shows, according to IMF projections emerging economies are expected to produce approximately 42% of the global GDP in 2018. This is slightly more than double compared to the beginning of 2000s (chart 1).

Chart 2 is even more striking. It shows how rapid has been the shift in the **economic center of gravity** between 2000 and 2010. This decisive shift to the **East and South** is expected to continue during the next 15 years as well. Again what is sharp about this transformation is that this shift has been tremendously swift. The change in the last decade or two is comparable to that of 50 to 100 years of the past (chart 2).

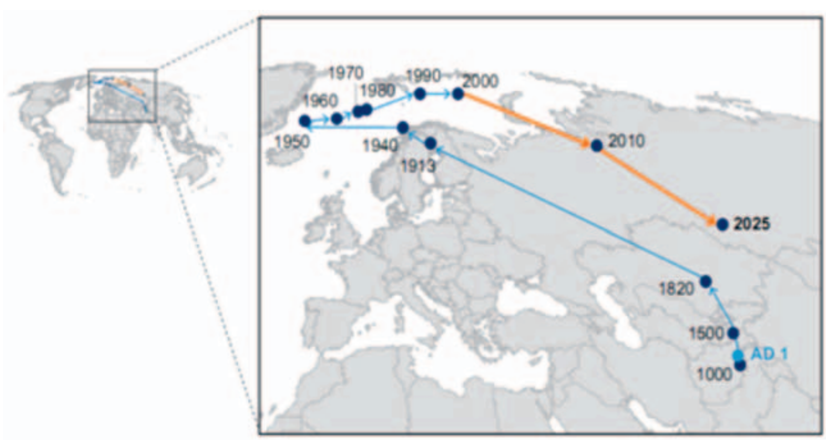
Chart 1: Share in Global

%



Source: IMF, WEO (October, 2013).

Chart 2: World's Economic Center of Gravity



Source: Urban World Cities and the Rise of the Consuming Class, McKinsey Global Institute (June 2012).

As a result of this tremendous change, the **emerging market countries** have become more important for the global economic stability. This became obviously clear during the 2008–2009 crisis. Although the financial crisis was born in developed countries, resolving it required the cooperation and collaboration of both developed and developing countries.

At this point, **the G-20** came to the fore with its ability to ensure the much-needed cooperation between advanced and emerging market economies.

Thanks to the G-20's concerted and decisive actions, further deepening of the global economic crisis was averted, a recovery process was initiated and some reduction in global imbalances was accomplished.

Despite these achievements, we must admit that global adjustment process is still far behind from its desired level and quality. Of course, there are many reasons and challenges that hinder a rapid and smooth global adjustment process. Jean has very well covered some of these reasons and challenges. As I said at the beginning, I would like to elaborate particularly on the **importance of global policy coordination, adequate global financial safety nets,** and the I**MF reform** for a more effective global adjustment process.

Regarding global policy coordination, I must say, despite important steps taken in recent years at both the G-20 platform and the international financial institutions, we still need a more concrete and accountable mechanism to enhance global policy cooperation. This issue has become even more critical in the context of the **"Fed's tapering"** process. Although we have seen some clear messages in the recent period from the Fed, there is still a need for further strengthening the efforts there. To this end, better sharing of information between policy makers and increased transparency and consistency of communication is certainly needed. Such improvements will obviously reduce the cost of global adjustment and create a win-win outcome for the whole world.

Now, let me say a few words on the role of global financial safety nets. We see **a lack of effective global financial safety nets** as an important factor that besets the global adjustment process. As a result of this inadequacy, some economies prefer to build-up excessive reserves, intervene in foreign exchange markets – sometimes in a non-market friendly manner, and use capital flow management measures to protect themselves from external shocks. Such policies create market disturbances and increase global imbalances. Hence, there is a strong need to redesign and strengthen global financial safety nets. To this aim; we should make concrete progress in (i) improving the coordination between IMF and Regional Financing Arrangements, (ii) doubling our efforts on enhancing local currency bond markets, and (iii) supporting local currency trade. Unless we do not have such concrete advances, we cannot speak about a healthy and sustainable global adjustment process.

In my view, there is a close connection between the progress in the IMF reform and the global adjustment process. The current **representation gap** weakens emerging market countries' ownership towards the IMF. This in turn undermines the Fund's effectiveness in playing its role in promoting global financial stability and in supporting the global adjustment process. There has been a strong demand from emerging markets to reform the Bretton Woods Institutions since 2005. This demand was taken up by the G-20 Leaders in 2010 and a landmark agreement was reached in the Seoul Summit. However, this agreement has not been completed as envisaged. At this critical conjuncture, I believe that both the IMF membership and the G-20 should focus on a viable strategy to overcome this uncertainty.

However, I believe we all must acknowledge one important progress on this area. As some of you have probably followed very closely, in 2012, a new constituency which is commonly known as the **"Central and Eastern European Constituency"** was established in the IMF. Under this new constituency agreement, following Austria during the 2012–2014 period; Turkey, the Czech Republic and Hungary will assume the executive director position at the Fund. The spirit behind this new constituency and its envisaged structure prove that our group had a very visionary, forward-looking and prudent decision. In that regard, I would like to extend my gratitude to Austria for their key role to facilitate this process in a very constructive way. I strongly believe that the mutual understanding and good cooperation among us is a good example for the rest of the Fund membership.

We do not see the IMF reform as limited to only so-called **"shares" and "chairs"** issue. There are many other challenges faced by the Fund, and we need further and timely steps pertaining to the **resource adequacy, lending instruments, surveillance, and governance functions.**

Regarding the **resource issue,** we highly appreciate the recent efforts to increase the resources of the IMF through borrowing in order to meet the rising needs. However, we should not overlook the fact that, the IMF is a quota based institution; and therefore borrowing should be a temporary solution.

Concerning the lending instrument, we believe that the Fund should have a more pronounced role in assisting countries with a **wider use of its precautionary lending tools.** Despite the recent improvements in these tools, further work may be needed to enhance their availability and attractiveness.

On the **surveillance function,** the Fund has undertaken major initiatives to modernize the monitoring and oversight methodologies to respond to a more globalized and interconnected world. However, the job is not done yet. Further works on strengthening the assessment of spillover effects and developing global liquidity indicators are clearly needed. In this context, the Fund should focus more on the transmission channels so that the members could take more responsibility to evaluate spillover effects of their policies.

I believe emerging market economies should closely watch the implementation of the surveillance function to ensure that it is run effectively and evenhandedly. I also believe that emerging market economies have a stake in ensuring that related IMF recommendations to especially major advanced economies are reflected into their domestic policies.

Finally, on the governance aspect, the initiatives to increase the effectiveness of the Executive Board and to increase political engagement are worth discussing. In this sense, I would like to underline the importance of providing an open and transparent selection process for the top management and improving the working processes of the International Monetary and Financial Committee.

In concluding my remarks, I would like to reiterate my call to the international political community that the dynamism of the emerging markets should be duly reflected to the international financial architecture if we wish to achieve a smooth and fast global adjustment. In this regard, we need many reforms from the IFI's side and a continued traction and close interest on the emerging economies part.

I thank you all for your kind attention.

Reforming the Global Reserve System

José Antonio Ocampo[1]
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Columbia University

The current global reserve system evolved out of the unilateral decision by the U.S. in 1971 to abandon the gold-dollar parity and convertibility of dollars for gold for governments and central banks established at Bretton Woods. Although other currencies can compete with the US dollar as international means of payments and potential foreign exchange reserve assets, this competition has been weak due to the "network externalities" in the use of currencies and the fact that the USA has by far the largest market for liquid Treasury securities. Thus, according to the International Monetary Fund (IMF) data on the composition of allocated foreign exchange reserves, in third quarter of 2013, 61.4% were held in US dollars, 24.2% in euros and 14.4% in other currencies. On top of that, over 80% of foreign exchange transactions are managed in US dollars. So, in a significant sense, the current system can be called a *fiduciary* dollar standard. The other feature is that alternative reserve currencies float against each other – an issue that links to the debate on the exchange rate system (or, rather, "non-system"), an issue that would not be discussed here.

The Problems of the System

This system can be characterized as facing three distinct problems, which in fact may be said to have arisen (or at least identified) in a historical sequence (Ocampo, 2010a and 2010b). The first is the problem that Keynes (1942/43) emphasized in his proposals for a global monetary system in the years leading to the Bretton Woods agreement, and that, as he pointed out, was also a feature of all international monetary systems that we have known: the asymmetric adjustment pressures that it

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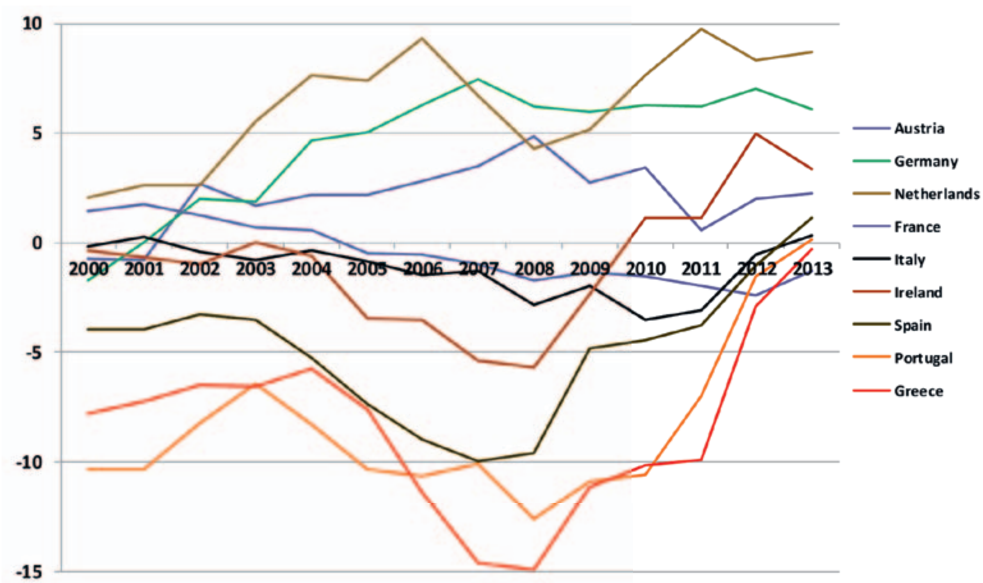
imposes on deficit versus surplus countries. As the former are forced to adjust, whereas the latter are not, this creates a clear recessionary pressure on the world economy. This problem is, of course, felt with particular severity during global recessions, when deficit financing dries out. This problem may be called asymmetric adjustment problem.[2]

Chart 1: Current Account Balances of Euro Area Countries

% of GDP



Source: International Monetary Fund, World Economic Outlook Database.

There is perhaps no better example in history of this problem than the experience of the euro area countries during the current crisis. As chart 1 shows, the peripheral countries –Greece, Spain, Portugal and Ireland, in that order – have experienced massive current account adjustments since 2007, in the order of 9 to 14 percentage points of GDP. Italy has more recently joined this trend, though in much smaller amounts. In contrast, surplus countries – Germany, Netherlands and, to a lesser extent, Austria –have not reduced their surplus in any significant amounts and some have even increased it.

[2] I have also referred to before as the or the "anti-Keynesian bias" of the system.

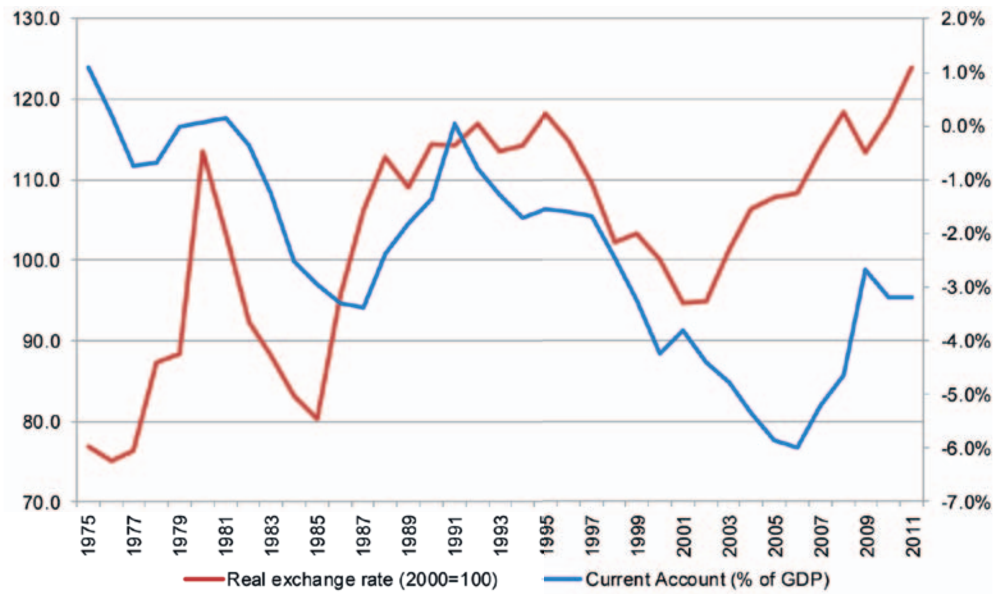
The second problem is that generated by use of a *national* currency, the US dollar, as the major *international* currency. It was formulated in the 1960s by the Belgian economist Robert Triffin and thus came to be known as the "Triffin dilemma" (see Triffin, 1961 and 1968, and for a recent formulation, Padoa-Schioppa, 2011). The essential issue is that provision of international liquidity requires the reserve issuing country (or countries) to run a balance of payments deficit(s), either in the current or the capital account, which could eventually lead to a loss in the confidence in that currency. In the 1960s this was reflected in a tendency of the USA to gradually lose gold reserves. However, if the U.S. tried to correct its deficit to avoid a loss of its gold reserves, it would have generated a scarcity of international liquidity. After failing to manage the loss of gold reserves through the Gold Pool (Eichengreen, 2007, chapter 2), the USA finally took the decision to abandon convertibility of dollars for gold in 1971.

This changed the nature of the Triffin dilemma. The USA was essentially left with no effective constraint to run balance of payments deficits. This generated both a long-term trend toward rising current account deficits, and strong fluctuations in the exchange rate of the dollar against other currencies. Both problems are shown in chart 2. The first could be said to generate world expansionary (and, under some conditions, inflationary) pressures during the periods when the USA is running deficits; in turn, reductions of the US current account deficit have always been associated with global slowdowns or recessions (1980-82, 1990-91, 2008-09, but much less in 2001). Thus, the system may be said to alternate between expansionary and recessionary biases. The instability of the US dollar exchange rate may be understood, in Triffin's terms, as cycles in the confidence in the US dollar as a reserve currency. It also means that the dollar lacks since the early 1970s what should be an essential feature of the currency that is at the centre of the global monetary system: a stable value.

Being at the centre of the system generates, of course, several advantages for the U.S.: the appropriation of seigniorage from the use of the dollar as a global currency, the ability to borrow at low interest rates and an increased demand for the services provided by its financial industry. But it also has costs, particularly if it involves current account deficits, as it normally has in recent decades, as this is a leakage in aggregate demand. This means, in turn, that the effectiveness of its expansionary policies is reduced by the spillovers it generates on the rest of the world during periods of dollar appreciation. This is what happened in the aftermath of the Lehman Brothers collapse in September 2008, which implied that part of the stimulus of US expansionary policies was exported to the rest of the world.[3]

[3] This problem for the reserve-issuing country that has been highlighted by Stiglitz (2006, chapter 9), and can be seen as a lack of control by the reserve-issuing country over its balance of payments, as underscored by Greenwald and Stiglitz (2010).

Chart 2: US Current Account and Real Exchange Rate

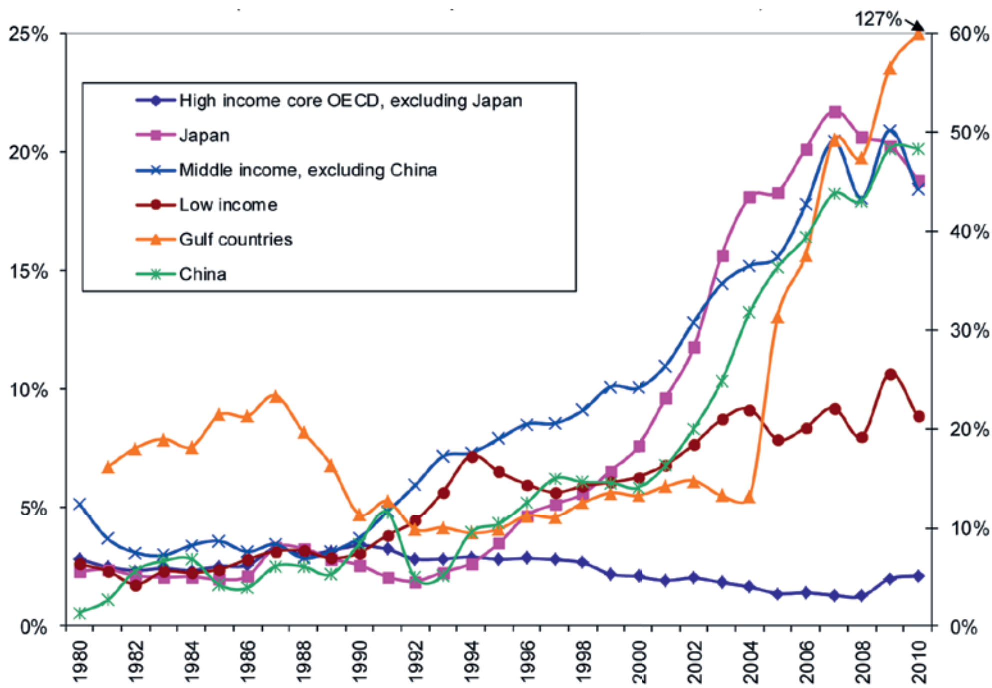


Note: The real exchange rate is depicted here to show an increase when there is a real depreciation (the opposite convention to that used by the IMF).

Source: IMF, International Financial Statistics.

The third problem is the inequities generated by the need that developing countries face to accumulate foreign exchange reserves to manage the strong pro-cyclical swings of capital flows, which are nothing other than transfers of resources to reserve-issuing countries. This *inequity bias* became very visible in the 1990s and, particularly, in the aftermath of the sequence of emerging country crises that started in East Asia in the late 20th century. As chart 3 indicates, until the 1980s the foreign exchange reserves of low-income and middle-income countries were not unlike those of high-income countries: around 3% of GDP. Since then, they started to diverge, and sharply so since the Asian crisis. Prior to the recent (and, in a sense, still ongoing) North-Atlantic financial crisis (end of 2007), middle-income countries, excluding China, held on average reserves equivalent to slightly over 20% of GDP, and low-income countries over 13%. With the exception of Japan, high-income countries continued to hold reserves equivalent to around 3% of GDP.

Chart 3: Foreign Exchange Reserves by Level of Development



Note: Left-hand scale except China and the Gulf Countries.

Source: Total reserves minus gold series, World Bank, World Development Indicators, based on information from the IMF.

This phenomenon, which has come to be known as "self-insurance", involves not only accumulating reserves to face an eventual "sudden stop" in external financing but also absorbing through reserve accumulation large part of what countries consider excess capital inflows. The basic rationale for this policy is avoiding appreciation pressures and growing current account deficits during periods of booming capital inflows which, as past experience indicates, are strong predictors of crises during the downswing of the capital account cycle. There is increasing evidence that strong reserve positions and avoidance of overvaluation and current account deficits significantly contributed to relatively good performance of developing countries during the North-Atlantic financial crisis.[4] So, in a broad sense, self-insurance is nothing else than a prudential or counter-cyclical macroeconomic policy aimed at moderating the domestic effects of pro-cyclical capital flows. Despite this positive

[4] See, among many others, Frankel and Saravelos (2010) and Llaudes et al. (2010).

effect, it must be emphasized that this policy generates “fallacy of composition”: if many countries adopt a policy aimed at generating surplus or small current account deficits, they contribute to the generation of global imbalances.

Reforming the System

These deficiencies of the global monetary system are, in variable ways, at the center of the reform proposals formulated in the beginning of the crisis. They included the proposal by the central bank governor or China to gradually eliminate the role that the US dollar plays at the center of the system (Zhou, 2009). In turn, the Stiglitz Commission, convened by the President of the UN General Assembly, proposed that reforms of the global reserve system should be at the center of the global reform agenda (United Nations, 2009). The Palais Royal Initiative (2011), convened by the French government, also presented a series of reform proposals. However, actions have been limited and the reforms of the international monetary system did not fully enter into either G-20 or IMF debates.

There are essentially two ways forward, which in fact can be mixed in a complementary solution.[5] The first one, which in a sense is the inertial solution, is to enhance the potential multicurrency character of the current system. The increasing use of the euro for global transactions and as a global reserve asset is one of the possibilities – though the recent crisis has shown that this currency has to overcome the sense that it is an imperfect substitute for the US dollar, as it is backed by a heterogeneous group of countries with uneven strength and there is in fact no homogeneous Eurobond market. The internationalization on the renminbi is a complementary possibility. It is a process that is being pushed by market forces and facilitated by Chinese authorities, particularly by allowing Hong Kong to play the role of intermediary in the process. The constraints are given here by limitations of domestic financial development in China and by the inconvertibility of the renminbi (Yu, 2014). However, full convertibility may not be necessary for the renminbi to play the role of reserve asset (though full convertibility for central banks that hold renminbi as reserves would be essential) and may be inconvenient for the Asian giant, as it can lead in the transition to destabilizing forces which other developing countries are familiar with. On top of the euro and the renminbi, other currencies can play a secondary role, and local currencies can be used in a broader scale for

[5] There are, of course, other alternatives. One would be going back to some form of gold standard, or at least to a greater use of gold as a reserve asset. But this goes against long-term trends toward moving away from this “Barbarous relic”, to use Keynes’ terminology, which includes the growing demonetization of gold since the 1970s. It would also go against the “embedded liberalism” of the post-Second World War arrangements, as emphasized by Eichengreen (2008).

intra-regional trade, following several successful experiences of the sort that sprang up during the recent and past crises.

