Think Tank 20:

The G-20 and Central Banks in the New World of Unconventional Monetary Policy

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Introduction: The G-20 and Central Banks in the New World of Unconventional Monetary Policy*

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Five years after the first meeting of G-20 leaders, and decisive action by the central banks and treasuries of the world's major economies that prevented the financial crisis of 2008-2009 from turning into a 1930's style world-wide depression, the world economy still remains fragile. The original *fiscal* stimulus agreed upon in the April 3rd 2009 second leader's level G-20 London meeting has been withdrawn in the U.S. and Europe after 2011, not through a coordinated decision of the G-20, but in response to fears of rising public debt and a political process in which these fears came to dominate the debate. In China too, fiscal policy became less expansive, after the mega-stimulus of 2009, although a mini-stimulus has been declared for the summer of 2013 to counter a greater than expected output slowdown.

Monetary policy, however, remained extraordinarily expansionary in the U.S., the U.K., Japan and the eurozone. The balance sheets of the Federal Reserve (Fed), the Bank of England (BoE), the Bank of Japan (BoJ) and the European Central Bank (ECB) expanded by $2 trillion, £310 billion, ¥50 trillion, and €1.5 trillion, respectively between December 2007 and December 2012. The Fed's, the BoE's, the BoJ's and the ECB's balance sheets were as big as 6 percent, 7 percent, 21 percent and 15 percent of their GDP in 2007, whereas in 2012, their balance sheets represented 19 percent, 27 percent, 33 percent and 32 percent of their 2012 GDP levels, respectively. Repeated rounds of quantitative easing no doubt helped the U.S. economy recover, and the actions of the ECB prevented the crisis in the eurozone periphery from spinning entirely out of control. In Japan, renewed monetary expansion has led to significant output growth. While central bank policies have had these effects, there are now growing doubts about the desirability of the continuation of these policies. These doubts stem from the prolonged economic weakness in high-income economies translating into fears that these limited benefits from unconventional monetary policy, "quantitative easing (QE)", may no longer justify the moral hazard and adverse selection that they encourage. Equity prices and prices of riskier financial assets in much of the world seem to have de-linked from underlying real fundamentals, driven by an almost desperate search for yield, in an environment where liquid funds and high quality treasury bonds yield a zero or even negative real return.

The economic backdrop to the St. Petersburg leaders' meeting is one of such very mixed progress and great uncertainty. The essays in this collection contributed by leading analysts from the G-20 countries, reflect that uncertainty and strong concern for the world economy. The worst fears over collapse of the eurozone and major bankruptcies have receded, but growth remains sluggish, job prospects are weak, and many fear new bubbles in some asset and commodity markets. The difficulties of an orderly unwinding of QE policies were clearly shown by the volatile market response to Fed Chairman Bernanke's first statements about the possible timing of QE exit which he essentially had to retract. Many emerging market economies have experienced serious pressures on their exchange rates due to significant weakening of inward capital flows. The first two quarters of 2013 also saw a general slowdown in emerging market GDP growth, although it still remains relatively much stronger, particularly in Asia, than in the advanced economies. The general picture of "trend decoupling" in medium-term growth rates, but continued strong cyclical interdependence among advanced

economies and emerging market economies remains similar to what it has been since the turn of the century.[1] Although it may be that the ongoing eurozone crisis is leading to an "internal divergence" among advanced economies, with the eurozone performing substantially worse than the U. S. and Japan as well as such countries as Canada and Australia. The very strong trade links between the U.K. and the eurozone, as well as the questionable success of its own fiscal austerity, put the U.K.'s performance closer to the eurozone than that of the U.S. or Japan.

The articles in this collection highlight three fierce debates that are ongoing and surround the next G-20 Summit in St. Petersburg.

First, every author signals that weak and erratic effective demand continues to be a drag on global output. But they also highlight concerns over the limits of accommodative fiscal and monetary policy, given the rapid accumulation of public debt and the unprecedented expansion in central bank balance sheets. Many authors question whether zero or negative real interest rates and continued reliance on central bank credit (the ECB) or central bank asset purchases (the Fed, the BoJ, the BoE) will be wise. At the same time, however, large developing country members of the G-20 also have slowing economies. A key question therefore, is whether private demand, including investment demand, can finally be expected to replace monetary stimulus. Ideally, as argued by the IMF, there should be a globally coordinated "world economic policy mix"—with countries having some fiscal space refraining from fiscal consolidation, while others, with higher budget deficits and debt ratios, proceeding with cautious consolidation. Monetary policy should very slowly prepare for an exit from the various extraordinary modes it has been in, but allowing only very slow increases in interest rates. Given the overall weak effective demand conditions, such a policy could be called a "globally-coordinated growth management" policy. While the international spillovers of policy from large countries are obvious (and in some cases becoming larger than ever), the benefits of coordinated macroeconomic policy, very unfortunately, remain largely theoretical, with little evidence that policymakers take IMF scenarios on alternatives seriously and calls for greater coordination.

Second, despite the old adage that "a crisis is a terrible thing to waste", many authors express concern that getting used to very accommodative monetary policy has reinforced the moral hazard that created the crisis in the first place, and is now reproducing the infamous "Greenspan put ". Signs of bubbles and overheating in selected asset markets such as in some developing country sovereign bonds some local government bonds, some commodity markets, and high-end property are noted with concern as evidence that financial markets again display significant speculative risk-taking and carry renewed vulnerabilities. The Chinese contributors even go as far as arguing for a return to the gold standard. There is therefore the longer-term question of what will or should replace both the pre-crisis inflation targeting framework and the current unconventional monetary policy mode? What is or should be the new normal for central banks and monetary policy?

Third, the structural reform agenda concerning financial market regulation, structural fiscal reform, energy pricing and subsidy reform, income distribution, labor market skill mismatches, and other areas has become bogged down in a hostile political environment. Economic recovery in high income countries, weak as it is, has overwhelmingly benefited the top income earners, leaving median incomes unchanged or, in the peripheral European countries, much lower than before 2008. In emerging market economies, income distribution is also of increasing concern. The relatively higher overall growth rates in these countries allow poverty to continue to fall and median incomes to rise moderately, despite a tendency of income gains to favor the very top, not different from what is seen in many advanced economies. The debate over how this is linked to technology and scalable innovations, globalization and competition in labor markets, or simply political power and influence, and what to do about it, remains. The challenge

for political leaders to connect a G-20 agenda supportive of globalization with the concerns of voters is as great as ever.

Central Bank Unwinding and Policy Coordination

QE policies in large advanced economies do seem to have been effective in raising short-term growth rates, reducing long-term interest rates and supporting asset markets. The cost, however, has been an unprecedented expansion in central bank balance sheets. In some countries this has taken the form of bond purchases, in others claims on banks have increased. The other major instrument is forward guidance and shaping of expectations; Mario Draghi's "whatever it takes" remark being the prime recent example of how expectations can be changed with real economic consequences.

In this setting, it is likely to be "forward guidance" that will be the first instrument used to signal an unwinding of unconventional policies. However, this is a blunt instrument and may not lend itself well to coordinated strategies. The impact of forward guidance depends also on context and the likelihood for fiscal and structural policy reforms (and hence the expectations for future growth), something about which there are likely to be sharply diverging views across the world.

