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THE SHORT VIEW:
THE GLOBAL CONJUNCTURE
AND THE NEED FOR COOPERATION
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AUTHOR'S NOTE

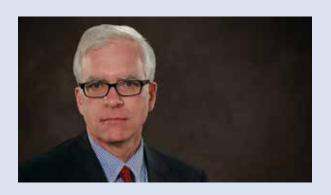
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INTRODUCTION

In the autumn of 2008, the global economy was perched precariously on the edge of an abyss as financial markets seized up and output, employment and trade all collapsed. These extraordinary times called for extraordinary measures. Governments responded. Heeding the three key lessons of the Great Depression, Group of Twenty (G20) countries avoided pro-cyclical fiscal policy responses; their central banks provided liquidity to mitigate financial market dysfunction, and G20 leaders eschewed the temptation to impose protectionist measures. A potentially catastrophic global economic collapse was averted.

Timely, concerted policy actions prevented another Great Depression. For most advanced economies, however, the subsequent recovery has been disappointing — leading some observers to dub recent history the "Great Stagnation." At the same time, the crisis and the extraordinary policy responses to it have bequeathed a number of legacies that cloud the global economic outlook and pose significant adjustment challenges to the international community.

In many advanced economies at the core of the global economy, high public debt has led to a disproportionate burden of stabilization policy being placed on monetary policy. Yet, the effectiveness of traditional monetary policy instruments has been blunted by continuing dysfunction in some financial markets and the effects of ongoing deleveraging, which have weakened monetary transmission mechanisms—or the channels through which monetary policy affects growth. As a result, key central banks around the globe have turned to unconventional measures to stimulate growth in an effort to restore full employment and prevent the threat of deflation.

Such measures, adopted to support domestic growth, also have external effects. For emerging market countries that rebounded quickly from the crisis, the impact on exchange rates is reminiscent of the beggar-thy-neighbour currency devaluations of the 1930s. That experience led to a tit-for-tat escalation in trade restrictions, as country after country sought to prevent the loss of employment; eventually, global trade flows collapsed. In this respect, while most emerging market and developing countries quickly returned to the high rates of growth they enjoyed prior to the crisis, in a world marked by large imbalances, enormous fiscal challenges and unemployment that remains too high in a number of countries, all countries share a common interest in timely external adjustment, consistent with the return to full employment and the maintenance of the system of open international trade and payments that has been constructed over the past 70 years.

The purpose of this paper is to take stock: to assess where we are, what we have learned, and what we need to do going forward. Five years after the start of the subprime crisis provides a span of time that offers a perspective for deep and serious reflection. Such a stock-taking cuts across several domains, including the real economy, the financial system, domestic considerations, international linkages, governance and leadership. This is not a small undertaking; it is a critically important one. And, to provide this perspective, we need to know how we got to the present conjuncture.

Global policy makers will not be able to successfully address the short-term challenges they face, however, without also tackling the medium-term problems that loom large on the policy horizon. To cite the late Doug Purvis — a thoughtful, policy-oriented economist and gifted teacher: "the medium-term is the message." Successfully addressing these medium-term policy challenges requires policy horizons much longer than the myopic orientation adopted by too many, and it will take global economic leadership to secure the cooperation that is needed to strike a judicious balancing of adjustment burdens. These are the fundamental conclusions of the paper.

WHERE WE ARE: THE CONJUNCTURE AND RISKS TO THE NEAR-TERM OUTLOOK

In broad strokes, global growth has remained tepid with more recent indications of widespread slowing across both advanced and advancing economies. As the October 2012 International Monetary Fund (IMF) World Economic Outlook points out, by late 2012, many advanced economies were flirting with the risk of recession, with growth projected to halve from 2010 levels (see Table 1).² This figure masks some large divergences, however. Of particular note is the deterioration in growth prospects in the euro area, where key players are expected to remain in recession; even Germany, widely viewed as the powerhouse of Europe and main beneficiary of the euro, is projected to slow significantly as a consequence of the

difficulties that have afflicted its euro area partners.³ The economic expansion in the United States, meanwhile, continues at a modest pace.

Table 1: World Economic Outlook Projections

	2010	2011	2012	2013
World Output	5.1	3.8	3.3	3.6
Advanced Economies	3.0	1.6	1.3	1.5
United States	2.4	1.8	2.2	2.1
Euro Area	2.0	1.4	-0.4	0.2
Japan	4.5	-0.8	2.2	1.2
Emerging Market and Developing Economies	7.4	6.2	5.3	5.6
Brazil	7.5	2.7	1.5	4.0
China	10.4	9.2	7.8	8.2
India	10.1	6.8	4.9	6.0

Source: IMF, 2012b.

At the same time, the engines of growth that have powered the recovery — that is, the emerging market and developing economies — have slowed significantly. In China and other major advancing economies, growth decelerated somewhat more quickly than previously expected during 2012. Reflecting trade linkages with Europe, the projected slowdown in Brazil has been particularly severe, from 7.5 percent in 2010 to 1.5 percent this year, although activity is expected to recover somewhat in 2013. Moreover, commodity prices have remained high, in part reflecting serious supply disruptions, especially owing to drought conditions in North America, with immediate consequences for the poorer regions of the world.

As a result, five years after the onset of the global financial and economic crisis the global economy remains dangerously unbalanced, with the balance of risks clearly weighted on the downside. The October 2012 World Economic Outlook notes that unemployment in most advanced economies remains too high, and the risks of global recession, which the IMF staff assesses as "alarmingly high," have increased appreciably over the past year. The key downside risks identified by IMF staff

¹ See Douglas D. Purvis, "Public Sector Deficits, International Capital Movements, and the Domestic Economy: The Medium-term is the Message," *Canadian Journal of Economics* 18, no. 4 (1985): 723–742. As Purvis notes, "of central interest is the potential for conflict and time-inconsistency in policy formation that arises because of the different effects that policies can have in the short and long run." In some respects, the economic conjuncture dealt with by Purvis was similar to today — although most would agree that current debt burdens are much greater and that the list of challenges that must be addressed, which includes issues such as transition in global leadership and the need to secure timely, effective international cooperation, is longer.

² While low, positive growth avoids the technical definition of recession, for many advanced economies, projected growth is too low to absorb excess capacity and move to full employment. As a result, labour market conditions will remain stressed, with continuing risks of social cleavages. Moreover, at such low rates, the economy remains susceptible to negative shocks that could result in negative growth.

³ It should be noted that these relatively sombre projections assumed significant policy action to avoid key risks; in particular, that European policy makers take additional actions to "advance adjustment at national levels and integration at the euro area level (including timely establishment of a single supervisory mechanism)" (IMF, 2012b). Similarly, it is assumed that US policy makers raise the debt ceiling "while making good progress toward a comprehensive plan to restore fiscal sustainability" (IMF, 2012b). Failure on either front could result in a very sharp deterioration in growth prospects. Notwithstanding encouraging developments in terms of the US fiscal situation early in the year, the January 2013 update of the projections point to a slightly weaker outlook across the globe, with growth marked down by between 0.1 percent and 0.3 percent in most countries "as underlying economic conditions remain on track" (IMF, 2013).

at that time included: a further deepening of the euro crisis, as the protracted fiscal, financial and banking crises gripping some members of the euro zone spill over to impair growth in the euro area and beyond; the potential fiscal shock from expiring tax cuts coupled with automatic spending cuts in the United States — the so-called "fiscal cliff" in the popular press; and a renewed spike in oil prices arising from heightened geopolitical tensions.⁴ In this respect, while the immediate threat of "tail risks" has diminished, major risks to the global outlook remain. These risks reflect a number of sources.