The basic advantage of a multicurrency arrangement is that it allows reserve holders – notably, as we have seen, emerging economies— to diversify the composition of their foreign exchange reserve assets, and thus counteract the instability that characterizes all individual currencies under the current system. In this regard, however, exchange rate flexibility among alternative reserve currencies would be an advantage but also a potential risk. Exchange rate flexibility would make the system more resilient than the fixed gold-dollar parity that led to the collapse of the original Bretton Woods arrangement. However, if central banks around the world actively substitute among currencies to enjoy the benefits of diversification, this could increase exchange rate volatility among major reserve currencies. For this reason, a multicurrency arrangement may actually need an IMF "substitution account" to serve as a stabilizing mechanism, which means that it may have to rely on at least some elements of the second solution (see below).

This reform would also not address any of the other deficiencies of the current system. The benefits from the reserve currency status would still be captured by industrial countries and eventually by China, so the system would continue to be inequitable. It would not solve the asymmetric adjustment bias of the current system either, nor would it reduce emerging and developing countries' demand for self-insurance. Finally, in the light of the growing demand for reserves, the dominance of the U.S. dollar could worsen the net external liability position of the U.S. and associated problems highlighted by the Triffin dilemma.

The second alternative is to move toward a global currency, possibly in the first stage only as a reserve asset. Although other possible routes may be considered,[6] the best is unquestionably the use of Special Drawing Rights (SDRs) issued by the IMF, indeed fulfilling the aspiration that was written in the Fund's Articles of Agreement when this instrument was created of "making the special drawing right the principle reserve asset in the international monetary system" (Article VIII, Section 7 and Article XXII).[7] As Triffin (1968) envisioned, this would complete the transition since the nineteenth century of placing fiduciary currencies at the center of modern monetary systems.

Proposals for periodic SDR allocations follow two different models. The first are counter-cyclical allocations, thus concentrating them in periods of world financial stress and possibly partially destroying them once financial conditions normal-

[6] The reform could also be implemented by creating a new institution (a Global Reserve Bank) or a network of regional arrangements. See, in this regard, United Nations (2009, chapter 5). But creating new institutional frameworks would be time-consuming and may not be politically viable.

[7] See Solomon (1982, chapters 4–8) for a history of the debates on global monetary issues that led to the creation of SDRs.

ize (United Nations, 1999; Camdessus, 2000; Ocampo, 2002; Akyüz, 2005). This would develop a counter-cyclical element in world liquidity management. The second model proposes regular allocations in proportion to the additional global demand for reserves. Most estimates indicate that allocations for the equivalent of USD 200–300 billion a year would be reasonable.[8] Even such allocations would only increase the share of SDRs in non-gold reserves to somewhat above 10% in the 2020s, indicating that they would still largely complement other reserve assets.

Under current rules, IMF makes allocations of SDRs on the basis of a long-term need a global character, and with the purpose of supplementing existing reserve assets. So far there have been four general SDR allocations: the original one, in 1970–72, for SDR 9.3 billion; a second in 1979–81 for SDR 12.1 billion; a third proposed in 1997, partly to allocate SDRs to members that had joined after 1981, was not effective until the Fourth Amendment of the IMF Articles of Agreement (of which it was part) was approved by the US Congress in 2009; and a fourth, and largest in history, for USD 250 billion (SDR 161.2 billion) agreed by the G-20 in 2009 as one of the measures to boost international liquidity during the global financial crisis. Allocations are made according to IMF quotas, and therefore are much larger for high-income countries. Table 1 indicates that the share of high-income countries has gradually declined through time, but was still close to 70% in 2009, with the falling share of OECD countries partly compensated by the rise of high-income non-OECD (mainly Gulf) countries. Middle-income countries have increased their share in allocations by 6 percentage points since the early 1970s, with China taking more than half of that. In contrast, low-income countries have seen their share reduced from in any case marginal levels.

SDRs are defined by the IMF as an “international reserve asset”.[9] However, under the current rules, countries have to pay interest on allocations of SDRs, but receive interest on holdings. In this sense, SDRs are peculiarly both an asset and a liability. Moreover, since countries that use them make net interest payments to the Fund, they should perhaps be considered as a credit line which can be used unconditionally by the holder –i.e., an unconditional overdraft facility. However, the fact that all central banks accept SDRs makes them effectively an international reserve currency. Use of SDR allocations is quite active and works rather smoothly, with developing countries making a frequent use of them but also industrial countries at different critical conjunctures (Erten and Ocampo, 2013).

[8] See a survey of different estimates in Erten and Ocampo (2013).

[9] See, for example, http://www.imf.org/external/np/exr/facts/sdr.htm.

Table 1: SDR Allocations by Level of Development

Millions of SDRs

	Allocations (in mil.SDRs)			Allocation to each group by percent of total allocations		
	1970-72	1979-81	2009	1970-72	1979-81	2009
High income: OECD	6,818	7,956	114,905	73.8%	66.2%	62.9%
Japan	377	514	11,393	4.1%	4.3%	6.2%
Excluding Japan	6,441	7,442	103,512	69.8%	61.9%	56.7%
United States	2,294	2,606	30,416	24.8%	21.7%	16.7%
High income: nonOECD	41	363	10,797	0.4%	3.0%	5.9%
Gulf countries	1	286	8,835	0.0%	2.4%	4.8%
Excluding Gulf countries	40	77	1,962	0.4%	0.6%	1.1%
Middle income	2,144	3,359	53,347	23.2%	28.0%	29.2%
China	0	237	6,753	0.0%	2.0%	3.7%
Excluding China	2,144	3,122	46,594	23.2%	26.0%	25.5%
Low income	230	338	3,604	2.5%	2.8%	2.0%
Total allocations	9,234	12,016	182,653	100.0%	100.0%	100.0%

Source: IMF; International Financial Statistics.

Perhaps the most important and simplest reform that can be adopted would be to finance *all* IMF lending and in fact to make all IMF operations with SDRs, thus making global monetary creation similar to how central banks creates domestic money. This idea goes was suggested by the IMF economist Jacques Polak (1979) more than three decades ago. According to his proposal, IMF lending during crises would create new SDRs, but such SDRs would be automatically destroyed once such loans are paid for. The alternative, I have suggested would be to treat the SDRs not used by countries as deposits in (or lending to) the IMF that could then be used by the institution to lend to countries in need (Ocampo, 2010a). Either of these proposals would involve eliminating the division between what are called the General Resources and the SDR accounts that is an inheritance of the debates of the 1960s and make SDRs a relatively limited instrument of global monetary cooperation (Polak, 2005, part II).

If SDRs are used to finance IMF programmes, this would also help correct the significant imbalances that have been built up by lags in increasing the size of the Fund in relation to that of the world economy, and particularly of international capital flows (IMF, 2010). An additional problem is that, despite the reallocation of quotas agreed to since 2006, and particularly in 2010, quotas do not reflect the shares of different countries in the world economy today. The under-representation of developing countries in quota allocations enhances the inequities associated with the fact that the largest demand for reserves essentially comes from developing countries.

This implies, of course, that efforts to reform quota allocations must continue. The inequities can also be partially corrected with a mix of two types of reforms (since they are not mutually exclusive). The first is an asymmetric issuance of SDRs, which would imply that all or a larger proportion of allocations would be given to those countries with the highest demand for reserves –i.e., essentially developing countries. One simple formula that Williamson (2010) has proposed is giving 80% of allocations to emerging and developing countries, and 20% to industrial countries, with allocations within each group determined according to IMF quotas. The second would be to create a "development link" in SDR allocations. One alternative would be to allow the IMF to use the SDRs that are not utilized by member states to provide or, better, leverage financing for development, for example by allowing unused SDRs to be used to buy bonds from the multilateral development banks or institutions that provide global public goods (such as climate mitigation and adaptation) (United Nations, 2009).[10]

A reform such as this would go a long way to correct some major problems of the current system, particularly the *Triffin dilemma* and the inequity bias, but it would not solve the asymmetric adjustment bias. This problem could be partly solved by two complementary reforms: (i) the creation of at least a moderate version of Keynes' overdraft facility;[11] and (ii) withdrawing allocations of SDRs to countries with "excessive reserves", using a definition of such "excess" that would take into account the high demand for reserves that developing countries have.

As already indicated, SDRs should also be used to create a "substitution account" similar to that proposed in the debates of the late 1970s, which would allow countries to transform their dollar reserves (or those denominated in other currencies) for SDR-denominated assets issued by the Fund (Bergsten, 2007). This instrument would provide stability to the current system and, as already pointed out, may actually prove essential to manage some of the instabilities generated by the multicurrency arrangements; it would also be an essential transition mechanism of an ambitious reform effort (Kenen, 2010b). Of course, it is essential to negotiate how to distribute the potential costs of this mechanism, but backward simulations by Kenen (2010a) based on historical data for 1995–2008 indicate that such costs may be small.

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[10] There is also the possibility of using the allocation to industrial countries to directly finance additional official development assistance and the provision of global public goods (Stiglitz, 2006, chapter 9). In the same line of reasoning, IMF Managing Director Strauss-Kahn raised during its tenure the possibility of using them to finance programmes to combat climate change. These proposals have many virtues but pose the problem that such transfers are fiscal in character, and may thus require in every case the approval of national parliaments.

[11] As already indicated, a possible interpretation is that SDRs, as currently designed, are in fact such facility (Erten and Ocampo, 2013).

The reform could also include more currencies into the SDR basket (notably the renminbi) and could allow the broader use of SDRs in private transactions, as some authors have suggested through the years (Kenen, 1983; Eichengreen, 2007; Padoa-Schioppa, 2011). One simple reform could be allowing deposits by financial institutions in central banks (either reserve requirements or excess reserves) to be held in SDRs. However, the system could also work as one in which the only uses of SDRs are as a reserve asset and a means of financing of IMF lending, so long as central banks keep the basic commitment to convert SDRs into convertible currencies when asked to do so, which is what makes the SDRs an effective monetary instrument for transactions among central banks. Furthermore, allowing the broader use of SDRs would make the reform costly for the USA and therefore likely to face greater resistance from this country, and could make SDRs subject to the instability that characterizes private markets. In any case, it may be necessary to embed the reform in rules that make holding SDRs attractive for central banks (an adequate return) and/or other rules that guarantee that there is an active demand for SDRs (e.g., commitments not to reduce SDRs held by individual central banks below certain limits relative to the allocations they have received, obviously if they are not borrowing from the Fund).

Conclusions

The most desirable reform of the current global reserve system involves moving to a fully SDR-based IMF with a clear counter-cyclical focus. This would include counter-cyclical allocations of SDRs and counter-cyclical IMF *financing,* made entirely in SDRs. In the first case, it could include criteria for SDR *allocations* that take into account the very different demand for reserves by industrial vs. emerging and developing countries. The use of SDRs to finance IMF programs would help consolidate the reforms of the credit lines that have been introduced during the recent global financial crisis, particularly the creation of contingency credit lines and the much larger levels of financing relative to quotas. The introduction of a substitution account by which central banks can exchange for SDRs the reserves in currencies they do not want to hold would make the latter a complement to the multicurrency arrangement that may be emerging. The introduction of a substitution account would in fact make the SDR complementary to a multicurrency system, a fact that would make the reforms more attractive for the USA. This mix is probably the best practical option for moving forward.

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Managing Global Finance as a System

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The lessons from the global financial crisis are many and varied. Among the most important is perhaps also the simplest: to safeguard against systemic risk, the financial system needs to be managed as a *system* (Haldane (2009)). As put, this statement seems rather obvious, perhaps even tautological.

Yet, pre-crisis, it was far from obvious. The orthodoxy then believed that safeguarding individual financial firms was both a necessary and sufficient condition for system-wide stability. This was the financial stability equivalent of the English aphorism: "look after the pennies and the pounds will look after themselves". And so it appeared during the long pre-crisis period of stable growth and stable banks, often called the "Great Moderation" (Bernanke (2004)).

The crisis has rewritten that orthodoxy. It revealed that the safety of individual banks was neither a necessary nor sufficient condition for systemic stability. Not necessary because, in a well-functioning system, individual banks can and should fail. Not sufficient because, in an integrated web, the links in the chain are more important than any individual node. In focussing on individual banks, policymakers were, to coin another English aphorism, "penny-wise but pound-foolish". That is why Great Moderation gave way to Great Recession (Gai and Kapadia (2010))

Avoiding systemic risk, then, calls for a system-wide approach to risk monitoring and management. That lesson would have come as no surprise to anyone familiar with dynamic, integrated networks outside of the world of finance. Every network known to man – natural, physical, social, economic – relies for its stability on a systemic approach (Goldin and Mariathasan (2014)). Financial webs are no exception. Indeed, the history of crises suggests they may be closer to the rule.

In the light of the crisis, the good news is that this lesson has been taken to heart. The regulatory reform agenda has had an explicitly systemic focus (Haldane (2009)). That is why so-called *macro*-prudential policy has risen in prominence. That is why the world's largest banks will be required in future to run with extra layers of capital and liquidity. That is why OTC derivatives will in future be centrally traded and cleared. And that is why cross-border resolution of the world's largest banks has become such a priority. For the global banking system, we now have an emerging set of international rules of the road.

Yet it is far from clear that these lessons have been applied to the global monetary and financial system: if instead of banks we consider countries; if instead of inter-bank lines we consider cross-border capital flows; if instead of international banking regulation we consider the international financial architecture. The rules of the road for this system have, arguably, not kept pace with the growing scale and complexity of global financial flows. For that very reason, some have called it a "non-system" or an "anti-system" (Truman (2012) and De Larosiere (2014)).

This paper discusses these issues and their public policy implications. We first discuss the evolution of the global financial network and why financial integration might be a double-edged sword. We then consider steps to strengthen the international architecture, to better manage global finance as a system.

The Evolution in Global Finance

It is first worth tracking how global financial integration has evolved over the past century or so. Has global finance indeed become more of a system over time? One way of gauging that is by looking at measured stocks of external asset and liabilities – the cumulative consequences of past cross-border capital flows (and valuation changes). Charts 1 and 2 plot world gross external assets, measured relative to world GDP, over the past 140 years. As a comparison, world trade relative to world GDP is also shown.

Global integration of trade and finance has followed roughly similar patterns. Both rose prior to World War I during the heyday of the classical Gold Standard, when trade and capital liberalisation were last at their peak. Both then fell during the interwar years, as national protectionism led to trade and financial barriers being erected. Then, from around 1960 onwards, trade and finance once more began to rise due to the lifting of restrictions on cross-border trade and capital flows.

Despite this close historical correlation, the undulations in global finance are far greater than those in world trade. In 1960, global finance was around one third of its value in 1914, measured relative to world GDP. By 2010, it had risen to three times its value in 1914. Put differently, in 1980 global trade and global finance were on a broadly equal footing, at around a quarter of world GDP. By 2010, global finance was nine times global trade. At the same time as world trade has flat-lined, global finance has come of age.

Today, cross-border stocks of capital are almost certainly larger than at any time in human history. The same is true of cross-border flows of people, goods and services and information (Haldane (2013)). We are accustomed to talking of the revolution in information technology. Yet the revolution in global finance has in some respects been every bit as great.

While these trends tell us something about relative patterns of global interconnection over time, they leave unanswered the question of whether global finance is a truly integrated network. To gauge that, consider an alternative measure of global capital market integration – the correlation between national saving and investment rates. From Feldstein and Horioka (1980), we know that this correlation provides a proxy for cross-border capital market integration.

For example, a savings/investment correlation of one indicates a closed capital account: all domestic investment needs to be fully financed from domestic saving. At a global level, this would signify something close to global financial autarky. By contrast, a correlation of zero implies that domestic investment can be fully financed on global capital markets. This would signal something close to perfect capital market integration. So saving/investment correlations of zero and one define the outer limits of global capital market integration.

Chart 3 plots this correlation coefficient over the same 140-year period shown in Chart 1. Broadly-speaking, the two series track one another fairly closely. But Chart 3 now allows us to say things about the *absolute* degree of capital market integration. And what a roller-coaster ride it has been. During the first period, from around 1880 up until the Great Depression, global financial integration sat roughly mid-way between its outer limits. Integration was highish, but far from perfect.

For around a fifty year period, from the 1930s through to the 1980s, global finance then went into hibernation. The Feldstein/Horioka coefficient skirted one for large parts of this period. The global financial system operated as anything but a system. Indeed, it was this which prompted Feldstein and Horioka in the early 1980s to present the "puzzle" of still-low levels of capital market integration.

Yet at pretty much precisely the point this puzzle was being identified, it began to disappear. Correlations quickly moved from close to unity in the early 1980s to close to zero by the start of a 21st century. This was an astonishingly rapid evolution from a world close to financial autarky to one close to financial nirvana. In the light of the crisis, measured levels of global capital market integration have fallen somewhat. But they remain at higher levels than at any point in history.

Overall, then, the picture is clear. For much of the 20th century, global finance was more patchwork than network. But the past thirty years have seen that picture change spectacularly. Today, global finance is a well-connected network, a tangled web, a genuine system.

The Double-Edged Sword of Financial Integration

So what are the implications of this increase in global financial integration? There have been large numbers of studies exploring the growth and welfare implications of these trends, using cross-country and time-series evidence. These are well-summarised in Rey (2013). It is fair to say that this evidence paints, at best, a mixed picture. While capital integration ought to enhance international risk-sharing, there is precious little evidence of this having conferred macro-economic benefits – and some of it having imposed large costs.

For some economists, this is a perplexing and contentious conclusion. It is made all the more so by the fact that the evidence on global trade integration points overwhelmingly towards positive effects (Kose et al (2009) and Berg and Krueger (2003)). Yet, outside of economics and finance, this conclusion would be far less perplexing and contentious.

For many other disciplines, it is well-known that the increased integration of a network can be a double-edged sword from a stability perspective (Watts (2002), Haldane and May (2011)); whether it is physical networks, like utility grids; or natural networks, like eco-systems; or social networks, like the world wide web. The logic is straightforward.

Within limits, connectivity acts as a shock-absorber, a risk-spreader. Links in the system act as a mutual insurance device, helping distribute and disperse risk. These systems are thus more "robust" to shocks. But when shocks are sufficiently large, connectivity instead serves as a shock-transmitter. Risk-sharing then becomes risk-spreading. Links in the system acts as a mutual incendiary device, amplifying risk. These systems are thus also more "fragile".

So connected systems tend simultaneously to be both stable and unstable, calm and turbulent, robust-yet-fragile (Acemoglu et al (2013), Gai and Kapadia (2010)). In other words, integration can be a double-edged sword, generating a world which is both stronger and more brittle, with instances of more frequent and/or larger dislocations.

What is true of natural, physical and social systems is also true of global economic and financial systems. To illustrate that, consider Chart 4. This shows the results of simulation of a hypothetical financial network of firms with differing levels of financial strength (measured on the x-axis) and with differing degrees of connectivity (measured on the z-axis). On the y-axis is a measure of systemic risk – the incidence of default across this network.

As the network becomes better integrated, for a given degree of financial strength, the zone of systemic stability widens. That is because the network is operating as a shock-absorber. For a large-enough shock to financial strength, however, the system flips to a zone of systemic instability. That is because the network is then operating as a shock-transmitter. And the greater the degree of integration, the sharper this knife-edge, the more brittle the system.

There was no better example of this robust-yet-fragile property than during the global financial crisis. Then, the flat earth that was the Great Moderation gave way to the fragile planet that was the Great Recession. Risk-sharing gave way to risk spreading, risk distribution to risk contagion. But this was by no means an isolated incident.

Chart 5 plots a measure of global capital market integration (external assets/ GDP) against a measure of the incidence of crises – all crises and banking crises (Reinhart and Rogoff (2011)). Integration appears to have been associated with an increase in the incidence of crisis over the past couple of decades.

It is not just the incidence, but also the prospective size of crises and their spill-over consequences that has increased. Chart 6 provides one perspective on that. It looks at the scale of IMF programmes over time, normalised by the borrowing country's quota. Two features are striking: first, the increased incidence of programmes; but second, more dramatically, their increased scale.

As for cross-border spillovers, academic evidence has long pointed towards important cross-border spill-over effects from national or international disturbances, in particular monetary policy (Obstfeld and Rogoff (1995), Forbes and Warnok (2012) and Fratzscher (2012)). But more recent evidence points towards stronger and more potent cross-border contagion channels than previously.

For example, Rey (2013) finds evidence that a common global risk factor drives international asset prices and cross-border capital flows, for both advanced and emerging economies. Most recently, the World Bank have found a strong and significant impact of quantitative easing by the world's major central banks on capital flows to developing countries (Lim, Mohapatra and Stocker (2014) and Fratzscher et al (2013)).

All of this evidence tends to point in one direction: the global financial system operates in a similar fashion to all other tightly-knit networks – it is robust yet at the same time fragile. That mix spells danger for policymakers.

Reasons to be Cheerful, Reasons to be Fearful

If the global financial system has entered such an era, the next obvious question is what mechanisms are in place to deal with its adverse consequences? Let me highlight four reasons to be cheerful and four to be fearful.

One positive trend in the international flow of funds is their changing composition. Table 1 breaks down these flows of funds into their foreign direct investment (FDI), portfolio and debt components, for advanced and emerging markets, over the periods 1980–1994 and 1995–2012. Two features stand out.

First, the declining share of debt-based finance and, second, the rising share of portfolio and in particular FDI investment. For example, since 1995 the dominant source of emerging market capital has switched from debt-based finance to FDI. That is significant from a stability perspective. Empirical evidence strongly suggests that FDI is a far more stable source of external financing than bank debt (Kose et al (2009)), in part because of its longer duration. Bank of England research adds a nuance to this story. Dell'Erba and Reinhardt (2013) find that financial sector FDI appears to behave more like debt flows than traditional FDI flows.

A second positive development comes from looking at countries' degree of self-insurance against instabilities in external financing flows, in particular their stock of foreign exchange reserves. As Chart 7 shows, these have grown dramatically, both in money terms and relative to world GDP, since the second world war and especially since the Asian crisis. Reserves have risen from $ 1.5 trillion in 1995 to over $ 11 trillion by end-2013, or from around 5% of world GDP to around 15% today.

Third, this has been accompanied by some augmentation of multilateral official sector facilities for helping handle external financing shocks. For example, since 1980 IMF quota resources have risen from just under $ 80 billion to around $ 370 billion, or from 0.7% to just less than 2% of world GDP (Chart 8). The most significant augmentation in resources came from the New Arrangements to Borrow (NAB) in 2009, which were agreed to increase temporarily the resources available to the IMF at the height of the financial crisis.

