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REFORMING THE GLOBAL ARCHITECTURE OF FINANCIAL REGULATION
THE G20, THE IMF AND THE FSB

MALCOLM D. KNIGHT

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Malcolm D. Knight

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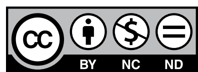

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67 Erb Street West
Waterloo, Ontario N2L 6C2
Canada
tel +1 519 885 2444 fax + 1 519 885 5450
www.cigionline.org

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ABOUT THE AUTHOR

Malcolm D. Knight is a CIGI distinguished fellow. He is also visiting professor of finance at the London School of Economics and Political Science, a trustee of the International Valuation Standards Council and a director of the Global Risk Institute in Financial Services. From 2008 to 2011, he was vice chairman of Deutsche Bank Group, responsible for developing a globally coherent strategy and coordinating Deutsche Bank Group-wide issues on regulation, supervision and financial stability.

At CIGI, Malcolm's research focuses on the governance-related aspects of international financial regulation, standard-setting and international financial institutions.

He served as general manager and chief executive officer of the Bank for International Settlements during 2003–2008. From 1999 to 2003, he was senior deputy governor of the Bank of Canada, where he was the bank's chief operating officer and a member of the board of directors. From 1975 to 1999, Malcolm was with the IMF, where he held senior positions in both research and operations. From 1971 to 1975 he taught at the University of Toronto and the London School of Economics and Political Science.

Malcolm served as a trustee of the International Accounting Standards Committee Foundation over 2003–2007, and as a member of the Financial Stability Forum (now the Financial Stability Board) during 2003–2008. He is a member of the International Advisory Council of the Risk Management Institute of the University of Singapore, a trustee of the Per Jacobsson Foundation, and a member of the Honourary Senate of the Lindau Nobel Prizewinners Foundation. In 2006, he was awarded an Honourary Doctorate by Trinity College, University of Toronto.

ACRONYMS

BIS	Bank for International Settlements
EBA	European Banking Authority
EIOPA	European Insurance and Occupational Pensions Authority
EMEs	emerging market economies
ESMA	European Securities and Markets Authority
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSF	Financial Stability Forum
G5	Group of Five
G7	Group of Seven
G10	Group of Ten
G20	Group of Twenty
GFSR	Global Financial Stability Report
IMF	International Monetary Fund
IMFC	International Monetary and Financial Committee
ISD	Integrated Surveillance Decision
MAP	Mutual Assessment Process
WEO	World Economic Outlook

EXECUTIVE SUMMARY

The global financial crisis that began in 2007 and deepened in 2008 exposed major weaknesses in financial and macroeconomic policy coordination, and profound flaws in financial risk management and regulation in a number of advanced countries. The severity of the crisis led global leaders to recognize that they must find a way to reform the global regulatory architecture to ensure that the financial system can absorb shocks while continuing to function efficiently.

In response to the crisis, the Group of Twenty (G20) met in November 2008, for the first time at the leaders level, to agree on a comprehensive strategy to restore trust in the financial system and to limit the fallout from the crisis on global output and employment. Currently, there is a complicated governance structure for the program to reform the global architecture of financial regulation that consists of three entities — one ad hoc and self-selected (G20), one treaty-based and systemic (International Monetary Fund [IMF]) and one a creation of the G20 (Financial Stability Board [FSB]). This paper undertakes an analysis of how cooperation takes place among these actors to implement the fundamental reforms needed to ensure that the global financial system is better able to withstand shocks than it was in 2007-2008.

The analysis suggests a number of actions that the IMF and FSB should take to strengthen their cooperation and effectiveness, and highlights some of the problems created when no single agency has overall responsibility for the regulatory oversight of the international financial system. More broadly, it concludes that an appropriate framework for the governance of macroeconomic and financial policy cooperation in an interconnected world is a *bimodal* structure which includes both a restricted executive group of leaders who can implement major changes in the strategic policy direction to meet unforeseen developments and a universal, treaty-based official international financial institution that provides regular, consistent policy advice to its members.

A more effective structure of governance over international economic policy cooperation would be possible if the countries and jurisdictions whose leaders made up the restricted executive group were to be selected by a more systematic and widely accepted process than at present. This raises the question, addressed at the conclusion of this paper, of what the appropriate relationship should be between the IMF's key governing body — the International Monetary and Financial Committee (IMFC) — and an executive group such as the G20.

INTRODUCTION

Over the long term, the development of a sophisticated financial system is crucial to ensure that savings are allocated efficiently to investments that sustain strong economic growth. Historically, however, financial deepening and innovation have been marked by devastating crises that have inflicted severe economic distress.

The crisis that struck the US and UK financial systems in 2007 triggered the "Great Recession," caused a number of banks at the core of the global financial system to teeter on the brink of collapse in late 2008, and led to the vicious circle of sovereign debt problems and bank distress in the European Union that broke out in 2010. In contrast to most of the financial crises that had struck in the preceding several decades, the epicentre of this shock was not the developing world, but rather the advanced countries that were supposed to have the most sophisticated, best-regulated and safest financial systems — the United States, the United Kingdom and euro-zone countries. In the Great Recession that began in late 2007, output and employment fell precipitously in many countries and investment ground to a halt.[1] Had it not been for forceful actions taken by the G20 leaders at their summit meetings and continued vigorous growth of demand in emerging market economies (EMEs), these events could have created the worst economic disaster since the Great Depression.

Clearly, a crucial priority for global economic policy makers must be to ensure that such a tectonic shock does not strike the global economy again. If a financial crisis can lead to a Great Recession of this severity, global leaders must find a way to limit the risks in the international financial system. This requires nothing less than a fundamental reform of the global architecture of regulation to ensure that the financial system can absorb shocks while continuing to allocate savings efficiently, even when economic times are stormy. It is a key task confronting the players involved in the international coordination of economic and financial policies.

The recognition that addressing the fallout from the recent financial crisis would require a fundamental reform of global financial regulation has led to a major change in the arrangements for international cooperation in economic policy making. At the centre, the G20 leaders summit meetings have replaced the Group of Seven (G7) as the pre-eminent group for taking strategic decisions on policy coordination during times of crisis, implementing comprehensive internationally harmonized reform of

1 For example, in the United States — the advanced country that has arguably made the strongest recovery from the Great Recession — it took 74 months from the start of the downturn in the fourth quarter of 2007 for private sector employment to recover to its pre-recession peak. The average time period required for employment in the United States to recover in previous recessions since 1945 has been 20 months.

financial regulation and coordinating macroeconomic policies among "systemically important" countries. The G20's actions in these areas are supported by the IMF, the Bank for International Settlements (BIS) and the FSB, along with the World Bank and a number of other international agencies and financial standard-setting groups.

There is now a complicated governance structure for economic and financial policy cooperation that consists of a restricted ad hoc, self-selected group, the G20; established treaty-based institutions such as the IMF, the World Bank and the BIS; and specialized entities such as the FSB. How does cooperation take place among these actors to implement the fundamental reforms needed to ensure that the global financial system becomes more robust to withstand shocks than it was in 2007-2008?

To address these questions with an emphasis on financial regulatory reform, this paper focuses on the G20 leaders summit, the IMF and the FSB. First, the G20 summit consists of a restricted group of heads of state and government — a self-appointed body that had not met at the summit level before the financial crisis "went critical" in late 2008. Second is the IMF, with its permanent, treaty-based system, universal membership (188 countries) and mandate to foster international cooperation in economic policy making. Third is the FSB — created by the G20 in 2009 as the successor to the Financial Stability Forum (FSF) — which has the challenging task of coordinating implementation of the G20's ambitious program of global financial regulatory reform.

How do these three entities — one ad hoc and self-selected, one treaty-based and systemic, and one a creation of the ad hoc grouping — work together? Does the combination of a self-appointed group of countries like the G20 and a treaty-based, universal institution such as the IMF constitute "good governance" of the global economic and financial system? Where exactly does the FSB fit into this governance structure — is it a transient institution or a permanent feature of the international financial landscape? And how is the governance of global economic policy cooperation likely to evolve in the future?

This paper addresses these issues. The analysis suggests a number of specific actions that the IMF and FSB should take to strengthen their cooperation and effectiveness in their respective roles. It highlights some of the problems created by the fact that no single agency or group has overall responsibility for oversight of the international financial system. Finally, the analysis in this essay reaches the key conclusion that a bimodal structure of governance for macroeconomic and financial policy cooperation — comprised of both a restricted executive group of leaders that can implement major changes in the strategic policy direction to meet unforeseen developments and a universal treaty-based official international financial institution that provides regular and consistent policy advice to all its members — is an appropriate framework for managing the global financial system in both good times and bad. Indeed, it appears that this bimodal structure is particularly effective in times of crisis, when a new policy direction must be implemented.

This conclusion, however, does not mean that the restricted executive decision-making body should be self-selected, which has been the case for over three decades with the Group of Five (G5), the G7 and the G20. A more effective structure of governance over international policy cooperation would be possible if the countries and jurisdictions whose leaders made up the restricted executive group were to be selected by a more systematic and widely accepted process. This conclusion inevitably raises the question — addressed at the end of this paper — of what the appropriate relationship should be between the IMF's key governing body — the IMFC — and groups such as the G5, G7 and G20.

POST-CRISIS POLICY COOPERATION

When the G20 leaders held their first summit meeting in Washington, DC, in the depths of the financial crisis in November 2008, they abruptly set aside the G7 as the pre-eminent, self-appointed group to manage the economic and financial policy response to the crisis. The sweeping nature of this decision is reflected in their later assertion — in the Pittsburgh summit Leaders' Statement of September 2009 — that "we designated the G20 to be the premier forum for our international economic cooperation" (G20 2009b, paragraph 19). Is this rhetoric consistent with good governance of international policy coordination? Of course, since the G20 includes "systemic" EMEs as well as advanced countries, it is more representative of members' relative global economic weights than the G7. But does it hijack the prerogative for economic cooperation from established, rules-based institutions such as the IMF? Or does it provide the essential initiative and direction for building a more effective structure of economic and financial policy cooperation in the world as a whole?