The difficulty that is posed is such that in an increasingly connected world, the feedback mechanisms between countries are unpredictable. In a search for yield, foreign investors had sharply increased their holdings of Mexican, Turkish and South African treasury securities. If yields rise sharply, these investors could see significant reductions in the value of their holdings. If monetary authorities have full information on the foreign asset holdings of their residents, they can factor in these losses into their determination of the best monetary policy. But in the absence of full information, there can be unpredictable losses among investors that can have spillovers into other parts of the financial system. How large these losses may be, and whether they are of sufficient magnitude to warrant the attention of policymakers is one of the new considerations that needs to be taken into account in determining how to unwind expansionary monetary policy. The issue of policy coordination, therefore, has evolved from working through the benefits of joint actions that could lead to a superior global outcome, to also considering the nature of the informational requirements each central bank needs to decide on an optimal monetary policy for its own country.

Moral Hazard and Risk

The 2008 economic crisis has been attributed, at least in part, to a long period of easy money and an associated under-pricing of risk. A concern that is reflected in almost every paper in this collection is that the recent period of QE and unconventional monetary policy, while desirable for macroeconomic demand-management reasons, might have within itself the seeds of the next crisis—driven again by an under-pricing of risk. Asset bubbles in places as disparate as the London property market, Chinese local governments, some sovereign bonds, are indicators of potential risk.

Several authors stress two issues in managing risk. First, governments and fiscal authorities have a dominant role to play in ensuring that risks are contained. A strong sovereign fiscal situation is the best safeguard against a range of unpredictable outcomes. Second, risk needs to be better diversified within economies. As long as risks are disproportionately concentrated in banks, they will become more of a concern and more closely tied to the fiscal health of sovereign states. When capital markets spread risk more broadly, there is likely to be less pressure on governments for bailouts in the event of bad economic outcomes. But building effective capital markets is a complex process requiring regulations to ensure "fairness, integrity and transparency", as one paper suggests. More broadly, as financial products become more sophisticated and globalized, international harmonization of capital market regulations becomes desirable, something on which there has been limited progress and on which prospects for future progress appear dim.

In this environment, there is considerable concern over how unconventional monetary policy in major money centers will evolve. Those countries that have relied on the availability of predictable, risk-free assets in global money centers must now take more responsibility for their own monetary stability. The period of free-riding on global financial stability may be ending.

Structural Policies and Growth

Unconventional monetary policy has been successful in stabilizing financial markets, but far less successful in achieving the "strong, sustainable and balanced growth" that the G-20 seeks to achieve. In high-income economies, especially in Europe, employment remains the major concern; the transmission mechanism from monetary policy to jobs has been very weak in an environment where households and corporations have been deleveraging. All the authors in this collection call for more forceful action on structural reforms; few express optimism that such action will happen with sufficient speed.

The question for G-20 leaders is whether the forum can be used to accelerate structural reforms through an informal pact to regenerate faster global growth. They face strong headwinds in doing so.

First, there remain sharp ideological divides over major aspects of policy. Many of the promises that have been made by governments across the world need to be revisited. That is true of some of the across-the-board entitlements in high-income countries as well as the also often across-the-board subsidies in many developing countries (fuel subsidies in particular). Programs promoting health, education, social security, energy, water and other areas have price tags that are less affordable in current circumstances. Continued growth in public spending within the old policy frameworks would divert resources from urgent investments in infrastructure and targeted quality improvements that may be needed for a long-term growth agenda. At the same time, the poorest and most vulnerable segments of most societies remain in need of social support, in some cases, more than ever. In the peripheral European economies, poverty has actually increased in a way unseen for decades. The quality of fiscal adjustments deserves as much attention as the quantity, but the latter gets all the headlines.

Second, there is a sharp divide as to whether globalization and international economic cooperation is a positive or a negative force for structural reform. The intertwined questions about the roles of globalization versus technology as a cause for the observed increases in inequality and the concentration of income at the very top remain, but with conventional wisdom increasingly attributing slow wage gains and employment in high-income countries to automation, global factors and the integration of major emerging economies into the global trading system. With this backdrop, global trade talks are stalling over issues of the distribution of the gains from trade, and more attention is being paid to regional and bilateral trade agreements among more like-minded countries. Regionalism and country blocs are replacing multilateralism and global agreements as a pragmatic way to advance structural reforms.

In some instances, a regional focus is appropriate. Structural reforms in the eurozone may have as much to do with policy reforms and the distribution of benefits between surplus countries in Northern Europe and deficit countries in Southern Europe, as with the evolution of the global economy. On the other hand, as Pascal Lamy, who is ending his two terms at the head of the WTO, has been stressing in his "legacy" speeches, that replacing the more universal and multilateral WTO negotiating framework, with "coalitions of the willing" mostly involving the more powerful economies, will hurt those left outside these possible regional agreements, Africa in particular.

Concluding Remarks

The main drivers of the global economy for the last five years have been the central bankers of the world's major economies. But the papers in this collection suggest that they may have spent much of their ammunition. Monetary policy, like fiscal

policy before it, may have reached its limits. Most authors, though not all, see the unconventional policies of the last five years as a necessary price that had to be paid in order to prevent a global depression. Many doubt that these policies can continue, and yet they worry about how the "exit" will be managed. All see a desirable passing of the baton of priority instruments towards structural reforms, and better quality fiscal adjustments. The commitments that are made on this agenda could be the foundation upon which forward guidance and the unwinding of QE policies can take place in a both cautious and credible fashion.

The challenge of the G-20 Summit is to move beyond the state of complacency and acceptance of slow structural reforms to an *accelerated program of action*. In the best of worlds, decisive structural reforms, as well as macro-economic policy adjustments would happen in a coordinated way among the major economies that are represented in the G-20. More likely though, policy will unfold in a variety of ways, framed by national political debates but supported also by other regional forums, and still broadly inspired by the G-20 process. In the worst of worlds, G-20 leaders will retreat into the narrow spaces entirely constrained by their own domestic politics. That would prolong the uncertainty over the direction of long-term policymaking that continues to dampen economic recovery and fuel the frustration of many throughout the world with the way in which global interdependence is managed.

The G-20 process has lost a lot of its initial force and promise. Make no mistake, however; it has contributed to managing the crisis that erupted in 2008. The global economy is and will remain very interdependent and there are large gains to be realized through intelligent coordination. These gains could produce more rapid growth as well as more equitable and balanced growth. We hope that the excellent essays in this collection, coming from a multitude of different perspectives, will be widely disseminated and read across national borders and continents. The G-20 process must involve much more than the meetings of leaders and the negotiations of civil servants and bureaucrats. For the G-20 to survive and to thrive again, it must involve very strong academic, business, labor and civil society engagement. We hope that these essays provide a good example of such engagement and we are grateful to all the contributing authors and cooperating institutions. This is a joint effort by all of us, to be disseminated by all of us cooperating in this venture, with the objective of supporting better policies, greater understanding of different perspectives and more effective international cooperation.