Excessive credit growth and unsustainable debt levels have been at the heart of the global financial and eurozone crises. In many countries, problems first materialized as excessive bank lending and private sector borrowing, especially in the housing and mortgage markets. But problems that originated in the private sector quickly became a sovereign debt crisis as a result of financial sector bailouts and government revenues weakened by economic stagnation.

In addition, the global financial crisis and ensuing "Great Recession" demonstrated the fundamental interconnectedness of the global economy. Traditionally, international interdependencies have been thought of in terms of trade linkages. In emerging markets, trade links indeed have acted as the main channel for the transmission of the global financial crisis as advanced economies cut back on consumption and imports. This had spillover effects on export demand throughout the global supply chain, with the result that the crisis led to an unprecedented synchronicity of business cycles.

Across advanced countries, however, financial linkages proved to be a stronger explanation of the scale of the downturn and the subsequent fallout in the aftermath of the crisis. Indeed, those countries with greater financial linkages and weak financial positions have done much

worse than other countries.⁵ Unfortunately, these effects were largely absent in the large macroeconomic models that guided policy and risk assessment prior to the crisis.⁶

Intimately intertwined with these financial linkages and the propagation of the crisis was the abject failure of the financial system to fulfill its most basic fiduciary responsibilities. There were failures in the assessment and management of risk at virtually every level — loan originators, credit rating agencies and within financial institutions themselves. Leverage ratios at many institutions rose to levels such that only a small percentage point decline in the value of a bank's loan portfolio would wipe out its capital. Financial innovation, especially through new so-called synthetic products, was marketed as a way to repackage and diversify risk; in too many cases, however, the resulting instruments obscured the amount and type of risk being taken on. Lax financial sector regulation and supervision at both the individual institutional level and at the macroprudential level were also widespread.

The lead up to the crisis also witnessed persistent large current account imbalances with a concomitant rise in the accumulation of international reserves. While not the immediate cause of the global financial crisis, these current account imbalances, at a minimum, contributed to the excessive credit growth and misallocation of capital that were central to the implosion of the global economy.

WHAT WE HAVE LEARNED: LEGACIES OF THE GLOBAL FINANCIAL CRISIS

The worrisome conjuncture outlined above suggests that, while the extraordinary policy responses elicited by the

⁴ IMF staff also identified upside risks, reflecting a possible bimodal view of global prospects. This is consistent with the argument that the global economy is subject to a heightened level of uncertainty that could constrain growth, as individual firms exercise the "option value of waiting" before committing to long-term investments. An assessment — admittedly imperfect — of the relative importance attached to the challenges to global financial stability as a result of developments in the euro zone, the United States, Japan and emerging markets, is given by their treatment in the IMF's Global Financial Stability Report: Restoring Confidence and Progress on Reforms, which allocates almost 2,000 words (not including text boxes) to a discussion of the challenges in the euro zone, fewer than 400 words to the United States and fewer than 250 words to Japan. The discussion of all emerging markets and other economies is covered in fewer than 500 words (IMF, 2012a).

⁵ Cross-country comparisons between countries with highly developed, but also complex, financial instruments and countries with "plain vanilla" financial systems could be a proxy of the social benefits from increased "efficiency" associated with financial engineering and the potential costs, in terms of risk of instability. The fact that countries less integrated into the global financial system suffered less than most advanced countries whose financial systems were closely connected to the source of the shock, could be taken as support for Keynes' initial response to the Great Depression, which he later recanted: "I sympathize, therefore, with those who would minimize, rather than with those who would maximize, economic entanglement among nations. Ideas, knowledge, science, hospitality, travel — these are the things which should of their nature be international. But let goods be homespun whenever it is reasonably and conveniently possible, and, above all, let finance be primarily national" (Keynes, 1933; emphasis added). The experience of Canada, with a financial system highly integrated with the United States, but that largely avoided the financial excesses and subsequent disruption elsewhere, is the counter example.

⁶ The obvious importance of these effects has led to efforts to articulate more robust financial linkages. See, for example, Tamim Bayoumi and Francis Vitek, "Macroeconomic Model Spillovers and their Discontents," International Monetary Fund Working Paper WP/13/4, January 2013, available at: www.imf.org/external/pubs/ft/wp/2013/wp1304.pdf.

crisis helped stem the collapse of output and provided the stimulus needed to fuel global recovery, continuing legacies of the crisis — reflecting both macroeconomic imbalances and microeconomic distortions — now pose fundamental challenges to the goal of strong, sustainable and balanced growth, as articulated by G20 leaders at the Pittsburgh summit.

What are the policy challenges created by the legacy of the crisis? Three areas stand out.

FISCAL CHALLENGES

First, obviously, is the deterioration in public finances in many advanced economies. As the IMF's *World Economic Outlook* makes clear, in many cases, public debt levels have returned to levels not seen since the end of World War II (2012b). These debt burdens have created a dilemma of conflicted virtues: between the need to ensure medium-term fiscal sustainability and the desire to use fiscal policy as an instrument of short-term stabilization policy to restore full employment.

In most recessions, governments can — and, many argue, should — offset the needed deleveraging of private sector agents. This reflects the fact that households' spending may be credit-constrained. In these circumstances, government borrowing and spending both mitigate the effects of private sector deleveraging and stimulate the economy until private sector balance sheets have been restored to health. Sweden, during the early 1990s, provides an example of this effect: when highly indebted private borrowers reduced their obligations by cutting spending, the Swedish government increased spending and restructured the financial system, running large fiscal deficits in the process.⁷

In the current context, however, activist fiscal stabilization has been ruled out in many countries. In some European countries, this is because public debt incurred in supporting failing financial systems, coupled with weak growth have led to concerns of unsustainable debt burdens and the potential loss of access to private capital markets. Elsewhere, counter-cyclical fiscal stimulus measures have been limited by conscious policy choice or political

While fiscal austerity is unavoidable in countries that have lost access to capital markets and in which debt burdens are clearly unsustainable, the presumptive progrowth benefits of fiscal austerity should be carefully assessed. Conceptually, fiscal consolidation can support growth by compressing sovereign risk premia, thereby reducing interest rates. Such effects likely played a role in successful fiscal stabilization efforts in Sweden and Canada in the 1990s, for example. But the faith placed by some in this effect is difficult to reconcile with the current global environment, in which interest rates for key major advanced economies that have retained high credit ratings — even countries with large public debt burdens — are at historically low levels. In such cases, with interest rates

gridlock.⁸ Regardless, there is a risk that growth prospects are held back by a concerted deleveraging of debt by private and public agents. The problem, from a macroeconomic perspective, is the fallacy of composition that underlies Keynes' paradox of thrift: while balance sheet repair is undoubtedly necessary for individual households, firms and governments, by constraining growth, the combined effect of these independent efforts makes the job more difficult for all.⁹ In other words, a response that might be rational and beneficial at the individual level is collectively irrational. Such effects undoubtedly account for the protracted, painful process of recovery associated with past debt crises documented by Reinhart and Rogoff (2010).¹⁰

⁷ See Stijn Claessens: "Shedding Debt," Finance & Development 49, no. 2 (June 2012), available at: www.imf.org/external/pubs/ft/fandd/2012/06/claessens.htm. It is important to note, however, that Sweden benefitted from a cut in interest rates and a substantial exchange rate adjustment that supported growth. Moreover, once the economy recovered, the government undertook a credible program to reduce its debt helping to resolve potential problems of time inconsistency and preserving a favourable interest rate environment to support growth.