Fourth, alongside these multilateral facilities, the past few years have seen rapid growth in regional and bilateral financing facilities (Chart 9). Regionally, we now have a number of arrangements, including the Chiang Mai initiative in Asia (established in 2000), the European Stability Mechanism (established in 2012), the Latin American Reserve Fund (established in 1991), the Arab Monetary Fund (established in 1976) and, most recently, the BRICS development bank (established in 2014)). In total, regional facilities now total perhaps around $ 1.3 trillion.

In addition, during the course of the crisis, bilateral foreign currency swap lines were agreed between around 14 central banks, in both advanced and emerging market countries. Although these swap lines were temporary, in October 2013 they were replaced by a set of permanent, and potentially unlimited, swap lines among a group of advanced economy central banks: the US, Canada, the UK, the euro-area, Switzerland and Japan.

These four developments, in combination, are likely to have increased significantly the degree of liquidity insurance available to the global financial system in dealing with systemic country crisis. It is questionable, however, whether this degree of insurance has kept pace with the scale of global capital market integration.

One metric for that is found by scaling countries' foreign exchange reserves by external assets (Chart 10). Despite the rapid rise in reserves, that ratio has fallen since 1980, from around 10% to around 8%.

Second, these reserves are held unevenly across countries, with the countries most at risk from capital flight not necessarily those with the largest reserves stockpile. The degree of concentration in reserves has increased threefold since 2000, according to Herfindahl indices. And scaling individual countries' reserves by measures of their external short-term indebtedness suggests a highly-uneven pattern (Chart 11), with a number of countries holding less than would be needed to meet a year's worth of capital outflows.

Third, this pattern is broadly mirrored when moving from measures of self-insurance to official financing measures. Chart 12 scales IMF resources by external assets. Since the 1980s, this measure has roughly halved from 3% to 1.5% of external assets. And fourth, even once we augment multilateral financing with measures of regional official financing, total official resources relative to external assets are still shy of their levels in 1980. It is only when all central bank swap lines are added do we get back close to 1980 levels.

Taken in combination, this paints a picture of a global financial system whose underlying topology has fundamentally changed shape, but whose insurance mechanisms have failed to keep pace. Therein lies the potential fault-line in the current international financial architecture.

Strengthening the Global Financial System

This naturally begs the question of what might in future be done to improve the resilience of the international financial system. Let me discuss four areas where progress could realistically be made. They are not, individually or collectively, a new global financial architecture. But each is a potentially important new brick in the wall.

First, improved *global financial surveillance.* Understanding the dynamics of a global financial system, its tipping points and edges, is a pre-requisite of managing this system effectively. Some progress has been made on this front. For example, the IMF's Global Financial Stability Report has, since 2002, sought to plot the evolving contours of global finance. And the publication by the IMF of "spillover reports", since 2011, is a further step in the right direction.

Nonetheless, it remains an open question whether these steps take us sufficiently far. The centrepiece of the IMF's surveillance efforts remains the country-specific Article IV consultations. Whether that focus, enshrined in the IMF's 1944 Articles, can still be justified in today's highly integrated global financial network is an open question. The IMF's 2014 Triennial Surveillance Review could seek to further improve the Fund's multilateral and spill-over analysis.

So what might be feasible? I have a dream that, a generation hence, it will be possible to track the global flow of funds in close to real time, in much the same way as we do now with weather systems and internet traffic (Haldane (2011)). This would allow us to not just plot the evolving global financial system but to simulate and stress-test it to help detect impending financial cliff-edges and chasms. The IMF would be the natural guardian of such a global financial weather map.

Second, improved country d*ebt structures (and restructures).* Debt flows are known to be a potent source of instability within the global financial system. The instabilities they generate are exacerbated by frictions in the design of debt contracts. One such friction is that debt is an inherently pro-cyclical instrument. For example, a negative shock to a country's income prospects will tend to raise debt sustainability concerns and hence borrowing costs, thereby worsening sustainability.

Another friction is that, once internationally-held debt becomes unsustainable, restructuring it is usually a messy and complicated process because of the lack of an internationally-agreed legal framework. In part for that reason, countries have tended to delay tackling unsustainable debt problems. But if debt is unsustainable, delay will tend to make a bad debt situation worse, prospectively increasing costs for both the debtors and creditors (Krugman (1988)).

In combination, these frictions can make debt a fickle friend. They will tend to encourage investors to withdraw credit at the first sign of trouble – so-called "sudden stops" (Calvo (1998)). And these frictions are well-illustrated by recent sovereign debt restructuring experience, most recently in emerging market economies such as Argentina and some advanced economies in Europe.

Yet it is widely accepted that there are some, relatively straightforward, technical solutions to these debt problems. One is to issue debt instruments whose contractual features reduce pro-cyclicality and prevarication. One example is GDP-linked bonds, whose repayment profile adjusts with a country's ability to pay, thereby acting counter-cyclically and quasi-automatically to defuse repayment risk (Shiller (1993 and 2003), Barr et al (2014)).

The impact of such instruments on debt dynamics could be significant. A recent Bank of England study considered the debt-to-income ratios of the G7 countries, given shocks to growth and real interest rates, comparing conventional and GDP-linked debt. The latter shrunk the variability of the debt-to-income ratio among the G7 by as much as half. Yet despite their potential attraction, no more than a handful of countries have so far issued GDP-linked debt instruments.

Contingent convertible ("CoCo") bonds are a second potentially useful instrument. They can be designed with a duration which is automatically extended if a country breaches certain pre-set stress conditions – for example, if it is the subject of an IMF lending programme (Brooke et al (2012)) – thereby delivering some temporary alleviation of liquidity pressures. So far, no country has issued such instruments, even though broadly-similar instruments have become popular among banks.

There has been somewhat greater progress towards the inclusion of contractual clauses which assist in the restructuring of sovereign debt, in particular Collective Action Clauses (CACs) following the Asian financial crisis. Yet as recent Argentine experience underlines, this has not closed the book on sovereign debt restructuring problems. In the future they might do so if stronger formulations, such as the recently proposed "super aggregation CACs", are introduced.

Third, enhanced *macro-prudential and capital flow management.* Significant progress has been made over the past decade in the design and implementation of such regimes. A decade ago, policies to manage actively inflows and outflows of capital tended to be frowned upon by the IMF and the international community. Today, these measures have been accepted as part of the toolkit for protecting countries from boom/bust cycles in capital flows (IMF (2012)). More importantly still, more than 40 countries have already deployed these measures since 2009.

That is by no means, however, the end of the story. A great many important analytical and operational issues remain open. What are appropriate states of the world for introducing and releasing such measures – first resort or last resort?; which measures are likely to be most effective – outflow or inflow?, price or quantity?; and how do these policies operate alongside the other arms of policy – monetary, macro-prudential, micro-prudential?

At present, we have neither the theory nor the experience to answer these questions definitively, although case law is rapidly emerging (Forbes et al (2013) and Magud et al (2011)). Pending answers to those questions, there is no real framework or "rules of the road" for capital flow management policies.

The same is true, to a somewhat lesser extent, of macro-prudential policy frameworks. These too have come significantly back into fashion, with many countries now implementing macro-prudential policies and a number of them having distinct, if still fledgling, macro-prudential frameworks (Nier et al (2011)). Case law is being built rapidly and empirical evidence is emerging on the efficacy of different classes of macro-prudential tool (Lim et al (2011) and Kuttner and Shim (2013)).

The new Basel III banking rules have added further momentum to this policy trend, by introducing an explicitly macro-prudential requirement – the Countercyclical Capital Buffer (CCB). The CCB rules hard-wire in some degree of cross-country co-ordination, with any adjustment in the buffer by one country (up to a limit) being automatically reciprocated by other countries whose banks are lending into that country.

This means that some co-ordination of macro-prudential policies is likely, helping smooth some of the peaks and troughs in risk-taking caused by cross-border capital flows. Whether it is possible to go one step further – for example, by having macro-prudential policies explicitly lean against common global risk taking factors – is an interesting analytical and operational question for the future.

Fourth, improved *international liquidity assistance*. This is plainly the thorniest of the issues. Fifteen years ago, IMF Deputy Managing Director, Stan Fischer set out the case for the IMF becoming a quasi-international lender of last resort (Fischer (1999)). His argument then was that the IMF needed more financial firepower given the increasing scale of cross-border capital flows.

In the period since, there has been a further dramatic ratchet up in cross-border capital flows which has not been matched by increased IMF resources. Ratification by the US of the 14th general review of IMF quotas would be a step in the right direction, but would not reverse the retreating tide. Various proposals for augmenting IMF resources, including by borrowing on capital markets, have foundered on political rocks (Lachman (2006) and Farhi et al (2011)).

Regional facilities have sprung up as a partial substitute and could potentially play a useful complementary role. Their resources have grown to around the same size of those of the IMF. But the financial system is a global, not regional, one. And the global public good of financial stability risks being under-provided for if it is reliant on purely regional solutions. Indeed, access to some of these regional facilities is itself conditional on an IMF programme.

One hybrid solution, proposed by some, is to develop further the foreign exchange swap lines agreed among central banks, bilaterally or multilaterally (Farhi et al (2011)). Although such facilities rose to prominence during the crisis, they have a lengthy history dating back to the 1930s.

At present, the number of bilateral swap lines between central banks totals almost 90, in addition to the unlimited multilateral swap lines agreed recently among some advanced economy central banks. This web of bilateral and multilateral lines could, at least in principle, be augmented to cover a larger part of the global financial system.

Conclusion

The global monetary and financial system has undergone a mini-revolution in a generation, the result of financial globalisation. It has become a genuine system. This has altered fundamentally the risk-return opportunity set facing international policymakers: larger-than-ever opportunities, but also greater-than-ever threats.

Dealing with these risks calls for managing this system as a system. That means turning the current “non-system” of rules and regulations into one with an identifiable architecture to support it. Measures to improve the monitoring and management of private capital flows, and to augment and strengthen official sector financing facilities are important milestones towards this long-term objective.

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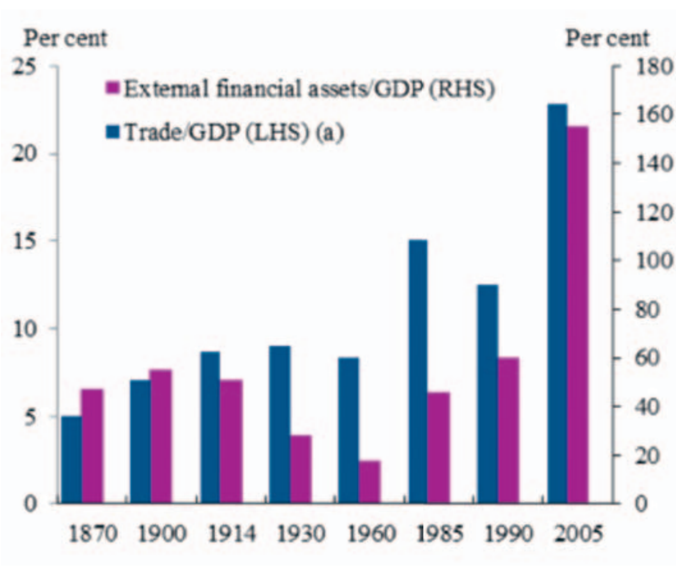
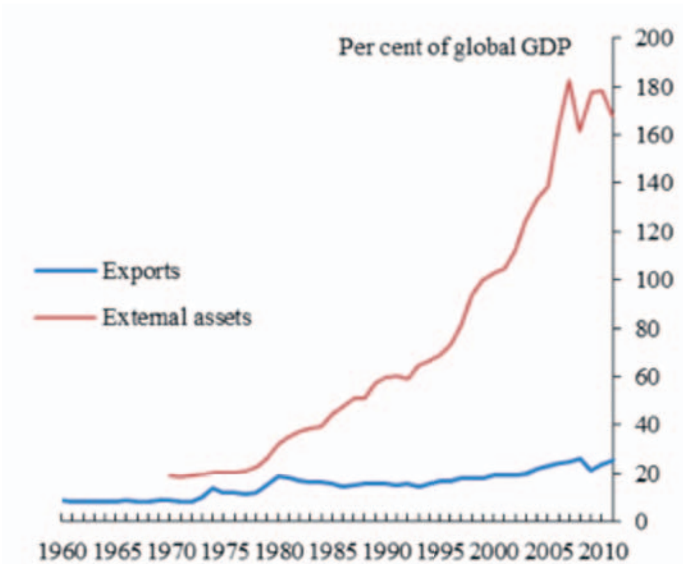
Chart 1: Capital Stocks and Trade Flows



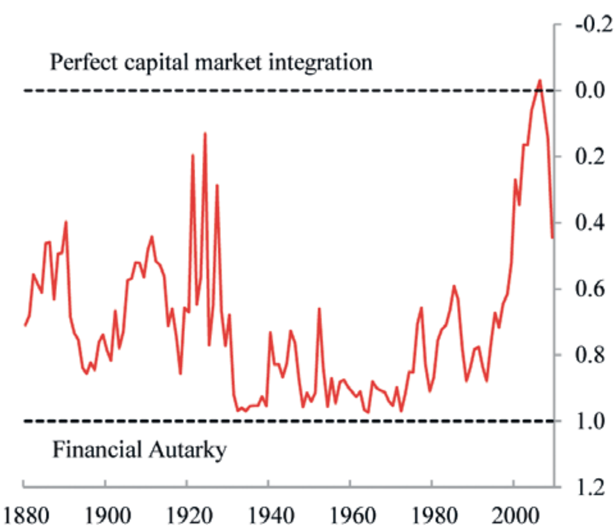
Sources: Maddison (1995: pg 227,239), IMF International Financial Statistics, World Bank WDI, National Bureau of Economic Research , Mckeown (2004 P 184) and Bank calculations.
(a) Trade = volume of exports in world prices.

Chart 2: Capital Stocks and Trade Flows, 1960–2012



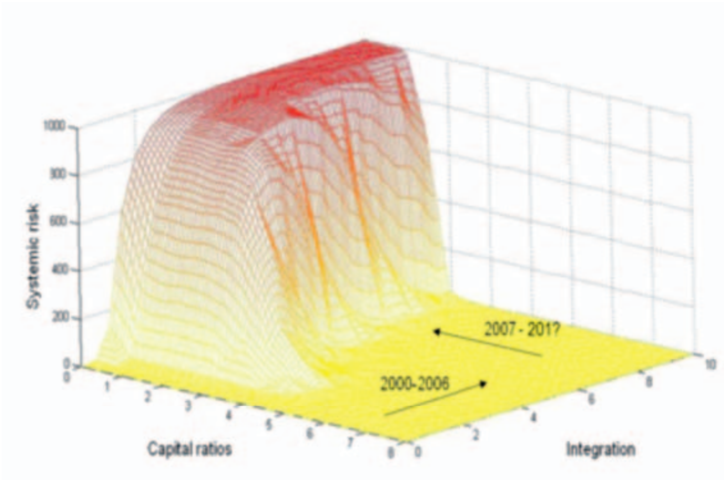
Sources: IMF International Financial Statistics, World Bank WDI and Bank calculations.

Chart 3: Global capital market integration[(a)]



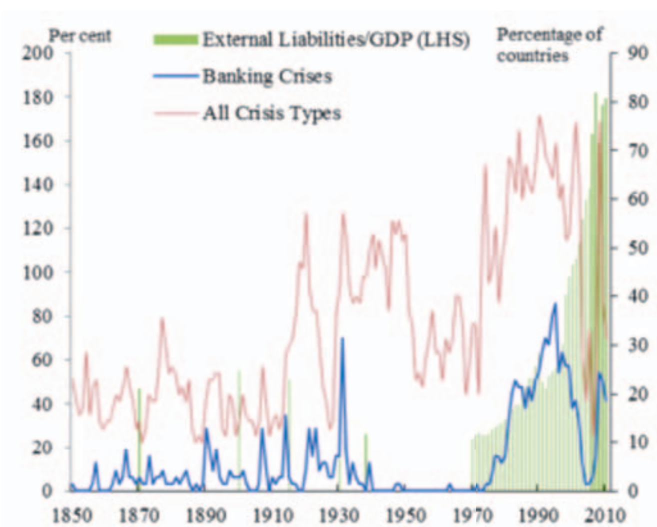
Sources: Taylor (2002), IMF WEO, Obstfeld and Taylor (2004) and Bank Calculations
(a) Global capital market integration is the correlation coefficient between domestic savings and investment for 15 countries (the sample varies slightly over the period).

Chart 4: Contagion in financial networks



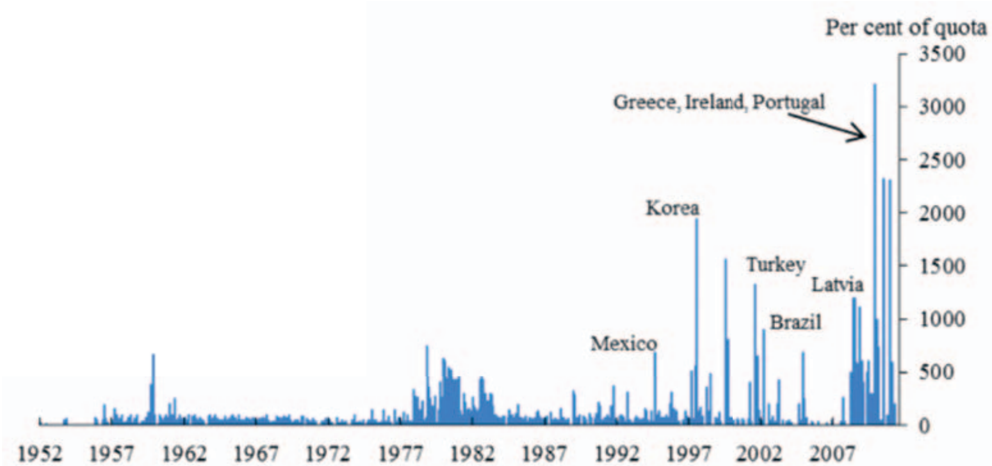
Sources: Bank of England.

Chart 5: External assets and crisis incidence



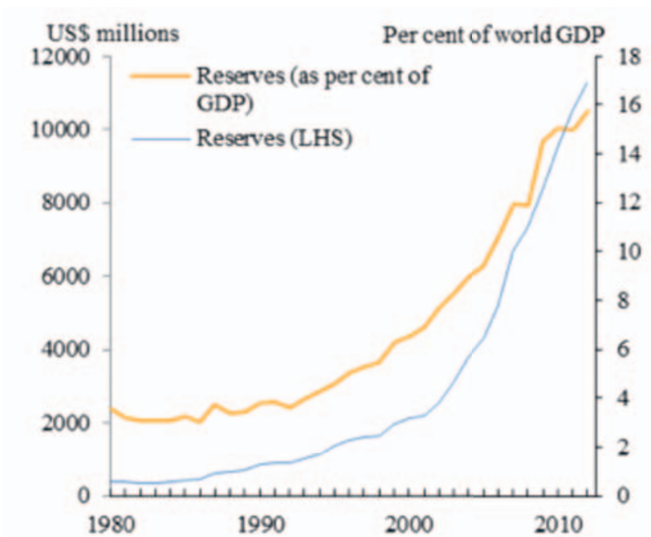
Sources: Reinhart and Rogoff (2011), updated and extended version of dataset constructed by Lane and Milesi-Ferretti (2007) and Maddison (1995).

Chart 6: Size of IMF programmes as share of borrower's IMF quota



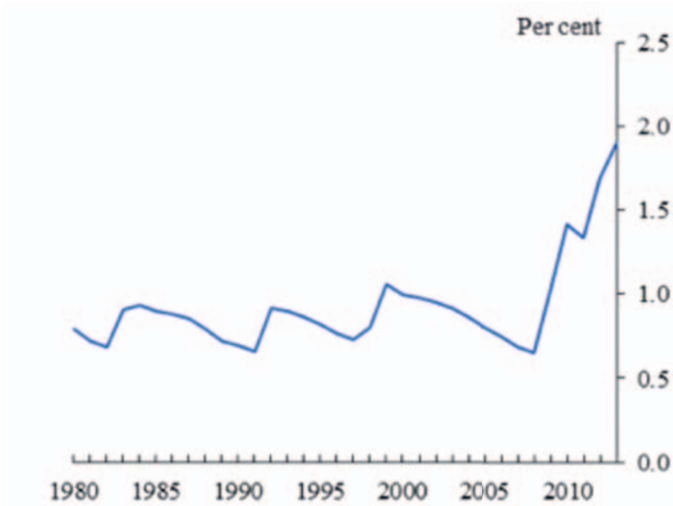
Sources: IMF.

Chart 7: International reserves (USD) and as a share of global GDP, 1980–2012



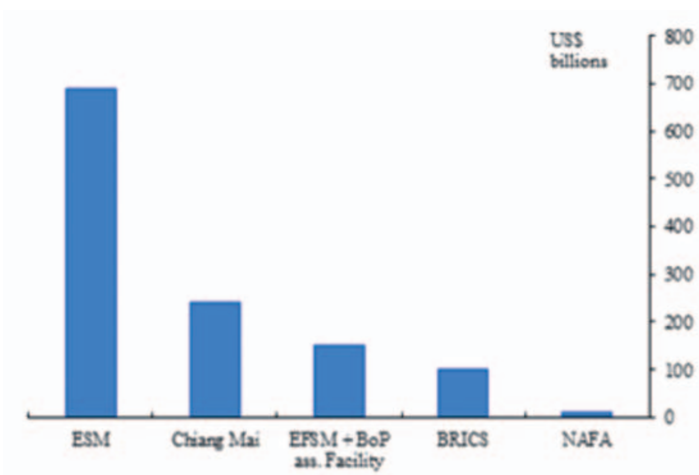
Sources: IMF IFS, IMF WEO and Bank calculations.

Chart 8: IMF resources as a share of global GDP[(a)]



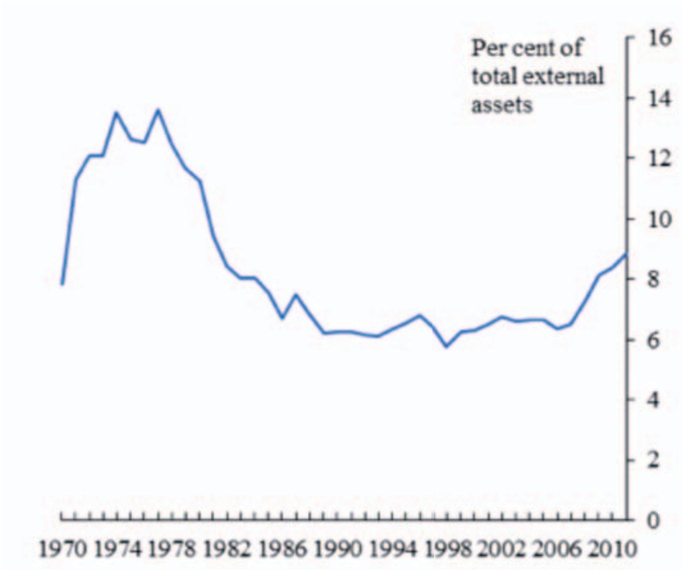
Sources: IMF International Financial Statistics, IMF WEO and Bank calculations.
(a) IMF resources include quota, NAB, GAB and bilateral borrowing.