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Argentina's Debt: the Good, the Bad and the Ugly

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The saga of Argentina's debt includes many myths, mysteries and challenges. In 2005, four years after the default at the end of 2001, the government managed to restructure the debt with a large 66 percent haircut. Two years later, the credit spreads measured by the Emerging Market Bond Index (EMBI) had dropped from over 6000 basis points (bps) in 2005 to just 200bps in 2007, similar to the levels of Brazil. This was the good part, when markets seemed to have forgiven the sins of the past and gave Argentina the benefit of the doubt. Argentina was perceived to have had left its debt problems behind and that going forward, it would be a credit worthy country.

One myth is that Argentina's haircut in its 2005 debt restructuring was huge. In fact, it ended up being not as large as was thought, mainly because the government included in its offer a warrant linked to GDP growth that allowed the exchange bondholders to receive extra payments if the economy were to grow more than 3.25 percent per annum. This ended up being very costly for Argentina and a good deal for the bondholders. Investors attached almost no value to the warrant at the time of the exchange, but they received the equivalent of over 30 percent of the face value of the defaulted bonds (in other words, almost as much as they received in new bonds and hence the overall haircut ended up being less than 40 percent). This was clearly a poor policy decision which raises questions on how to design GDP warrants in future sovereign debt restructurings.

One of the mysteries is how Argentina managed to achieve a 78 percent acceptance of an offer that, at the time, looked extremely harsh. There are at least two explanations. First, when the initial offer was presented in early 2005 in Doha, the actual value was estimated at $18, implying an 82 percent haircut. By the time the exchange offer was actually launched at the end of 2005, the same offer was valued at around $33, mainly thanks to significant tightening of the spreads of emerging market sovereign bonds. The second reason was that investors felt they had few options to get paid if they rejected the offer.

One important lesson from the Argentine debt restructuring is that creditors do not have many levers to collect funds from a sovereign country that does not want to pay. A country can get away with a lot and avoid sanctions for quite a long time. The vulture funds, or the "Elliots" of this world, have been litigating against Argentina, trying to attach assets for more than eight years to no avail until very recently. Argentina had no access to international financial markets and was forced to hide its assets (primarily using the Bank of International Settlements) to avoid attachments, but to the extent that Argentina could abstain from borrowing abroad made it difficult for foreign creditors to collect from the country.

The good times did not last very long. Argentina made two important policy mistakes that eventually proved to be very costly. First, it manipulated the consumer price index to erode the value of the local currency-indexed debt, a decision that many investors viewed as a "technical default". Second, it stayed away from the international financial markets, as part of a policy decision of debt reduction which in practice implied that the government was not going to issue new debt.

This second decision meant that debt service (both principal and interest) had to be met with

international reserves in a situation in which there was no lender of last resort (the IMF was not an option). This concept of debt reduction was "extreme" and difficult to maintain in years in which the government was running fiscal deficits or in which it faced large principal payment obligations in foreign currencies. It would have been more reasonable to state an objective of reducing the debt to GDP ratio over time or to change the profile of the debt (increasing the share of local currency). Debt became a political target and there was a view by the authorities that issuing debt amounted to a return of the demonized nineties. Instead, they preferred to rely on an inflation tax or on reducing the stock of international reserves.

The reluctance to issue debt made the economy extremely vulnerable. While the strategy was viable in good times when reserves were rising, it was potentially risky in periods when reserves were dropping. This was the bad part that eventually materialized and lasted from mid-2007 to 2011, when Argentine spreads increased relative to those of Brazil and became closer to those of Venezuela.

We are now facing the ugly part of the debt saga as the situation took a turn for the worst following a number of adverse events. First, the external situation became more complicated in 2011, due to the Greek *de facto* involuntary debt restructuring. Then in 2012, Argentina's policy decision to nationalize the oil company Yacimientos Petrolíferos Fiscales (YPF) without any payment to Repsol, and the forceful conversion of some provincial dollar debt (pesification) issued under domestic legislation added to fears.

Two issues complicated the situation further. First, back in October 2012, the New York Court of Appeals in the U.S. ratified a lower court ruling that required Argentina to pay $1.3 billion to the bondholders of defaulted bonds (mainly vulture funds), either voluntarily and directly to the creditors, or alternatively by forcefully attaching a proportion of the funds that Argentina was transferred for the payments of the performing bonds. This decision, which at the moment has been appealed and a ruling is still pending, implies that there could be a new default on Argentina's debt. In contrast to the 2001 default, it would not reflect insolvency or lack of funds but instead reflect an unwillingness to settle with holdouts.

Following the October ruling, Argentine credit spreads increased dramatically, especially the credit default swap (CDS) which reached 3,500 bps, as the market anticipated a high risk of default in the bonds issued under foreign legislation. The effect on the domestic legislation bonds was much smaller, as the market believes that they have a smaller credit risk.

The second complication was the large drop in international reserves, from a peak of $52 billion in mid-2011 to $37 billion more recently. This drop in reserves led to the imposition of strict foreign exchange controls in 2011, which in turn led to the emergence of a parallel exchange rate. The spread on Argentina's sovereign bonds has increased dramatically in 2013, averaging 60 percent, putting pressure on reserves and forcing the government to tighten controls even further.

The twin credit and foreign exchange spreads are complicating macroeconomic management, especially because in the absence of a major change in policies, it is difficult to reverse the fall in international reserves while the current environment is negatively affecting investment and growth. This ugly phase is bringing back memories of balance of payments or debt crises, although in previous occasions they occurred in periods in which commodity prices collapsed or when emerging markets were facing debt crises, neither of which is the case nowadays.

It seems clear that Argentina currently faces important challenges. The outlook for improving the credit spreads depends in part on the eventual outcome of the legal battle in New York, but equally important is the approach on debt management. Argentina needs to come to terms with the difficulties generated by its resistance to not issue foreign currency debt when it is obvious that it needs dollars to continue servicing its debt.

It also needs to recognize that the current spreads in the parallel exchange market are accelerating the losses in reserves as leakages are affecting official trade flows and firms are reluctant to bring financial flows at the official exchange rate when there is a high risk of depreciation of the currency.

The paradox is that Argentina's debt problems take place in a country that is solvent and most macroeconomic fundamentals are still reasonable. Net public sector debt amounts to only 18 percent of GDP, and foreign currency debt issued with the private sector (excluding multilateral organizations) represents less than 10 percent of GDP. In addition, much of that debt is long-term, implying that financial requirements in any given year are not very large.

In addition to the low debt burden, Argentina has small fiscal and current account deficits of 2.5 and 1.0 percent of GDP, respectively. These levels compare well with other Latin American countries such as Brazil, Colombia and Uruguay.

How can one then explain that Argentina´s credit spreads are one of the largest among emerging markets? The explanation lies in the twin spreads and the persistent fall in reserves which are directly related to distrust of the market mechanism to address macroeconomic problems by strict government intervention. This time it is policy, not fundamentals, that explain the twin spreads, and if they are not changed, the spreads are not going to disappear.

How Should the World View Japan's New Economic Policy Strategy?

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After two 'lost' decades, Japan's economy is again attracting the attention of the rest of the world. The introduction of the package of policies known as 'Abenomics' has so far drastically affected financial markets, with stock prices increasing massively, exchange rates depreciating considerably and bond yields rising abruptly. The ultimate domestic and international effects of Japan's new expansionary monetary policy are ambiguous. However, fixing Japan's long-term problems will ultimately require more daring structural reforms than Abenomics has so far promised. Such a reform agenda could complement and find support in much of the emerging G-20 agenda.