⁸ A likely factor behind the political resistance to fiscal stimulus is a fundamental misunderstanding of potential Ricardian equivalence effects — the proposition that higher debt incurred today will lead to higher taxes tomorrow. Higher future taxes implicit in public debt burdens, it is argued, will reduce private spending and delay recovery. While such effects are theoretically possible (provided a number of rigid assumptions hold) if the economy is already at full employment, in a situation in which output is below its potential and employment below its full employment level, fiscal stimulus can reasonably be expected to increase incomes and hence tax revenues.

⁹ To the extent that growth is depressed by these effects, fiscal stimulus that raises growth and restores full employment could result in improved public finances. See J. Bradford DeLong and Lawrence H. Summers, "Fiscal Policy in a Depressed Economy," Brookings Papers on Economic Activity, Spring 2012.

¹⁰ Chapter 3 of the *World Economic Outlook*, "The Good, the Bad and the Ugly: 100 Years of Dealing with Public Debt Overhangs," provides an excellent review of past episodes of fiscal stabilization (IMF, 2012b).

at the effective zero lower bound, the additional boost to growth would presumably be modest, at best.¹¹

Moreover, the IMF has reassessed the short-term potential impact of fiscal stimulus. Unsurprisingly, the IMF staff finds that the size of fiscal multipliers — the impact of government spending on output — is larger when more recent data, including the Great Recession of the past four years, are considered. This is precisely what one would expect: in an environment of high unemployment and unused capacity, fiscal stimulus of a given size will have a larger impact on output than in a situation in which the economy is at, or near, full employment. In the latter case, part of the effect of stimulus is dissipated in higher wages and prices; in the former case, in contrast, fiscal stimulus that puts people to work, will raise their incomes and thus consumption. The impact of the strength of th

As a consequence of overestimating the short-term beneficial effects of fiscal austerity and underestimating the size of fiscal multipliers, some countries that could have provided additional fiscal stimulus (or moderated the pace of fiscal austerity) to help promote a more robust recovery and full employment are now temporizing with the paradox of thrift. Elsewhere, fiscal policy is hamstrung by political gridlock that, arguably, provided too little stimulus when it was needed most and which now threatens premature austerity. The paradox of thrift is most prominent, however, in euro area countries that have surrendered monetary independence and thus have no choice but to pursue fiscal austerity despite its detrimental effects on growth and unemployment, which in some euro-area countries is now at Great Depression

levels. In this respect, the policy framework in the euro area resembles the monetary policy of the 1920s, in which efforts to sustain a dysfunctional gold standard ultimately led to global economic stagnation and sustained deflation. In these circumstances, the risk of global deflation cannot be discounted; indeed, global core inflation has steadily trended downward since mid-2011. Should the negative risks identified by the IMF materialize and global growth falter, the threat of deflation would increase appreciably.

These considerations underlie the IMF's policy prescription in the October 2012 World Economic Outlook, that fiscal adjustments should be "gradual and sustained, where possible, supported by structural change, as, inevitably, it weighs on weak demand" (IMF, 2012b). Presumably, the goal is to ensure a more felicitous adjustment path that reduces the so-called "tail risk" associated with the paradox of thrift — the threat of sustained deflation. But, as IMF staff also point out, governments cannot ignore the other conflicted virtue - public finances must be sustainable over the medium term. Even before the crisis, many advanced economies were facing looming fiscal challenges as a result of demographic changes. In this respect, the crisis has brought forward in time fundamental challenges associated with rising pension and medical care expenses from the aging demographic profile in these economies, and have raised concerns of longer-term fiscal sustainability.

Accordingly, the key medium-term "message" with respect to fiscal policy is that uncertainty about the future of public finances could be reflected in higher-risk premiums that would complicate efforts to undertake fiscal stabilization. These effects need not reflect Ricardian behaviour (although such considerations could become increasingly relevant as the economy moves to full employment), but more fundamental concerns regarding the sustainability of debt burdens that cross key thresholds and the effects of demographic changes on underlying potential growth. The challenge is how to provide support to the economy in the short term, where appropriate, while ensuring medium-term sustainability.

MONETARY POLICY

Monetary policy is the second area in which the crisis has had long-lasting legacy effects. These effects pose challenges for both advanced and emerging market economies alike. With fiscal policy constrained by a combination of high debt and political gridlock in key advanced economies, the burden of stabilization policy has fallen largely to monetary policy. In the extraordinary circumstances of the financial crisis, central banks adopted extraordinary measures, including reducing interest rates to very low levels. But widespread deleveraging, as banks and households work to repair balance sheets, and continuing dysfunction in some financial markets have weakened the monetary transmission mechanism

¹¹ Of course, a distinction must be made between countries that have their own currencies, with strong, credible central banks, and countries that have ceded monetary independence by joining a currency area. In the former, government debt is issued in the national currency, allowing for better coordination between the monetary and fiscal authorities and, potentially, a broader menu of adjustment options to deal with external shocks. In these countries (the United States, the United Kingdom, Canada, Australia and others) interest rates remain at historically low levels, even those, like the United States and the United Kingdom, that have experienced a sharp increase in debt/GDP ratios. In the latter group, however, debt is denominated in a currency over which they have only limited and ill-defined jurisdiction; the result can be damaging problems of time inconsistency between the monetary and fiscal authorities. This accounts for the steep increase in interest rates in many euro-area countries, where financial markets are pricing in the risk of possible default and/or potential reintroduction of national currencies.

¹² See Olivier Blanchard and Daniel Leigh "Growth Forecast Errors and Fiscal Multipliers," IMF Working Paper WP/13/1, January 2013, available at: www.imf.org/external/pubs/ft/wp/2013/wp1301.pdf.

¹³ In an environment of dysfunctional financial markets and widespread balance sheet restructuring, these second-round effects may be dampened somewhat by the reluctance, or inability of households to take on additional debt to support higher consumption. But this effect does not negate the general point that fiscal multipliers will necessarily be larger in cases of high unemployment, or the point made above that, in such circumstances, government borrowing and spending can substitute for credit-constrained households.

by which monetary policy affects output. The result has been a tepid recovery in most advanced countries. With nominal interest approaching the zero lower bound, meanwhile, some advanced economy central banks have adopted unconventional policy responses, including large-scale asset purchases, in an attempt to support growth and break free of the liquidity trap that threatens deflation.¹⁴

Underlying the use of unconventional measures is the risk that, with output remaining below its potential level, a negative shock could result in further disinflationary pressure, or possibly deflation.¹⁵ This conjuncture would, it is feared, lead to higher real interest rates that would depress growth further and exacerbate downward pressures on prices and generate still higher real interest rates. In this respect, the decision by the US Federal Reserve Board to extend its asset buying program (known as quantitative easing) indefinitely, or until there are clear signs of improved labour market conditions, and similar actions by other central banks, may reflect the extent to which this threat is judged credible.¹⁶

14 Once thought to be a pathology of the extraordinary circumstances of the Great Depression, signs of the liquidity trap, in which traditional monetary policy instruments are rendered less effective, are evident in Japan's two-decades-long fight with deflation and the more recent US experience. In such circumstances, central banks may be required to adopt unorthodox measures, including large-scale asset purchases to counter the effects of the liquidity trap by, inter alia, affecting the slope and level of the yield curve. The use of these measures harkens back to earlier episodes of active debt management in support of broad macroeconomic objectives. The theoretical underpinnings of this approach were developed by James Tobin, "A General Equilibrium Approach to Monetary Policy," *Journal of Money, Credit and Banking*, 1(1969): 15–29.