Chart 9: The 5 largest regional financial arrangements[(a)]



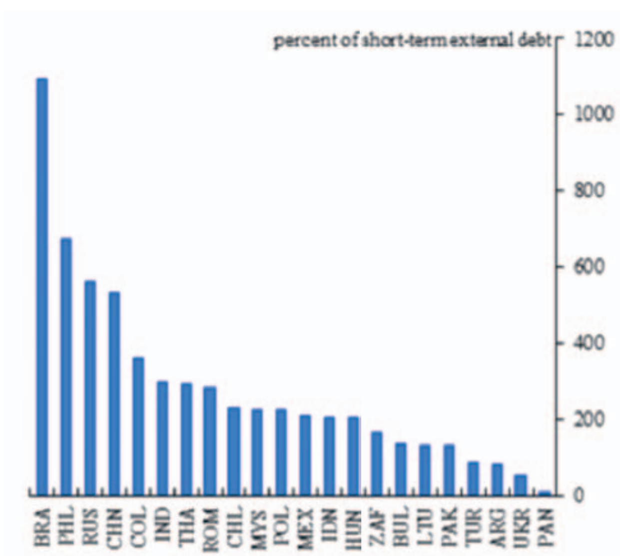
Sources: ESM, ABD, FLAR, AMF, BRICS Fortelleza declaration, NAFA, EFSM, EurAsEC ACF.
(a) There many other RFAs including FLAR, AMF EurAsEC ACF.

Chart 10: International reserves as a share of global external assets, 1970–2012



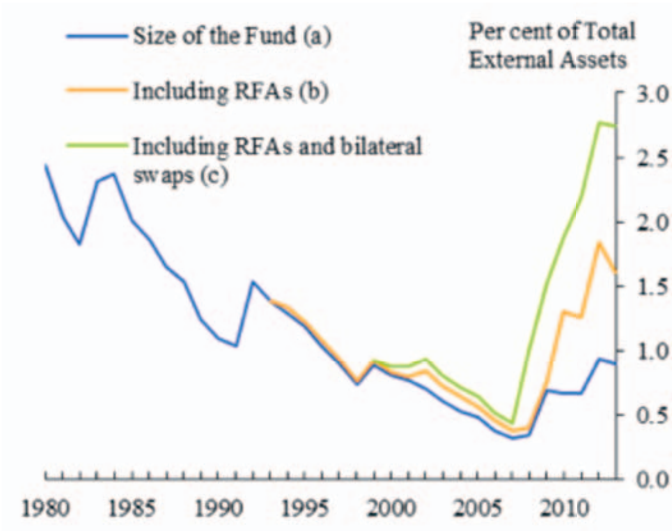
Sources: IMF IFS and updated and extended version of dataset constructed by Lane and Milesi-Ferretti (2007).

Chart 11: International reserves as a share of short term external debt, end-2012



Sources: IMF IFS, World Bank QEDS and Bank calculations.

Chart 12: Official resources as a share of global external assets



Sources: Sources: IMF International Financial Statistics, IMF WEO, updated and extended version of dataset constructed by Lane and Milesi-Ferretti (2007) and Bank calculations.
(a) IMF resources include quota, NAB, GAB and bilateral borrowing.
(b) Includes EFSF from 2010 until 2013,; ESM from 2012; CMIM and EFSM from 2010, FLAR, AMF from 2011; BoP Assistance Facility from 2002; Nafa from 1994; EurAsEC ACF from 2009.
(c) For swap lines that are formally unlimited, the value of their past maximal drawing was used (where drawn upon).

Table 1: Composition of capital flows, 1980–2012

	1980-1994	1995-2012
Advanced Economies		
Share of FDI	15.65	20.90
Share of Equity	6.22	11.11
Share of Debt	78.13	67.99
Emerging market Economies		
Share of FDI	39.00	56.80
Share of Equity	10.86	9.33
Share of Debt	50.14	33.86

Source: IFS and Bank calculations.

EMU @ 15: Capital Flow Management in Europe – Back Full Circle Again?

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and Center for European Studies, Harvard University

1 Managing capital flows – European views, evolving

Europe's monetary union – common currency – and capital controls do not go together well at all. On the contrary: They ring very much like a *contradictio in adjecto.* Indeed, one could make the case that EMU was ultimately an almost physical corollary of allowing for unfettered cross-border flows of capital within (and beyond) the euro area. But then, controlling cross-border capital flows was very much standard fare in Europe until the end of the 1980s. There were, to be sure, a number of EEC Member States that had taken down barriers earlier. This held especially true for Germany, Austria and the Netherlands. Also, quite obviously, liberalized financial markets had already been a desideratum in the Treaty of Rome 1957, but, importantly, only insofar as they were deemed necessary for a "well-functioning common market" (EEC Treaty, Art. 67).

Consequently, at the time, the EEC Treaty listed numerous reasons for managing intra-EEC financial flows. Short-term transactions, in particular, were judged to be too hot for comfort. They implied binding constraints on domestic credit and liquidity policy which were appreciated as an indispensable instrument of national policymaking. Only in the mid-1980s did perceptions change. Deeper financial integration became an objective (also against the backdrop of financial as well as technological innovations entailing that controls could only go so far.) In any case, ever since July 1990, Member States (some with a brief derogation period) were obliged to almost completely relinquish interfering with cross-border financial transactions.

At the time, it was also understood that the leeway for national monetary policy was, as a consequence, rapidly shrinking. In the asymmetrically functioning fixed-rate European Monetary System, autonomy in conducting monetary policy was a vain hope. Tommaso Padoa-Schioppa, one of EMU's main architects, made frequent reference to the unholy trinity. In this respect, "one (financial) market" spelled "one money" by virtue of the inconsistency triangle between fixed exchange rates, autonomous national monetary policy and liberalized intra-European flows of funds.

It is from this angle that the common currency to be launched a decade later could be understood as a *ruse de l'histoire.* Today, after some European sovereigns have experienced a "sudden stop" in the wake of the crisis, it is somehow ironic that in order to reestablish the conditions for a well-functioning common currency, cross-border financial markets have to be reestablished. And some of the means to do so – instruments of macroprudential policy – are closely akin to the cross-border management of capital flows.

Thus, the Great (or North Atlantic) Financial Crisis (GFC) with its European particularity of fragile sovereign debt in some places has brought the story back full circle. At times, Europe's monetary union resembled a badly functioning fixed-exchange rate system, with monetary conditions split along national lines. And ever since the GFC, most of the efforts of the ECB as well as of European regulators were directed at reinvigorating cross-regional finance in EMU, at repairing the monetary transmission mechanism. A substantially reduced level of cross-border flows as well as cross-border exposures translating into significant spreads between prices of sovereign bonds and their direct local derivatives (cost and availability of local credit) were seen as a problem, as an issue of public policy.

In these brief remarks, I will first sketch why unimpeded capital flows were understood as unequivocally beneficial in the European case. This evaluation was put into practice and almost mechanically (at least in a European understanding) led to the common currency. That is why, second, renationalization and the fragmentation of financial markets, a major consequence of the GFC, were deemed to be so detrimental. Reversing those trends – in effect, reversing or reorienting capital flows – became a major objective. In particular, ECB policies can be effectively understood along these lines. More specifically, the ECB's balance sheet – its structure as well as its size – pays testimony to this point. Third, two policy responses have been developed to engineer or control cross-border flows: (a) the Single Supervisory Mechanism (supra-nationalized enforcement of common regulatory rules) and (b) macroprudential tools that, in effect, regionalize monetary policy implementation. They bring back views on capital flow management with an eye on underwriting financial stability.

2 EMU: Capital flowing downhill, finally

Shortly after the introduction of the common currency, Olivier Blanchard and Francesco Giavazzi spelled out, in an important article, arguments as they flowed naturally from the canonical model: By necessity, Economic and Monetary Union entailed substantial current account deficits in the poorest economies. And those were good deficits that supported the catching-up or convergence process. As those flows were backed by investments that were evaluated as productive ex ante, "financial markets showed no signs of worry" (Blanchard and Giavazzi, 2002), at least not contemporaneously.

In fact, allowing for this reallocation of capital was a major purpose of Europe's financial and monetary redesign: Surplus funds should be deployed toward their most attractive opportunities. Hence, this suggested a decorrelation between national saving and investment ratios, i.e. an "unpuzzling" of the Feldstein-Horioka puzzle.

2.1 Precrisis consensus

Free trade in assets (which, of course, also means liabilities) was judged – as it was with tangible widgets – to be generally beneficial, implying that scarce resources were optimally allocateds (i.e. that capital flowed downhill). Concurrently, the unimpeded cross-border flow of goods required a commensurate amount of finance to grease the wheeling and dealing which pushed out the production possibility frontier.

Also, all the attendant financial benefits were uncontroversial: consumption could be smoothed over time. For example, nations with ageing populations might accumulate nest eggs (i.e. net foreign asset positions). Moreover, given potentially substantial income volatility, in particular in highly specialized regions, the current account could provide for a welcome insurance mechanism, helping to cushion region-specific shocks. Finally, open financial markets allowed for spreading (and reduction) of risks, and, in the same vein, for exposure to otherwise unavailable opportunities.

Admittedly, costs were also acknowledged. History had too often demonstrated that banking and exchange rate crises were very much a real possibility, also in advanced economies (Kindleberger, 1978). Such crises spelled considerable volatility (in quantities and prices). And, as they occurred, they left as a rule lasting scars that surfaced in large and protracted output gaps (Reinhart and Rogoff, 2009).

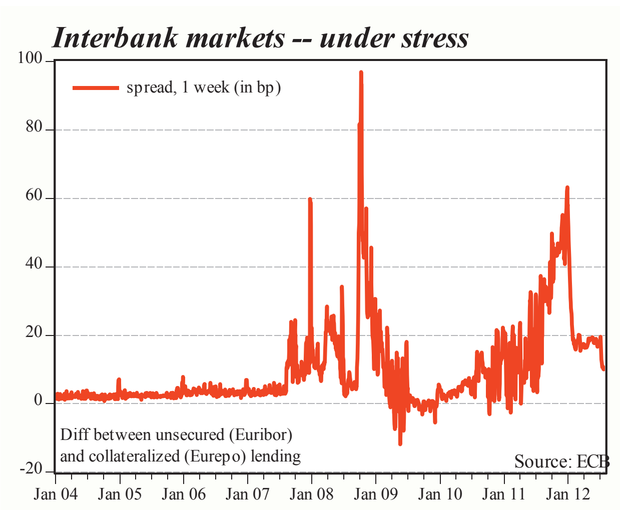
But, given that regulatory and supervisory environments in Europe were evaluated as robust, these were scenarios Europeans could safely disregard. Therefore, the consensus held that controlling capital flows was generally detrimental.

2.2 …shaken by events

Now, the financial crisis, lingering since the summer of 2007 and morphing into the GFC over the next 12 months, shook this belief at its core. Reality had shown that even in Europe, terrible things, both financial and economic, could happen.

Interbank money markets, which were most deeply integrated of all, showed increasing signs of fractures. Spreads between unsecured and collateralized interbank funds widened to unprecedented levels (see graph 1). It became standard to speak of dysfunctional markets. This widening of spreads mirrored (1) an increased counterparty risk as well as (2) fundamental uncertainty about (funding) liquidity needs of banks (access to funds in case of need). Two diagnoses were pondered: This is a case of (1) asymmetric information, or (2) a run of banks on themselves (in wholesale markets) (Kotz, 2008). The diagnoses implied two policy options: (1) let the market sort it out, or (2) provide liquidity in the form of outside money to stop the run. After the (wholesale) run on the bank Northern Rock, the first diagnosis and its policy implications were simply discarded.

Graph 1



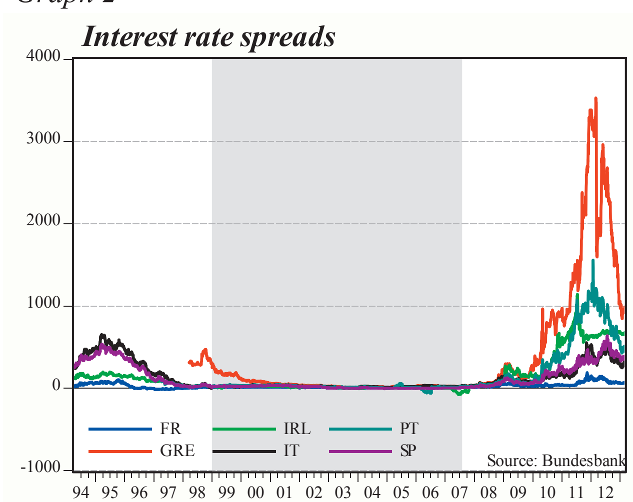
When markets fail to deliver, a public policy issue arises. In this case, the ECB came to rescue, lending its balance sheet to substitute for the private sector's unwillingness to extend credit, in particular to the troubled EMU periphery – as wholesale banks had done amply before. All the classical symptoms of a "sudden stop," as so often experienced elsewhere, were in evidence, though without the typical consequences, courtesy of the ECB. Basically, all the ECB's measures invented and implemented under the heading of "enhanced credit support" filled these gaps in the chain of substitution. But one can of course ask oneself whether those were market failures – or to which degree they were – or whether spreads were, indeed, appropriately reflecting underlying structural problems. In other words: Did fragile member states face a liquidity crisis or had they fallen prone to solvency problems?

Deeds speak at least as loudly as words. And policy interventions revealed the dominating diagnosis: Markets did not work properly. Markets were appraised as functionally inefficient. More specifically, they did not correctly reflect fundamental values.[1] And they did not do so because liquidity – market as well as funding liquidity – was in very limited supply. This had an impact on access to as well as the costs of funds, in particular for SMEs – and the impact differed very much throughout EMU.

3 Renationalization of Europe's financial markets

While from a regulatory angle, capital was as free as it ever had been since the beginning of the Great Financial Crisis, it did not want to flow anymore, at least not to certain parts of Europe. Jurisdictional (and supervisory) borders became important again. European financial markets fragmented. And they disintegrated for endogenous reasons in response to incentives and expectations, not as a consequence of regulatory restrictions. Consequently, with interest rate spreads as wide as they were, the law of one price apparently did not hold. Or did it? Did markets now appropriately tell the difference between default probabilities? After almost eradicating any spreads for some seven years (see Graph 2), had markets come to reason, finally? If so, where was the policy issue? Should nature be left to run its course (diagnosis 1 and policy proposition 1)?

Graph 2



[1] Tobin, 1994. Tobin differentiated between four dimensions of efficiency: information arbitrage, fundamental valuation, full insurance and functional efficiency. Functionally inefficient markets do not allow for proper allocation of funds to most useful purposes as well as a cost-effective pooling and pricing of risk. Ben Friedman (2010) in addition stresses that one should also account for the costs at which those functions are discharged, that is, whether private rewards measure up to social productivity.

The deeper questions were about the appropriateness of current account deficits, which mirrored the underlying savings and investment behavior of private agents and public authorities, and, inextricably linked thereto , these agents' way of funding (mainly via banks). If those savings and investment balances implied untenable intertemporal trajectories, they had to be corrected. And, clearly, some current account deficits did not reflect good choices, at least not ex post. The deficits simply had to be cut back and the resulting net external liabilities brought in line, honoring solvency (intertemporal budget) constraints.

3.1 Current accounts (and their accumulation over time) matter, in EMU also

Ever since the early 2000s, concurrently with the introduction of the common monetary policy, balances arose in Europe. They arose between what was later dubbed "North" and "South." They were also persistent. And, over time, they added up to ever larger regional net debt positions. Most remarkably, in the South, they were mainly the result of a fall in private net savings, not fiscal imbalances (Holinski et al., 2012).[2]

Savings behavior in the South might have been a response to low real interest rates, which were lower in the South as a result of almost identical nominal rates and of higher inflation. They might also have been related to financial market liberalization, with a larger gamut of instruments at households' disposal. In any case, much of the capital flowing downhill ended up in not particularly productive ventures, especially buoying a real estate boom.

3.2 …as do their enablers: banks

Some push factors might also have been involved – banks in the North were possibly not only passive providers of credit for expenditures, which, as time went by, have proved to be far off track. And – this is important – it was banks in particular that underwrote this process. We will come back to that.

But that was not at all a common reading at the time. Indeed, current account balances, the difference between national savings and capital expenditures, were understood as having as great an impact as in the U.S., i.e. none. They were regional. Hence they did not matter. Also: They were read as reflecting differences in opportunities between providers of funds in the North and catching-up investors in the South. These balances did not deserve the prefix "im-." Instead, they mirrored

2 Holinski et al. (2012) define the North (Austria, Finland, Germany and the Netherlands) and the South (Greece, Ireland, Portugal, Spain) by way of cluster analysis, leaving some countries (France, Italy) in an in-between category.

the interaction of private decision-makers with ex ante attractive options. Hence, they were good (Blanchard and Milesi-Ferretti, 2009), meaning that ultimately, those obligations would largely be honored.

Conventional wisdom strongly suggested that it would be pretentious for civil servants to second-guess those enlightened decisions.

4 Re-establishing Europe's monetary and financial union

But, with EMU resembling a confederation rather than a nation state (Sargent, 2012), jurisdictions (plural!) matter. They matter in particular because of banks. Most of the intra-European capital flows had been intermediated by banks. Those banks were largely funded in wholesale interbank markets, which are particularly vulnerable to herding and sudden directional changes of flows. This vulnerability also meant that it was important to acknowledge gross flows, not only their net as they show up in current accounts.

Only with the benefit of hindsight, EMU was understood to have a design flaw. A genuine union, as the new diagnosis holds since the summer of 2012, needs more macro (think of all the two-, six- and other pacts) as well as financial surveillance.

The GFC in its European manifestation has shown that jurisdictional limits do matter. When supervision, the implementation of common rules, is done differently and in particular when, in case of problems, the capacities to respond are different in different regions, then markets freeze – disintegrate – for plausible reasons. Dealing with this at the root hence has to address Europe's incompleteness. This implied more of a union in terms of implementation of banking politics, but it also called for a response to local financial stability issues, such as bubbles in asset prices.

4.1 SSM: On the way toward a common banking policy

The second lesson – the first, namely responding to the GFC, having led to the creation of European supervisory authorities along the de Larosière blueprint – was thus the creation of a Single Supervisory Mechanism in the wake of the European sovereign-bank crisis. This strongly suggested the centralization of supervisory functions, a denationalization of rule enforcement. Given the strong and searched-for cross-border integration of banking, in particular wholesale banking, previous approaches at managing the attendant externalities had proven flawed.

As concerns cross-regional flows, the SSM will mean that ringfencing or subsidiarization within the SSM's perimeter, i.e. its enforcement reach, will be impossible for national supervisors. National authorities have a clear reporting line and they will follow the same set of procedures ("The Manual"). After a while, the general supervisory philosophy will hold for all of the euro area's 6,000 credit institutions.

This Europeanization of banking policies is work in progress, in particular with regard to the two further pillars or legs of the three-legged stool of banking union: dealing with troubled banks and underwriting retail deposits. But the restructuring and resolution regime now in place compares very favorably with the ad hoc attempts at handling challenged banks with a cross-border dimension. Also, while there is still much to be done, the trust in deposit insurance schemes should be buttressed with the new regime.

4.2 Regional diversity calls for macro-prudential

Monetary policy in Europe is mainly transmitted via bank balance sheets. And those balance sheets are procyclical, in particular balance sheets funded with bought deposits or non-core liabilities (Bruno and Shin, 2012). Moreover, regional heterogeneity in banking structures by necessity implies differential impacts (Kotz, 2001). In addition, regional – non-area wide – bubbles in asset prices are to be expected in a monetary union with member states or regions as diverse as those in Europe.

Macroprudential policies thus are mainly about controlling procyclical bank lending policies (Bruno and Shin, 2012). Given the euro area's diversity, there is inevitably a regional dimension to such controls. Macroprudential policy thus amounts to adapting – in fact, regionalizing – monetary policy. In our second-best world, we are also forced to accept that monetary policy does include financial stability.

From a European perspective, macroprudential policy thus inexorably has a regional capital flow management dimension. This implies redistributive issues (a quasi-fiscal policy characteristic) and all the attendant legitimacy questions. Therefore, exercising macroprudential policy is difficult indeed. But Europe does not have the luxury to simply disregard the issue.

5 En guise de conclusion…

Europe's monetary and financial union was and still is incomplete. Therefore, it was and still is vulnerable, though currently much less so. But for an inconveniently long period, EMU appeared to be barely capable of surviving; not breaking up only because of lifeline support from the ECB (all the full allotment programs, Covered Bond Purchasing Programs, LTROs, OMT policies, and so forth).

That was an untenable situation. It is why EMU's institutions have to be adapted in order to become a viable, productive framework. Breaking up would have come at potentially (almost) prohibitive costs. Therefore, Europe's policy makers came reluctantly to the conclusion: Dis-integration was a market failure. Relaunching cross-border flows became the first and foremost policy priority. Missing markets were in particular substituted for by the ECB, more precisely, its balance sheet. The interbank settlement system (TARGET2) provided a backstop to absorb the sudden flow reversal. Reestablishing these flows – reintegrating markets – also meant, according to this reading, fostering efficient allocation and economic growth.

At its launch, Europe's monetary union was characterized by a rather distinct setup: Monetary policy was supra-nationalized, financial markets were almost completely open – but banking politics (supervision, restructuring, retail deposit insurance) remained largely nationalized. This would have been fine in a first-best world. But on our planet, the setup has been found wanting (Brunnermeier et al., 2012).