The Elements of Abenomics

The 'three arrows' of Abenomics are expansionary monetary policy, expansionary fiscal policy and structural reform. The first two arrows form part of a standard stabilization policy over the business cycle and are based on the Keynesian view that government intervention should aim to increase aggregate demand when the economy is operating under potential. There is nothing theoretically new in these two prescriptions.

The third arrow (like Thatcherism or Reaganomics in the past) focuses on the supply side, making deregulation of the economy the key to increasing economic efficiency. This is, like the first two arrows, not a new idea. The need for structural reform has been advocated in Japan and internationally for a long time. The famous Mayekawa Report published in the 1980s identified a number of issues relating to structural reform that are at the heart of Abenomics.

So far, no significant steps have been taken on the structural reform agenda. The global excitement and commentary generated by Abenomics are instead largely due to the impact of Japan's expansionary monetary policy on financial markets. In particular, the BoJ's new policy of 'qualitative and quantitative easing' released in April shocked the global financial market. Its announcement of the policy shift stated:

> "The Bank will achieve the price stability target of 2 percent in terms of the year-on-year rate of change in the consumer price index (CPI) at the earliest possible time, with a time horizon of about two years. In order to do so, it will enter a new phase of monetary easing both in terms of quantity and quality. It will double the monetary base and the amounts outstanding of Japanese government bonds as well as exchange-traded funds in two years, and more than double the average remaining maturity of Japanese Government Bond purchases."

What the term 'qualitative easing' means is not exactly clear. Regardless, the scale of accommodative monetary policy is huge. Indeed, the BoJ's aggressive quantitative easing seems to have been perceived as a commitment to an accommodative monetary policy stance far into the future. Given that the nominal exchange rate is determined by expectations about the monetary policy stance (not the amount of the base money itself), qualitative and quantitative easing have therefore brought with them a significant depreciation of the yen. The sharp depreciation of the yen will lift Japanese competitiveness and boost GDP, in line with the stated goals of Abenomics.

Exchange Rate Effects of Expansionary Monetary Policy

There are many questions about the expansionary policies of the first two arrows. Domestically, these questions relate largely to the risks expansionary policy creates for Japan's huge public debt, risks that were illustrated in the recent volatile behavior of the Japanese bond market. Internationally, the more immediate focus is on how the depreciation of the yen will affect economic activity in the region and internationally, and on whether or not the new expansionary policies amount to a competitive devaluation, with deleterious effects on global imbalances.

Exchange rate depreciation boosts domestic output, and there is already some evidence of this happening in Japan. Japan is also the country with the world's largest net foreign asset position. Many of these assets are held in U.S. dollars, so exchange rate depreciation increases the value of foreign assets in terms of yen. This so-called 'valuation channel' effect of exchange rate depreciation[1] increases the income from net foreign asset holdings. Both the output and valuation effects appear to be visible in the data since exchange rate depreciation kicked in, and policy authorities in Japan's partner economies have overwhelmingly welcomed Japanese expansionary policies for the explicit reason that they benefit from lifting Japanese output.

However, increased output from a falling exchange rate won't automatically improve social welfare. For one thing, exchange rate changes lower export prices and increase import prices, adversely affecting the terms of trade. As it is, Japan's terms of trade are on a downward trend with energy import prices on the rise following the Fukushima nuclear disaster. Whether the output gains translate into increased income and social welfare therefore depends on the size of the terms of trade effect relative to the output and valuation effects.

The other important variable that determines whether depreciation leads to an improvement in social welfare is the size of the output gap. If there is a significant output gap, then exchange rate depreciation can lift social welfare. This then begs the question, how large is the output gap in Japan? The answer to this question is a matter of controversy.

In the past decade, Japan's GDP growth rate dropped to just 0.8 percent per year, from around 9.5 percent between 1955 and 1970, and 3.8 percent between 1971 and 1990. Between 1991 and 2010, the growth rate was 1.0 percent. Yet, if the output growth rate per working age person is compared with that of other industrial nations, Japan appears to have the highest growth rate among advanced economies in the 2000s. Is the current low level of output compared to the past due to very low aggregate demand, in which case there is an output gap, or is it due to very low potential output? If the former is the main reason, exchange rate depreciation will be the right prescription, but if the latter is true, structural reform is what is needed to increase output.

Aging and the Terms of Trade

The fact that Japan is a rapidly aging society plays into the balance of costs and benefits from exchange rate depreciation. On one hand, Japan's total population fell this year to around 127.5 million people, and the labor force has been shrinking since 1995. Current projections suggest that Japan's population will fall to 84 million over the next 50 years, when the workforce will be around 42 million and over 40 percent of the population will be over 65 years old[2] . With a shrinking population and a rising dependency ratio, improvements in productivity and terms of trade become more important to maintaining and improving social welfare.

On the other hand, consumption now seems to have become the driver of economic expansion in Japan. Recently, consumption has been resilient even when net exports have been negative. This is in contrast to the past, when net exports and investment were the main drivers of expansion. In an aging society, consumption is underpinned more by savings than current earnings. Therefore,

Japan's aging population reinforces rather than reconciles the divergence between the benefits from a higher return from net foreign assets and the cost of deteriorating terms of trade.

The recent increase in Japanese consumption, especially in durable goods, may, of course, simply reflect inter-temporal substitution in consumption, in response to an anticipated increase in consumption tax (as we saw during 1996 and 1997 before the consumption tax was first put in place). If this is true, the scope for further depreciation would be greater, as it could take up the slack from the decrease in aggregate demand as consumption recedes.

Export-led economic expansion, combined with net accumulation of foreign assets, a model that distinguished East Asian growth, is no longer a viable growth strategy in the face of aging populations. Regional policymakers will therefore be watching closely to gauge Japan's success in striking a balance between the competing terms of trade effect, which lowers incomes, and the valuation effect, which increases wealth measured in yen. In the short-term, however, Japan's expansionary monetary policy will likely also have implications for regional and global imbalances, and it is this aspect that has perhaps received more attention from regional policymakers.

Implications for Regional Trade

It is significant that policymakers in the region appear to value restoration of growth in the Japanese economy over worries about the damage that yen depreciation might inflict on the trade prospects of their economies. This is partly due to implicit judgments they are making about the nature of Japan's problems and the existence of a significant output gap in the Japanese economy. However, it is also due to a view of the direct trade effects of the depreciation of the yen on their economies that is shaped by the complex nature of regional integration.

Asian economies remain competitors with Japan in a range of product lines, such as in the automobile and electronics industries, for example. However, the dense web of production networks in Asia[3] and the close integration among Japan and the other Asian economies, including China, means that the depreciation of the yen is not unambiguously bad for Asia's trade prospects, especially those of China.