15 This scenario illustrates the risks of operating at the zero lower bound for nominal interest rates if the level of economic activity is related to the real interest rates (nominal rate less the rate of expected inflation). With nominal rates held at very low levels, a decline in expected inflation or deflation from, say, a negative fiscal shock would increase real interest rates and further depress economic activity. But with output already below potential or the full employment level, this would put further downward pressure on inflation or exacerbate deflation, leading to still higher real interest rates. This unpalatable scenario suggests that the decision by the Federal Reserve Board to expand its unconventional measure may be insurance against the effects of premature fiscal tightening.

16 The underlying goal, presumably, is to avoid the situation in Japan, which has been struggling with sustained deflation and a protracted economic slump. Adherence to the Bank of Japan's inflation of target of one percent has, it could be argued, prevented the real interest rate adjustment that is required to restore growth. In this view, the problem is not that inflation is too high; it is that inflation is too low. Moreover, while the "stop-and-go" nature of repeated episodes of fiscal stimulus has similarly been insufficient to break the deflationary psychology, it has produced a steep increase in public debt, which exceeds 200 percent of GDP. Elections in December 2012 were fought, in part, over the monetary policy and the independence of the Bank of Japan. With the election of Prime Minister Shinzo Abe, who campaigned on the need for more aggressive fiscal and monetary policy measures to resuscitate growth, the Bank of Japan agreed, in January 2013, to raise its inflation target to two percent. Given the high debt burden, however, some worry about following through on additional fiscal stimulus. See Adam Posen, "Japan Should Rethink its Stimulus," Financial Times, January 15, 2013.

At the same time, however, it should be noted that the Fed has a dual mandate - price stability and full employment. Viewed through this lens, its commitment to unconventional measures simply reflects its full employment objective. Yet some observers contend that this second objective is redundant; that price stability is the surest way of ensuring the economy moves to full employment. They argue that the additional objective of full employment clouds the decision-making process and creates unnecessary uncertainty with respect to the objectives of monetary policy. And, by undermining the independence of central banks through the accumulation of large holdings of government debt, they warn that unconventional measures threaten the independence of central banks and could erode the hard-won gains with respect to price stability that have been achieved since the last great wave of inflation following the collapse of the Bretton Woods system.¹⁷

Under normal conditions, with well-functioning financial, labour and product markets, price stability should indeed deliver full employment over time. In key advanced economies, however, current conditions are not indicative of normal times. In this respect, the adoption of unconventional measures by central banks reflects the exceptional circumstances that are the legacy of the global crisis. Given the pervasive uncertainty hanging over the economy, individual households and firms are reluctant to make long-term commitments. In the prevailing low interest rate environment, a strategy of hoarding cash may not yield a return, but neither does it result in large losses. The result is an economy in which firms sit on cash, rather than invest. In And if investment is below savings, firms cut

¹⁷ See, for example, Jens Weidmann, "Everything Flows? The Future Role of Monetary Policy." Speech at the 2012 ZEW Economic Forum in Mannheim, Germany, June 12, 2012.

¹⁸ The problem is that, given the Knightian uncertainty that prevails, expected returns from investments are difficult to assess or simply do not compensate for the "option value of waiting" (holding cash). See Frank Knight, *Risk, Uncertainty and Profit* (1921). Risk, Knight argued, is an outcome to which some probability can be attached: a particular investment that has a range of potential payoffs; each payoff has an associated probability (which sum to unity). Uncertainty, in contrast, is associated with an outcome or an event to which individuals cannot attach a probability — the event might happen, but individuals are able to assess whether it is with a 10 percent probability, or a 90 percent probability. In such an environment, it is difficult to price assets or evaluate the returns from investment.

¹⁹ One indication of the extent of this phenomenon is the spread — albeit limited — of banks charging fees on investors seeking to make "safe haven" deposits. See Alice Ross, "UBS Introduces Fees on Franc Deposits," *Financial Times*, December 11, 2012.

back on employment, reducing incomes and validating households' decisions to defer consumption.²⁰

In a closed economy, equilibrium is restored only when desired savings equal desired investment. Of course, in the global economy, differences in savings and investment are reflected in current account positions, and foreign demand can help facilitate adjustment in an economy, such as the United States, undergoing balance sheet restructuring. By facilitating exchange rate changes consistent with a rebalancing of global demand, unconventional measures utilize one channel of the traditional monetary transmission mechanism that remains operative.²¹

For advanced economies undergoing the effects of deleveraging and fiscal austerity, the resulting currency depreciation is wholly appropriate. But for dynamic emerging economies and some advanced economies such as Switzerland, which are reluctant to absorb the sustained appreciation of their exchange rates (particularly when some others have tied their currencies to the dollar), such policies are reminiscent of the beggarthy-neighbour exchange rate depreciations that marked the global economic stagnation of the Great Depression. These adjustments led, of course, to the introduction of protectionist measures to preserve domestic employment and, subsequently, to retaliatory tit-for-tat protectionist measures as countries tried to prevent the loss of domestic employment. While overt trade restrictions have thus far been limited, countries affected by the unconventional measures of key central banks have resorted to "prudential regulation" to limit capital inflows and suppress the appreciation of their currencies.

Despite such measures, the central banks of emerging market economies have had to cope with their own policy challenges. Real credit growth remains strong — albeit at a somewhat slower pace than a year ago. In this environment, the concern is poorly intermediated credit

flows that fuel imbalances and asset price bubbles, rather than support sustained growth. As IMF staff note in the October 2012 Global Financial Stability Report, "several key [emerging market] economies are prone to latecycle credit risks following an extended period of rising leverage and property prices" (2012a). Although the IMF counsels these countries to build additional "buffers" in private and public balance sheets to guard against possible shocks, such measures could, paradoxically, increase the risk of insufficient global aggregate demand. At the same time, such measures are unlikely to be fully effective in containing the risk of macroeconomic instability. The problem these countries face is that, as long as they thwart exchange rate adjustment, they lose a key instrument of stabilization policy, as monetary policy is subordinated to the goal of maintaining external competiveness; in the interim, resource misallocation from misaligned real exchange rates continues.

FINANCIAL REGULATION

Financial regulation is the third area in which the legacy of the crisis has had lasting effects. As is to be expected, these issues are closely related to the challenges facing monetary policy. After all, central banks have had to adopt unconventional measures because of the dysfunctional nature of some financial markets and the ongoing deleveraging by financial institutions — which underscores the need for institutions to raise capital and the importance of fixing the system. There are also concerns that, in addition to creating an incentive for additional investment, central banks' unconventional measures create an environment conducive to imprudent risk-taking and the search for yield that characterized the excesses prior to the global crisis.²² This is indeed a possibility, underscoring the need for heightened (and, hopefully, improved) prudential surveillance and regulatory oversight of those who might take non-meanpreserving bets, which could leave taxpayers bearing the costs of their imprudent behaviour.