In the aftermath of the crisis, the IMF has implemented an ambitious agenda to support the G20's new cooperative approach by strengthening its surveillance over the macroeconomic and financial policies of its member countries, increasing its lending capacity and deepening its analytical work in identifying low-probability but severe downside risks. It has also sought to strengthen its governance by raising the "voice" and voting power of emerging market and developing countries in its decisions.

The other important innovation in this structure of cooperation is the G20's 2009 decision to transform the FSF into the new FSB with an expanded membership, which

includes all of the G20 countries.[2] The G20 has charged the FSB with the task of coordinating the implementation of its initiative to build an internationally harmonized financial regulatory regime.

What is the relationship among the G20, the IMF and the FSB, and how will this new structure of cooperation in macroeconomic and financial regulatory policies evolve over time? What role does ad hoc cooperation by a self-selected country grouping such as the G20 play relative to more systematic and permanent modes of cooperation through the IMF, and official financial institutions such as the BIS, the World Bank and other treaty-based organizations that have broad country involvement?

THE "GREAT MODERATION" — 1985–2007

To address these questions, a retrospective look at international economic policy cooperation in the two decades preceding the outbreak of the global financial crisis in August 2007 is useful. During this period, international trade in goods and services became not just freer for most countries, but so tightly integrated that a global "just-in-time" supply chain was established. International capital movements, which had been tightly restricted by many countries throughout the entire period from the outbreak of World War I in 1914 to the 1980s, were gradually liberalized. As capital began to flow more freely among countries, the globalization and deregulation of financial institutions and markets closely followed.

During this period, the IMF generally adhered to the view of authorities in the advanced countries that international financial integration was a benign development that contributed to more efficient international risk sharing and, thus, was good for financial stability.[3] Accordingly, the Fund generally saw capital account liberalization as a "one-way street" that would culminate in unfettered international financial transactions for all countries. However, many developing and emerging market countries, and some advanced countries, had growing concerns about international capital account surges and "sudden stops," especially because they saw monetary policy in key reserve-currency countries as being directed at their own domestic objectives and generally too expansionary. A number of these countries therefore saw policies that specifically targeted international financial transactions as a needed element of their macro-prudential regulation. This difference in perspective came back to haunt global financial regulation and governance after the international crisis struck in 2007-2008.

Also central to developments during this period was that previously closed economies with a huge combined population — China, India, Brazil the countries of the former Soviet Union and many others — entered the international marketplace for the first time. This vastly increased the effective global supply of labour, expanded international trade and financial transactions and — given these countries' relatively low labour costs — created an intensely competitive global marketplace for goods and services that held down wage growth worldwide.

This period was not, of course, immune from domestic and regional financial system disturbances and external debt problems — for example, Mexico's sovereign debt crisis in 1994-1995, the Asian financial crisis of 1997–1999 and the sovereign debt crises in Russia, Turkey, Argentina and Brazil. Nor were advanced economies immune from problems, such as the US savings and loan crisis, the banking system crises in the Nordic countries in the early 1990s, and isolated bank failures in Europe.

Overall, however, this was a period of sustained strong growth with low inflation in advanced countries and major reductions in inflation rates in a broad range of emerging market and developing countries, with improved growth performance in many. As a result, this period came to be referred to as the "Great Moderation" — the two decades from the mid-1980s to 2007 during which strong and stable global growth was associated with surprisingly low inflation and massive increases in living standards in a number of previously impoverished countries — the emerging market powerhouses that were, somewhat inaccurately, nicknamed "the BRICS" (Brazil, Russia, India, China and South Africa). With these remarkable developments, the structure of the global economy changed in major ways.

But underneath these apparently benign trends, the Great Moderation was associated with rising economic imbalances and financial risks. Strong growth in consumer spending in a number of mature economies caused a decline in household saving relative to disposable income. In the latter years of the Great Moderation, after a number of emerging markets recovered from periods of financial instability, strong export growth in these countries and rapidly rising consumer spending in a number of developed economies led to the accumulation of global imbalances that heightened financial systemic risks. In the United States, the consumption surge was often based on withdrawals of home equity through second mortgages, which weakened household finances. Meanwhile, high saving rates persisted in many EMEs, particularly from the late 1990s onward in East Asian economies that sought to self-insure against financial stresses in response to the painful memories of the financial crisis they had suffered in 1997–1999. Countries with balance-of-payments surpluses made large official purchases of dollar-denominated fixed income assets into their foreign exchange reserves,

2 See G20 (2009a).

3 For a discussion of this issue, see Knight and Ortiz (2014).

which both held down their exchange rates against the dollar and contributed to unusually low yields on dollar-denominated assets. In response, investors in low-interest-rate environments took on greater credit and market risks, creating heightened demand for complex structured credit products backed by US residential mortgages. This fuelled a feedback loop of rising house prices and accelerating credit growth.

Low inflation and solid global growth performance during the Great Moderation were seen as a triumph of inflation-targeting monetary policy. Policy makers, economists and pundits overlooked the impact of the dramatic increase in the global labour supply and the persistence of international payment imbalances that combined excessive current account deficits in some countries with excessive surpluses in others. These features of the Great Moderation were key "risk drivers" that led to the international financial crisis of 2007.

The most important risk drivers — the trigger mechanisms for the crisis — were the hidden vulnerabilities building up in the financial systems of a number of countries. In particular, in the United States and several other advanced countries the period was marked by very large increases in the proprietary trading and securitization activities of large internationally active banks, high recourse to unstable wholesale funding by investment banks, a sharp rise in banks' use of leveraged off-balance sheet vehicles that were largely invisible to regulators,[4] a huge rise in US residential mortgage debt that was securitized and spread around the world, a "reach for yield" by investors and massive growth in lightly regulated "shadow banking" activities.

By the early 2000s some observers recognized that these developments were, at the very least, a stable global "*dis*equilibrium."[5] However, there was insufficient economic policy coordination to resolve this disequilibrium. These macroeconomic and financial imbalances were the underlying causes of the international financial crisis of 2007–2009.

ECONOMIC AND FINANCIAL POLICY COOPERATION IN THE GREAT MODERATION

During the Great Moderation, international economic and financial cooperation developed a characteristic set of structures and dominant country groupings. As early as 1961, the central bank governors of a handful of industrial countries who met regularly at the BIS in Basel, Switzerland, had established the Group of Ten (G10) to formalize their commitment to work together on central banking issues. The first self-selected club of "key country" macroeconomic policy makers, the G5, was established as a meeting of high-level policy makers from France, Germany, Japan, the United Kingdom and the United States in 1973 to address the spike in oil prices associated with the Middle East oil embargo (Boughton 2014). In November 1975, France — as the host country of the Rambouillet Economic Summit — invited the prime minister of Italy to join the group. To counterbalance this increase in the weight of European countries, the next year, the United States — as host of the Puerto Rico Summit — brought Canada into the group to form the G7.

For the next three decades, the G7 leaders were the highest-level, self-selected group that managed international cooperation in macroeconomic policies.[6] They were assisted at the technical level by the projections of the IMF's World Economic Outlook (WEO) exercises and other policy documents.[7] However, the G7 leaders did not (as far as can be determined) devote significant time to issues of financial regulation. This was almost certainly because — despite facts to the contrary — G7 leaders generally regarded their own countries as immune to financial system-wide crises, which they viewed as endemic to developing economies.

Thus, the main impetus to strengthening financial regulation and banking soundness continued to come from the central bank governors who gathered regularly at the BIS. Among their important regulatory innovations was the 1988 "Basel Accord," which achieved a significant strengthening of the capital adequacy of internationally active banks in the early 1990s. Furthermore, in the mid-1990s, the Basel Committee of Banking Supervisors created the "Core Principles of Effective Banking Supervision,"

4 While some regulators were aware that banks were increasingly making use of off-balance sheet vehicles in the run-up to the crisis, the then prevailing accounting rules prevented them from appreciating how large these vehicles were becoming in aggregate, relative to bank balance sheets. Furthermore, regulators were generally not aware of the extent of the implicit and explicit guarantees that financial institutions had made to support these vehicles.

5 See Borio and White (2003) and Knight (2005).

6 In 1998, the G7 began to invite Russia to attend parts of its meetings (the parts that included Russia being referred to as the "G8"). This arrangement continued until early 2014, when it was discontinued due to differences between Russia and the West concerning Ukraine.

7 Until 1979 the WEO papers were confidential documents prepared by the Fund staff for the authorities of IMF member countries. From May 1980, they were made publicly available after discussion by the Fund's executive board.

which established international best practice standards for banking and its regulation.[8]

Following the introduction of the Core Principles, and partly at the behest of the emerging economies of central and eastern Europe and the former Soviet Union, in the mid-1990s the IMF began to undertake assessments of the financial systems of a number of — mainly emerging market — countries. This activity proved successful and was formally endorsed by the G7 in the context of the Asian financial crisis of 1997–1999. Accordingly, in the late 1990s, it evolved into the Financial Sector Assessment Program (FSAP), in which the Fund, in collaboration with the World Bank (for emerging market and developing countries) regularly assessed the strengths and weaknesses of each member country's financial sector. The G7 countries, believing that their financial systems were the most sophisticated and best regulated in the world, refused to submit to these FSAPs until Canada — which had been a major proponent of the FSAP — took the initiative to undergo one in 1999.