Between 40 and 50 percent of Japanese manufacturing output is now produced outside Japan, with much of it in Asia. In those sectors where Japan is largely a competitor with its neighbours, depreciation will likely substitute net export growth or trade surpluses in Japan for net exports in the rest of the region. However, in those areas where Japanese and regional producers are complementary, depreciation would tend to lift Asian net exports (surpluses) more broadly and reverse the trend of reduced Asian imbalances vis-a-vis the rest of the world. It is these effects, and the expectation of some positive spillovers for Japan's regional trading partners, that are also behind the reactions of regional policymakers.

Whether or not Japanese quantitative easing reignites the East Asian imbalances issue will depend on how Japanese consumption responds to the stimulus and the relative price effects analysed above. G-20 central bankers appear to have coordinated monetary policy reasonably successfully through the crisis, led by the U.S. Federal Reserve Board's policy of quantitative easing and its contribution to the reduction in global imbalances. If the Japanese authorities have got it right and there is no tension between domestic objectives and external balances, all will be well, but Japan will certainly be a more active object of interest in the global dialogue on international policy coordination in the immediate future.

The `Third Arrow' and the G-20

Ultimately, expansionary monetary and fiscal policy can only go so far, especially if the output gap in Japan turns out to be relatively small. Addressing the problems created by an aging and shrinking workforce and population will only be done by increasing potential output and improving

efficiency and productivity. These in turn will not be won without the important structural reforms that are supposed to make up the 'third arrow' of Abenomics. Sadly, there has so far been little detail on a commitment to reform, apart from signing up to the negotiation of the Trans-Pacific Partnership, the uncertain outcome of which is, with the exception of its symbolism, peripheral to Japan's main economic reform agenda.

Many of the reforms that would deliver higher economic potential in Japan are purely domestic. These have to do with fixing the public and service sectors that relate to managing an aging society through social benefits, the health sector, the pension system, the tax system and immigration policy. With Japan's upper house election out of the way this month, the Japanese government can start to outline how it proposes to tackle these challenges and push ahead with the legislated consumption tax hike that at least addresses the long-term fiscal problem.

There is also, however, an important international dimension to the structural reforms that Japan needs. This dimension relates to how Japanese firms, especially those in the service sector, become more integrated into the global economy, which would represent an important structural change. Currently, the ratio of Japan's trade (exports plus imports) to GDP is only a third of Germany's[4].

The international structural reforms that Japan needs to undertake are rather germane to the G-20's emerging agenda. The G-20's efforts to rehabilitate the WTO by resuscitating the most-favored nation principle and non-discriminatory liberalization, and refocusing the WTO on issues related to structural reform could, if successful, help the Japanese economy in making this transition. Though there a few signs of it yet, hopefully the Japanese government might recognize this and help push this agenda through the G-20.

Japan could also stand to benefit from the G-20's infrastructure investment agenda. Greater investment in infrastructure projects in emerging countries would provide opportunities for Japanese firms with expertise in building infrastructure, raising demand for Japanese exports. Japan's aging infrastructure also presents opportunities for targeted investment, as the collapse of a forty year old tunnel last December made clear.

In the absence of deep and effective reform program for promoting private sector investment-led growth in Japan, the downside risks from expansionary monetary and fiscal policies, including a bond market collapse and a fiscal mess, will increase dramatically[5]. Japan must therefore support and make the most of international initiatives, including the G-20's agenda on trade liberalization and infrastructure investment and APEC's emerging focus on infrastructure investment, that will further the structural reform agenda that Japan so desperately needs.

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The World under the New G-4 (and the Rest of Us)

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Time flies. Since the onset of the Great Recession, the global economy has been through a rollercoaster, more so in terms of shifting expectations and perceptions than in terms of actual growth trajectory (although a full recovery failed to materialize, many countries are more than muddling through). Policy makers likely underestimated the complexity and dangers of bringing highly leveraged economies (governments and families) to a new normal; nonetheless, governments and their central banks were able to stabilize their economies and bring a modicum of predictability in the context of fractured markets and agents herding into panic.

Yet, past is the time when the discussion centered on the alphabet soup-nature of the recovery—if in V, W, L or some other geometry. At today's juncture, as we approach the fifth anniversary of the Great Recession, the degree of uncertainty regarding the future path of the world economy is in many ways as great as when the economic maelstrom began. We are moving into the unchartered waters of reversing the ultra-monetarist policies of the Fed and the credit expansion which took hold under the shadow of People's Bank of China (PBoC) while Europe is in recession and Japan plays in a delayed mode, its own and extreme version of quantitative easing.

Future prosperity seems to be now resting first (and possibly foremost) on the U.S. recovery, which appears to be a bit more solid than a year ago. Consumer confidence is rising and so are housing prices—thus improving the state of the real estate market. These are encouraging signs for the two drivers that traditionally held up the economy: consumption and construction. Moreover, lower energy prices with the shale gas boom points—for the first time in decades—to a manufacturing revival that is not only confined to energy-intensive sectors. What we still don't know is how at the end of the day the post-Bernanke Fed will unwind its extraordinary large balance sheet, estimated to reach $4 trillion by mid-2014, without destabilizing the global economy. Are we going to witness a magnified version of the May and June events in reaction to the Bernanke speeches of a sharper strengthening of the dollar, weakening of commodity prices, retrenchment away from emerging markets' sovereign and other bonds, rise in interest rates and once again a bear stock market from financial worries and massive losses of bondholders? Are we only seeing the tip of the iceberg of what is to come? It is sufficient to recall that while central banks were expanding their balance sheets, net private capital inflows to emerging markets amounted to an estimated $4.2 trillion in 2009-2012. Their significant reversal, if long rates abruptly rise again, would be quite catastrophic, meaning lower growth rates, a rise in unemployment, and further cuts in public services.

Europe, in its turn, is at a crossroad. Rigid fiscal policies to regain creditworthiness and certain structural reforms (mostly related to labor markets) imposed by the Troika (The European Commission, the International Monetary Fund and the European Central Bank) have yet to produce the results which were hoped for, and the resumption of growth on a more sustained basis seems to be years away. Political opposition is on the rise against German stubbornness; at the end of the day, if there is no hope that things will eventually improve, no political party or coalition can remain in power, just resting on empty promises.

The fallacy of composition has worked backwards: as most countries in the continent are not growing, consumers are refraining from spending and the world marketplace is ever more competitive. Can countries drive out of a recession through exports, anchored on falling nominal wages (the only possibility to lower labor costs within a monetary union)? Record unemployment among young people and a drastic retrenchment of social services is testing the limits of patience and political resilience across Europe. The relevant question seems to be: Will common sense befall on the German leadership, agreeing not only to a more moderate path of fiscal discipline, but most importantly, for the German economy to steer Europe back to prosperity by way of a fundamental macro-rebalancing? Will German consumers help Europe grow out of recession in the context of public sector and household deleveraging?

It took the European Central Bank (ECB) to credibly commit for the eurozone not to collapse. It is unlikely that Mr. Draghi will go any further this time to stimulate business lending, but the ECB should. Small and medium sized firms from Italy and Spain, the two critical economies of Southern Europe, face an unheard of wedge between ECB rates and what commercial banks are willing to lend, close to triple of pre-crisis levels. Arguably, they are the job-creating machines of those economies. If the world was cruising along and Southern Europe was the odd man out, Germany might be able to step aside as countries coming out of recession with the help of ex-eurozone trade and foreign investment. That not being the case, the eurozone will have to bootstrap itself, or better, Germany and the larger or more solid economies will need to use the Olsonian "logic of collective action" whereby those who have the most to lose from a breakup of a union have a special responsibility towards the more feeble members. In the global arena, Europe is the player, not Germany individually. Is this intelligible to voters? Of course. It must be first intelligible to leaders, which is not self-evident.