The alignment between the perimeters of pertinent policy domains – mainly through coordination – was too weak. Jurisdictional borders also define the limits or framing of policymaking. As soon as relevant externalities occur, as they do by force of arrangement in monetary unions, coordination problems become an issue. And Europe is learning its lessons. These include accepting the formidably demanding task of facing up to regional financial stability issues (in other words, capital flow management or macroprudential policy). On my book, Europe is going in the right direction. Not far enough, yet. There is, for reasons of legitimacy (not touched upon in these broad-brush remarks) as well as incentive compatibility, more need of an alignment of perimeters between decision competencies and ultimate accountability. Of course, alternative options – reallocating financial regulatory responsibilities to the national level – are conceivable. But, as the crisis has amply demonstrated, these options do not work well at all with a monetary union.

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Crisis Prevention and Management: Lessons from the IMF Experience in the Great Recession

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1 Introduction[1]

This note examines aspects of the IMF experience in the run-up and in response to the global crisis. It discusses the main factors that prevented the IMF from being able to detect and warn about the vulnerabilities that brought about the crisis and presents lessons from this experience. It then describes the main elements of the IMF response to the crisis and points to how lessons from earlier crises were incorporated.

In September 2008, in the aftermath of the Lehman collapse, the world entered the deepest financial and economic crisis since the Great Depression. The financial crisis led to a sharp global economic downturn in 2009 that gave rise to fears of a protracted recession as in the 1930s. The financial panic, however, was contained as central banks provided massive liquidity to rescue financial institutions and extended currency swaps to each other. An economic rebound in 2010 was followed by slower global growth, and performance since has been uneven across countries and regions. Unemployment remains above pre-crisis levels in most advanced economies; and growth in emerging market economies also slowed, with many

[1] This note is based on the presentation given by the author at the Bretton Woods @ 70 Conference: Regaining Control of the International Monetary System held at the Oesterreichische Nationalbank on February 27–28, 2014. The note draws on several reports of the Independent Evaluation Office of the IMF (IEO), in particular "IMF Performance in the Run-Up to the Financial and Economic Crisis: IMF Surveillance in 2004-07" prepared by Ruben Lamdany and Nancy Wagner (IEO, 2011) and the Issues Paper for an evaluation of the IMF Response to the Financial and Economic Crisis (IEO, 2014), prepared by Ruben Lamdany and Sanjay Dhar. I am grateful to Alisa Abrams for her research and editorial assistance and to Arun Bhatnagar for his administrative assistance. The views in this note do not necessarily represent those of the IEO, the IMF, or my co-authors.

witnessing significant capital flow and exchange rate volatility. The global economy has continued to grow, albeit at a slower pace and with less growth in employment than in earlier recoveries.

The global costs of this crisis, referred to as the Great Recession, have been significantly higher than those of a regular downturn in the business cycle. However, it is already clear that its impact has been more moderate than initially feared, i.e., a second Great Depression, largely due to the concerted policy response of countries and institutions across the world.

It is now widely accepted that the IMF failed to identify the risks and vulnerabilities that in 2008 brought about the Great Recession. The 2011 IEO evaluation on IMF Performance in the Run-Up to the Financial and Economic Crisis shows that the IMF's banner message right up to the outbreak of the crisis was of a benign macroeconomic situation and that its risk analysis was focused on the possible disorderly unwinding of global imbalances. At the same time, the IMF held the view that financial markets were self-stabilizing, and it was sanguine on the risks from high leverage and the possibility of a housing bust.

Other analysts were more prescient, including some academics and journalists, as well as senior officials at the European Central Bank and the Bank for International Settlements. While no one predicted (nor could have) the exact characteristics of the crisis, analysts pointed to the risks of bubbles in financial markets (e.g., Papademos, 2004) and housing markets (e.g., Case and Shiller, 2006). In fact, the Economic Counsellor at the IMF warned about how the fragility of financial markets could lead to a crisis (Rajan, 2005), but his analysis was not embraced by the institution.

As for the global response to the crisis, the IMF has played a central role. It has been involved as a leading force in numerous aspects of the response that have mitigated the crisis impact, including coordinating global and regional initiatives, channeling its surveillance into the recovery effort, and providing financial support to impacted countries.

Following this introduction, Section 2 presents an overview of the main factors that contributed to the IMF not detecting the risks and vulnerabilities that eventually led to the global crisis. This is followed, in Section 3, by examples of similar conclusions reached after previous crises and the recent run-up period. Section 4 describes the IMF's role in the global response to the crisis and discusses the extent to which lessons from the past were taken into account in this response. The note concludes with some general remarks about possible lessons moving forward.

2 Why Did the IMF Miss the Mounting Risks and Vulnerabilities?

How could the IMF, an institution whose surveillance mandate calls for warning the membership about risks to global stability, and which comprises over one thousand of the best economists in the world, miss the mounting risks and vulnerabilities? IEO (2011a) identified three main factors that contributed to this failure: cognitive biases, governance and organizational issues, and analytical weaknesses. At the same time, lack of data and political pressures, while problems, were not found to be core reasons behind the IMF's failures.

Cognitive biases are errors in reasoning and decision-making that occur when a person (or group of people) holds to his or her preferences and beliefs regardless of contrary information (Haselton et al., 2005). While many forms of cognitive bias may have interacted to blind the IMF to the mounting risks in the years leading to the crisis, IEO (2011a) identified three that played a critical role: groupthink, intellectual capture and confirmation bias.

Groupthink refers to the tendency among homogeneous, cohesive groups to consider issues only within a certain paradigm and not challenge its basic premises (Janis, 1982). Individuals often find it difficult to get out of their comfort zone and challenge established paradigms, as they withstand group pressure to conform. The prevailing view among IMF staff – a cohesive group of macroeconomists – was that market discipline and self-regulation would be sufficient to stave off serious problems in financial institutions. They also believed that crises were unlikely to happen in advanced economies, where "sophisticated" financial markets could thrive safely with minimal regulation of a large and growing portion of the financial system.

IMF staff was essentially in agreement with the views of authorities in the USA, U.K. and other advanced countries that their financial systems were sound and resilient. They also concurred that these systems could not only allocate resources efficiently but also redistribute risks among those better prepared to bear them. Moreover, even the (few) IMF staff uneasy with this paradigm felt uncomfortable challenging the views of authorities in advanced economies on monetary and regulatory issues, given the authorities' greater access to banking data and knowledge of their financial markets and the large numbers of highly qualified economists working in their central banks. Thus staff and the IMF as a whole were overly influenced by (and sometimes in awe of) the authorities' reputation and expertise; this was perhaps a case of intellectual capture.

Confirmation bias refers to the tendency to seek and notice only information that matches what one already believes and to ignore other information or to interpret it only in ways that are consistent with these beliefs (Bazerman and Moore, 2009). This type of bias may explain why IMF staff focused on how new information strengthened their concern with global imbalances (and a possible disorderly dollar decline), while at the same time they ignored new evidence (sometimes the same evidence) that pointed to risks of bubbles and financial sector fragility.

Governance and organizational impediments hindered the quality and effectiviness of IMF surveillance. These impediments refer to the structures, processes and incentives that apply to IMF management, staff and the organization as a whole.

The IMF, as most large organizations, is structured along vertical units that have geographical or thematic responsibilities. While this may sometimes be a good structure for carrying out the "routine" business of an organization, it fosters "silo behavior" and "turf battles" that make it difficult to integrate different disciplines, approaches, and information from across the organization. In the IMF, silo behavior made it difficult to integrate multilateral and bilateral surveillance, link macroeconomic and financial developments including the analysis of the *WEO* and the *GFSR*, and draw lessons from cross-country experience. This behavior was also blamed for the IMF failure to "connect the dots" in the run-up to the crisis, for example in that discussion of financial sector vulnerabilities never found its way into the bilateral surveillance of the largest systemic financial centers.

Already before the crisis staff had developed frameworks for assessing risks and developing policy scenarios, but these were applied largely, if not solely, to emerging markets and low-income economies and not to advanced countries. This lack of even-handed treatment was partly due to perception that such analysis would not be welcome by the more powerful IMF members.

Incentives were not well aligned to foster the candid exchange of ideas that is key for surveillance: staff were sometimes concerned about the consequences of expressing views contrary to those of supervisors, Management, and country authorities. This diminished staff's willingness to raise ideas outside of the institutional consensus and its ability to push issues that large members were not interested in, for example, conducting an FSAP for the USA while the authorities did not think it was necessary.

Analytical weaknesses also played a role in the IMF's shortcomings in surveillance. The linking of macroeconomic and financial sector analysis was inadequate. This reflected the lack of a suitable conceptual framework for analyzing such linkages within the economics profession at large; but perhaps more critical was the view among most IMF economists that financial issues were not central because financial markets were efficient and self-stabilizing and the impact of spillovers to the macroeconomy would be limited. There was also insufficient use of "balance sheet analysis", an approach that sometimes captures risks and vulnerabilities better than typical open-economy macro models.

Perhaps the most important gap was that IMF reports rarely referred to work by external analysts who pointed to the mounting risks in financial markets. Rather than a lack of awareness, it is likely that this was an example of the IMF's insular culture. An assessment of IMF research (IEO, 2011b) found that much of the surveillance-related analytical work over the prior five-year period made little reference to research from outside the institution.

Lack of data, while a problem, was not a core reason behind the IMF's failures. It is unclear how IMF staff would have used additional data given the prevailing conceptual framework on macro-financial linkages that led it to ignore or misinterpret available data pointing to mounting risks (e.g., credit growth, leverage, and the growth of high-risk instruments).

Political constraints (such as requests to alter messages in staff reports, demands by authorities to replace certain mission members, and perceptions of pressure from authorities leading to self-censorship) have always influenced IMF surveillance to different extents. However, there was no evidence of pressure to change or mute IMF messages on the issues at the center of the crisis.

3 What Can Be Done Better: Lessons from Previous Studies

This section describes the main lessons from the IMF experience during the run-up to the Great Recession. It then shows that most of the same conclusions and recommendations had been raised in earlier studies on IMF performance in surveillance and management of several past crises.

As explained above, the three main factors that led to the surveillance failure ahead of the Great Recession: cognitive biases, governance and organizational challenges, and analytical weaknesses. The 2011 IEO evaluation suggested a series of reforms and actions that would make it less likely that such a failure would recur. The following are some of the main such actions:

- To address **cognitive biases,** the IMF should promote greater openness and encourage diverse and dissenting views with the institution. While setting the right incentives is critical, outside expertise and establishing a dedicated risk assessment unit could mitigate problems of groupthink and reduce the risk of blind spots and confirmation bias.
- **Strengthening IMF governance** to enhance the legitimacy and effectiveness of the institution would require changes in the voting and Board structure which, for the meantime, remain elusive. There are, however, governance reforms that the IMF membership could agree to that would strengthen the effectiveness of surveillance. For example, the IMF could recalibrate its approach to risk assessment by giving greater emphasis to risks emerging from large systemic countries. It could also establish a clear legal framework to protect those who "speak truth to power", such as staff who raise issues that are not welcome either within the organization or in discussions with country authorities.
- A key **organizational challenge** is to establish an accountability framework specifying who is responsible for "connecting dots" across units and themes, and for ensuring that staff considers alternative points of view. Requiring staff to

come up with a clear and consistent message on the global outlook and risks when publishing the WEO and the GFSR may serve as a mechanism to ensure greater efforts to "connect the dots".

– To address **analytical weaknesses,** the IMF should establish operational and research partnerships with other international organizations and with central banks and government researchers. This would help the IMF overcome its insular culture and to become more aware of alternative views. Such partnerships could also enable the IMF to identify much earlier problems such as asset bubbles, and come up with better approaches for how to address them.

Most of these conclusions and recommendations had been raised in earlier IEO evaluations and in self-evaluation studies prepared by the IMF. While cognitive biases were not raised as such, some of the same concerns have been mentioned in the past. For example, the 1999 External Evaluation of IMF Surveillance called for "more outside experience in general to mitigate against insularity and conformity." The 2008 Triennial Surveillance Review pointed to the need to strengthen risk assessment and guard against tail risks, highlight "unknowns", and "think the unthinkable."

Governance and organizational issues have been repeatedly mentioned as detracting from IMF surveillance and its ability to respond to crises. The 1995 Whittome Report on Fund Surveillance urged that staff's analysis should be pertinent and pointed, leaving political considerations to the Managing Director. The 1999 External Evaluation of IMF Surveillance called for the Board and Management to make clear that they would, if necessary, back up staff that give frank advice. The 2006 IEO Evaluation of Multilateral Surveillance called for enhancing the roles of the Board and the IMFC in multilateral surveillance, a move that was believed would free Management and staff even further from political considerations. And the 2006 IEO Evaluation on the Financial Sector Assessment Program pointed to the importance of the IMF conducting FSAPs in any country where Management considered it necessary irrespective of whether these countries had volunteered. While not calling for the FSAP to be mandatory, the IEO recommended that Management signal to the Executive Board which countries it believed were the highest priorities for conducting a financial sector assessment. Had this initiative (which was effectively implemented after the crisis) been in place at the time, at a minimum it may have created a stronger sense of evenhandedness among the membership and perhaps helped to mitigate the crisis.

The concern with "silo behavior", the need to better "connect the dots", and insufficient cooperation within the IMF had been discussed in several previous reviews. The 2005 McDonough Report, for example, explained that "what is needed is an environment that fosters and provides incentives for close collaboration and cooperation between departments, to increase cross-fertilization between the IMF's traditional macroeconomic work and its work on financial and capital market issues, and to overcome the silo mentality that is lessening the overall effectiveness and influence of the institution as a whole." The 2006 IEO Evaluation on the Financial Sector Assessment Program suggested that strengthening the internal review process was needed to ensure that key messages on macro-financial stability were fully reflected in Article IV assessments.

The need to strengthen analytical work on financial sector issues and its integration with macroeconomic analysis has been a long-standing issue at the IMF. The 1999 External Evaluation of IMF Surveillance, the 2001 Lipsky Report, and the 2005 McDonough Report each recommended that the Fund should place greater emphasis on surveillance of financial sector and capital markets issues and that it should strengthen the linkage between bilateral and multilateral surveillance. The McDonough Report called for a fundamental change in how the Fund thinks about financial issues, including in particular that area departments should elevate financial issues to a central role in their work. In the 2008 Triennial Surveillance Review, IMF staff agreed that it needed to do a better job at integrating macroeconomic and financial sector surveillance.

4 The IMF's Role in the Response to the Great Recession

This section describes the roles that the IMF has played thus far in the global response to the Great Recession. It also considers the extent to which lessons from past experience were taken into account in this response, and points to current challenges.

The IMF has been involved in numerous aspects of the response to the crisis, including three main types of activities: coordinating global and regional responses, channeling surveillance into the recovery effort in order to prevent another global crisis, and providing financial support to impacted countries.

Leadership and Coordination

Early in the crisis the IMF took a leadership and coordination role that led many observers to argue that the institution had had a comeback after several years of being on the sidelines of global economic governance. At the October 2008 Annual Meetings of the IMF and the World Bank, the IMFC asked the IMF to work with other organizations and country groupings on a coordinated response to the crisis. In November 2008, the IMF Managing Director called for a coordinated global fiscal stimulus of 2% of global GDP at the G20 Leaders' Summit in Washington. In response to a request from the G20, the IMF became the de facto secretariat of the Mutual Assessment Process (MAP) tasked with providing forward-looking analyses of whether policies pursued by these countries are collectively consistent with sustainable and balanced trajectories for the global economy. The IMF joined the newly created Financial Sector Board (FSB) where it assumed the lead responsibility for integrating macroeconomic and financial sector analysis. It helped launch the Vienna Initiative in January 2009 to preserve commercial and other lines of credit in central and eastern European countries following the sudden-stop in capital inflows. Beyond its coordinating role, the IMF brought to the Vienna initiative its experience with a similar exercise in the late 1990s in confronting the East Asian crisis. In this and other initiatives, the IMF partnered with other international organizations.

The close association, and in some instances integration into country groupings and other organizations, is seen as having led to greater traction of the IMF's surveillance and program work. However, there seems to be a trade-off between this greater traction, on one hand, and the IMF's independence and equal treatment of the entire membership, on the other hand. Some member countries are not convinced that the IMF is appropriately placed in regard to its work with the G20, and there is even greater concern in regard to its engagement with the Troika. Given the benefits and drawbacks of these modalities, it will be critical that over the medium term the IMF membership agree on the type of engagement with such groups, that is, determine the appropriate balance between enhancing its traction and ensuring its independence.

Surveillance

Three aspects of IMF surveillance since 2008 deserve special attention: analysis and advice on fiscal and monetary policies, IMF engagement on financial stability issues and financial sector policies, and efforts to strengthen risk analysis.

Fiscal and Monetary Policies

Shortly after its initial call for global fiscal stimulus, the IMF noted that these recommended policies were contingent on the fiscal space in each member country. Still, some analysts are concerned that this policy advice did not sufficiently distinguish between countries with different initial fiscal positions and debt ratios.[2] In any case, in 2010 the IMF modified its advice and recommended that advanced economies shift to fiscal consolidation once their recoveries were on a sustainable path. At the same time, the IMF advised relying on accommodative monetary policies, including quantitative easing, to stimulate demand in the face of fiscal restraint. Some policy makers and analysts have argued that this advice may have

[2] Some have argued that the IMF should have focused more on pushing back countries that could not afford to expand (or that at the least it should have made sure that it was not providing a justification for an unsustainable expansion).

been premature; they also have argued that the resulting policy mix may not have been the most appropriate, as monetary policy is considered to be relatively ineffective in expanding private demand following a financial crisis, especially in an environment of near-zero interest rates. Additionally, authorities in many emerging market economies were concerned that IMF advice had not paid sufficient attention to the destabilizing spillover effects that quantitative easing had on their countries, thereby exacerbating capital inflows and the appreciation of their currencies.

Financial Stability and Financial Sector Policies

As the crisis erupted, the IMF began paying much more attention to financial stability and other financial sector issues. As a member of the FSB, the IMF analyzed shortcomings in financial sector policies and regulatory frameworks, and independently it urged authorities to deal with "too-big-to-fail" systemically important financial institutions (SIFIs) and limit cross-border spillovers. The IMF also made financial stability assessments (FSSAs) mandatory for systemically important financial centers. These assessments are supposed to be done no later than every five years as part of the Article IV bilateral surveillance process. The IMF scaled up research on macrofinancial linkages and increased financial sector technical assistance, especially in impacted countries. Still, questions remain on the extent of the integration of macro and financial analysis in surveillance, both at the bilateral (FSAP and Article IV) and multilateral (GFSR and WEO) levels. It also remains to be seen whether FSSAs will consistently offer candid diagnosis and advice, especially for large advance countries.

Efforts to Strengthen Risk Analysis

Since the start of the crisis, the IMF has significantly increased its focus on risk assessment and revamped early warning mechanisms in order to address critical shortcomings that existed before the crisis. In addition to the vulnerability exercises for emerging market economies that were undertaken prior to the crisis, the IMF initiated vulnerability exercises for advanced economies and low-income countries. The IMF also introduced a semi-annual Early Warning Exercise, conducted in coordination with the FSB, to explore tail risks. New tools for multilateral surveillance introduced following the crisis, such as country Spillover Reports and the Consolidated Multilateral Surveillance Report have also contained discussions of systemic risks.[3] Finally, a high-level Surveillance Committee has met regularly to facilitate interdepartmental communication and facilitate "connecting the dots", a weakness that played a critical role in the run-up to the crisis.

Authorities in some member countries have indicated that the number of independent risk-related exercises has grown beyond their capacity to absorb the results, as well as that this proliferation may be a sign that the same silo culture prevalent in the IMF before the crisis still exists. It is also unclear whether the IMF has established a system or procedures to ensure that it is exposed to contrarian and alternative views on financial sector vulnerabilities and tail risks. The bottom line for all these efforts is the capacity to identify risks and vulnerabilities before they turn into a crisis; and on this, it may indeed be too early to know whether this is the case.

Financial Support to Impacted Countries

Early on in the crisis, the IMF launched several initiatives to afford member countries more and easier access to financial resources and thereby reduce the risk of contagion and spillovers. The three main elements of this multi-pronged strategy were to expand the resource envelope available to members, to revamp IMF lending facilities to better respond to member country needs, and to facilitate speedier processing of program lending.

Resource Mobilization

The crisis found the IMF with inadequate resources to effectively support its member countries. With hindsight, it is clear that the IMF and its members would have been better able to cope with the crisis if ahead of it the IMF would have already had significantly larger resources at its disposal. As soon as the crisis erupted, the IMF launched resource mobilization efforts to boost its lending resources and to secure agreement among the membership for a significant allocation of SDRs to member countries.[4] Through a combination of a series of bilateral borrowing arrangements from various member countries, the IMF was able to treble its lending capacity to about one trillion dollars. Participation in these arrangements was voluntary and did not affect a member's ownership "share" in the IMF, which is based on a separate allocation of contributions called quotas.

[3] In response to the IEO, 2011 evaluation, Management issued a Consolidated Multilateral Surveillance Report in September 2011 and April 2012. However, this report has not been issued since.

[4] A general allocation of SDRs, equal to about USD 250 billion, increased all members' international reserves broadly in line with their IMF quotas.

In keeping with a 2010 agreement on quota reform, a part of these member loans to the IMF was supposed to be converted into quota contributions. However, this quota increase (and reallocation of shares) has not come into effect because the USA has yet to ratify the agreement, and the scheduled discussions for the next round of quota reforms were pushed back. While there is a consensus that the increase in resources helped to calm financial markets at a critical moment, the large reliance on and expansion of borrowed resources has raised serious questions of legitimacy for an organization that is supposed to be quota-based. In view of the difficulties with quota reform, the IMF and its members could take the opportunity to consider a much larger quota increase to avoid such challenges in the future, especially in a time of crisis. One possibility would be to target a level of quotas that would match the current level of resources, including bilateral borrowing arrangements, which could then be phased out.

Revamping Lending Facilities

In March 2009, the IMF made significant reforms to its lending facilities, mainly by increasing access limits (the size of the loans allowed relative to a borrower's IMF quota) and streamlining conditionality. The increase indicated the willingness of the IMF to finance a larger share than in the past of the adjustment needed by a borrower, in view of the global crisis. In addition, it was in part a reflection of the expected doubling of quotas that has yet to take place. An important question for the IMF membership is whether these higher access limits should remain after the crisis has subsided.