The impetus to establish the G20 came in the late 1990s, with the recognition that the rapidly increasing importance of EMEs in the global economy made it essential to "bring them inside the tent" of a self-appointed, ad hoc group of finance ministers and central bank governors. Canada's finance minister at the time, Paul Martin, saw the growing importance of emerging market countries and also realized that the G7 was a narrow grouping of the largest economies, in which Canada had little more than a toehold. Martin became a strong advocate for establishing a broader group than the G7 to discuss cooperation in macroeconomic policy — a group that included not only the large advanced countries, but also the EMEs that were transforming international economic relations. The finance ministers and central bank governors of the new G20 held their first meeting in 1999. But it is important to recall that prior to the onset of the recent international financial crisis, the G20 meetings were held *only* at the level of finance ministers and central bank governors — the heads of state and government of the G20 countries displayed little interest in the process prior to their emergency meeting in Washington, DC, in November 2008.

Another important development for the analysis of financial vulnerabilities was the establishment of the FSF in 1999. The G7 set up the FSF as a vehicle for enhancing financial system soundness through cooperation among a broad group of experts on the regulation and supervision of financial institutions, markets and transactions. Initially, the FSF membership consisted of the financial authorities of a dozen countries (the G7 and five others chosen for the significance of their financial systems) as well as the international financial institutions (the IMF, the BIS, the World Bank and the Organisation for Economic Co-operation and Development) and a number of international standard-setting bodies.[9] Each FSF member country was represented in its meetings by up to three senior officials — from its finance ministry, its central bank and (if the central bank was not the financial regulator) the agency responsible for financial regulation.

It was considered essential to include EMEs in the membership of the FSF for two reasons. First, the effort to strengthen the international financial architecture after the 1997–1999 Asian financial crisis sought to improve the implementation of financial standards, which required "buy-in" from non-G7 countries. As Paul Martin stated in 1999: "it is not reasonable to expect sovereign governments to follow rules and practices that are 'forced' on them by a process in which they did not participate. Therefore, whatever form the renewed global financial architecture ultimately takes, all countries must 'buy into it' and take ownership. Only then will the framework have legitimacy" (Martin 1999).[10] Second, a number of advanced countries were concerned that lightly regulated offshore financial centres were flouting prudent regulatory practices and tax laws through international financial transactions, thereby creating an uneven competitive playing field that would disadvantage financial institutions headquartered in "better regulated" jurisdictions. Thus, the membership of the FSF more closely resembled that of the G20 than the G7. The hope was to get buy-in from both advanced and emerging market countries that offshore centres should be constrained from international regulatory arbitrage activities, which could cause a buildup of unseen financial risks. In its first years, therefore, the FSF focused on "naming and shaming" offshore financial centres that did not conform to global best practices. Little was it realized that these risks would instead arise in the regulatory regimes of advanced economies, thereby raising the question of what the term "advanced economies" really means.

8 The G7 summit in Halifax in 1995 requested that financial regulators continue work on strengthening international financial standards — a request that was reiterated at the Lyon summit in 1996. The Basel Committee published the Core Principles in September 1997, several months after the onset of the Asian financial crisis.

9 In addition to the national financial authorities of the G7, the five other FSF member countries were Austria, the Netherlands, Hong Kong, Singapore and Switzerland. The international standard-setting bodies that were members of the FSF were: the Basel Committee on Banking Supervision, the Committee on Payment and Settlement Systems, the Committee on the Global Financial System, and the International Association of Insurance Supervisors (all hosted by the BIS in Basel); the International Accounting Standards Board; and the European Central Bank.

10 See Helleiner (2014).

LIMITS ON THE IMF'S AUTHORITY OVER THE GLOBAL FINANCIAL SYSTEM

What actions did the IMF take in the run-up to the outbreak of the international financial crisis in the summer of 2007? The Fund has been criticized for not alerting its members to the buildup of vulnerabilities that led to a near-collapse of the financial system in late 2008 and triggered the Great Recession. As noted by Knight and Ortiz (2014): "the crisis was a massive institutional failure on the part of both private and public entities… It served to reveal deep flaws in the Fund's ability to fulfill its surveillance task — that is, the monitoring of individual member countries' economic fundamentals and policies (i.e., bilateral surveillance) and of their interactions with each other (i.e., multilateral surveillance) to identify potential risks to the system's stability and take measures to mitigate them." Nevertheless, in assessing the Fund's performance it is important to understand the constraints under which it operates in analyzing financial developments in its member countries, and in giving advice on financial regulatory policies. This is crucial when considering how the management of the global financial system should evolve in the future in order to mitigate the possibility of another severe global crisis triggering a global recession.

When the IMF was founded towards the end of World War II, the vast international financial system that we know today was non-existent. For years after the end of the war, the international goods and services trade of most countries — US-Canada trade was an exception — took place under rigid bilateral agreements. International financial transactions were tightly restricted by capital controls to ensure they were consistent with approved bilateral trade arrangements. There was no free convertibility for most currencies, even for current transactions, and therefore there was no "international financial system" as such. Indeed, a fundamental goal in establishing the IMF and the International Bank for Reconstruction and Development (the World Bank) was to gradually build up an integrated multilateral system of trade and payments.

In line with the realities of the time, the framers of the Fund's Articles of Agreement defined the "international monetary system" narrowly as: the monetary and exchange rate regimes of each currency zone; the stock of international liquidity and the arrangements for its management; and the economic policies of Fund member countries. The Articles gave the IMF a clear mandate to oversee the international monetary system in this narrow sense, as well as over the economic policies needed to achieve a stable system of exchange rates and international liquidity. Consistent with this narrow view, the Fund was also given oversight of exchange arrangements and of payments for current trade transactions. However, because international capital transactions were so tightly restricted at the time that the IMF was founded — and for several decades thereafter — its Articles did not grant the Fund analogous authority to oversee international capital flows or the international financial system.

Crucially, this meant that in the area of financial system development and regulation in its member countries, the Fund was not in a position to obtain detailed data or authoritative information on a par with what its member countries must provide in order for the Fund to fulfill its mandate to make its assessments of each member country's macroeconomic policies and current account transactions in the context of its bilateral surveillance. As a result, it was — and indeed still is — not possible for the Fund to assess financial system developments with the same depth as it does for macroeconomic developments. This lack of needed inputs for an in-depth financial system analysis, which would have been greatly alleviated if the Fund had been granted authority for the oversight of capital account transactions, resulted in an unavoidable "blind spot" in its analytical and surveillance work in the financial area, which proved to be very important not only to the onset of the financial crisis itself, but also to the severity of the subsequent international recession.

Despite this obvious lacuna, member countries frequently called for deeper Fund analysis of the financial system. This created a dilemma: since the Fund did not have access to the detailed information required for financial system analysis (except in the case of negotiations for stabilization programs that involved financial system restructurings, such as in Thailand, Indonesia and Korea in the late 1990s) the Fund experienced considerable difficulty in attracting staff with the financial expertise needed to work in this area. This dilemma, combined with the Fund's enthusiasm for "one-way" capital account liberalization, was no doubt one cause of the lack of consensus on extending the Fund's surveillance mandate to international financial transactions. Thus, while efforts were made over subsequent years to eliminate this important asymmetry in the Fund's mandate by extending its oversight authority to international capital transactions, there was never enough political support among its member countries to do so. Indeed, tight restrictions on capital transactions were maintained by many countries well into the 1980s. Consequently, the Fund has never been granted the authority for oversight of the highly complex and interconnected global financial system that has developed over the past several decades.

The problem, therefore, is that the "international monetary system" as defined in the Fund's Articles is only part — although obviously the central part — of the complex and ever-evolving web of markets and institutions that make up the global financial system today. Following the elimination of exchange controls among the industrial countries by the late 1980s and capital account liberalizations in many EMEs during the 1990s, these two elements of the global financial architecture became more

tightly interconnected. As a result, today's international financial system is vast and complex. It is comprised not only of central and commercial banks, bank holding companies and a bewildering variety of non-bank financial institutions, but also a myriad of "non-financial" players that are deeply involved in financial activities. It also, obviously, encompasses a vast array of financial markets; clearing, payment and settlement systems; and the legal, regulatory and supervisory frameworks, transaction-processing infrastructures and accounting systems within which markets and financial institutions operate.

Nevertheless, right up to the outbreak of the financial crisis in the summer of 2007, regulation in the international financial system was highly fragmented across countries. Oversight of financial institutions and markets remained essentially the preserve of national regulators and supervisors, despite the seemingly inexorable globalization of financial institutions and markets. It is not surprising that this fragmented system of home-country regulators and supervisors was associated with gaps and overlaps in oversight responsibilities, despite the efforts of the BIS, the FSF, the Basel Committee and other financial standard-setting bodies to establish consistent international standards of financial safety and soundness. The inevitable results were regulatory arbitrage and shadow banking.

Owing to this "home-regulator" structure, the Fund was not furnished with much of the information it needed to analyze its member countries' financial systems. This certainly limited its scope for addressing situations where a buildup of financial stresses triggered a substantial weakening of the macroeconomy. The Fund's responsibilities for surveillance over the economic policies of its members were seen as only encompassing monetary, fiscal and related macroeconomic actions. National financial regulators, particularly in key jurisdictions, often took umbrage when the Fund made statements about financial risks or weaknesses in their regulatory structures.

In response to this lacuna, as early as 2003, the BIS began to give increasingly urgent warnings concerning the rising risks from high rates of credit expansion in the United States and several other large advanced economies, the rise of proprietary trading and securitization activities of the large internationally active banks and the problem of opaque risks in the financial system. In its annual reports and other publications,[11] the BIS stressed that these developments could eventually lead to crisis. But the warnings of the BIS went largely unheeded by national regulators and investors, who continued to take on increased credit and market risk in the existing low-interest rate environment. Meanwhile, lacking responsibility for the oversight of the international financial system, the Fund focused on external current account imbalances and fiscal policies as the key risks to economic stability in the global economy. Most observers saw financial stability risks as likely to break out in the emerging market countries, which had been the case in the Latin American and Asian financial crises. But of course, the opposite happened — a serious deterioration in credit underwriting standards in the United States created toxic mortgages, and the securitization of structured credit products caused these to be bought into the portfolios of investors around the world. Thus, it was weaknesses in financial structure and regulation in the United States and several other advanced countries that caused the onset of the international financial crisis in August 2007. That crisis triggered the Great Recession of 2007–2009, and in late 2008 it came within a hair's breadth of causing a financial system meltdown in the United States and several other advanced countries. It is the fact that a *financial* crisis triggered the most severe *macroeconomic* disaster since the Great Depression of the 1930s that makes it so important for IMF surveillance of its member countries' macroeconomic performance to focus intensively on the policies needed to ensure that their financial systems become much more robust and less prone to crisis.