The need to contain the potential for monetary policy "puts" is real.²³ In this respect, it is clear that, while

²⁰ This conjuncture has led to an active debate regarding the relative effectiveness of possible alternative monetary frameworks, including the possible use of nominal income targeting, by which the central bank would target a given path for nominal GDP. As Bank of Canada Governor Mark Carney explained: "adopting a nominal GDP (NGDP)-level target could in many respects be more powerful than employing thresholds under flexible inflation targeting. This is because doing so would add 'history dependence' to monetary policy. Under NGDP-level targeting, bygones are not bygones and the central bank is compelled to make up for past misses on the path of nominal GDP." Under normal conditions, Carney added, the gains from this approach are likely to be modest; but in the context of interest rates "stuck" at the zero lower bound constraint, such a policy may be more credible and, possibly, more effective in restoring full employment. See: Mark Carney, "Guidance," Speech at the Chartered Financial Analysts' Society, Toronto, December 11, 2012, available at: www.bankofcanada.ca/2012/12/speeches/guidance/.

²¹ Even before the announcement of an increase in the Bank of Japan's inflation target, the Japanese yen depreciated significantly in late 2012 and early 2013 on the anticipation that a change in Bank of Japan policy would be forthcoming.

²² In addition, there is a risk that the current conjuncture blocks necessary adjustment as banks avoid writing down loans to so-called "zombie" firms that are struggling to survive. Such firms do not invest, constraining growth while blocking other firms' access to capital, thereby by preventing them from investing and generating growth.

²³ The monetary policy "put" arises from the fact that individuals, acting in anticipation of central bank intervention to limit downside risks, will make highly risky investments and accept non-mean-preserving spreads. Such bets provide high yields if successful, but do not compensate for the additional risk on an expected value basis. If the investments pay off, the private institution reaps the return and the individual is rewarded with a large monetary compensation; if the investment fails, however, the institution is rescued by central bank liquidity. On these risks, see: Mohamed El-Erian, "Beware the 'Central Bank Put," Financial Times, January 7, 2013.

the proximate source of the crisis was the systematic mispricing of risk and excessive credit growth in the preceding years, many factors contributed to the global financial crisis.²⁴ Two stand out. Some have pointed to fundamental underlying trends in advanced country economies, particularly the slowing of growth owing to the shifting demographic composition of the population, as labour force participation rates of the aging "baby boomer" generation fell and the harvest of "low-lying fruit" of technological innovation, which had sustained earlier periods of high growth.²⁵ In this narrative, financial systems in key major economies were deregulated while policy actively encouraged credit expansion and reduced taxes in an effort to sustain growth at levels not supported by underlying productivity levels.²⁶

At the same time, the so-called "great moderation," during which global growth expanded for a sustained period, bred a culture of complacency.²⁷ Rather than a fortuitous long string of favourable "draws," this remarkably benign period of strong, stable growth and low inflation was widely attributed to better inventory control, an increased share of services in advanced economies and the adoption of sound policy frameworks that led to a reduction in underlying systemic risk. In hindsight, the reliance placed on inflation targets as the sole indicator of macroeconomic sustainability was misplaced, as monetary policy accommodated growing imbalances and deferred adjustment, resulting in larger domestic imbalances as money flowed to real estate and other asset markets.²⁸ In any event, the combination of these effects weakened

incentives to undertake risk assessments and contributed to a search for yield — which ultimately led to efforts to increase leverage and regulatory arbitrage through unregulated off-balance-sheet structures.

In view of these effects, the initial response to the crisis was a flurry of regulatory measures to address the weaknesses revealed. Banking sector reforms include measures to raise the costs of engaging in inherently risky activities to encourage banks to internalize risky activities. At the same time, Basel III requirements for more and better-quality capital and liquidity buffers have been adopted and will be implemented over time.

In addition, given the extent to which financial institutions and markets across countries had exposures to similar risks leading up to the crisis, and responded in a similar manner, considerable efforts to address system-wide risks through so-called macroprudential regulation and supervision have been undertaken. Broadly, two types of systemic risks to the financial system have been identified: resiliency risks, which reflect a concentration of risks at a point in time because of similar exposures; and procyclical risks, which cumulate over time and reflect the tendency of the financial system to procyclical behaviour. A number of macroprudential tools have been developed as a first line of defence against the build-up of systemic risks.

A range of issues remain to be addressed, notwithstanding these efforts. Especially noteworthy is international financial regulatory reform, including strengthened cross-border resolution regimes, rules and regulation on trading, clearing and reporting of over-the-counter derivative contracts, and a framework for understanding and mitigating potential risks from the so-called "shadow banking system," which operates outside the regulated banking sector.²⁹ In addition, basic issues — associated with limits on institutional structures, such as separating some risky activities from funding sources with an explicit government-backed guarantee, limits on proprietary trading (the so-called Volcker Rule) and containing the "too-big-to fail" problem — remain. And we are very early on in our design and use of macroprudential tools in addressing financial imbalances and system risks.

All of these issues will take time to resolve. In the meantime, as IMF staff note, there are growing concerns that new financial instruments are being developed to circumvent these measures and that some reforms could provide a barrier to competition, providing an advantage of scale to

²⁴ See, for example, "Conclusions of the Financial Crisis Inquiry Commission" in The Financial Crisis Inquiry Commission, *The Financial Crisis Inquiry Report: Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States*, submitted pursuant to Public Law 111-21 (January 2011), available at: www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf.

²⁵ See Tyler Cowen, *The Great Stagnation: How America Ate All the Low-Hanging Fruit of Modern History, Got Sick, and Will (Eventually) Feel Better.* (New York: Dutton, 2011).

²⁶ See Raghuram Rajan, "A Crisis in Two Narratives," Project Syndicate, January 27, 2012, available at: www.project-syndicate.org/commentary/a-crisis-in-two-narratives.

²⁷ The global economy has experienced four recessions since World War II — 1975, 1982, 1991 and 2009. Seven years separate the first three episodes; 18 years elapsed between the third and fourth. See: M. Ayhan Kose, Prakash Loungani and Marco E. Terrones, "Tracking the Global Recovery," *Finance & Development* 49, no. 2 (June 2012), available at: www.imf.org/external/pubs/ft/fandd/2012/06/kose.htm.

²⁸ In an environment of major structural change in the global economy—especially the integration of key emerging markets—that put downward pressure on goods prices, inflation targeting failed to signal growing problems in asset markets. In hindsight, it is clear that price stability was a necessary and not a sufficient condition for financial stability. That said, even before the crisis some observers warned presciently against placing too much reliance goods price inflation. See William R. White, "Is Price Stability Enough?" Bank for International Settlements Working Paper No. 205 (April 2006).