The IMF created a new precautionary facility, the Flexible Credit Line (FCL), available to countries with strong policies and performance track records. The FCL has no conditionality, no pre-set access limits, and an insignificant commitment charge. This is appropriate given its intended goals and target clientele; and for many years, many members urged the IMF to create a facility along these lines. However, only three countries have availed themselves of this facility, raising the question of whether qualified member countries are concerned that use of the FCL may be seen as signaling that the borrower has serious economic problems, despite its acknowledged track record. In addition, many members believe that the FCL immobilizes too large a share of the IMF's lending resources given the very high levels of access that borrowers have requested and their indefinite length of engagement. In sum, while the creation of the FCL is an important new development that responds to the lessons of previous crises, it seems that some additional rethinking may be needed to increase its use among other borrowers and to include exit strategies in the arrangement design.

Financial Support to Members' Programs

After a number of years of declining lending at the IMF, in the face of the crisis, a surge of member countries came to the IMF for financial support. The IMF responded very quickly to these requests and lending commitments jumped from about USD 1 billion in 2007 to over USD 100 billion in 2009 and over USD 200 billion in 2010. The number of approved non-concessional IMF-supported programs rose from 3 in 2007 to 17 in 2009. In processing these program requests, the IMF showed greater flexibility than in the past in terms of speed and frontloading of resources. As part of the continued effort to streamline conditionality, it also eliminated structural performance criteria, which had proven to complicate the implementation of programs in the past. While it is too early to assess the design and impact of specific programs, it will be important to sustain these reforms after the current crisis is over.

5 Concluding Remarks

It is now clear that the Global Recession has been less deep, and maybe shorter than was feared at the time of the Lehman collapse when most analysts and policy makers thought that a repeat of the Great Depression was possible. In part, this was due to the institutional arrangements and automatic stabilizers that had been put in place since the 1930s. But the response of the international community and in particular of the IMF also played a role.

The IMF has undertaken many reforms since 2008, incorporating in its response to the crisis a number of lessons from past experience.[5] These include: it moved rapidly into crisis mode and called for coordinated global action; it took a lead in recommending expansionary fiscal and monetary measures; it raised resources to ensure that programs were adequately funded and to provide a safety net to mitigate contagion; it created precautionary facilities to assist countries with good macroeconomic frameworks to pre-empt impacts from the crisis, and it set conditionality that was more streamlined and better focused on macro-critical reforms.

These reforms have led to a widespread perception that the IMF's performance has improved; but, as can be expected, questions still remain on many aspects of this performance. Has the IMF given up too much of its independence in working in cooperation with other organizations and country groupings? How can the IMF return to being a quota-based organization that is representative of its membership? Did IMF advice to advanced economies move prematurely towards fiscal retrench-

[5] The 2003 IEO evaluation of Capital Account Crises called for the IMF to take a more proactive role as a crisis coordinator, to provide sufficient financing to generate confidence, and to focus conditionality on areas critical to crisis resolution.

ment? Did it pay sufficient attention to the impact on emerging markets of monetary expansion in advanced countries? How about the impact of monetary retrenchment on these economies? Has it put in place mechanisms and incentives to ensure even-handedness in its treatment of member countries?

These and other issues are likely to become the subject of much debate and learning for some time. While some of these issues have just now come to the fore, many others have been present for a long time and most of them had been mentioned in past IEO evaluations and IMF self-evaluations. In some cases, reforms had been undertaken at the time, but they stalled once the crisis that triggered them had subsided, or after it turned out that they did not achieve their intended goals. In other cases, there was pushback to reform, only to later result in the repeat of the same issues in subsequent crises. Therefore, it is critical that a system be put in place to detect problems as they arise, to overcome natural institutional inertia, and to allow corrective actions in real time.[6] Moreover, the IMF, as any other large organization, needs to find ways to allow external, alternative views to enter into the organization analysis and policy debates to prevent groupthink and other forms of cognitive biases.

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[6] The Lipsky Report (IMF, 2001) highlighted the need to overcome "natural institutional inertia".

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Middle Income Trap and International Portfolio Allocation

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Abstract

The present note links the middle income trap to the EU convergence methodology and aims to offer by simple conjecture several discussion points on immediate and intermediate consequences of the middle income trap for portfolio investments in emerging markets. The note affirms prima facie evidence of the existence of the middle income trap between 1992 and 2012 highlighting differences between EU and emerging markets economies. Nominal and real convergence patterns are reviewed showing significant differences in the duration of nominal and real convergence cycles. Fixed income appears to offer attractive investment opportunities amid short convergence cycles. The long duration of real convergence cycles seems to indicate that emerging markets stock market outperformance may remain elusive over normal investment horizons. The relationship between portfolio flows and economic growth may establish self-fulfilling expectations for generating conditions for the middle income trap.

1 Introduction

The middle income trap may have significant adverse implications for international portfolio investors. The attraction to invest in emerging markets rests largely on two explicit assumptions: Macroeconomic stabilisation offers nominal convergence trades; higher economic growth offers real convergence trades. Both together produce inter alia higher risk adjusted returns. The middle income trap would diminish at least prospects of real convergence that may but must not also undermine macroeconomic stability and together with recent volatility in emerging markets currency and bond markets and relatively lacklustre emerging markets equity returns may require recalibrating the case for portfolio investments in emerging markets. The middle income trap therefore could be a key determinant for international portfolio allocation strategies and vice versa for leading to diminished portfolio flows establishing self-fulfilling expectations for generating conditions for the middle income trap.

The middle income trap has been widely studied highlighting the importance of structural and macroeconomic factors for sustained economic development. The recent growth slowdown of China and related pressure to adjust its growth model have redrawn interest to the middle income trap. The European Union and post-unification Germany similarly offer important insights into economic convergence patterns. However, while there have been extensive studies on the effect of economic variables on asset prices, little attention has been paid to the implication of the middle income trap for international portfolio investments. The present note links the middle income trap to the EU convergence methodology and aims to offer by simple conjecture several discussion points on immediate and intermediate consequences of the middle income trap for portfolio investments in emerging markets.

The note finds prima facie evidence of the existence of the middle income trap between 1992 and 2012 highlighting differences between EU and emerging markets economies. Following the EU convergence methodology, nominal and real convergence patterns are reviewed showing significant differences in nominal and real convergence patterns. Nominal convergence exhibits relatively short cycles. Real convergence shows very long cycles. This suggests that fixed-income investments would be less susceptible to middle income trap related risks than equities investments. No view is taken here of what causes the middle income trap and what economic policies countries need to implement to avoid the middle income trap.

2 Middle Income Trap, Nominal and Real Convergence

The middle income trap –as is well known – is based largely on the observation that few countries have managed to become high income countries from being middle income countries over a given period.[1] To assess occurrence of the middle income trap, following the EU methodology for assessing convergence as part of the EU accession process, real and nominal convergence patterns are reviewed. Real convergence is assumed to represent convergence of gross domestic product (GDP) per capita levels. Nominal convergence is assumed to describe a reduction in relative inflation levels towards levels of price stability. The latter may facilitate the former and vice versa where the process is deemed to be mutually enforcing. While the

[1] On the middle income trap see e.g. (Eichengreen, Park, & Shin, 2013), (Agénor, Canuto, & Jelenic, 2012), (International Monetary Fund, 2013) and (World Bank and Development Research Center of the State Council, the People‘s Republic of China, 2013). On nominal and real convergence in the EU, see e.g. (Bini-Smaghi, 2007), (Herrmann & Jochem, 2003), (Lein-Rupprecht, León-Ledesma, & Nerlich, 2007).

middle income trap has been assessed mostly in relation to real convergence, the relationship between nominal and real convergence suggests possible interdependence and sequencing of nominal and real convergence patterns.[2, 3]

Real and nominal convergence patterns are reviewed with data from 1992 to 2012.[4] GDP per capita at market prices in current US dollars relative to Germany is used as a proxy for real convergence and average annual inflation relative to Germany as a proxy for nominal convergence. 166 countries report GDP per capita and 170 average inflation in 1992 to 2012.[5] The relatively short period is chosen to take account of data availability in particular for the transition economies and Commonwealth of Independent States member and participant countries. The period length is also seen as more relevant than longer periods given normal policy and investment horizons. Countries are classified here as low income with less than 5% percent GDP per capita of Germany, as middle income between 5% and 50% of GDP per capita of Germany – USD 2,093 and USD 20,933 in 2012 – and as high income with GDP per capita greater than 50% of GDP per capita of Germany. The income threshold is significantly higher than set for example by the World Bank on the basis that intra-EU income differences are considered to become unduly diluted under the World Bank classification.[6] Income convergence is naturally constrained by the relatively short observation period and high income threshold. Nominal convergence is seen as a significant reduction in inflation relative to Germany.

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[2] The EU accession process – stipulating that countries upon entering the EU join the Economic and Monetary Union (EMU) – as part of the economic dialogue between the EU and accession countries rests to a large extent on real and nominal convergence elements based on the underlying rationale that there is considerable interdependence between real and nominal convergence: "[...] the Eurosystem has emphasised that advancing real convergence should be done in parallel with – and not at the expense of – nominal convergence [...]. Indeed, by fostering real convergence through structural reform [...] – the accession countries can support the nominal convergence process. Likewise, by further advancing nominal convergence [...] the countries would improve prospects for economic growth and thus real convergence;" ECB (European Central Bank, 2002).

[3] The EU "Maastricht criteria" – forming the set of necessary criteria to adopt the euro – based largely on nominal elements should in light of the above also be seen as proxies for real convergence. For the EU convergence criteria, see Protocol (No. 13) (European Union, 2012).

[4] GDP and inflation data from IMF World Economic Outlook (WEO) database October 2013.

[5] For GDP per capita: 1993 Estonia, Slovak Republic; 1994 Georgia, 1995 Czech Republic, Malta. For average inflation: 1993 Armenia, Azerbaijan, Belarus, Croatia, Eritrea, Macedonia, Kazakhstan, Kyrgyz Republic, Latvia, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan; 1994 Estonia, Slovak Republic, Slovenia; 1995 Georgia; 1996 Czech Republic.

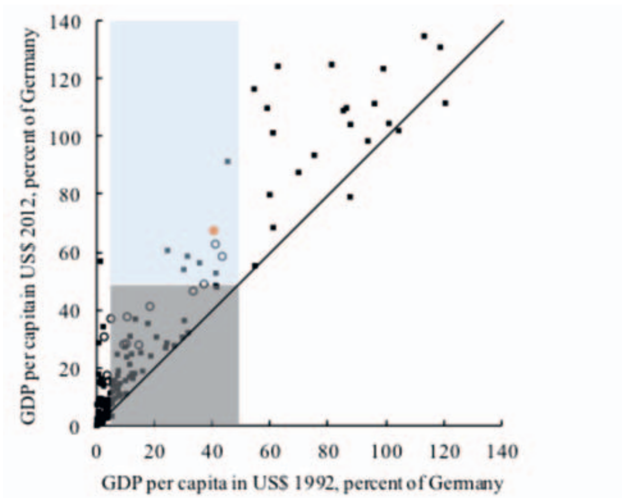
[6] The World Bank classifies on the basis of gross national income (GNI) per capita: Middle income USD 1,006–12,275; (World Bank, 2012).

Countries' GDP per capita relative to Germany has on average increased from 21% in 1992 to 33% in 2012 (chart 1). Emerging markets and developing countries representing 146 countries had on average GDP per capita of 11% of Germany in 1992 and 21% in 2012. The incidence of low income countries declined significantly from 87 countries in 1992 to 51 in 2012. However, of 58 middle income countries in 1992 – 9 countries – Bahrain, Cyprus, Greece, Korea, Malta, New Zealand, Oman, Saudi Arabia, Slovenia – have been high income countries in 2012.[7]

Real convergence in the EU among old and new accession countries has progressed between 1992 and 2012. Portugal is the only old accession EU Member State that was middle income in 1992 and has not been high income in 2012 (it was high income in 2001-10). The new accession countries have remained on average middle income in 2012 with 16% of GDP per capita of Germany in 1992 and 38% in 2012 with the exception of Cyprus, Malta and Slovenia (chart 1). The pace of progression relative to Germany has been significant with a 22 percentage point increase in relative GDP per capita compared with only 9 percentage points of other emerging markets on average. However, significant differences in GDP per capita persist with for example Bulgaria representing only 17% of Germany's GDP per capita and Poland 30% in 2012. Real divergence occurred with the financial and economic crisis; the GDP per capita of the EU emerging markets member countries declined from 40% relative to Germany in 2008. In contrast other emerging markets increased GDP per capita relative to Germany from less than 16% in 2008 to 19% in 2012.

[7] The World Bank conducted a similar study comparing GDP per capita levels in PPP terms relative to the United States between 1960 and 2008 (World Bank and Development Research Center of the State Council, the People's Republic of China, 2013). Of 101 middle income economies in 1960 13 became high income by 2008: Equatorial Guinea, Greece, Hong Kong SAR, Ireland, Israel, Japan, Mauritius, Portugal, Puerto Rico, Korea, Singapore, Spain and Taiwan POC. Using similar income thresholds (not allowing for any adjustment between GNI and GDP) as the World Bank for 1992–2012 – defining middle income by a GDP per capita of 3–30% of Germany in 2012 or USD 1,256–12,560 – 12 out of 66 countries – (in descending order of income) Oman, Czech Republic, Slovak Republic, Estonia, Chile, Uruguay, Venezuela, Croatia, St. Kitts and Nevis, Libya, Poland, Hungary – were high income in 2012 and middle income in 1992.

Chart 1: Real Convergence



Source: IMF WEO, Statistisches Bundesamt. 166 reporting countries in 1992 and 2012.

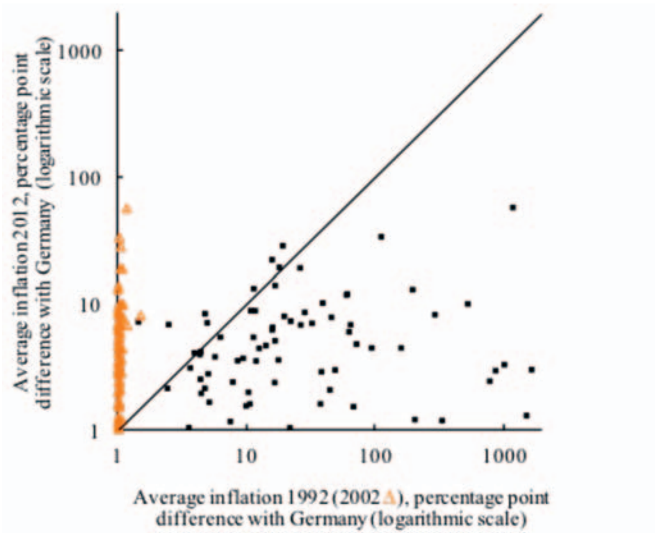
○ *emerging markets EU 28 countries.*

● *Germany new Federal States (excluding Berlin) percent of old Federal States. 1993 Estonia, Slovak Republic; 1994 Georgia, 1995 Czech Republic, Malta.*

The integration of Germany's new Eastern Federal States (Bundesländer) with the unification of Germany in 1990 shows significant real convergence over the observation period. Since 1992, the new Bundesländer increased their GDP per capita (Bruttoinlandsprodukt) from 41% relative to the old Bundesländer in 1992 to 68% in 2012 (chart 1). Given the relatively ideal situation for facilitating convergence amid a fairly homogenous space and an explicit economic policy for promoting convergence supported by considerable fiscal resources – though suffering from significant human capital emigration – the new Bundesländer have been among the most successful ascendants to high income status. At the same time, the new Bundesländer already achieved 63% of GDP per capita of the old Bundesländer by 2002.[8]

[8] For a calculation on the transfers from the old to the new Bundesländer, see e.g. (Jansen, 2004).

Chart 2: Nominal Convergence



Source: IMF WEO. 170 reporting countries in 1992 and 2012. 1993 Armenia, Azerbaijan, Belarus, Croatia, Eritrea, Macedonia, Kazakhstan, Kyrgyz Republic, Latvia, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan; 1994 Estonia, Slovak Republic, Slovenia; 1995 Georgia; 1996 Czech Republic.

Countries' average inflation levels relative to Germany show a significant reduction from 184 percentage points in 1992 to about 4 percentage points in 2012. While there were 70 countries with average inflation of 10 percentage points or higher than Germany in 1992 there were 13 in 2012 (chart 2). Average inflation in emerging markets declined from 210 percentage points higher than Germany in 1992 to 4 percentage points in 2012. In the EU, the emerging markets countries reduced inflation relative to Germany from 170 percentage points in 1992 to about 1 point in 2012. However, in 2002, countries' average inflation was already only about 5 percentage points higher than Germany and while there were 83 countries in 2002 with inflation of 1.5 percentage points or lower than Germany there were 78 in 2012 (chart 2).

3 Emerging Markets Portfolio Investments

International cross border portfolio investments excluding in and from off-shore centres and excluding assets held as international reserves have increased significantly with a continued rise in investments in emerging markets. However, the economic and financial crisis has led to a slowdown in the growth and in a change of the composition of the stock of portfolio investments that has remained significantly below its pre-crisis peak relative to output. Emerging markets have maintained a different allocation pattern compared with all countries and have with the crisis reduced investments in emerging markets. While the total stock of international portfolio assets is dominated by debt, investments from emerging markets are largely composed of equities. Investments from emerging markets as a share in all countries, despite having increased, remain very small.

The stock of international portfolio investments in emerging markets increased from USD 0.6 trillion in 2001 to USD 3.1 trillion in 2007 and to USD 4.4 trillion in 2012 representing 5%, 9% and 12% of portfolio investments, respectively.[9] Emerging markets have decreased their investments in emerging markets from 14% in 2007 to 11% in 2012. However, the share of debt securities in emerging markets investments in emerging markets has increased from 8% to 14% over the same period. Emerging markets show a significantly higher allocation to the U.S. of 34% and lower allocation to the euro area of 26% in 2012 compared with all countries. Total portfolio investments in emerging markets continue to be low at 15% of emerging markets' GDP in 2012 compared with 51% for all countries. Investments from emerging markets have remained small relative to all countries representing 3% of all portfolio investors in 2012 (table).

[9] Data from IMF Consolidated Portfolio Investment Survey (CPIS). Earliest comprehensive survey data are from 2001.

Table 1: International Portfolio Investments

Excluding assets held as international reserves	2001	2007	2012
Total portfolio investments‡			
From all countries † (US$ trn)	11.1	35.3	37.1
Investment in (percent)			
U.S.	21.3	16.5	17.4
Eurozone	40.6	40.8	37.1
Emerging markets*	5.4	8.9	11.7
From emerging markets (US$ trn)* †	0.1	0.6	1.0
Of all countries (percent)	0.8	1.8	2.6
Investment in (percent)			
U.S.	42.9	32.6	34.4
Eurozone	18.1	26.9	25.9
Emerging markets*	5.8	14.0	10.9
Total debt securities			
Investment from all countries (US$ trn) †	5.9	18.3	20.6
Of total portfolio investments (percent)	53.8	51.9	55.4
Investment in (percent)			
U.S.	22.5	18.6	18.4
Eurozone	44.8	47.4	43.7
Emerging markets*	4.9	4.6	9.1
Investment from emerging markets (US$ trn)* †	0.0	0.3	0.4
Of all countries † (percent)	0.7	1.4	2.0
Of emerging markets investments* † (percent)	45.3	40.6	43.3
Investment in (percent)			
U.S.	59.5	44.7	40.5
Eurozone	16.4	26.1	27.3
Emerging markets*	9.2	7.6	13.9
Memorandum items:			
Total portfolio investments (percent of all countries' GDP)	34.0	62.5	51.4
Portfolio investments in emerging markets (US$ trn)*	0.6	3.1	4.4
Of emerging markets' GDP (percent)	7.8	17.7	14.9
Debt securities investments in emerging markets (US$ trn)*	0.3	0.8	1.9
Of portfolio investments in emerging markets (percent)	49.6	27.0	43.2

Source: IMF CPIS; IMF WEO.

‡ Excluding confidential and unallocated data and investments by international organisations.

** Excluding off-shore centres. Financial Stability Forum (FSF) classification including inter alia as off-shore centres Hong Kong, Luxembourg, Singapore, Switzerland.*

† excluding investment from China.

Portfolio asset price performance has varied significantly between representative emerging markets fixed income and equities benchmark indices. The JP Morgan Emerging Markets Bond Index (EMBI) Global, total return in USD, increased by 586% from December 1993 through December 2012 and by 550% through December 2013 compared with the WGBI Germany, total return in USD, that increased by 246% and 239%, respectively.[10] The MSCI Emerging Markets, total return in USD, increased between December 1993 through December 2012 by 210% and through December 2013 by 203% compared with the MSCI Germany, total return in USD, that increased by 296% and 424%, respectively (chart 3).

Chart 3: Stock and Bond Market Relative Performance

*Source: Bloomberg. *MSCI Emerging markets/MSCI Germany. **JP Morgan EMBI GD/WGBI Germany.*

The benchmark indices' constituent countries differ significantly by income. The JP Morgan EMBI Global constituent countries have on average a GDP per capita of 15% of Germany in 2012. The MSCI constituent emerging markets countries have on average a GDP per capita of 32% of Germany in 2012. This indicates that constituent countries in the EMBI are on average relatively low middle income countries while those in the MSCI are relatively high middle income countries.

[10] The inception date of the JP EMBI Global is 31. December 1993.

4 Middle Income Trap and Asset Prices

The rationale for international portfolio investors in emerging markets seeking higher total returns on a risk adjusted basis rests on the fundamental assumption that emerging markets investments are mispriced. This is due inter alia to emerging markets risk normally being overestimated and/or prospects for nominal and real convergences being underestimated. Emerging markets therefore tend to trade at a discount to comparable advanced economy credits implying market segmentation between advanced economies and emerging markets. The notion of convergence refers to the contention that upon convergence emerging markets securities should be priced identical to any comparable advanced economy security. This is naturally based on the assertion that there is a relationship between financial markets and real activities with the relative performance of asset prices being determined at least in large part by nominal and real convergence patterns.[11] Here rests the fundamental assumption that emerging markets asset prices should outperform advanced economies' in the process of convergence.

By conjecture, the middle income trap would imply that emerging markets asset prices should not outperform advanced economies'. Equally if the middle income trap is not binding, market segmentation should not prevail. In the same token, an erroneous assumption about occurrence of the middle income trap may lead to a lower than optimal allocation to emerging markets.