Paradoxically, since it is not possible to predict the timing of financial crises with any certainty, the fact that the BIS had been warning of the possibility of a major meltdown since 2003 made it something of a Cassandra by the time the crisis struck in 2007-2008. The Fund needs to take this experience into account as well. In particular, in its financial surveillance work and economic projections the Fund needs to distinguish clearly between, on the one hand, modest downside risks that can cause mild underperformance relative to its "central scenario" macroeconomic projections and, on the other, high-impact "catastrophic" risks — such as financial crises — that may have a low probability of occurring in the near term, even if serious stresses are building, but would have a severe macroeconomic impact if they did.

THE CRISIS AND THE FIRST G20 SUMMIT MEETING

The most intense period of the international financial crisis — from August 2007 to November 2008 — had a profound impact. It exposed major weaknesses in financial and macroeconomic policy coordination, and deep flaws in financial risk management and regulation in a number of advanced countries. The crisis incited the heads of state and government of the G20 countries to meet together — for the first time — in a hastily organized emergency summit conference to agree on a comprehensive strategy to restore trust in the financial system and to try to limit the fallout on global output and employment. This was the beginning of a new self-appointed group of countries at the centre of international economic policy cooperation. While the G7 continues its regular meetings, the G20 summits have become the highest-level executive decision-

11 See, for example, Borio and White (2003), Knight (2005, 2007) and BIS (2003, 2004, 2005, 2006, 2007).

making body that establishes the framework within which macroeconomic policy coordination and comprehensive reform of the global architecture of financial regulation currently take place. What actions has the G20 taken since its first meeting in November 2008 and how has it been assisted by the IMF and the FSB in achieving its goals?

The first summit meeting of the G20 heads of state and government, held on November 14-15, 2008, was tremendously important because it gave structure, clarity and vigour to the task of establishing and implementing a plan to address the crisis comprehensively, in both its financial and broader macroeconomic implications. After more than a year of drift, finally a key group of world leaders was acting boldly to resolve the crisis and draft a detailed blueprint for financial regulatory reform and macroeconomic stimulus.

The centrepiece of the G20 program is a fundamental and internationally harmonized reform of the global architecture of financial regulation. To accomplish this, the first leaders' level G20 summit seized upon the blueprint for financial regulatory reform that the FSF had presented six months earlier in a special report to the G7 finance ministers and governors of April 2008. Because the G20 leaders essentially adopted the recommendations of this report wholesale, their Summit Declaration contained an astonishingly detailed program in terms of the actions to be taken, the bodies that should conduct the actions and the ambitious timetable over which it should be implemented.

The G20 action plan endeavours to achieve an internationally harmonized financial regulatory regime that would greatly strengthen financial institutions, markets and infrastructures around the world — a highly ambitious but essential goal. It focuses on vastly strengthening the capital and liquidity that the banks at the core of the international financial system hold against their credit, market, liquidity and operational risks. It also seeks to strengthen the banks' risk management practices more generally and to increase the transparency of their valuations of the financial instruments held on their balance sheets. The central elements of the program are:[12]

- measures to strengthen capital adequacy and liquidity requirements, particularly for large internationally active banks and other similar institutions;
- establishment of a macroprudential financial regulatory agency in each key jurisdiction;
- use of regular stress tests and other rigorous criteria to assess solvency, liquidity and other aspects of financial institutions' risk management;
- measures to extend the perimeter of regulation to non-bank financial firms;
- legal and regulatory reforms to end "too big to fail," including an internationally harmonized intervention and resolution regime and "bail-in" of private creditors; and
- measures to strengthen the operations and risk management of financial markets, clearing and payments systems, and related financial infrastructures.

The second G20 summit closely followed the first. Held in London in April 2009, it focused on the macroeconomic policy measures needed to mitigate the adverse global output and employment effects of the crisis. The G20 announced a strategy for an internationally coordinated fiscal expansion to be implemented starting immediately. The London Summit Declaration of April 3, 2009 observed: "We face the greatest challenge to the world economy in modern times…a global crisis requires a global solution" (G20 2009a, paragraph 2). In combination with the monetary stimulus that central banks had been providing since August 2007 — and massively since late 2008 — this constituted a very large effort to kick-start the global economy. The G20 London Summit also transformed the FSF into the FSB, with an expanded country membership that included all the members of the G20. Thus, the London Summit Declaration was not exaggerating when it observed that "taken together, these actions will constitute the largest fiscal and monetary stimulus and the most comprehensive support programme for the financial sector in modern times" (ibid.).

Although the G20 countries' subsequent fiscal policy actions did not go as far as this soaring rhetoric promised, these commitments still constituted the largest internationally coordinated fiscal stimulus ever attempted to ward off the adverse effects of a financial crisis on employment and output, not only in the advanced countries, but around the world. There can be little doubt that these actions moderated the effects of the Great Recession. This phase of G20 work should be viewed as a considerable success of ad hoc cooperation.

The first two G20 summits charged the IMF with strengthening its work in bilateral and multilateral surveillance, particularly with regard to the financial system. It set the FSF/FSB the complex task of organizing and prioritizing the work of the disparate financial standard-setting bodies that are developing the new financial regulatory rules, pressing them to meet their timetables, reviewing and coordinating the policy proposals contained in the exposure drafts for the new regulations, and generally ensuring that the whole "creaking" process goes forward in a rational way.

12 See G20 (2008).

In summary, the financial crisis and the Great Recession fundamentally transformed the structure of international economic and financial cooperation. The G20, the IMF and the FSB — along with other institutions such the central bankers' meetings at the BIS, the European Commission, national policy makers and the expert groups of standard setters — have been steering the comprehensive financial reform program.

The present structure of cooperation to strengthen the international financial system has a reasonably solid logic. The G20 includes most of the jurisdictions that constitute the core of the global financial system. It is natural that these fundamental reforms should be taking place in both advanced countries and EMEs. Financial regulatory reform is needed in the United States — whose severe and unexpected financial frailties made it the epicentre of the alarming initial phases of crisis — and in the United Kingdom, where regulators were complacent about liquidity risks in major lenders. It is needed in the euro zone, where previously unseen gaps in national financial regulation allowed weaknesses to develop in the risk management practices of private sector financial institutions, and permitted a massive buildup of euro-zone bank holdings of "peripheral country" sovereign debt, which created a vicious circle of deteriorating solvency for both sovereign borrowers and banks. And financial regulatory reform is also needed in the EMEs, many of which have suffered severe financial crises in the past, as well as having experienced strong adverse spillovers from the crisis in the form of massive capital surges and sudden stops. However, it is important to note that these needs also stem from the fact that in the current structure of cooperation, no single body has a clear mandate to oversee the international financial system as a whole.

COOPERATION BETWEEN THE IMF AND THE FSB

The G20's assignment of new functions to the FSB meant that there must be a clear division of responsibilities between the FSB and the IMF. The arrangements were set out in a letter dated November 13, 2008, signed by Dominique Strauss-Kahn, then managing director of the IMF, and Mario Draghi, then governor of the Banca d'Italia and chairman of the FSF. The letter specifies that the principal task of the FSF/FSB is "the elaboration of international financial sector supervisory and regulatory policies and standards, and coordination across various standard-setting bodies" (IMF and FSF 2008). The Fund's main responsibility is to assess the "authorities' implementation of policies through FSAPs, ROSCs [Reviews of Standards and Codes] and Article IVs." It also states that the IMF "participates in this work and provides relevant inputs *as a member of the FSB*" (ibid., emphasis added) — wording that appears to imply that the Fund has no more authority in the financial regulatory sphere than any other member of the FSB.

Unfortunately, this letter also contains the assertion that "surveillance of the global financial system is the responsibility of the IMF" (ibid.). Including this statement was a serious error on the part of the IMF managing director because it involves significant bureaucratic overreach: nowhere in the IMF's Articles of Agreement is it stated that the IMF has any responsibility for surveillance over the global financial system. Thus, the Fund does not have a formal mandate to oversee the international financial system or to require its members to conform to any set of financial regulatory standards or obligations. And correspondingly, as we have seen, the Fund does not have the authority to obtain the information it would need to do so effectively. Indeed, the fact that the international community has not granted any institution or body the mandate to oversee the international financial system is a major governance issue in international financial regulatory cooperation which needs to be resolved if crises like that of 2007-2008 are to be avoided or mitigated in the future.

Since the crisis, Fund management has sought, particularly through the 2012 Integrated Surveillance Decision, to make clear to the membership the crucial linkage that exists between global financial stability and the stability of the international monetary system.[13] While most observers would now acknowledge that global financial stability must be a focus of the Fund's multilateral surveillance, the Fund's efforts in this area are still impeded by limits to the data and information it can obtain to analyze financial system developments and potential risks. Nevertheless, even lacking these formal oversight prerogatives, the Fund can provide very useful input for judging whether its 188 member countries live up to their general obligation to achieve best practice in financial regulation.

The joint IMF and FSB letter has inadvertently shone a light on a governance weakness in the international financial system: no institution, including the IMF, has a specific mandate to oversee the international financial system *as a whole*. The fact that the Fund lacks this mandate has created uncertainty about its role in its member countries' financial systems and their regulation. Obviously, if financial system crises have a high probability of causing severe recessions, the Fund must be able to study its members' financial systems in order to carry out its macroeconomic surveillance responsibilities. And just as clearly, national and international regulatory bodies are currently not about to cede their authority to the Fund. This important issue is discussed further below.