²⁹ The threat is panicked "runs" on unregulated shadow banks that subsequently put pressure on governments to intervene to prevent dangerous spillovers to regulated financial institutions and the real economy. See "Strengthening Oversight and Regulation of Shadow Banking: A Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities," Financial Stability Board Consultative Document, November 18, 2012, available at: www.financialstabilityboard.org/publications/r_121118a.pdf.

large, complex institutions that are better able to absorb the costs of regulatory compliance.³⁰ Moreover, the initial burst of activity has given way to questions about the pace and effectiveness of some reforms. In this environment, three legacy effects stand out:

- The St. Augustine's prayer problem. Concerns have emerged that, however desirable over the medium term, Basel III requirements to augment capital pose a threat to short-term economic prospects. Banks that are required to increase capital ratios can meet higher ratios by either raising capital or shedding assets. In the current uncertain environment, banks can raise new capital only by paying a high premium; the alternative is to reduce assets through a process of deleveraging. The former implies that firms that need access to capital for financing production or investment are denied resources, with a negative effect on economic activity. Given the very high leverage of many euro-area banks before the crisis, combined with the continuing financial disruption in the euro zone, this effect is especially worrisome in Europe. In any event, this concern has led some to argue that, while stronger prudential standards are needed, they should be deferred until the recovery is well and truly established.31
- Balancing efficiency and stability. Another legacy of the global financial crisis is the need to establish the appropriate balance between two key public policy objectives: efficiency and stability. The financial system that led to the global financial crisis was incredibly efficient — by facilitating leverage, a small amount of capital was transformed into an enormous pool of assets. The problem was that the system was also very unstable, with profound consequences to individual countries and the global economy. In the wake of the crisis, the natural inclination is to prevent a repetition of this experience. That is to be expected. However, regulatory reform should avoid an over-correction; moving from a system that is too "efficient" in terms of generating assets, to a system that is so "stable" that it does not provide the capital needed to finance the innovation required to successfully address the challenges that must be confronted over the medium term, including climate

change and the problems associated with looming demographic changes.

Rehypothecation and the risk of collapsing collateral.³² The third legacy effect reflects the means by which the financial system was able to leverage small amounts of capital into very large asset books. This process was made possible by the use of highly liquid assets — typically, highly rated sovereign bond issues pledged as collateral to support more complex and highly levered transactions ("rehypothecation").33 Given the increase in debt burdens in key advanced economies, the deterioration in credit ratings of many countries and unconventional monetary measures that entail the purchase of these instruments by central banks, the concern is that the available stock of collateral is shrinking as bonds eligible to perform this role are, in effect, "locked away" in central bank vaults or subject to "haircuts" (discounts) by regulatory or private sector authorities.34 At the same time, regulatory measures to strengthen the overthe-counter derivatives market, such as a central clearing of those derivatives and prospective margin requirements for transactions, are likely to increase the demand for high-quality collateral. The effect is to impart a deflationary shock on an already-fragile global economy.

These effects underscore potential time consistency problems with respect to financial policies: strengthened prudential standards may pose a constraint on short-term economic growth, but failure to implement such measures risks a repetition of the excessive risk taking and search for yield that characterized the lead up to the last crisis in an environment of unconventional monetary policy measures — the monetary policy put.

³⁰ See chapter 3 (IMF, 2012a).

³¹ In January 2013, these concerns led to the relaxation of proposed Basel III liquidity requirements. The new guidelines, it has been agreed, will be phased in at a slower pace, allowing for full implementation by 2019. In addition, the menu of assets that can be used to meet liquidity requirements was broadened, and underlying assumptions regarding deposit outflow rates and resulting liquidity requirements were relaxed. See Bank for International Settlements, *Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, January 6, 2013, available at: www.bis.org/publ/bcbs238.htm.

³² See Manmohan Singh and James Aitken, "The (Sizable) Role of Rehypothecation in the Shadow Banking System," IMF Working Paper WP/10/172, July 2010, available at: www.imf.org/external/pubs/ft/wp/2010/wp10172.pdf.

³³ The remarkable increase in assets that could be securitized was facilitated by the shadow banking system, which was subject to a "light touch" regulation. The underlying rationale for this approach was that the use of high-quality collateral, in conjunction with strong market forces, would ensure appropriate risk taking and the distribution of risk to informed investors with the financial acumen and wherewithal to bear the risk. See Manmohan Singh and Peter Stella, "Money and Collateral," IMF Working Paper WP/12/95, April 2012, available at: www.imf.org/external/pubs/ft/wp/2012/wp1295.pdf.

³⁴ An interesting historical analogy is the impact of gold hoarding by central banks in the dysfunctional gold standard of the inter-war period in the early twentieth century, as some central banks, notably the Banque de France and the Federal Reserve, sterilized the effects of gold inflows, thereby destroying global liquidity and forcing deficit countries into debt deflation. The resulting problem of insufficient global aggregate demand accounts for the subsequent stagnation that characterized the first half of the 1930s.

WHAT WE NEED GOING FORWARD: RECOMMENDATIONS FOR RECOVERY AND DURABLE GROWTH

These features of the financial crisis point to a legacy of debt overhang and impaired balance sheets across countries and sectors of economies. While some advanced economies and emerging market economies are not affected by these challenges, in many advanced economies, public debt burdens are at levels last seen at the close of the World War II.³⁵ In contrast, balance sheets of private non-financial firms are flush with cash; yet firms have been reluctant to invest, perhaps because of pervasive uncertainty about future policy frameworks and political gamesmanship, as well as future demand. Dealing with this debt overhang, from both a debtor and a creditor perspective, in order to restore the health of private- and public-sector balance sheets, represents the basic challenge facing the global economy today.

More than six decades ago, a similar challenge was addressed by a judicious mix of adjustment options that included sound fiscal management and monetary policy targeted at restoring full employment, as well as the Bretton Woods system of managed exchange rates, which provided a framework for international monetary cooperation. Of course, the situation then was vastly different from today's conjuncture. The Bretton Woods system was supported by the widespread use of capital controls, which assuaged the problem of the international "trilemma" under which a country could choose to have an independent monetary policy, a fixed exchange rate and an open capital account, but not all three — the choice of two determined the third. Capital controls also allowed governments straining under high debt burdens to engage in financial repression through prudential and monetary policy regulations to create an inelastic demand for public debt. Under this policy framework, modest levels of inflation together with high tax burdens gradually eroded debt burdens.36

This policy assignment is not possible today, in an environment of open capital accounts, highly integrated financial systems and footloose, internationally mobile

capital, nor is it desirable. In addition to the gains from trade in goods and services facilitated by the system of open, dynamic international trade and payments system painstakingly constructed over the past 70 years, which has fostered the economic, social and political development of key emerging economies, there are important gains to be reaped from inter-temporal trade. These gains reflect the fact that aging populations in capital-rich advanced economies will need to channel savings into high-return projects in younger, dynamic emerging market economies that have very large requirements for public infrastructure and other investments. But this felicitous outcome is the inverse of recent experience: prior to the crisis, most advanced economies were characterized by insufficient savings and an excess of consumption and investment (much of it channelled into real estate) financed by key emerging market economies.

Although these imbalances have been reduced, largely as a result of the global crisis, the various legacy effects discussed above pose serious obstacles to a path of global adjustment consistent with full employment. Addressing them will require careful policy design and the rigorous implementation of measures to assuage the time consistency problems associated with them, and policy makers will, arguably, need to adopt longer time horizons than has been the recent experience.

In practical terms, this points to three areas of critical focus.

First, it means a medium-term orientation and a better coordination of macroeconomic policies to restore full employment and resolve unsustainable debt levels. Among sovereign borrowers, where the solvency of the sovereign is not in doubt, sufficient and timely levels of liquidity support are critical. Over the medium term, fiscal consolidation is clearly part of the solution, especially where sovereign borrowers have lost access to private capital markets. But austerity alone is not the answer; certainly not in situations of insolvency. In these situations, there is also the need for the acceptance of timely and orderly debt restructuring to place the long-run health of sovereign balance sheets on a sustainable track and, thereby, encourage growth.³⁷

Policy makers must also coordinate more closely to ensure that fiscal and monetary policies do not work at cross-purposes. Canada's successful fiscal stabilization, as documented by the IMF staff, provides a good example (IMF, 2012b). In some advanced economies, monetary policy must support growth, where necessary, by raising inflation targets and adopting extraordinary measures to

³⁵ Moreover, it could be argued that all countries are affected by the indirect effects of these legacies, either in terms of lower global growth or by the impact of policies adopted to deal with these legacies as discussed below.