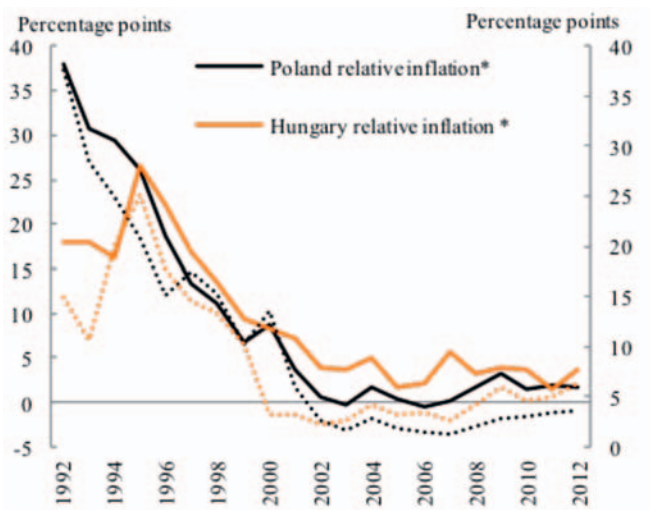
Further by conjecture, nominal and real convergences are expected to have different implications for different portfolio asset classes: Fixed income investors tend to focus on nominal convergence while equities investors seek exposure to real convergence. The former rests on the close relationship between interest rates and inflation. The latter is based on the assertion that stock market performance is driven to a large extent by income, postulating that income is a function of nominal and real factors and that there is a positive relationship between interest rates and income, but that convergence of incomes should be a key determinant of stock market performance.[12] Nominal convergence may then not be sufficient for stock markets to outperform but stock markets should outperform a reference portfolio in the event real convergence materialises.

[11] Empirical evidence is mixed though between economic growth and stock market performance; see e.g. (Levine & Zervos, 1998) and (Henry & Kannan, 2008). For a study on the relationship between convergence in the EU's large old accession countries and stock prices, see e.g. (Phengpis, Apilado, & Swanson, 2004) that find a strong relation between convergence and stock market returns.

[12] External factors to the location of stock markets naturally may influence stock market performance and likely to reduce the correlation between [domestic] income growth and stock market performance.

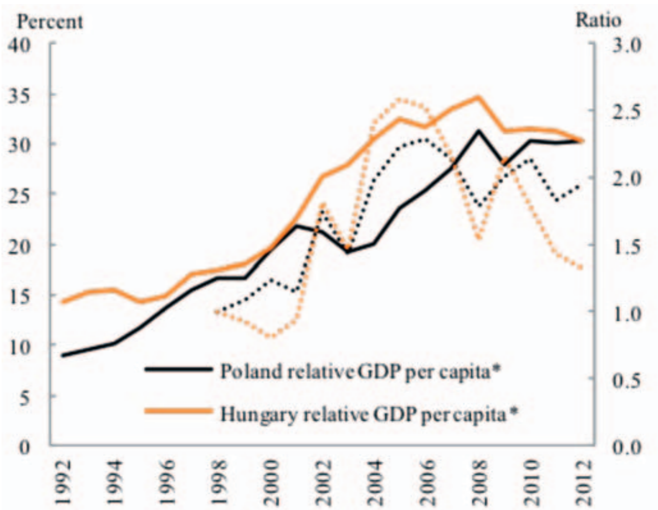
The middle income trap if binding may affect portfolio flows possibly creating self-fulfilling expectations for generating conditions for the middle income trap. By conjecture, international portfolio investors betting on real convergence may have no incentive for increasing and/or maintaining allocations to emerging markets subject to the middle income trap. The slowdown of portfolio flows could then cause a material reduction of investments in affected countries – assuming that the middle income trap is related to investment activities to support productivity and hence income growth – with adverse implications for the balance of payments and economic conditions more generally exacerbating conditions leading to the middle income trap.

Chart 4: Nominal Convergence and Interest Rate Performance



*Source: IMF WEO, OECD. *Average annual inflation minus Germany; **Long -term interest rate minus Germany's long-term interest rate (short-term rate Poland 1992–2000; Hungary 1991–1999).*

Chart 5: Real Convergence and Stock Market Performance



*Source: Bloomberg, IMF WEO. *GDP per capita in percent of Germany; **MSCI total return in USD relative to MSCI Germany total return in USD rebased 1998 = 100.*

The rapid reduction of bond yields for example in the case of EU accession countries and emerging markets has highlighted investment opportunities for fixed income (chart 2). While unforeseen shocks may upset nominal convergence trades, the existence of relatively short nominal convergence cycles and important coincident performance of inflation and interest rates have repeatedly offered key opportunities for fixed income investors (chart 4).

The long real convergence cycles risk complicating stock market investments. GDP per capita thresholds also likely play a role in determining minimum conditions for stock market outperformance. The real convergence cycle duration would imply that stock market outperformance may take a very long time to materialise. While emerging markets on average have increased their GDP per capital relative to Germany by 10 percentage points from 1992 to 2012, relative income in emerging markets EU countries increased by 22 percentage points. Preliminary observations suggest that there is some coincident movement between real convergence and stock market outperformance (chart 5).

5 Conclusions

This paper finds prima facie evidence for the middle income trap in line with earlier studies. Real convergence from middle to high income status remains rare. Nominal convergence appears considerably more widespread. The findings also seem to validate that the EU has been particularly successful in raising income of EU emerging markets in absolute terms relative to other emerging markets but that the financial and economic crisis has caused convergence reversals in the EU. At the same time, the data seem to confirm that emerging markets have through the crisis maintained real convergence. Following the EU accession methodology assuming convergence exhibits nominal and real elements, the data appear to indicate that the middle income trap is above all a real phenomenon. This may also suggest that there is only a weak relationship or that there are considerable lags between nominal and real convergence or that nominal convergence may serve only very partially to guide estimations about real convergence.

The increasing importance of portfolio investments in emerging markets naturally raises the susceptibility of emerging markets to adverse portfolio flow shocks. Emerging markets portfolio allocations remain small by any economic metric and are expected to continue to increase. At the same time, concerns about the middle income trap if warranted could significantly dampen portfolio investment flows and thus have adverse consequences for the stability of emerging markets. This could risk fuelling self-fulfilling expectations for generating conditions for the middle income trap.

Fixed-income investors have taken advantage of interest rate outperformance on the basis of the relatively short nominal convergence cycles by assuming exposure to nominally converging economies. Fixed income investments may therefore be the preferred strategy to invest in middle income emerging markets. The long real convergence cycles imply that equities investors may need to base their allocations on very long investment horizons, that is, equities investments betting on real convergence may simply take too long for the career of most portfolio managers.

If the middle income trap is binding and driven by real convergence elements equities investors may be better off investing in low income countries or middle income countries further away from the high income threshold. Given that representative benchmark emerging markets stock market indices attach a large weight to relatively high middle income economies and given the lacklustre performance of emerging markets stock markets relative to advanced economies stock markets, it could – very tentatively – be a sign of a binding middle income trap. The dominance of equities in emerging markets portfolio investments may thus warrant a revision of existing emerging markets investment strategies.

The observed convergence patterns may also help calibrate paths and expectations about convergence over a given time horizon. Real convergence has been a measured process even though relative GDP differences have narrowed for a large number of countries, absolute income differences have remained large including within the EU. This is also consistent with the notion that low income countries find it relatively easy to become middle income. Post-unification Germany may similarly help form reasonable expectations about convergence and/or outline actual limitations to convergence.

More research is needed to explore the relationship between convergence and stock market performance. Given that evidence about the relationship between stock market performance and economic growth has remained mixed, the importance of nominal and real convergence for stock market performance could be analysed further. The significance of income thresholds for stock market performance may also require more analysis.

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Disclaimer

Bretton Woods and the IMS in a Multipolar World? Keynote Speech

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I would like to thank the organizers of this conference for having asked so many eminent experts to focus on a subject – the International Monetary System (IMS) – that often nowadays tends to be overlooked.

Much of what I intended to say has been – much better than I could have done – expressed over the last two days.

I will, therefore, be as simple and direct as possible and divide my remarks in three headings:

1. Basically, an IMS is a set of rules that result in the harmonization of monetary policies of different countries participating in the system. Historically, such systems have relied either on a "real" external anchor, like gold, or on a national, dominant, currency;
2. After the demise of the Bretton Woods system, Central Banks have, eventually, resorted to inflation-targeting. But this approach, although generally applied, has not resulted in a de facto IMS, and has failed to bring financial stability to the system;
3. Given the present conditions (the rise of capital movements, the innovations in the financial markets, the emergence of new players, the shaping up of a multipolar world….) how could a true IMS be conceived?

1 An IMS always Tends to Harmonize National Monetary Policies

When different countries – different by their size, productivity, resources etc. – get heavily engaged in cross-border trade, they usually feel the need to dispose of an international currency, in order to facilitate commerce and eliminate permanent uncertainty on exchange rates. Economic agents need a currency to help them settle their transactions and store reserves for future business.

This can be an externally based currency like gold or a – dominant – national currency as was the pound sterling, and later on, the dollar which was chosen to be the anchor of the Bretton Woods system after World War 2.

But in both cases, the existence of a common single yardstick exerted a unifying pressure on national monetary policies. Indeed, if a national central bank was tempted to reduce inordinately its interest rate, or to issue "too much" money (in relation with the policies conducted in the center), it was quickly brought back to a more "common" and compatible monetary stance by the very rules of the IMS. Either nationally held gold would leak out of the more accommodating country, or its currency would be pushed into devaluation, which was strictly monitored and restricted under a fixed exchange rate system à la Bretton Woods.

We know that changes in external imbalances are fundamentally determined by the variations of net domestic assets of a country's financial balance sheet (i.e. credit extended to the economy and to the State). Therefore, any IMS results in the enforcement of a common monetary policy by national States abiding by the "system". That policy is influenced itself by the quantity of the stock of monetary gold or by the monetary stance followed by the center.

Of course, many countries did not enforce the rules nor respect the discipline of the IMS. But, in that case, these "outer" players could not benefit from the advantages stemming from the convertibility of their currency and from the inflows of international capital because of the uncertainty of their national exchange rate.

In a way, one could say that the IMS was in fact a cluster of individual monetary policies compatible with the stability inherent to the system.

2 Inflation Targeting Has Failed to Achieve Financial Stability. Since the Demise of the Bretton Woods System, there Has Been no Proper IMS Able to Harmonize Monetary Policies

When the Bretton Woods system collapsed in 1971 (with the unilateral US decision to sever the link between the dollar and gold), central banks had, seemingly, regained freedom in their approach to monetary policy.

Many economists thought, for a time, that through a floating exchange rate system, central banks would achieve more adequately their national goals in terms of monetary stability and growth.

In fact, what happened was that the discipline of the IMS anchor had disappeared while nothing had replaced it.

The end result was more monetary ease, more inflation and more exchange rate volatility.

Of course, national monetary stances were different from one country to another. These differences favored balance of payments imbalances and capital movements.

The inflation of the 1970s cannot be understood without taking into account the breaking down of Bretton Woods.

A world of floating currencies, some being more or less pegged to the dollar, has prevailed since then. After a decade of high volatility and inflation in the 1970s, the period of the "Great Moderation" began in the 1980s when the chair of the Federal Reserve, Paul Volcker, put a crush on inflation. Productivity gains stemming from technological changes and central banks' independence were also important factors. However, in the 1990s, the Great Moderation became to some extent an illusion. Much of the reduction in inflation was the consequence of low wages contained in emerging market exports. In fact, monetary policy of the advanced countries was too loose with real interest rates hovering around zero[1]. The explosion of credit and of leverage – favored by those low interest rates, by deregulation and by persistent external imbalances as well as by an inappropriately exclusive single monetary tool: "inflation targeting" led to a strong expansion of credit and of the money supply in the run up to the 2007-08 crisis. All this did not amount to a system. Indeed, there was no common discipline applied to reduce external imbalances. Each country was free to float or peg its currency to another one; and the dollar, as the primary international currency, gave the Fed a predominant influence on world monetary conditions.

The results of such a situation are volatility, persistent imbalances, disorderly capital movements, currency misalignments, and eventually currency wars and capital controls.

If one reflects on the monetary setting of those last fifteen or twenty years, one cannot just say that it amounted in a "non-system". It was actually much worse: it amounted to an "anti-system".

This is to say when countries are free to peg their currency to another one, (or to peg it partially), in order to preserve their competitive advantage, the system is bound to run into problems. The systematic intervention on the exchange rate markets by creditor countries has considerably contributed to increase world liquidity and to lower interest rates, thus helping the massive over-leveraging of the financial system.

So we had no system: Central banks were focusing exclusively on a misleading yardstick (ex- post CPI targeting) while they turned a blind eye to the massive and artificial expansion of credit, to the formation of huge asset price bubbles[2] and to the new mindset in which liquidity was understood as access to credit. And there was no interest in multilateral surveillance of macroeconomic policies. Imbalances were

1 Fed Fund rates were negative in real terms from August 2002 to February 2005.

2 Real house prices rose by more than 70% in the years 1996–2006. Income and population growth in this period would not have warranted any extraordinary increase in demand (Dean Baker "International Economy" fall 2013).

huge and structural, but they were financed more and more smoothly with innovative products. So why bother? This eventually led to the 2007-2008 crisis that is threatening the very fabric of our societies.

3 Given the Present Situation in the World (Free Capital Flows, Absence of Monetary Policy Coordination, Rise of Emerging Countries…) What Could Be a Solution for the Future?

Does the present world offer the conditions for a proper functioning of the international monetary system? By present world, I mean a state of play where there is no envisageable return to a form of global standard or to a stable exchange rates mechanism; where freedom of capital movements and the importance of liquidity in financial markets (essentially in the USA) are a key determinant for the success of international currencies. This is a world composed of states determined to preserve their own interests (or what they believe are their interests) without having to accept external constraints. In sum: a world of national objectives.

If we want to imagine a true international monetary system, then this final factor, at least, must change. Indeed, the word “system” implies the acceptance of an element of externally agreed consistency. The juxtaposition of national positions cannot, by definition, amount to a system. Nations should therefore accept that they must coordinate their economic and financial policies in order to achieve a sustainable global macroeconomic balance, under the surveillance of an international institution disposing of adequate powers and sanctions. If the International Monetary Fund (IMF) was chosen to fulfil such a role, it would have to better reflect the real world and particularly the growing importance of emerging countries.

This, in theory, should be an attainable objective so long as states are ready to convince themselves that the common discipline which they would have to abide by is not only desirable internationally, but also in their own interest. Indeed, in a financially globalized world, exchange rate volatility, currency misalignments and structural deficits are in the interest of no-one. But, in the present circumstances, the probability of common macroeconomic governance with some form of constraints on member countries policies seems to be very remote.

Sociological empirical studies have demonstrated that the rise of risks tends to weaken cooperative arrangements: some players are tempted to join more limited groups or follow individual strategies. Less international cooperation and more competition are usually the result of greater turmoil and uncertainty.

Yet several technical adjustments could be envisaged to the present anti-system. Some proposals concern an increase in financing facilities provided by the IMF. The G20 countries have already considerably reinforced the Fund’s resources and made their use more flexible. But some argue that this is not enough and that the

IMF should be allowed to provide last resort funding to countries affected by a liquidity crisis (not by solvency problems that are usually linked to inadequate economic policies). To that effect, they propose that the IMF should be allowed to borrow on the markets and to substitute or complement central banks swap lines, the provision of which are often uncertain and therefore not adequate to prevent looming crises.

Other ideas touch on the extension of the role of the special drawing right (SDR). But it is highly improbable that the SDR could become a substitute for the dollar. Besides, it should not be used as a form of multilateral guarantee for countries having accumulated excess reserves. At any rate, in relation to the size of financial markets, the potential offered by the SDR seems weak.

Given the fundamental flaws of the present system = i.e. the existence of unilateral monetary policies enforced by the largest financial centers without any concern about their international consequences (as we can see with the present "tapering off" of the US Fed's policies of quantitative easing), and the absence of any macroeconomic coordination, it seems to me that such possible technical adjustments to the Fund's present procedures do not address the real problems.

Given the low probability of a "grand" reform of the international monetary system, I believe the world will evolve slowly over the years towards a more multi-polar system. The emergence of countries such as China, India and Brazil is a powerful factor of change. Monetary power will eventually match economic influence as has always been observed in history. We are already seeing the harbingers of such a transition: domestic currencies of emerging markets are being used more and more in local and regional transactions, non-residents are beginning to have access to emerging currency pools, emerging financial markets are gradually expanding and issues of bonds denominated in emerging currencies are developing on international markets. These changes will take time before they translate into universal convertibility. But the direction is clear: more currencies will count and participate in international finance.

But such a transition will not solve all problems. It is the excess of credit expansion that fuelled the financial crisis. Too much bank leverage contributed to the explosion of the money supply – and monetary policy limited to inflation targeting (but not concerned with over-leveraging and asset price bubbles) was powerless.

In order to avoid the repetition of such crises in a world where currencies look likely to continue to be free to misalign, another approach seems essential: macroeconomic oversight. Central banks and regulators from around the globe must work together to remain on guard to both identify and counter financial imbalances. If, for example, real estate borrowing becomes excessive in a particular country, regulators should react by setting limits on loan-to-value (LTV) ratios. Or, if credit bubbles threaten, then monetary policy should respond by increasing interest rates or by other measures like raising reserve requirements or introducing counter-cyclical provisioning. If the present network of mushrooming systemic boards could work together to foster this fine-tuning of monetary and regulatory measures – to be applied not uniformly across the board but according to the problems of each country – then we would live in a more stable environment. The absence of an international monetary system would, to a certain extent, be mitigated by a serious macroeconomic oversight system.

One could rightly object that governments might not be willing to apply countercyclical policies, which so often are unpopular in "good times". But central banks and regulators may perhaps have more leeway and independence to act in such a diversified manner than governments to abide by multilateral surveillance.

A final note: capital requirements are not the only way of fostering the resilience of the financial system. And increasing global headline ratios can be very costly in terms of reducing normal credit availability. Sectoral and cyclical capital requirements and lending limits would be much more effective and less expensive than a "one size fits all" capital ratio approach. Systemic risk attention seems to be the persistent missing link of our mindsets.

Remarks on Occasion of the 70th Anniversary of Bretton Woods

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By the final panel of a two day conference almost all issues have already been discussed. I will therefore engage in some R&R, reminiscences and reflections, since I have passed my 50th anniversary in dealing with issues of the international monetary system, having served on three occasions in the US government during the 1960s and on a longer occasion in the 1970s.

My first observation concerns the title of this session, "Bretton Woods and the IMS in a Multipolar World?." In my experience with foreign economic policy, we have always lived in a multipolar world. Serious trade negotiations involved at a minimum Europe, Canada, and Japan as well as the United States at the core (the Quad), plus many others. Negotiations on international monetary issues involved Britain, France, and Germany as well as the United States, and often other countries. China now plays an important role, as do Brazil and India in trade, so the world is different, but it has not recently become multipolar because of the addition of those countries. (India has long been a potential player, as it was at Bretton Woods even while still a British colony, but she has insisted that because she is poor she should take on no global responsibilities, and has generally gotten away with it, but that phase too may be over.) Even the international use of currencies has never been unipolar. While the US dollar has played the predominant role since the 1940s, the British pound was important (in the form of the sterling balances) into the 1970s; the German mark began to be used as an international currency, subsequently replaced by the euro with an even greater role. Maybe the Chinese yuan will be added to this list in the future, but not soon except as a bit player, since it remains inconvertible and its judicial system cannot be trusted to render impartial judgments.

In his recent book, *The Battle of Bretton Woods,* Ben Steil argues that Harry Dexter White wanted the US dollar to replace the British pound as the leading international currency and worked to that end. I will leave that issue to the historians, although I thought Ed Conway at this conference did an effective job of casting doubt on Steil's claim. Certainly in my later experience the US government did much to support the pound, as Michael Bordo reminded us. It was not for disinterested reasons: US officials worried that a weak pound would spread weakness to the US dollar (I questioned that proposition at the time), and also wanted Britain to maintain a military engagement east of Suez.

Two books have been published in the past year, by Ronald McKinnon *(The Unloved Dollar Standard)* and Eswar Prasad (*The Dollar Trap*), both non-Americans teaching in the United States, that conclude, with a note of regret, that the US dollar will be the dominant international currency for a long time. There will be nibbling at the edges, but the US dollar will retain its central position. I basically agree with their judgment. It rests on three foundations. The first is the size of the US economy and especially the size and the liquidity of the US financial market, which still accounts for nearly half of the world financial system by value (more if only tradable securities are taken into account), along with an independent and impartial judicial system for settling commercial disputes. The second is the extensive network externalities that have been established through historic use of the US dollar, as in the use of English as a common means of communication across linguistically diverse societies. No one consciously chose it, but it is now established and self-re-enforcing. Third is the absence of an effective alternative, a point to which I return below. The euro is the obvious competitor, but it has recently received a (temporary) set-back by economic troubles in Europe and the fragmentation of the European financial market. In the longer run, Europe is in relative economic decline, much more so than the United States, largely for demographic reasons (from 29% of the world economy in 2007 to 19% by 2017 on one estimate, including the UK, and continuing thereafter).

The US dollar's role will be extremely hard to dislodge or replace. As an unlikely example, US dollars account for 60% percent of bank deposits in Laos, a communist country with central planning, close to China. Laotians distrust the kip. The traditional form of household saving is gold leaf, but the authorities prefer bank deposits in US dollars, which unlike gold can be socially mobilized for productive investment.

The suspension by the United States of gold convertibility of the US dollar in 1971 has featured in several presentations, so perhaps I should say something about it. US monetary policy was tight in late 1968 and 1969, with funds flowing into the United States, thus providing the conditions for the first decision in 1969 to allocate newly created SDRs. Then the USA ran into recession, US monetary policy eased considerably, and funds began to flow out of the United States. Inflation had increased under the pressures of the Vietnam War. An increase in IMF quotas had been agreed, requiring at that time that 25% be paid in gold. A number of countries desired to replenish their national gold stocks, and turned to the US Treasury to do so. The SDRs came too little too late; Triffin's dilemma was at hand.