13 Even before the advent of the Integrated Surveillance Decision (ISD), the Fund had established flagship products, such as the Global Financial Stability Report (GFSR), that focus on the surveillance of the global financial system.

These considerations also bring to light long-standing weaknesses in the governance and organization of financial regulation within the European Union and the euro zone, which are only gradually being resolved. Despite the strong political commitment to build a single marketplace for financial services in Europe, throughout the period up to late 2008 the financial scene was still dominated by national financial supervisors rather than pan-EU regulatory authorities. Although there were EU-wide advisory bodies for financial regulation prior to the onset of the crisis, they had no authority to review or override the decisions of national financial regulators within the European Union. The Report of the "High-level Group on Financial Supervision in the EU" (the de Larosière Group), submitted to the European Commission in early 2009, was the first to recommend the bold step of establishing EU-wide regulatory agencies that would have the power to draft uniform EU financial regulatory standards and override the powers of national regulators and supervisors in cases of conflict with the EU standards. The crisis provided a strong motivation for adopting these recommendations, and the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA) were duly established. Nevertheless, owing to the nexus of instability created by European bank lending to peripheral euro-zone sovereigns, the European Union has been slow to transfer authority for financial regulation and supervision of the largest banks to the European Central Bank in the context of the single supervisory mechanism. It has been even slower to put in place the mechanisms for support of weak financial institutions, owing to disagreements over funding sources for such mechanisms.

THE G20 AND THE GOVERNANCE OF INTERNATIONAL COOPERATION IN MACROECONOMIC AND FINANCIAL POLICIES

In the new structure, the G20 leaders summit is the overarching self-selected group that charts the course of international cooperation in economic and financial policy making. The Fund is the permanent rules-based body tasked with implementing surveillance over its members' policies, maintaining internationally consistent economic data, analyzing those data to formulate its policy advice and ensuring, through its semi-annual WEO and GFSR, that its recommendations for policy actions are both consistent and actionable at the global level. These features of the IMF make it the obvious body for providing the hard information and policy recommendations that are presented to G20 finance ministers and central bank governors as inputs into their semi-annual policy discussions, and then to the G20 leaders at their summit meetings. Finally, the FSB is the body charged with overseeing the implementation — for the first time — of an *internationally harmonized* financial regulatory reform. How well are these three players interacting on the international stage? How are the relations among them likely to change in the future? These questions are considered below.

The G20 currently "rules the roost" in directing the course of international economic and financial policy cooperation. What are its strengths and weaknesses from a governance perspective? The G20 is more representative than previous "Gs," in that it has a broader country representation. Unlike the G5, G7 or G10, the G20 reflects an explicit acknowledgement by the advanced countries that at least the "systemic" EMEs should have a voice in the deliberations of the body that charts the course of cooperation. Nevertheless, it remains a restricted, self-selected group of national leaders and it shares with the older, self-appointed groups of countries some obvious governance weaknesses. Unlike the members of the Fund's IMFC, participants in the G20 leaders summits and ministerial meetings are not obliged to represent anything other than their own national interests. While there was effective cooperation in the recent period of severe stress, there is no commitment to take into account the concerns of countries outside the G20, or to guarantee that G20 decisions will reflect what is best for the global economy. Furthermore, there is no established process by which countries in the G20 are chosen to enter or leave the group as the economic weights of different countries evolve. It is, therefore, quite likely that the membership of what is now the G20 could change in unpredictable ways over the course of time. Interestingly, the G20 has not established a permanent secretariat and instead relies on a rotation of country chairs to prepare its meetings, with input from the IMF, FSB and other bodies that provide ongoing support to its initiatives.

Nevertheless, at several summit meetings after the two initial ones, the G20 leaders continued to give impetus to their blueprint for reform of the architecture of financial regulation and to fiscal stimulus. As an indication of its commitment to macroeconomic policy coordination, the G20 established, in 2009, new procedures of "surveillance" over its members' macroeconomic policies to ensure they were mutually consistent and would contribute to sustainable non-inflationary growth once the immediate crisis was resolved.

Called the "Framework for Strong, Sustainable and Balanced Growth," this procedure is implemented through a Mutual Assessment Process (MAP), which reviews each G20 country's economic objectives and the policies it employs to achieve them. The MAP is guided by the G20 members, which retain "ownership" of the process. It is supported by the Fund in a way that makes use of the Fund's technical expertise to review G20 countries' policies within a clear analytical framework, thereby helping to promote international consistency in the economic policies

of G20 members. Specifically, the Fund's job is to assess whether each member's policies are consistent with the G20's agreed overall goals, and have a good prospect of achieving sustainable and balanced growth for the world economy. This means, of course, that the MAP assumes that Fund staff will make recommendations for any policy adjustments that are needed in order to achieve the stated goal. The work on the MAP is an important task for the Fund, requiring substantial staff resources, but it is a useful role that the IMF should continue.

Despite the G20's clear focus during the crisis in 2008-2009, its subsequent summits have not made much progress since then in enhancing economic cooperation. As the immediacy of the financial crisis and global recession has faded, political leaders — whether prime ministers or finance ministers — have been increasingly occupied with other issues at home. Inevitably, the spirit of cooperation needed to confront the crisis has also waned, leading to a certain degree of fragmentation in the regulatory reform program, as leaders begin again to look at regulatory issues in terms of punishing the past misdeeds of financial market players and backing "national champions."

As a result, in the period since the structure for reforming global financial regulation was established and the division of responsibilities between the IMF and the FSB mapped out, subsequent meetings of G20 leaders have been much less focused than the two first summits, although they have tried to maintain the schedule of financial regulatory reform. Recent summits have also succumbed to "mandate creep." When no crises are on the horizon, leaders find other worthy topics to discuss — tax evasion, climate change, corruption and energy, among others — which, whatever their intrinsic interest, largely fall outside the scope of macroeconomic policy cooperation. The recent Australian presidency of the G20 endeavoured to focus on certain major issues, but it is likely that, over time, the ability of the G20 to ensure cooperation in the implementation of financial and macroeconomic policies by its member countries will decline — at least until the next crisis strikes.[14]

Tensions among advanced countries, EMEs and developing economies are likely, in this context, to come to the fore when new stresses arise. It remains to be seen how long the G20 in its present form will remain at the political apex of economic policy coordination. The main conclusion is that for the immediate future, the G20 will likely continue to be the self-appointed political leader "calling the shots" in international policy cooperation.

STRENGTHENING THE FUND'S SURVEILLANCE OF MEMBER COUNTRIES' POLICIES

IMF management and staff have responded proactively to criticism that the Fund's extensive work in bilateral and multilateral surveillance over member countries did not foresee the growing risks to the world economy that caused the international financial crisis and triggered the severe and prolonged global Great Recession.

In 2012, the Fund's executive board took an important step by approving the Integrated Surveillance Decision, which increases the consistency between bilateral and multilateral surveillance and makes it both more forward-looking and more focused on identifying the key risks to the global economy, the likelihood they may occur and the policy actions needed to mitigate them. To do this, the Fund has expanded the tools it uses to analyze economic and financial developments, as well as the number of surveillance "products" it distributes to support its policy recommendations.

In addition to the Fund's "flagship" offerings — the WEO, the GFSR and the Fiscal Monitor — this work now includes:

- **The Early Warning Exercise** — a confidential presentation made exclusively to meetings of the G20 and the IMFC;
- **Spillover reports** — analyses of the economic and/or financial developments that are being transmitted from one economy to another (including "outward spillovers" from developments in systemic countries to other countries, "inward spillovers" onto a country, caused by external developments and "spillbacks");
- **Vulnerability exercises** — confidential internal staff reports that identify countries that are most likely to experience adverse developments in the near term; and
- **The Global Risk Assessment Matrix** — an internal staff assessment of potential global and regional risks, and the likelihood of their occurrence that is updated at least quarterly to provide Fund management with an up-to-date and consistent appreciation of the key risks surrounding the staff's baseline forecasts.[15]

14 It is worth noting that the shifting priorities from one summit meeting to the next are largely the result of the host country presidency being granted the authority to determine the summit agenda.

15 The Fund also employs a number of structural multi-country models, global vector autoregression models and dynamic stochastic general equilibrium models in the preparation of the documents listed here.

STRENGTHENING THE IMF'S ANALYSIS OF HOW THE FINANCIAL SYSTEM TRANSMITS RISKS TO THE MACROECONOMY

The IMF has taken on board a key lesson from the financial crisis and the Great Recession: namely, that while mild recessions may be caused by macroeconomic developments or policy shifts that are slow moving and not difficult to recognize (for example, the end of an investment boom, a weakening of consumer spending, austerity measures to correct a fiscal deficit or a central bank's decision to "take the punch bowl away" by tightening monetary policy to avoid overheating) financial system crises — in contrast — tend to leave *severe* recessions in their wake. This is partly because, for a certain period of time, they make economic agents profoundly reluctant to take risks — and judicious risk-taking is the essence of a dynamic, growing economy.[16] It is also because they give rise to "balance sheet recessions," which emerge after the bursting of a major asset price bubble (for example, real estate, tech stocks) that significantly reduces the net worth of the private sector. To repair its balance sheet, the private sector starts deleveraging, even at zero interest rates; household savings and corporate profits need to be used to repay debt, and large concentrated asset sales depress prices. These are exactly the sorts of immiserizing events that the Fund's bilateral and multilateral surveillance work should be designed to avoid or mitigate.

If financial crises trigger the most severe recessions, the Fund must be able to analyze this linkage, even if it has no authority under its Articles of Agreement to "oversee" the international financial system. The Fund made significant enhancements to its approach to financial surveillance following the 2011 Triennial Surveillance Review. Thus, the 2012 Integrated Surveillance Decision (ISD)[17] enjoins the Fund to focus much more than it has in the past on domestic and international financial developments and their impact on the rest of the economy. Accordingly, in 2012 the Fund launched a new financial surveillance strategy that attempts to build sounder analytical foundations to strengthen its integrated policy analysis.