Third, the Chinese enigma continues to baffle policymakers and analysts alike. Most are still betting (hoping?) that the Chinese leadership and the State apparatus will be able to steer the country to a more sustainable consumption-driven growth trajectory where real wages increase, a new wave of rural families find their way into the urban labor market, and a more encompassing social security system is put in place. Yet, the transition will take a toll as a credit induced bubble fueled by shadow (and commercial) banks is reigned in and public enterprises propped up by local and provincial governments are restructured, merged, downsized or eased into exit. This is a tall order and there is no guarantee that China will be able to smoothly converge to an economy which is the mirror image of the past three decades. While factor augmentation and exports take a back seat, innovation and an educated labor force bring rising incomes, create employment opportunities for the middle class, and support a productivity-driven growth trajectory in the coming years, hovering around 7 percent p.a. In late June, markets got the jitters after the PBoC decided to tighten credit conditions in light of the 52 percent growth in domestic lending in the first five months of 2013 (with respect to the same period in 2012). Interest rates shot up with interbank rates reaching a record 13.7 percent before receding (normal levels being in the 3-4 percent range). The world trembled in anticipation of an economic deceleration with vast implications for commodity markets, global trade and stability.

Finally, the ability of Japan to ride out of its inflation-prone economy with the help of an ultra-monetarist experiment—Abeconomics—is in question. It is true that initial results looked promising: while the wealth effect from the stock market rise helped to push up consumer spending, the yen devaluation helped exporters, and both boosted firms' profits and investors' confidence. Yet, is this enough? Mr. Abe thinks not, but structural changes in a very conservative society come slowly, if at all (such is the case of a genre-related aggiornamento in the labor market being pushed by the government, which could bring a welcomed boost in demographics to long-term growth). How long will the initial positive effects last? It seems that the prime minister envisions a stopgap

solution that will last long enough while Japan waits for the world economy to recover.

In all four instances, central banks and their monetary policies seem to have achieved a new prominence. They are more than the guardians of the domestic or jurisdictional currency, lenders of last resort, and the entities entrusted with keeping credit channels open and financial markets functioning. They have become the global growth and stability insurer with a short-and medium-term policy premium over which there are widely divergent views. Some consider it negligible, others far from it, that we will pay in terms of both asset inflation and, when monetary and credit expansion are finally reversed, price collapses which might destabilize and then throw the world economy back into recession. As in many economics propositions, this one cannot be tested except with the benefit of hindsight.

Yet the newfound prominence of the combined power of the four central banks effectively brings to fore a somewhat uncomfortable fact that at least for the time, it is *this* G-4 which really counts. When they sneeze, the world catches a cold. China and the U.S. may soon start to sneeze in unison as they tighten monetary policy. The PBoC is tightening to deflate a credit bubble while the Fed moves to a still-to-be-defined new age of monetary moderation, to the extent that U.S. labor market conditions allow. In this context, many hope that Japan will stay the course with its monetary expansion and that the ECB will stand fast not only for European financial stability but to compensate in part for the ongoing fiscal restraint which will likely be a drag on growth for the foreseeable future.

Hopes for greater coordination among the major economies seem to be on the wane. It is not so much a case of beggar thy neighbor as it is a case of "ignore your neighbor". In some farcical twist, history is repeating itself. The dominant economies are leaving the rest behind, this time not in terms of income per capita or some other metric of economic wealth, but in the more crude sense that there is an unspoken political imperative for each country to look after their own navel, at least for the time being.

What is the rest of the world supposed to do? Straight talk would suggest that countries do their homework and avoid committing "old mistakes" while taking care of their own business. This, of course, is neither a call for egotistic policies nor for the end of regional alliances, trade or otherwise, but for economic pragmatism. It is also a call for the end of illusions. Emerging economies remain important, but at the end of the day they are less relevant than many expect. Bringing odd couples together to impress global audiences or attempting to mould groups on the basis of ideological likeness has now become, in all probability, a deadweight loss when it comes to the improvement of people's welfare.

Some corollaries follow. Emerging consensus on new economic policies, just as the old ones, should be taken with a grain of salt. The fact is that each country is different, and despite useful lessons that can be gleaned from other countries experiences, with or without the help of multilaterals, their specificities tend to dominate. Thus, policymakers in countries facing low growth are now caught in a firefight among those advocating greater fiscal impulse, those keen on expansionary monetary policies to promote nominal (and hopefully real) growth, and those wanting both or neither. This cannot be answered in abstract, and much less using the unexpected umbrella of a newly found realism or heterodoxy from the IMF and other good souls which seem to be saying: "Yes, loosening up monetary and fiscal policies is acceptable under the present circumstances. Low growth is not conducive to a sustainable fiscal balance and debt dynamics. We have been wrong."

Well, they *have* been wrong, but two wrongs don't make one right. Thus, in one of the significant emerging economies, authorities are finding out the hard way that a concept called potential output, no matter how complicated it is to calculate with a certain degree of precision, is indeed a real concept, with real consequences. A combination of loose monetary policy, expansionary fiscal policies, and rising wages with ample credit to top it off, do eventually lead to inflation, as Brazil is

recently experiencing. Price controls as a means to repress inflation momentarily, without any concept of transition away from such a mechanism, is just a bad idea and it will most probably haunt the economy sooner or later. By the same token, policymakers are also becoming aware that certain macroeconomic identities are unlikely to bend. A low commitment to fiscal responsibility has further impaired the domestic savings-investment imbalance in Brazil, the ultimate culprit of currency appreciation and current account deficits (which are again growing as the savings gap stands at a record 3.2 percent of GDP in May and is projected to reach 3.6 percent in 2013, and over 4.0 percent in 2014). The political economy of protectionism and policy favoritism functions in such a way that the more you feed the hydra, the greater the demand for a Hicksian "easy life". Protectionism and the like do as much harm today as they have done in the past, helping to further entrench conservative interests and solidify resource misallocation while keeping prices high and productivity low.

Finally, the Brazilian government is realizing that the public demands quality public services delivered by a more efficient state. The 2014 FIFA World Cup, an enormously expensive proposition, with waste and corruption to feed politicians, contractors, international soccer bureaucrats *et caterva*, stands in contrast to the quality of public health, education and the mobility crisis in Brazilian metropolitan cities. It was the cost and time spent on public transportation that helped motivate the people to take to the streets.

When the younger generation, more informed and connected with the help of social media than all preceding generations, unexpectedly began to demonstrate in June, they shook the country. They were not afraid to take on the establishment, comprised of a very broad social democratic coalition that grew old and out of touch, and a government that has overseen a dramatic deterioration of the quality of economic policy making, the integrity of fiscal accounts, and the previous autonomy of the Central Bank. Under the pretext that the world (and the IMF) is now acknowledging the importance of countercyclical policies, as shown by recent dramatic experiences in Europe, the Brazilian government did not hesitate to accelerate expenditures and nudge the Central Bank to a more lenient posture with respect to inflation.