In August, President Nixon announced a major change in economic policy, of which suspension of gold convertibility was a minor but logical part. The aim of the policy was to limit inflation through the introduction of wage and price controls and to improve the US balance of payments through devaluation of the US dollar against other leading currencies, an action which under the Bretton Woods system as it had evolved was not in the hands of the United States. The United States could change its official price of gold, but the exchange rates were determined by other countries. To induce others to appreciate their currencies relative to the US dollar, the US imposed an import surcharge on all dutiable imports. That led to the Smithsonian Agreement of December 1971, which involved removal of the surcharge in exchange for agreement by others to appreciate their currencies by varying amounts, led by the Japanese yen at 15%. At French insistence, the USA also agreed to raise the official price of gold from USD 35 to USD 42.22 an ounce.

By the analysis of the Treasury staff, and independently by the IMF staff, the negotiated re-alignment of exchange rates was too little to correct the US payments imbalance; but it was all the Europeans would agree to. Nixon had suggested that gold-convertibility of the US dollar would be re-established (for official monetary transactions) after the re-alignment of exchange rates; an increase in the official price of gold made no sense otherwise. But under the circumstances, gold convertibility was (properly) not re-established, and so it remains today. The Smithsonian agreement rates were proved inadequate within the next 15 months, and the system moved to floating exchange rates among the major currencies.

The major issue domestically not surprisingly was the wage and price controls, which proved challenging from the beginning. Suspension of gold convertibility was a small part of the total policy package, although one of special interest to aficionados of Bretton Woods.

Much is made of the benefits of the international role of the dollar for the United States, captured in the enticing term "exorbitant privilege," a claim that is usually made on the basis of no analysis. Fred Bergsten years ago raised questions about this presumption, but they have been largely ignored. McKinsey Global Institute boldly and usefully attempted to quantify the gains a few years ago, and came up with about 0.3% of US GDP. Their estimate is made of three components, two positive and one negative. The positive ones involve seigniorage on holdings of US currency outside the United States and a lowering of interest rates on US bills and bonds due to widespread holdings of them outside the United States. The negative one involves the loss of net exports due to a more appreciated US dollar. Estimates of the second two factors are inevitably problematic, and I believe MGI over-estimated the impact on interest rates; if so, the net gain would be even smaller, and perhaps negative. Three-tenths of US GDP is a large absolute number; but I suspect it is much smaller than those who use the term "exorbitant privilege" implicity have in mind. It is more fun, if less exacting, to use qualitative quantifiers in political discourse.

Much is made these days about the allegedly nefarious influence of US monetary policy on the rest of the world – whether in its easing mode, or in its prospective tightening mode. Such complaints are made usually on an implicit "ceteris paribus" assumption: country x would be better off if US monetary policy were not so easy. But this is not legitimate: serious analysis requires *mutatis mutandis*. If US monetary policy had been less easy over the period 2009–2013, the US economy would have been more depressed, or at least so the Federal Reserve thought (and I agree with that view). Would country x have been better off with a deeper US recession? Highly unlikely for most values of x. Similarly, "tapering," that is, a gradual tightening of US monetary policy, will occur in the context of an improving US economy, not by itself. Disturbances abroad created by higher interest rates in the United States have to be evaluated against the backdrop of a stronger US economy.

Could the US dollar be replaced in its international uses, at least its official international uses, by a non-national unit, such as the SDR, as suggested in 2009 by Governor Zhou Xiaochuan of the Peoples Bank of China? My answer is affirmative, at least for official functions – and with that maybe private functions would follow after some period of time. But it would require a *major* negotiating effort by governments, which would face some thorny issues, such as how to deal with the outstanding US dollars, euros, and other currencies currently held in international reserves. No agreement could be reached on a substitution account over three decades ago, and the amounts involved are very much larger today.

More fundamentally, such a negotiation would have to address the adjustment process, particularly the obligations that countries in balance-of-payments surplus should accept – an issue that has appeared recently within the euro area, and globally with China. In a grand cost-benefit analysis, would the incremental benefits of replacing the US dollar with the SDR be worth the cost, given that negotiating time and skill is a scarce resource in all countries? How substantial would the economic gains be, as opposed to basically aesthetic considerations of apparent symmetry?

We need concrete proposals, not abstract calls for a "new Bretton Woods." (As was pointed out, Bretton Woods took place only after two years of detailed discussion and preparation.) In this spirit, I made a proposal in time for the G20 summit in 2011, which according to its chairman President Sarkozy of France was to be devoted in part to improving the international monetary system. It was not a great proposal, but it was the best I could think of at the time, and it was put forward to provoke debate and to stimulate other, better, proposals (it can be found in the May 2011 issue of *Central Banking*). It fell like a rock. Maybe the timing was wrong: international monetary reform was crowded off the G20 agenda by the euro crisis, which was reaching its peak during that year. Or maybe, what no one wants to admit openly, the issue is not important enough to warrant discussion of concrete proposals. It is a topic people enjoy grumbling about but do not want to take the effort to do something about.

I will close with one further reflection, apparently tangential but in fact closely related. What should be the role of reserve-holding central banks in a multipolar international monetary system? One role they should not play is profit centers, like a business. Normally, central banks will in fact be profitable, since their principal liabilities do not pay interest, and their principal assets do earn interest. But they exist to perform public functions – to govern the domestic supply of money and perhaps also to manage the country's exchange rate – not to make profits. Their two businesses require liabilities and at least some assets to be in different currencies. Conventional accounting standards, which would routinely convert foreign currency holdings into domestic currency, should not be applied, and should not be taken seriously. Changes in the exchange rate should be determined on their economic merits, not on the basis of whether they give rise to capital gains or losses under conventional accounting. And central banks should not alter the composition of their foreign exchange reserves in order to profit from anticipated changes in exchange rates between foreign currencies. As members of the Bank for International Settlements and the International Monetary Fund, they should be regarded as insiders, not eligible to trade in foreign exchange except in carrying out their proper central bank functions. If they violate these rules, they should be ostracized from the official community.

Bretton Woods and the IMS in a Multipolar World?

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Very few international conferences have produced such a consequential outcome as the Bretton Woods Conference, which took place at the Bretton Woods hotel in New Hampshire 70 years ago. This international conference, which was held in July 1944, created the twin organizations – the International Monetary Fund and the World Bank. It also laid the foundations to what was to become the international monetary system of the post-World War II era. The Oesterreichische Nationalbank under the leadership of Governor Ewald Nowotny, together with the Federal Ministry of Finance of Austria represented by State Secretary Jochen Danninger and Mr. Marc Uzan, Executive Director of The Reinventing Bretton Woods Committee, deserve our thanks and appreciation for putting together such an impressive conference that puts into perspective key issues in the International Monetary System.

Previous speakers on this panel provided very useful insights based on their own reminiscences of their long careers and experience as participants and observers of the international monetary system; in my contribution to the panel I will do the same.

Thirty years ago, in 1984, the Federal Reserve Bank of Boston convened a conference to commemorate what was then the 40th anniversary of Bretton Woods. In order to get a flavor of the time, I looked up the proceedings of that conference and the following were the participants: Edward M. Bernstein, who was a member of the American delegation to the original Bretton Woods Conference and served as a close advisor to Harry White, the head of the delegation; Eddie Bernstein was subsequently appointed as the first research director of the IMF; Jacques J. Polak, who was also at the original Bretton Woods Conference as part of the Dutch delegation and subsequently succeeded Eddie Bernstein as the research director of the IMF, Lord Eric Roll, Ariel Buira, Anthony M. Solomon, John Williamson, W. Max Corden, Pedro-Pablo Kuczynski, Charles P Kindleberger, Robert V. Roosa, Robert Triffin, Robert Solomon, Henry C. Wallich, Robert Z. Aliber, Otmar Emminger, Rudiger Dornbusch, Adolfo C. Diz, Eduardo Wiesner, and C. Fred Bergsten. These individuals were among the key players of the time. The 1984 Boston Fed Conference also included two additional "young participants" who happen to also take part in the present conference as panelists in today's session: Richard N. Cooper and myself.

There is a consensus that the original Bretton Woods Conference, which was held over an intense period of three weeks, was a success. In terms of an organization of such a policy conference there is still the question of whether it was a success due to or in spite of its concentrated duration and intensity. According to Eddie Bernstein's account, the success was due to very thorough preparatory work. The technical analysis that preceded the final conference lasted for about two and a half years, which culminated in the final three weeks long conference. According to Bernstein, without such a detailed preparation the outcome would not have been the same. Some of the subsequent commentators emphasized the collegiality and almost friendship that allegedly characterized the relationships among the participants. In fact, however, there was a lot of tension and that tension was visible from the body language exhibited in some of the photos as well as from informal accounts and descriptions of those present. Such tensions were not just present among the separate delegations but also between delegates who belonged to the same delegation. When Harry Dexter White, who led the American delegation, presented his proposal, some of his colleagues thought that it was much too ambitious; at the same time others, like Jacob Viner, who was a prominent professor, criticized it as being too timid (he described it as preparing an umbrella when a bomb shelter had to be prepared).

The proposals themselves revealed some ambiguities in drafting. Some scholars examined these ambiguities and attributed them to haste. However, as noted by Eddie Bernstein, Louis Rasminsky, the Chairman of the drafting committee, who subsequently became the third Governor of the central bank of Canada, explained that there were no unintentional ambiguities in the Fund Agreement. What seemed to be ambiguities was the result of skillful drafting aimed at universal approval rather than sloppiness and haste. The necessity to bridge disagreements also created tensions, stress and criticism. As an illustration, I recall that towards the end of the conference, John Maynard Keynes, who was the head of the British delegation, stated in his concluding speech "I am greatly encouraged, I confess, by the critical, skeptical and even carping spirit in which our proceedings have been watched and welcomed in the outside world. How much better that our projects should *begin* in disillusion than they should *end* in it". It is alleged that by the end of the conference Keynes was very frustrated with the legalistic details that the various lawyers were putting in as obstacles. Indeed, it is said that when he thanked the various contributors to the proceedings he looked at the lawyers and quipped in frustration: "if it was up to the lawyers, they would have declared common sense to be illegal". So much for collegiality and good atmosphere.

One of the key features of the international monetary system that was constructed at the original Bretton Woods Conference was the recognition that the world economy is interconnected. This interconnectedness manifested itself through international trade, through capital movements, and through exchange rates. The interconnectedness necessitated the adoption of agreed rules and required some form of international policy coordination. Carrying on with my personal reminiscences, this brings me to recall my own involvement in the policy coordination process. In 1986, while I was the David Rockefeller Professor of International Economics at the University of Chicago, I received an invitation from Jacques de Larosière, who at the time was the Managing Director of the IMF (we are privileged to have him present here today as the chairman of this panel). Mr. de Larosière invited me to come from Chicago to Washington, D.C., in order to "discuss current international policy matters", when I came to his office, I recall noting that behind his desk there was a beautiful bust of John Maynard Keynes. Being an academic from the University of Chicago, I was very curious to know what was this bust doing at the office of the Managing Director of the IMF. Mr. de Larosière explained to me that following the original Bretton Woods Conference of 1944, two busts were presented to the IMF as special mementos; one was of John Maynard Keynes, the head of the British Delegation and other was of Harry Dexter White, the head of the American Delegation. He explained to me that he decided to keep John Maynard Keynes' bust in his own office and place the bust of Harry Dexter White in the office of the Deputy Managing Director of the IMF. With this historical anecdote we moved on to discuss some of the characteristics of Keynesian economics, and I recall that this was an extraordinary, stimulating and completely unexpected insightful conversation. Of course, this was not the reason for which I was summoned to the IMF. As the conversation proceeded, the Managing Director went on to describe to me the structure of what was then the framework of international policy coordination. He told me that the G5 (Group of Industrial Countries – the US, Japan, Germany, France and the UK), have decided under the prodding of James Baker, the Secretary of the Treasury of the United States, to enhance their policy coordination framework, and that they have invited the IMF to serve as the secretariat of the process. In this context, Mr. de Larosière invited me to become the Economic Counselor and Director of Research of the IMF. My responsibility included the production of the World Economic Outlook of the IMF and to be involved in the G5 policy coordination exercise. Mr. de Larosière expected a quick response to his offer and reminded me that if I accept, I will become the fourth Economic Counselor and Head of Research in the history of the IMF and as such would follow the distinguished list of predecessors, Eddie Bernstein, Jacques Polak (both of whom attended the original Bretton Woods Conference), and William Hood, a former government minister from Canada. Obviously, one never says no to Jacques, and I accepted his offer. This marked for me the beginning of a wonderful multi-decade friendship. During his distinguished tenure as Managing Director of the IMF, Jacques de Larosière served as a role model. He demonstrated skillfully how one could run the IMF with both diplomacy and spine, and those two do not always go easily together unless they are anchored in deep professional convictions. Jacques de Larosière demonstrated that the two could go together.

My first meeting with the G-5 deputies for the discussion of international policy coordination was an eye-opener. It revealed dramatically the difference between the nature of debate in academia and the nature of debate with policymakers who represent their respective countries. The first topic of discussion was the international consequences of budget deficits. I described in detail how excessively large budget deficits are bad, how sustained deficits increase government debt, which ultimately harms economic growth. To my dismay, the deputy from a major country argued that budget deficits do not really matter and that as a result their international impacts are negligible; it was a rude awakening. I realized quickly that what was self-evident in my academic training was subject to political judgments in policymaking circles. We went on to discuss the negative international consequences of current account imbalances and again I found out that "where you stand depends on where you sit"; namely, countries with large current account deficits insisted that the imbalance be corrected through a rise in spending in the surplus countries abroad; by the same token the countries with the large surpluses expected the adjustment to take place by the deficit countries, which were expected to cut their spending relative to their income. In short, the debate was about who should initiate the adjustment. This debate highlighted the challenges that international policy coordination faces. The deficit countries wish that the adjustment takes place by the surplus countries while at the same time the surplus countries wish that the adjustment takes place by the deficit countries. The fierce debate was about the question of who should act and what actions need to be taken. With the passage of time the debate on policy coordination was summarized by 5Ws and 1H. The 5Ws are: Why should countries coordinate? Who should coordinate? When should policy be coordinated? Where should policy be coordinated? What policies should be coordinated? The H is: How should coordination be implemented? These issues, which were central to the design and implementation of the policy coordination exercise, were the focus of discussion leading to the G-7 Louvre Agreement of 1987. It represented significant progress from the framework which underlined the previous policy coordination exercise that culminated in the Plaza Agreement of 1985. While the Plaza Agreement focused on international exchange rate adjustments, the Louvre Agreement focused on internationally coordinated macroeconomic policies. The shift from the narrow focus on exchange rates towards a broader focus on the wide range of macroeconomic policies, represented analytical progress but at the same time it revealed a fundamental political reality. In modern democracies, policymakers represent and are accountable to their own national constituencies and no individual country can expect to be able to decide what should be the policies undertaken by other countries. Hence, very quickly it became apparent that the concept of policy *coordination* should be replaced by the concept of policy *cooperation,* the idea being that the policy cooperation framework focuses on the exchange of information that improves the understanding as to how different economies work, how the decision-making process is implemented, the meaning of the various data that are presented by each country and the considerations that underlie national priorities and preferences. This is probably the most that international cooperation can bring about in the interdependent world while recognizing and respecting different national characters, histories, backgrounds, and objectives. Yet, the interdependent world as a whole is well served by having the modest mechanism of policy cooperation that is instrumental in facilitating outcomes that internalize some of the externalities that prevail in the complex interdependent world.

When we completed the discussion on international policy cooperation, I suggested that we move on to discuss exchange rate arrangements among the major currencies. This was the period before the introduction of the euro and therefore there was a large number of bilateral exchange rates that had to be considered among the G-7, and of course since not all of the bilateral exchange rates are independent of each other, consistency had to be assured. Here came my second big surprise: I noted that around the table of the G-7 deputies there was not a single representative of a national central bank. Only representatives of the respective national ministries of finance were present. This was obviously an aberration that made no sense although it reflected the political reality and the relative positions of the national central banks in the power play within the respective economies. Fortunately, with the passage of time this distortion was corrected and the central banks were invited into the room.

The role of the Fund was also evolving. My first assignment as Economic Counselor and Director of Research of the IMF was to prepare a paper for the Executive Board titled "The Role of the Fund". Initially I was somewhat surprised as I thought that after more than four decades since the creation of the IMF its role would be well defined. It was explained to me however, that each year the executive board needs to re-examine the role of the Fund since circumstances change, new challenges come up, new approaches need to be developed, new instruments need to be designed and the Fund must develop its intellectual arsenal so as to stand ready to meet new challenges. With the benefit of hindsight it is obvious that this was the correct approach and indeed as one observes the challenges that have faced the International Monetary System and with it the Bretton Woods Institutions, it is obvious that a lot of changes have taken place. It is noteworthy, however, that while the financial needs of the Fund grew vastly, and indeed the international commitments to increase the size of the capital of the Fund was also announced, the political appetite needed for the implementation of such an increase in the size of the Fund is still lacking.

Over the years, the world economy has witnessed a growing degree of interdependence and this is especially the case since the rapid growth of international capital markets. These developments gave rise to various proposals for reform of the international monetary system, including very complex proposals. This is not the occasion to provide a detailed analysis of some of these proposals. However, it is relevant to note that an operational international system must be practical, transparent, clear, and relatively simple. In this regard, it is worth recalling Albert Einstein's dictum according to which: "to each problem one should always try to find the simplest solution, but avoid solutions that are simpler than that."

Is the system ready to face the main challenges in the global economy of today? In what follows, I outline briefly key challenges that remain.

1. The global economy has witnessed a dramatic shock in the recent financial crisis. As a result, the level of world output declined in 2009 as growth was negative. Practically all of the industrial countries went into recession and, in contrast to past crises, the developing countries, especially in Asia, have shown greater resilience. The question is whether the system has learned how to prevent such a cataclysmic event in the future?
2. Also owing to the sustained economic growth of the past decades, the volume of international trade has also expanded every year. A major exception was 2009 in which the volume of trade actually shrank by more than 10%. This decline in the volume of international trade caused a further aggravation of the financial crisis. The question is whether the system has developed sufficient mechanisms to prevent a repeat of such a development?
3. After many years of debate concerning the size of external imbalances of different countries, such imbalances still prevail among the major economic blocs and also within an economic bloc such as Europe. The question is whether the system can develop operational mechanisms that will prevent the emergence of large and sustainable external imbalances before such imbalances create dangerous vulnerabilities to the system.
4. The center of gravity of economic power has shifted dramatically during the past 20 years from industrials countries to developing countries, especially in Asia. For example, while in 1990 sixty-three percent of the world output was produced in the U.S., Europe, and Japan, today the same industrial countries produce only forty-five percent of world output. Industrial countries' declining share was made up for by developing countries' rising share. For example, whereas in 1990 China and India together produced only seven percent of world output, today these countries produce more than twenty percent of world output; these are huge changes in a historical perspective. The question is whether the international monetary system is capable of adjusting so as to reflect the new structure of the

world economy. Specifically, are the industrial countries willing to forego part of their IMF quota share in favor of the developing countries? By the same token, are the developing countries able and willing to play a larger role in the international monetary system commensurate with their growing economic size?

5. Most central banks in the world have lowered their interest rates to levels close to zero. These low levels are below what is sustainable and desirable for the medium term. At the same time many central banks continued to inject liquidity to the system through the adoption of "quantitative easing" and unconventional monetary policies. The question is whether the process by which normalization is restored and interest rates are raised will be orderly. In particular, are the balance sheets of financial institutions sufficiently robust so as to withstand the challenges arising from higher rates of interest?
6. The creation of the eurozone provided the opportunity for great improvement of Europe's economic performance. However, it resulted in great structural imbalances within Europe. The question is whether European policymakers are able to reduce such structural imbalances so as to lower the rate of unemployment and reduce the gap among the various eurozone countries in both labor market conditions as well as competiveness and productivity?
7. Demographic trends all over the world pose serious challenges. In many countries, the population is aging and in some countries the size of the population is shrinking. Such trends pose significant challenges to social security systems, to pension systems, to fiscal management and the like. The question is whether the international monetary and financial system can develop satisfactory approaches to deal with such medium term challenges?

Hopefully, in the future when we commemorate the 80th anniversary of the Bretton Woods conference, we will have found positive solutions to some (and may be all) of these challenges.

Bretton Woods and the IMS in a Multipolar World

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The IMF was formed in 1945 in response to global crises and the recognition that the International Monetary System (IMS) would benefit from rules-based global financial cooperation. While almost 70 years later this underlying mandate remains unchanged and relevant as ever, the IMF as an institution has been far from a static and grown into many new directions, adapting to an ever changing world economy. Global trends such as the dramatic increase in economic and financial interconnectedness, which is leading to more intense policy spillovers; the ongoing transition to a more multi-polar global economy; and the evolving multilayered global financial safety net are some of the challenges to which the IMF is responding today to stay relevant for the future.

Indeed, rising interconnectedness and spillovers have already triggered changes to the IMF's surveillance and lending facilities. New tools such as cluster analysis and large scale global econometric models are now routinely used in surveillance to better understand global trade and financial flows, and to assess the magnitude and direction of spillovers. In 2012, the IMF also adopted a new surveillance framework that integrates bilateral and multilateral surveillance. This allows for a more informed and deeper coverage of spillovers and defines a framework for better policy coordination. Furthermore, the IMF has revamped its lending facilities to provide more flexibility to countries with sound policies that have been adversely impacted by external spillovers.

The global financial safety net is, however, broader than just the IMF. Even though recent IMF commitments have been unprecedented in size, they could easily be dwarfed by the borrowing needs of just one large emerging market country. Indeed, today's safety net has emerged into a multilayered system. Central bank swap lines constitute one layer. Although, very effective during the crisis, these swap lines are not available to all countries. Regional Financial Arrangements (RFAs) provide another layer that can help increase the size of available resources and bring regional expertise and greater program ownership on the table. However, RFAs have a range of different institutional and operational set-ups and can only offer limited risk pooling to its members. Hence, stability of the IMS still necessitates a strong IMF at the center.

For the IMF to play an effective role in the IMS it is important that the institution maintains its credibility both in terms of governance and financial resources. This is why the approval of the 2010 governance reforms is key. These reforms will not only ensure that the Fund maintains sufficient “firepower”, including by making permanent the resources that members made available to the IMF on a temporary basis during the crisis, but also ensure that IMF governance structure keep pace with ongoing shifts in global economic power.

Going forward, the IMF must continue to adjust to a changing world, including by continuing to develop its surveillance toolkit and following through with the implementation of the integrated surveillance framework. The IMF must also continue to adapt to its governance to the evolving environment, while carrying on with its efforts to strengthen cooperation with RFAs and promoting policy coordination more broadly.

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