16 This observation is consistent with historical experience — not only from the recent crisis and Great Recession, but also from the Great Depression of the 1930s, the Nordic countries' banking crisis of the early 1990s, the Asian financial crisis of the late 1990s, as well as many individual countries' experiences — namely, that the most severe and protracted recessions are those that are triggered by a financial crisis. This is broadly the conclusion of Reinhardt and Rogoff (2009) in their classic study of financial crises over several centuries.

17 See IMF (2012a; 2012b). Further enhancements are to be expected when the Fund's executive board completes the 2014 Triennial Surveillance Review this autumn.

As noted by Reinhart and Rogoff (2009), the risks of a financial crisis, unlike those of a mild recession, tend to have a low probability of occurring over any given short period, but a high impact if — or when — they strike. The Fund therefore must employ an analysis that links developments in the financial system with those in the broader economy, recognizes emerging financial system vulnerabilities and recommends the policy actions needed to avoid or mitigate them. This is difficult as there is not much in the way of a well-established theory of how the financial and non-financial sectors interact, and because, in any case, the structure of the financial system is constantly in a state of flux, rendering it an especially unpredictable element of the economy.

To judge the risks emanating from the financial system, the Fund staff has developed an analytical tool — the balance sheet approach — based on a matrix of asset and liability positions of the main sectors of each national economy: government, the domestic financial and non-financial sectors, and the rest of the world. This set of identities is then used to analyze how financial shocks are transmitted across sectors to assess emerging vulnerabilities, using standard indicators such as leverage ratios and maturity and currency mismatch measures. The analysis is symmetrical in that the leverage cycle is seen as central to driving both the risks of an unsustainable credit boom that generates asset price bubbles and inflation, and those of a financial crisis in which bank deleveraging causes weak or negative net flows of credit to the productive sector, undermining economic activity.

To cover the international dimensions, the Fund is working intensively to analyze how financial developments in one country can cause spillovers onto others, either via massive capital inflows and outflows, or directly through the transmission of shocks to the market prices of assets and associated balance sheet effects without inducing any balance-of-payments flows.

In all this work, major data weaknesses are a constraint on progress, once again illuminating the inconsistency between the lack of any mandate for the Fund to oversee the global financial system and the pressing need to intensify its analysis in this area if it is to be able to prevent or mitigate the financial crises that seem to cause the most severe macroeconomic events.

CLEAR COMMUNICATION ABOUT VULNERABILITIES AND POLICY RESPONSES

By enhancing its surveillance work, the Fund's intention is to ensure that risk assessments are more analytically based and thorough. In practice, however, its actions to achieve a more integrated and risk-focused approach are complex and not very user-friendly. In its attempt to

"cover all bases" in its new vision of risk-based integrated surveillance, the Fund has spawned a bewildering array of new or extensively refurbished analytical techniques and surveillance products whose logical consistency and implications are often less than obvious. As a result, it has become more difficult for policy makers and market participants — not to mention the general public — to discern what the Fund's key policy recommendations are, and what messages it is trying to send about risks lurking in the background, especially those that might be unlikely to occur during the next 12 to 18 months, but would seriously disrupt the global economy if they materialized.

As a number of external observers have recognized, the Fund therefore needs to publish a regular report that synthesizes a consistent overall view of its bilateral and multilateral surveillance work. This report should cover the likely evolution of the global economy and financial system, the downside risks that can be managed by standard macroeconomic policy adjustments, the risks that are not likely to occur in the 12- to 18-month projection horizon of the WEO, but would have very large adverse consequences if they materialized, and the policy actions that would be needed to avoid or mitigate such devastating risks. This should be done in a format that can be readily understood by policy makers, market participants and the informed public. And this publication must also succeed in making the Fund's policy recommendations clear and actionable. Obviously, this will be a tall order, but it is essential if the intensive work the Fund is doing to garner the interest and traction it deserves from the policy-making community is to be fully appreciated.

WHAT IS THE FUTURE OF THE FSB?

What does this mean for the future of the FSB? Thus far, the FSB has been effective in overseeing the implementation of the G20 program to put in place an internationally harmonized financial regulatory regime. It has produced a number of papers outlining the general principles to which various elements of the reform program should adhere. Despite its small secretariat, the FSB is efficient in ensuring that the work streams of the multiple expert bodies of regulators and standard setters involved in the reform program remain on track.

The FSB also cooperates closely with the IMF to identify macro-financial risks in the Early Warning Exercise, which they present jointly to the G20 and IMFC at the semi-annual meetings of these bodies. The large amount of information that the IMF collects on countries' financial systems in its FSAPs and bilateral surveillance work can help the FSB judge the extent to which major elements of the G20's regulatory reform program are being adopted by national regulators, and the FSB also benefits from the Fund's bottom-up assessments of financial developments and emerging risks in its member countries.

Although the membership of the FSB is larger than that of the former FSF, it remains small enough and contains enough expertise to be an effective venue for standard setters to reach agreement on key elements of the internationally harmonized regulatory regime. Thus, there is a case for the FSB to become a permanent body in which new international regulatory initiatives are designed and negotiated for implementation by national regulators.

The FSB has been criticized on the grounds that it has been unable to ensure effective implementation of internationally harmonized financial standards, as some countries have created their own divergent regulatory frameworks by not fully adopting FSB-endorsed standards.[18] It has also been seen as less than successful thus far in reaching agreements on burden sharing among national authorities to achieve agreed procedures for resolving distressed financial firms whose activities span multiple jurisdictions. Indeed, some commentators have remarked that while the international bodies involved in financial standard setting, including the FSB, are useful in providing an important forum for regulators to discuss emerging issues, the capacity of these bodies to highlight weaknesses in the regulatory regimes of key jurisdictions, identify and focus on emerging risks when they appear, and foster regulatory reform, remains quite limited. These criticisms reflect the limitations and lack of clarity in the mandates of the FSB and the other bodies involved in international financial standard setting. Thus, they are issues that should be addressed urgently in order to reduce the gaps and overlaps that are again appearing in the international financial regulatory structure.

It could be argued that once a globally harmonized system of financial regulation has been established, the FSB will no longer be needed. From a governance perspective, the argument might be that the FSB answers to the G20, and the G20 is a self-appointed group that came together to manage the crisis, but is not a permanent fixture in the structure of international policy coordination. However, it is relevant to note that the FSB was formed out of an established permanent body, the FSF, which had already been working intensively on financial regulatory issues for some years. Indeed, as noted above, it was an FSF working group that produced the April 2008 report that became, during the crisis, the blueprint for the G20's ambitious financial regulatory reform program. Furthermore, given that the IMF does not have a mandate to oversee the international financial system, it would seem that the FSB

18 The efforts of a number of countries to alter the way Basel III is applied in their home jurisdictions, and the continuing problems in implementing internationally consistent derivatives market reforms between the United States and the European Union, are relevant examples.

may continue to have an important role to play once the new financial regulatory architecture is up and running.

Perhaps the most powerful argument for retaining the FSB, with its close connections to global standard setters the IMF and the BIS, is that reform of the financial regulatory architecture will be a never-ending process. This is because financial markets are always innovating — creating new financial products, new markets in which to trade them and finding new clients to use them. As a result, even with the reformed financial regulatory regime there will always be new, and not easily recognized, incentives for regulatory arbitrage in the search for financial market profits. And there will always be "deep shadows" in the financial system, where some financial players will operate with balance sheets that have little capital to back up their risky bets.

The newly created macroprudential regulatory agencies, together with central banks and financial supervisors in various jurisdictions, will continue to need a body such as the FSB to thrash out issues among regulators, identify emerging vulnerabilities, revise regulatory rules as innovation proceeds apace in banking and finance, and restrain any tendency of national regulators to begin to cause fragmentation in the global financial system by over-emphasizing local circumstances. The real issue is not so much whether the FSB should continue to exist, but rather how its country membership should evolve over the coming years. In time, the FSB's central role in implementing global financial regulation will raise issues of governance and the "voice" of various countries and financial jurisdictions in reaching decisions on the key elements of the evolving international regulatory regime. These governance issues will need to be effectively addressed in order to ensure the FSB's continued legitimacy as a body implementing internationally respected rules of conduct for the global financial system.

THE FUTURE ROLE OF THE IMF IN FINANCIAL STABILITY

If the Fund is to give effective policy advice to help its member countries avoid the macroeconomic problems that are its main focus, then a key task must be to continuously improve the information it obtains on financial and economic developments in its members, its understanding of international linkages, and the analytical tools it uses to develop its policy recommendations. Simultaneously, it must continue to enhance the governance procedures that strengthen its role as an independent assessor and adviser to its members. The Fund is already on this road, but what more should it do?

First, it must be able to "hard wire" an intimate knowledge of the structure of the global financial system and its vulnerabilities into its bilateral and multilateral surveillance. Since experience shows that the shocks that cause the most severe recessions often originate in the financial sector, the Fund must focus on that sector as much as on other macroeconomic markets and sectors. As discussed, the Fund is working intensively to develop its work in this field. The key will be to put this all together in a communication strategy that gives a clear "bottom line" on what the Fund believes are the critical downside risks, and its policy recommendations to address them.

Second, in performing this role, the Fund needs to address the fact that its Articles of Agreement do not give it a mandate to oversee the global financial system nor, by implication, to engage in financial system surveillance or to obtain the disaggregated financial information it would need to identify the emerging risks in the global financial system. The G20, with the cooperation of national and international financial regulators, has taken on the responsibility of putting in place an internationally harmonized financial regulatory reform. It is a sensible principle of governance that there is a division of responsibilities here: the G20 is shouldering the initiative to establish a new global financial regulatory regime. The Fund, with its virtually universal membership, would seem to be the best independent assessor of the degree to which each national jurisdiction conforms to these new regulatory standards and financial market best practices. As already noted, however, the Fund's lack of a mandate over international capital transactions is a significant impediment to its capacity to fulfill this role effectively. Accordingly, the IMF management should ensure that there is a clear understanding by all the Fund's member countries that it is the appropriate body to make these assessments on a globally consistent basis. In order to make this work more effective, the Fund also needs to develop a closer working relationship with the BIS, which possesses deep expertise in this area from its extensive research on global financial system issues, its close relations with the central banking community and the expert financial standard-setting groups it hosts in Basel.