³⁶ In effect, the combination of the inflation tax and taxes on labour and capital worked on both the numerator and the denominator of the debt-to-GDP ratio. Modest inflation grew nominal GDP (the denominator) while high tax revenues has a share of GDP reduced the numerator. In a sense, the use of the inflation tax is supported by public finance theory, which suggests that an efficient tax is one that is levied on the broadest possible tax base at a low marginal tax rate.

³⁷ Similarly, in some cases, measures to facilitate the timely, orderly restructuring of excessive private debts — especially real estate debt, the foreclosure and liquidation of which threaten a vicious cycle of the fire sale of assets that potentially distorts the incentives to service the stock — may be required to resuscitate growth going forward.

help expectations break free of the liquidity trap. Over the medium term, monetary policy should be supportive of fiscal stabilization efforts. Moreover, authorities must map out credible fiscal consolidation plans that preserve access to capital markets while not impairing short-term recovery. The problem faced here is the difficulty of pre-committing future governments, particularly in the face of political gridlock, and given the potential loss of social consensus in support of fiscal consolidation.³⁸ In the absence of such coordination, the result can be damaging "policy games" reminiscent of a war of attrition. In this respect, political gridlock in the United States and the absence of a credible medium-term strategy for restoring fiscal sustainability has led to a situation in which the Federal Reserve has had to adopt unconventional measures to guard against the "tail risk" of deflation. Done well, the result can support good outcomes; ill-conceived, poorly executed or lacking necessary support from the fiscal authorities, such efforts could foster expectations of inflation and contribute to stagnant productivity growth reminiscent of the 1970s.39

Second, there is a need to build a stronger global financial system. Banks must hold higher levels and a better quality of capital. A simple, effective leverage standard is required. In addition, through the work of the Financial Stability Board, a solution to end "too-big-to-fail" must be put in place, and the oversight and regulation of the shadow banking system (i.e., credit intermediation outside the banking system, such as hedge funds) must be greatly strengthened (Carney, 2012). In this respect, it is important to recognize that the likely effect of proposals to restrict the ability of regulated banking entities to engage in certain prescribed risky activities, as mandated under the Volcker Rule and similar national and international rules,

38 Conceptually, the goal is to create a set of policy rules that tie fiscal policy to the state of the economy: to provide stimulus when the economy is weak and renormalize policy once the economy has returned to full economy. In effect, the result would be fiscal counterpart to the Fed's commitment to keep interest rates at current low levels until labour market conditions improve and key thresholds are crossed. See, for example, Larry Summers, "How to Ensure Stimulus Today, Austerity Tomorrow," *Financial Times*, March 25, 2012, available at: www.ft.com/intl/cms/s/2/52818152-74d8-11e1-ab8b-00144feab49a. html#axzz2IzjW7XQh. The difference between fiscal and monetary rules is that, as a quasi-independent institution, the Fed is capable of making credible commitments to such state-contingent policy rules. It is far more difficult to bind legislatures to fiscal measures that are conditional on the state of the economy.

39 The issue of whether — and under what conditions — extraordinary monetary policy responses could lead to undesirable outcomes is the subject of considerable controversy and continuing debate. It has been argued, for example, that in the absence of fiscal authorities' full backing of the central bank's balance sheet, an exit from quantitative easing would be inflationary and that central banks cannot successfully unwind inflated balance sheets. The conclusion is that fiscal authorities' full backing of the monetary authorities' quasi-fiscal operations is a precondition for effective monetary policy. See Seok Gil Park, "Central Banks Quasi-Fiscal Policies and Inflation," IMF Working Paper WP/12/14, January 2012, available at: www.imf.org/external/pubs/ft/wp/2012/wp1214.pdf.

is to "migrate" these activities to unregulated parts of the financial system with potential systemic implications in the event of future shocks. ⁴⁰ More generally, there is a need to challenge the traditions of efficient markets and rational expectations in light of what now appears as intrinsic instability in critical parts of the global financial system.

At the same time, legacy effects of the crisis impinge on financial sector reform. Of particular concern is the potential impact of shadow banking and the scope for the private sector to develop new instruments to circumvent the effects of regulation. Such considerations suggest that a new approach to regulation may be required — one that is more flexible and targeted to striking a judicious balance between the key public policy objective of stability and the need for efficiency and innovation. One approach would be to hold national regulators accountable for outcomes, not the enforcement of specific regulations of ever-increasing complexity that breed yet more complexity and, ultimately, greater uncertainty.⁴¹

Third, while better coordination of policies at the national level, and strengthened financial sector regulation and prudential supervision are necessary conditions for the resolution of current imbalances in the global economy consistent with full employment, they are not sufficient conditions. In this respect, the global nature of the financial crisis has refocused the policy debate back on the interconnectedness and spillover effects among countries, which have become more complex than previously understood or recognized. The depth and breadth of these interdependencies demand collective action. Put differently, in today's highly integrated global economy, externalities and spillovers must be recognized and evaluated when designing and setting domestic policies. This is where the G20 needs to step up and provide global leadership (Subacchi and Jenkins, 2011).

This is easier said than done.

⁴⁰ See Julian T. S. Chow and Jay Surti, "Making Banks Safer: Can Volcker and Vickers Do It?" IMF Working Paper WP/11/236, November 2011, available at: www.imf.org/external/pubs/ft/wp/2011/wp11236.pdf, and Zoltan Pozsar and Manmohan Singh, "The Nonbank-Bank Nexus and the Shadow Banking System," IMF Working Paper WP/11/289, December 2011, available at: www.imf.org/external/pubs/ft/wp/2011/wp11289.pdf.

⁴¹ See Andrew G. Haldane, "The Dog and the Frisbee," speech given at the Federal Reserve Bank of Kansas City's 36th Economic Policy Symposium, "The Changing Policy Landscape," August 31, 2012. Available at: www.bankofengland.co.uk/publications/Documents/ speeches/2012/speech596.pdf. Such an approach would require investing regulators with some degree of constrained discretion. See James A. Haley, "Is Constrained Discretion the Future of Global Financial Regulation?" The New Age of Uncertainty (blog), CIGI, April 18, 2012, www.cigionline.org/blogs/new-age-of-uncertainty/constrained-discretion-future-of-global-financial-regulation. As one commentator points out, however, the incentives of the regulators would be to err on the side of caution and impose additional restrictions, creating a tension with the need to balance efficiency and innovation with safety.

The extraordinary measures that prevented a catastrophic collapse in output in the autumn of 2008 reflected an unprecedented degree of international cooperation that was made possible because of the common threat that confronted all G20 members. As noted, however, these policies, adopted to prevent global economic collapse, have created new challenges to effective cooperation. As a consequence of these measures, capital flows have increased to the dynamic emerging economies that are growing rapidly and offer the prospect of higher returns.