Now in mid-2013, after the June events, a reverse course appears to be in the making. The government seems to be again committed to a low inflation regime, even in the face of not too brilliant growth prospects, leaving the Central Bank to use monetary policy as needed and manage the exchange rate with a view of softening volatility, with no specific level guidance. Second thoughts on the economic and political cost of protectionism and highly targeted (and fragmented) industrial policies are leading to a policy reassessment on their effectiveness as growth-inducing devices and on the perception of favoritism. The government is again stressing the importance of (moderate) fiscal discipline insofar as fiscal largesse is not a panacea for an anemic growth rate. The political establishment has been shaken out of complacency, with political corruption under the close inspection of an aggressive (and generally independent) media. In many ways, democracy is (very) alive and well in Brazil.

In this context, the message the streets sent in June was quite clear: honesty and efficiency in government has nothing to do with ideology, and crony capitalism and political corruption are ugly twins that are not to be condoned or explained away by some notion of institutional and political normalcy. The talk of currency wars, continental leadership or BRICS' financial muscle to be flexed around a new development bank carries very little sway when far closer issues to home are the pressing ones, now and in the coming years. This is obviously not a call for the country to turn inwards and abrogate its legitimate role in international institutions and fora, but to recognize that in very few issues of global nature, the country has a relevant say and an ability to act. It has the potential to be an effective regional peacemaker under the auspices of the United Nations as evidenced by the Haiti experience, to act in climate change with a credible commitment to contain deforestation and

the emission of greenhouse gases, in food security with the country's leadership in tropical agriculture, and in global trade with the election of a Brazilian to lead the WTO, especially if trade liberalization returns to the presidential agenda.

In global macroeconomics, Brazil, and practically all countries, is on the receiving end. Time and energy should be allocated to more fruitful tasks other than attempting to influence policies which are set beyond international meetings, no matter how prestigious and well attended. These countries should be taking care of their own economies because the G-4 will not do it for them. For the time being, at least, the new G-4 will be in the commanding heights and we may be observers at best. So, the old prescription is still valid that middle-income countries need to continuously attend to their macroeconomic fundamentals to develop markets and invest in people, to search for ways to differentiate themselves to become attractive destinations, and to ensure that the state is able to effectively and honestly deliver the collective goods and services which people expect. Health, education, safety and urban mobility are among the most critical on a cost-efficient basis, and within a price-stable and predictable environment for business (and jobs) to flourish. In so doing, governments will be responding to the public interest and the legitimate aspirations of their people.

Handcuff Central Banks, Save The Global Market

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Nowadays, central bankers from Washington, D.C. to Tokyo, from Brussels to Beijing, are playing, or expected to play, God to relieve all agonies caused are by economic crises. Since the collapse of the Bretton Wood gold exchange system, major central banks have been untied and able to undertake monetary policy at will by managing either liquidity or interest rates for various economic and political purposes. In their arsenals, the ultimate weapon is to issue fiat money without restriction.

In recent years, discretionary monetary policy in major countries, both mature and emerging ones, has been employed to pursue highly politicized short-term macroeconomic goals. Until recently, loose monetary policy has been identified as the main cause of the financial crisis, but even easier monetary policy enforcement is once again being used to overhaul the financial sector and contain economic recession. Hence, holders of main global fiat monies, or assets denominated by theses currencies around the world, are increasingly wary of the value of their wealth in the years to come, in the context of an unprecedented flood of paper monies. Indeed, there is no panacea on earth; cure and cause is more likely to be just two sides of one coin. If the hands of central banks were still unchained, the prevailing global market system would be shattered.

In this paper, we will trace track records of major central banks in the past decade, analyze the political economy tone of monetary policies and propose a possible framework of global governance for central banks and relating monetary policies.

Catch 22: Monetary Policy in Advanced Countries

It is very important to assess the relationship between the Fed's easy monetary policy and the recent financial crisis for the purpose of formulating appropriate remedial policies and preventing the world from the reoccurrence of such a crisis. The loci of the U.S. short-term federal funds rate (policy rate) and long-term interest rate indicate that the Fed undertook a very easy monetary policy to depress interest rates to extremely low levels, known as the "Greenspan Put", at the turn of the century, releasing an abundance of liquidity which was followed by a housing boom. When the Fed raised the interest rate from one percent in 2004 to more than five percent in 2007 for fear of possible inflation, the housing bubble burst and a financial crisis was subsequently triggered.

Taylor (2008) pointed out that "the classic explanation of financial crises, going back hundreds of years, is that they are caused by excesses—frequently monetary excesses—which lead to a boom and an inevitable bust. In the recent crisis we had a housing boom and bust which in turn led to financial turmoil in the U.S. and other countries. Although some researchers regarded the Fed's low-rate monetary policy as a factor in the crisis, they only admitted that its effect was modest and not big enough to cause a financial crisis[1]. Nevertheless, a study illustrates that the Fed's too long and too loose monetary policy in the early 2000s reduced interest rates far below what a policy rule or Taylor rule framework would have suggested, with the counterfactual federal funds rate being higher than

the actual rate in pre-crisis years[2]. The empirical evidence also documents that the easy monetary policy has significant effects on housing investment and prices[3]. As such, the Fed's extra easy monetary policy was a main and primary cause of the property boom and the resulting financial crisis[4].

Alternatively, Bernanke[5] proposed a global savings glut hypothesis, arguing that capital inflows from emerging markets to industrial countries can help explain asset price appreciation and low long-term real interest rates in the countries receiving the funds, particularly in the U.S. Based on a cross-country study[6], Bernanke claimed that "the relationship between the stance of monetary policy and house price appreciation across countries is statistically insignificant and economically weak; moreover, monetary policy differences explain only about 5 percent of the variability in house price appreciation across countries." [7] The empirical study he quoted, however, is severely flawed, resulting in a spurious conclusion. Note that there exists a mismatch between the change in housing prices on the vertical axis (dependent variable) and the degree of ease or tightness of monetary policy on the horizontal axis (explanatory variable) in the study. The former lags one quarter behind the latter, but it should be the other way around. When monetary policy leads housing prices, the empirical result is reversed—the linkage between monetary policy and housing prices is statistically significant and monetary policy can account for over 20 percent of housing price appreciation across countries. More robust tests also document the nexus between easy monetary policy and financial woes[8].

Moreover, information asymmetry and incentive problems of all market participants such as financial institutions, accounting firms, rating agencies, and regulators were important factors in explaining the recent financial crisis[9]. However, these are at most secondary factors relative to the Fed's loose monetary policy undertaken in the beginning of the last decade. Lastly, some external factors like exchange rates and other economic policies followed by emerging markets may have contributed to the U.S.'s ability to borrow cheaply abroad and thereby finance its unsustainable housing bubble[10]. If there were an outside impact on the U.S. housing market, it would have been marginal in comparison to the Fed's dominating role.