Third, it is clear that the Fund should continue to strengthen its bilateral and multilateral surveillance, and particularly its financial surveillance, within the confines of its mandate. It is evident that it is committed to doing so from its intensive analytical work for the 2014 Triennial Surveillance Review.

Fourth, as the global economy continues to evolve, the international community must ensure that the Fund's governance structure adjusts in a manner consistent with the changing relative economic weights of its members. In 2010, the Fund proposed increasing the quota shares and voting rights of member countries whose economic weights had risen in recent years, thereby giving more voice to emerging market and developing countries relative to advanced countries. Unfortunately, the US Congress, which must — because of the large size of the

US voting share in the IMF — ratify this crucial high-profile initiative before it can adopted by the Fund — has, thus far, failed to pass it.

Finally, member countries should consider amending the Fund's Articles of Agreement to give it jurisdiction over capital account transactions in a way that is broadly symmetrical with its responsibility to oversee international current account transactions under Articles VIII and XIV. The Fund has long recognized the important role played by capital flows in cross-country spillovers, and has worked intensively to develop its new "Institutional View" on how to address issues relating to capital flows and their role in transmitting spillover effects among countries. This Institutional View — which is more balanced than past Fund views on the virtues of full capital account liberalization — should be developed further as a basis for extending the Fund's mandate to oversee international capital account transactions. Such a mandate would help the Fund to obtain the information it needs to engage in deeper financial system analysis. And, as the Fund has realized, this is crucial to understanding and responding to financial stresses that can cause severe adverse macroeconomic effects. Strengthening the Fund's role in international financial transactions would also clarify the respective roles of the IMF, the FSB and the BIS — allowing for greater cooperation among all three organizations. For these reasons, the aftermath of the crisis would seem to be an appropriate time to amend the Articles of Agreement to give the Fund the mandate it needs to add capital flows to its oversight responsibilities.

COMPLEXITY AND COOPERATION

Improvements to the work of the IMF and the FSB are necessary for strengthening the management of the international financial system, but at times when the global economy faces a financial crisis that could have severe macroeconomic effects, it is almost inevitable that a small and cohesive group of global leaders will need to take the initiative to implement bold steps to alleviate the worst fallout. This is why ad hoc, self-appointed groups, such as the G5, the G7 and now the G20 leaders, have been the focus of policy initiatives when the global economy and financial system have come under severe stress.

However, the historical analysis in this paper suggests that the current cooperation arrangements for achieving global reform of financial regulation and coordinated macroeconomic policy responses to the crisis and the Great Recession are excessively ad hoc and complicated. The players involved include the leaders and finance ministers of the G20, the central bank governors and the heads of supervision who meet at the BIS, the IMF, the FSB, the European Union,[19] the international financial standard-setting bodies and national financial regulators in the United States, the United Kingdom and other financial jurisdictions. This governance structure is far from ideal for ensuring that global financial regulatory reform operates in a way that serves the interests of all participants in the global economy, and makes the sort of crisis that occurred from 2007 to 2012 less likely to strike in the future.

This raises critical questions regarding the long-term governance of international monetary and financial relations. The G20 has usefully exercised executive authority to motivate action in the global financial system and economy. But its disadvantage is that the G20 remains an ad hoc, self-selected group whose members have no explicit obligation to act in the interests of the global community as a whole.

In contrast, the IMF is a permanent, treaty-based international institution that can focus on achieving the appropriate level of coordination of economic policies among its 188 members. Fund member countries have obligations as well as rights. All member countries — whether large or small, systemically important or not — are subject to uniform treatment by the Fund in its judgments and recommendations on their policies. All are represented on the governing bodies of the IMF and have a voice in IMF decisions. The membership of countries in the G20 carries none of these obligations, and there are no treaty commitments that guarantee good governance by this body or rational procedures for adjusting its membership as the economic weights of various countries and regions evolve.

The key governance issue, therefore, is how should relations between the G20, the IMF, the FSB and other important international financial institutions, such as the BIS, the World Bank and the international standard-setting bodies, evolve in the future? What arrangements among these bodies would constitute effective global governance of the international monetary and financial system?

When considering this question it is important to recognize that the global economic and financial system is "complex" in the technical sense of the term. It is highly non-linear and this aspect of complexity means that even small developments can have large and unpredictable consequences — a "butterfly effect." Just as a butterfly flapping its wings in Beijing could change the weather in New York, so too could developments in 2007-2008, which might have been easily contained in other circumstances, have triggered the chain reaction that caused a near

19 The relevant institutions for the European Union, which is a multi-country financial jurisdiction, are the European Systemic Risk Board, the EU-wide regulatory authorities — the EBA, the ESMA and the EIOPA — and the European Central Bank, which will oversee the new Single Supervisory Mechanism for large banks headquartered in the euro zone.

meltdown of the global financial system and a severe and prolonged international macroeconomic event — the Great Recession.

To add to this complexity, the financial system is constantly innovating — in finance, the cost of creating a new product and introducing it in the marketplace is low. Furthermore, incentives for regulatory arbitrage make it attractive for the financial services industry to introduce new products continuously. In the process, the structure of the financial system is altered and new risks arise that are not well understood by investors or the financial institutions that develop them, with the prospect that severe financial stresses may arise and not be managed effectively.

Such challenging complexity makes it essentially impossible to predict when a crisis will occur or what form it will take. Elements of the financial system that proved highly robust in the recent crisis — such as the five large banks that operate throughout Canada — might have a major vulnerability in the face of a different type of stress.[20] The challenge is to make the financial system much more robust in its ability to absorb major unforeseen stresses when they occur. That is why the G20 financial regulatory reform is being put in place under the watchful eye of the FSB, and why the Fund is doing so much to strengthen its analysis of the role of the financial system in transmitting shocks.

Given the difficulty of predicting financial developments, what should policy makers do to mitigate the vulnerabilities that can cause a crisis such as that of 1929 or 2007-2008? What is the implication for the governance of multi-country cooperation in economic policy making? What does it mean, more specifically, for the relations among the G20, the IMF, the FSB and the BIS?

An appreciation of the conditions required for managing a system such as this can be drawn from an analogy to the theory of how a dynamic system can be controlled. Optimal control theory suggests that — at a minimum — two separate policy elements are needed to control a dynamic system. The first, the systematic control element, adjusts the appropriate policy instruments according to how far the system currently is from its steady state. The second, executive (or strategic) control element, alters the strength of that policy response depending on whether the system is currently moving towards or away from its steady-state path. Thus, using this analogy, optimal control analysis helps to understand the governance of international economic policy coordination, particularly in seeing why both executive control and systematic institutional control are needed to manage the international economic and financial system effectively. Indeed, the conclusion one can draw from the sudden emergence of the G20 leaders summits as the executive control element in November 2008 is that a complex economic and financial system that is prone to crises is only likely to be controlled effectively if these two policy control elements are properly coordinated.

The systematic control element is the IMF — a permanent official financial institution that continuously analyses economic developments and gives policy advice. The IMF, with its universal country membership, brings to policy coordination the continuity and consistency required to collect the data needed to analyze economic developments across countries and give appropriate policy advice to member countries. IMF members, in turn, have a "voice" in the governance of the IMF, and an obligation to abide by its rules and provide the up-to-date information the Fund needs to do its job. This element of systematic control through the IMF is most effective during "normal" times, when member countries' economic and financial performance can be improved by following sound internationally consistent policy advice from a neutral assessor.

For the past three decades, the second, executive (or strategic) control element over the system, has been exercised by an ad hoc, self-appointed group of leaders and finance ministers — successively the G5, the G7 and the G20 — that can take decisive action in a crisis. Such groups need to be the other element that exercises control because of the complexity of the global economy and financial system, its high sensitivity to "tail risks" that can occur with little warning and the fact that a financial system meltdown is a politically unacceptable outcome. In a global economic crisis there must be a group of global leaders who are willing and able to take the tough decisions needed to address the problem, and then credibly commit the countries or regions they represent to make the necessary policy changes. This bimodal structure of international economic cooperation roughly corresponds to what has actually evolved over the decades since the first "G" group was established and began interacting with the IMF.

The crucial conditions needed to make this bimodal structure of control effective are: that the major executive decisions taken by the leaders group must be based on the same information set as that which the treaty-based systematic-control institution — the IMF — employs in formulating its regular policy advice; and that the systematic controller agrees that the actions decided upon by the executive controller are appropriate to the circumstances from a global perspective.

For the present, the strategic control element — the executive decision maker — is the G20. Compared with the G7, the G20 has the advantage that, through its broader country membership, it fosters cooperation among the leaders of both systemically important advanced countries and emerging market/developing countries. From late 2008 onward, this broader membership showed its worth

20 See Knight (2012) for a discussion of this issue.

in dealing with the fallout from the crisis and keeping global growth from collapsing.

Of course, the self-appointed groups of global leaders that can garner at least some measure of tacit support in the global community tend to remain by force of inertia, even after their motivation to oversee policy coordination has begun to weaken. As a coordinating body and strategic decision maker, the G20 seems to have been losing momentum relative to the key initiatives it set in motion in its first meetings. Further, as the memory of the crisis has faded, the G20 summit agendas have broadened to include issues that are not central to achieving global economic policy coordination. James Boughton (2014), among others, has speculated that the G20 could be "cast aside by, or evolve into, a much different group of country leaders — possibly including the leaders from a more restricted group of countries but with a heavier representation on the systemic emerging market countries than in today's G20 — calling the shots." Nevertheless, if the system evolves as it has in the past, the G20 will likely retain its role as strategic controller for some time, as long as it is viewed as "representative" of the global community.