These countries are, understandably, concerned about the impact of these inflows, and as a result, they have implemented prudential capital controls to limit the appreciation of their currencies. In part, this response may reflect a desire to maintain the current account surpluses that have provided a cushion of foreign exchange reserves. From the perspective of individual countries, this process of self-insurance through reserve accumulation is a sensible, prudent strategy. Indeed, it can be argued that self-insurance has served the dynamic emerging economies well, given the limited impact of the crisis on their economies and the rapid recoveries they have enjoyed.

From a global perspective, however, efforts to resist the exchange rate adjustments that are required to facilitate global rebalancing pose a risk of insufficient global aggregate demand. Of course, real exchange rates will adjust over time, notwithstanding efforts to block the adjustment process. And this, in turn, implies that the real exchange rate adjustments required to facilitate the needed rebalancing must come from inflation in surplus countries and deflation in deficit countries.⁴² Such adjustments would be inconsistent with the goal of strong, sustained and balanced growth.

The imperative is to avoid the problem of insufficient global aggregate demand reflecting the Keynesian paradox of thrift that could result if every country tried to grow through net exports. With most advanced economies and Europe generally needing to undertake fiscal consolidation in light of their sovereign debt problems, China and other major advancing countries may need to re-orient their growth models toward one that places greater reliance on domestic demand. In fact, fiscal consolidation in advanced countries should motivate action in emerging economies to support economic growth through domestic demand in the face of weaker exports. To some extent, this process may already be under way, with some emerging markets recording current account deficits. More broadly speaking, these analytics highlight the importance of

interdependencies and understanding spillovers as part of the collective action problem of global rebalancing.

Structural reforms can help to facilitate real exchange rate adjustments and reduce the potential costs associated with the adjustment process. Moreover, for advanced economies facing the challenges of demographic change, structural reforms are required in a range of sectors in order to deal with prospective labour shortages, but also to contain health care costs. Such changes take time to implement and take effect, however. In the meantime, the G20 Mutual Assessment Process remains the best hope for securing the timely, orderly rebalancing of the global economy that is needed to avoid a disruptive scenario. This will take a shared analysis of the problem and a renewed commitment to cooperation to support the goal of an open, dynamic international trade and payments system.

The IMF can help to reanimate this shared commitment and to support cooperative agreements, but only if it is viewed as legitimate, credible and effective by its members. In this respect, the crisis has served to underscore the need for governance reforms to allow the institutions of international cooperation to assist their members in dealing with the challenges they face, and ensure that the global economy remains a source of growth and development. Moreover, the Fund must articulate a clear, consistent message on the role of monetary and fiscal policies in key economies confronting the risk of prolonged economic stagnation. Absent effective global leadership from the international financial institutions (IFIs), individual national self-interest will prevail, and effective international cooperation will remain merely an aspiration.

CONCLUSIONS: GLOBAL REBALANCING — A QUESTION OF LEADERSHIP

The question today is whether the G20 is capable of providing the collective leadership that is required to deal with the formidable challenges that its members must address. With dynamic emerging economies growing in economic size and exercising their voices in international fora, the United States handicapped by fiscal challenges and political paralysis, and most other advanced economies preoccupied by their economic, financial or monetary challenges, neither the United States alone nor the Group of Seven collectively has the capacity to project its will on the rest of the international community. This is evident in a number of areas, including multilateral surveillance and the issue of global adjustment, as well as providing the resources needed for the provision of critical public goods and reforms to the IFIs.

The G20 has assumed de facto responsibility for global economic and financial management, but collective leadership is difficult — the more so the larger the number

⁴² However well designed, over time, prudential controls will become porous and subject to regulatory arbitrage as financial instruments designed to circumvent controls are developed. The eventual result would be an increased risk of financial instability.

of players, reflecting a fundamental trade-off between effectiveness on the one hand, and representation on the other. Moreover, the creeping expansion of the G20 agenda beyond the core economic and financial base is worrying. The legitimacy of the G20 was established by the unprecedented degree of cooperation that members demonstrated to prevent a catastrophic collapse in global output, employment and trade. While broadening the agenda allows members to claim success on an issue of their interest or to "commit" to actions they were going to do in any event, it does not address the real economic problems in the global economy, which gave the G20 process legitimacy.

That said, the combination of adjustment challenges in the advanced economies and frustration over voice and representation in global financial institutions by key dynamic emerging markets could pose a risk to the global economy. As Mervyn King, governor of the Bank of England, has mused, the concern is that G20 countries have lost their sense of common purpose that produced the remarkable response to crisis in late 2008 and early 2009.43 In this environment, there is a danger of new currency wars and protectionist trade measures as every country attempts the logical impossibility of expanding domestic employment through exports. Most disconcerting is the possible retreat from the cooperative arrangements built on the foundations of the Bretton Woods conference, which would be hugely disruptive. Fortunately, the cornerstones of those foundations remain — the IFIs are the key institutions of international cooperation, assisting their members through the provision of key public goods. In this respect, they have demonstrated their usefulness in the midst of the crisis by helping mobilize a concerted international response to the threat of economic collapse. Going forward, however, governance reforms are required to ensure IFIs are viewed by their members as legitimate, credible and effective. That is the fundamental challenge of collective leadership posed by the global crisis.

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⁴³ See Mervyn King, Speech given at The Economic Club of New York, December 10, 2012, available at: http://econclubny.com/events/Transcript_MervynKing2012.pdf.

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Barry Carin

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STRENGTHENING INTERNATIONAL FINANCIAL INSTITUTIONS TO PROMOTE EFFECTIVE INTERNATIONAL COOPERATION

Thomas A. Bernes

The current global financial crisis resulted from the failure of major economies and global institutions to address emerging fault lines in global financial markets and global institutions. No single country has the ability or resources to fix things on its own — a near-unprecedented degree of collective action is required.



A POLICY MISMATCH: CANADA AND THE UNITED STATES IN THE ASIA-PACIFIC REGION

James Manicom

The United States and Canada, two of the world's closest allies, have reinvigorated their diplomatic and military postures toward the Asia-Pacific region. On balance, however, Canada may not be an ideal Pacific partner for the United States.



ANOTHER FINE MESS: REPAIRING THE GOVERNANCE OF INTERNATIONAL FINANCIAL REGULATION

Pierre Siklos

Five years after the onset of the global financial crisis, policy makers seemingly continue to believe that the severity of any crisis-led downturn can be divorced from its source. Credibility in new international regulatory frameworks must begin at home with a determination for monetary policies to work together.



POST-2015 DEVELOPMENT AGENDA: GOALS, TARGETS AND INDICATORS

Barry Carin et al.

This special report examines the targets for the UN Millennium Development Goals (MDGs) that have been met and considers the global implications of the remaining unmet goals. The report reviews a menu of indicators for the candidate goals to inform the future process of selecting the post-2015 successors to the MDGs.



LEADERSHIP IN A TURBULENT AGE

Fen Osler Hampson and Paul Heinbecker

Sound economic policies, which are in short supply in most key nations of the world, are fundamental to national security and international leadership. The United States must work alongside others — and accept that others will sometimes work together without it — to deal with a wide range of persistent and emerging global problems and issues.



FROM BRETTON WOODS TO THE EURO: HOW POLICY-MAKER OVERREACH FOSTERS ECONOMIC CRISES

Pierre Siklos

This paper considers the relevance of the Bretton Woods system for the prospects of reform of the international monetary system and in the context of the ongoing euro area financial crisis, exploring the challenges that must be met in attempting to reform the current international monetary system and euro area policies.

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