LEADERSHIP OF THE GLOBAL ECONOMY — THE FUTURE OF THE G20

Of course, this is only one possible future for the G20. The ad hoc body that will select itself to be the leader in economic cooperation sometime in the coming years is, by its nature, unpredictable. The basic argument made here is simply that two separate and distinct elements appear to be needed to achieve adequate governance of the international financial and economic system: a systematic treaty-based institution with universal membership, such as the IMF, and a narrower "G" of global leaders that can reach decisions in times of crisis, taking into account the recommendations of the IMF, the BIS, the World Bank and relevant international expert and standard-setting groups.

Does the executive control group have to be self-appointed and non-representative of the larger global community? Could stronger governance be achieved if it had a solid basis in international law and practice? From the perspective of good governance, one suggestion mooted recently is that over the longer term it might be desirable to merge the G20 with the Fund's main governing body, the IMFC. This would not involve creating a large and unwieldy body because, not surprisingly, the list of G20 member countries is almost the same as the member countries of the IMFC. The important difference for governance is that in the IMFC, each country with a seat at the table is required to represent a "constituency" of Fund member countries, so all members have a voice, either directly or indirectly in the Fund's governing body.

In a paper commissioned by the IMF for its 2014 Triennial Surveillance Review, Knight and Ortiz (2014) argued that merging the G20 and the IMFC would create the prospect of improving cooperation while at the same time increasing the voice of countries to reflect changes in their relative economic weights. Importantly, the authors noted that in order for this to be good governance, there would need to be a clear set of agreed rules for adjusting the membership of the IMFC over time, as the relative economic weights of countries changed with the evolution of the global economic and financial system.

To summarize, since the G20's country membership is very similar to that of the Fund's governing body, the IMFC, these two should be merged so that the IMFC becomes the pre-eminent body overseeing the global economy. Given that political leaders and finance ministers have a mandate to act on behalf of their home jurisdictions, such a new governance structure could give the IMFC the authority needed to provide strategic direction to international cooperation in macroeconomic policy and financial system stability.

It is worth reiterating that although the G20 is more representative of the global community than the G5 or G7, it is still an ad hoc, self-selected group. The recent financial crisis struck at the heart of advanced countries that had previously viewed themselves as the best managed and regulated. The emerging market and developing economies, which had most frequently experienced financial crises in the past, were left to address the international fallout, in the form of large and destabilizing capital inflows and outflows generated by financial instability and the unorthodox monetary policies used to address the crisis. The cooperation of the leaders of emerging market and developing countries in the G20 proved helpful in dealing with the adverse effects of the crisis and keeping global growth from collapsing. Thus, another important take-away from this experience is that implementing a new global system of financial regulation will need the active involvement of the systemically important emerging market countries to succeed. This requires that they have an adequate voice in the key policy decisions that impact the global economy, believe that the new financial regulatory regime meets their needs and see a real prospect that it will make the global financial system more robust.

Much credit should go to the heads of state and government of the G20 that, in the depths of the crisis in November 2008, they took the initiative to become the strategic controller of the global economic and financial system. They provided the needed impetus to implement an ambitious global financial regulatory reform program and an internationally coordinated macroeconomic stimulus strategy to address the near-meltdown of the global financial system and the threatened collapse of employment and output. This does not mean, however, that the G20 should continue to

be the ultimate decision maker in the future. As the crisis has faded into the past, the G20 leaders' summit agendas have broadened to include issues that are not central to global economic management. It is perhaps not surprising that leaders need to have something to talk about when things seem to be moving along adequately, but discussing broader issues may not be the best way to prepare for the next economic crisis.

CONCLUSION

Clearly, it is a critical priority for global economic policy makers to ensure that a tectonic financial shock does not strike the global economy again. Global leaders must find a way to limit the risks in the international financial system, which requires a fundamental reform of the global architecture of regulation. Currently, there is a complicated governance structure for economic and financial policy cooperation that consists of three entities — one ad hoc and self-selected (G20), one treaty-based and systemic (IMF), and one a creation of the ad hoc grouping (FSB). This paper has undertaken a historical analysis of how cooperation takes place among these actors to implement the fundamental reforms needed to ensure that the global financial system is able to withstand shocks than it was in 2007-2008.

The analysis suggests that a bimodal structure of governance for macroeconomic and financial policy cooperation that includes both a restricted executive group of leaders that can implement major changes in the strategic policy direction to meet unforeseen developments and a universal, treaty-based official international financial institution that provides regular, consistent policy advice to its members is an appropriate framework for managing the global financial system. However, this conclusion does not mean that the restricted executive decision-making body should be self-selected. A more effective structure of governance over international policy cooperation would be possible if the countries whose leaders made up the restricted executive group were to be selected by a more systematic and widely accepted process.

The appropriate relationship between the IMF's key governing body — the IMFC — and groups such as the G20 that have been self-appointed is that since the G20's country membership is very similar to that of the IMFC, these two bodies should be merged into a new IMFC that has a stronger foundation in the principles of good governance outlined above. Such a fundamental change would require deep reflection in order to gradually build broad acceptance for this proposal within the membership of the Fund. But it would be worth the effort — and even the longest journey begins with the first step.

WORKS CITED

BIS. 2004. *BIS 74th Annual Report.* June 28. Basel, Switzerland: BIS. www.bis.org/publ/arpdf/ar2004e.htm.

———. 2005. *BIS 75th Annual Report*. June 27. Basel, Switzerland: BIS. www.bis.org/publ/arpdf/ar2005e.htm.

———. 2006. *BIS 76th Annual Report.* June 26. Basel, Switzerland: BIS. www.bis.org/publ/arpdf/ar2006e.htm.

———. 2007. *BIS 77th Annual Report.* June 24. Basel, Switzerland: BIS. www.bis.org/publ/arpdf/ar2007e.htm.

Boughton, James M. 2014. "Canada in the Global Financial System." In *Crisis and Reform: Canada and the International Financial System,* edited by Rohinton Medhora and Dane Rowlands, 229–40. Waterloo, Ontario: Centre for International Governance Innovation.

Borio, Claudio and William H. White. 2003. "Whither Monetary and Financial Stability? The Implications of Evolving Policy Regimes." Paper presented at the Federal Reserve Bank of Kansas City Economic Symposium Conference Proceedings, Jackson Hole, Wyoming, August 28–30. www.kansascityfed.org/publications/research/escp/escp-2003.cfm.

FSB. 2012. "Charter of the Financial Stability Board." Basel, Switzerland. June.

———. 2014. "Chairman's Letter to G20 Ministers and Governors on Financial Reforms." Basel, Switzerland. February.

FSF. 2008. *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience.* Report of a Working Group of the FSF to the Meeting of G7 Finance Ministers, April 7.

G20. 2008. "Documents from the Summit of Heads of State and Government in Washington, D.C., November 15, 2008."

———. 2009a. "Documents from the Summit of Heads of State and Government in London, April 3, 2009."

———. 2009b. "Leaders' Statement: The Pittsburgh Summit September 24-25, 2009." www.g20.org/sites/default/files/g20_resources/library/Pittsburgh_Declaration_0.pdf.

Helleiner, Eric. 2014. "Financial Stability Board: FSB Governance." In *Global Financial Governance & Impact Report 2013.* New Rules for Global Finance. http://new-rules.org/what-we-do/global-financial-governance-a-impact-report.

IMF. 2012a. "Modernizing the Legal Framework for Surveillance — Building Blocks Toward an Integrated Surveillance Decision." Washington, DC: IMF. March.

———. 2012b. "Modernizing the Legal Framework for Surveillance — An Integrated Surveillance Decision." Washington, DC: IMF. July.

IMF and FSF. 2008. Letter to ministers and governors from Dominique Strauss-Kahn and Mario Draghi. November 13. www.imf.org/external/np/omd/2008/eng/pdf/111308.pdf.

IMF IEO. 2011. "IEO Evaluation of IMF Performance in the Run-Up to the Financial and Economic Crisis." Washington, DC: IMF. January.

Knight, Malcolm D. 2005. "Challenges to Financial Stability in the Current Global Macroeconomic Environment." Speech by the General Manager of the BIS at the International Monetary Fund in Washington, DC, September 6.

———. 2007. "Prospects and Policies for the Global Economy." Speech delivered by the General Manager of the BIS, Basel, Switzerland, June 24.

———. 2012. "Surmounting the Financial Crisis: Contrasts between Canadian and American Banks." *American Review of Canadian Studies* 42 (3): 311–20.

Knight, Malcolm D. and Guillermo Ortiz. 2014. "Multilateral Surveillance: Ensuring a Focus on Key Risks to Global Stability." External Study for the IMF 2014 Triennial Surveillance Review. Washington, DC: IMF. Forthcoming, October.

Knight, M. D., L. Schembri and J. Powell. 2004. "Reforming the Global Financial Architecture: Just Tinkering at the Edges?" In *The IMF and its Critics: Reforming the Architecture of Global Economic Institution,* edited by D. Vines and C. L. Gilbert. Cambridge, UK: Cambridge University Press.

Martin, Paul. 1999. "The International Financial Architecture: The Rule of Law." Remarks by the Honourable Paul Martin, Minister of Finance, to the Conference of the Canadian Institute of Advanced Legal Studies, Cambridge, United Kingdom, July 12.

Mistral, J. 2011. *Multilateral Surveillance and Macroeconomic Policy Coordination: Designing an Appropriate Framework.* Washington, DC: The Brookings Institution.

Ostry, J. D. and A. R. Ghosh. 2013. "Obstacles to International Policy Coordination, and How to Overcome Them." IMF Staff Discussion Note 13/11. December. Washington, DC: IMF.

Reinhart, Carmen M. and Kenneth S. Rogoff. 2009. *This Time is Different: Eight Centuries of Financial Folly.* Princeton: Princeton University Press.

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