As soon as the Fed raised interest rates to prevent the economy from possible inflation, almost all market agents were in a pinch and the financial crisis emerged. In the midst of the crisis, the Fed immediately reversed monetary policy by rapidly lowering the federal fund rate from 5.25 percent in September 2007, to 0-0.25 percent in December 2008, and has maintained that level to the present time. Furthermore, it launched three rounds of unprecedented quantitative easing measures (QEs) by providing liquidity to all kinds of financial institutions, exchanging toxic assets of troubled financial companies, swapping dollars with foreign central banks and buying Treasuries from the federal government. As a result, the QE measures have tripled the Fed's balance sheet in a few years.

Even though the Fed successfully bailed out "systemically important" or too-big-to-fail financial institutions, the unconventional QEs have a very limited effect in stimulating aggregate demand and/or in lowering high unemployment. Bernanke[11] has also expressed his skepticism that quantitative easing by itself would be effective. He indicated that the expansion of the Fed's balance sheet should instead be viewed as a result of what he referred to as credit easing, that is, an attempt to lower spreads between different asset classes through asset purchases and liquidity provisions.

In Europe, the establishment of the euro system set up an umbrella to shelter peripheral countries to issue bonds with low costs in financial markets in order to fund their budget deficits. Prior to the emergence of the European sovereign debt crisis, there were little differences in interest rates of long-term government bonds for both core countries and southern peripherals during the period of 2000-2008. However, government bond markets in the eurozone are very fragile and extremely vulnerable. The reason is simple—national governments in a monetary union issue debt in a 'foreign' currency

over which they have no control. As a result, they cannot guarantee to the bondholders that they will always have the necessary liquidity to pay out the bond at maturity. This contrasts with 'stand alone' countries that issue sovereign bonds in their own currencies. This feature allows these countries to guarantee that the cash will always be available to pay out the bondholders[12].

When one country (Greece) had difficulty in servicing its debts, contagion occurred within southern peers, fear of insolvency of other peripheral countries prevailed and interest rates of those government bonds quickly soared, triggering a European sovereign debt crisis. Since European banks held vast amount of sheltered southern government bonds, the sovereign debt crisis accordingly led to solvency problems of the entire banking system. Again, expanding monetary policy together with unconventional bailout measures executed by the European Central Bank (ECB) is the only hope to clean up the mess. Up until recently, the ECB has kept its policy rate close to zero. Besides, it has departed from its sole price stability mandate given by the Maastricht Treaty, either by indirectly injecting mass liquidity into the European banking system or by directly buying government bonds of its member countries to cope with the crisis. Consequently, the ECB's balance sheet has expanded to a historically high level.

Lastly, the Bank of Japan (BOJ) has also engaged in a very long and unusually easy monetary policy, namely through a zero interest rate plus QE measures with continuous expansion of its balance sheet. A decade-long extra loose policy has had little stimulating effect on the sluggishness of the domestic economic activities out of long-possessed recession.

Sticky Fingers: Monetary Policy in China

Shortly after the burst of the global financial crisis in late 2008, the Chinese government reversed macroeconomic policies from inflation-preventing contraction to domestic-stimulating measures. Along with a 4 trillion yuan fiscal stimulus campaign, easy monetary policy immediately delivered extra liquidity to accommodate infrastructure investment, especially for big projects launched by state enterprises and local governments. Consequently, the domestic economy bounced back and the growth rate quickly picked up. Annualized GDP growth was 16.3 percent in the period of 2008-2012, far above other major economies and also higher than China's previous growth record.

Nonetheless, the growth was basically driven by monetary expansion. The People's Bank of China (PBoC) has overtaken the Fed, BoJ and even the whole euro system by assets in recent years and has become the largest central bank in the world. During 2008-2012, China's broadly-defined money stock (M2) doubled in size, increasing from 47.5 trillion yuan (7.5 trillion dollars) to 97.4 trillion yuan (15.7 trillion dollars). As a result, the Chinese economy is heavily levered—outstanding bank loans more than doubled, climbing from 30.3 trillion yuan (4.9 trillion dollars) in 2008 to 67.2 trillion yuan (10.8 trillion dollars) in 2012; outstanding bonds also rose from 12.3 trillion yuan (2 trillion dollars) to 23.8 trillion yuan (3.8 trillion dollars); and trust funds increased from less than one trillion yuan (16 billion dollars) to 7.5 trillion yuan (1.2 trillion dollars)—bringing China's overall leverage ratio to over 200 percent.

The extraordinarily easy monetary policy has already nurtured significant systemic risks. First of all, debts of local governments dramatically increased to an astonishing level under the condition of very cheap money—the total size is estimated between 16-20 trillion yuan (2.6-3.2 trillion dollars). Even though local governments are not allowed to have debts directly at present, they have created over 11,000 investment vehicles across the country that are categorized as "independent legal entities" and able to solicit funds by issuing enterprise bonds and bills, borrowing from commercial banks and consolidating products for trust companies and other financial intermediaries to finance development of local infrastructure facilities, industrial parks, government buildings and social welfare programs. The investment vehicles usually

use assets or land granted by local governments as collateral to issue securities or engage in borrowing, promising to pay much higher interest rates than bank loans. It is estimated that annual interest payments of local government debt alone will be over 1 trillion yuan (160 billion dollars), and the debt service is generally beyond the financial ability of local governments. Since most funds come directly or indirectly from commercial banks, solvency problems of local governments become a main source of systemic risk in China, posing a heavy pressure on the stability of the banking system.

Easy monetary policy fostered excessive capital investment in manufacturing sectors, especially in iron and steel, coal and alternative energy production. This accounts for the growth bubble in which many provinces doubled their economic size in two to three years. For example, Sichuan province made its GDP twofold in three years and Chongqing municipal city achieved the same in two years. The investment-driven expansion, while creating jobs in the short-run, contributed far less to the long-run enhancement of society's well-being. It left excess capacity in almost all industries. According to the IMF's estimation, the average capacity utilization of industries declined from 78 percent in 2007 to 60 percent in 2011. This is a second source of systemic risk in the Chinese financial market.

Lastly, easy money is the main cause of skyrocketing property prices in all major cities. Calibrated by all standards, housing prices of big Chinese cities are too high for most normal urban households. The rising prices of urban properties have become a most controversial policy issue in China. Although the central government is determined to curb this rising trend in housing prices, local governments, relying heavily on selling land to finance their budgets, are much less enthusiastic about it.

Political Economy Tune: Free-lanced Monetary Policies

Not long ago, policymakers around the world were overwhelmingly convinced by mainstream economics that they can well avoid serious recessions due to two powerful macroeconomic tools innovated in modern capitalism. One is fiscal policy that enables governments to manage aggregate demand by expanding public spending and reducing taxes, and the other is monetary policy that empowers central banks to lever market consumption and investment by providing liquidity and lowering rates of interest. Compared to relatively less flexible and binding fiscal policy based on budget constraints, monetary policy based on legal tenders was always to be effective and very handy. Bernanke's concluding remarks of his speech at Milton Friedman's 90th conference in 2002 reflected this confidence, "Let me end my talk by abusing slightly my status as an official representative of the Federal Reserve. I would like to say to Milton and Anna: Regarding the Great Depression. You're right, we did it. We're very sorry. But thanks to you, we won't do it again."

However, the real danger is that the missions of central banks are too many to be achieved. For example, the Fed has multiple missions including "conducting monetary policy in pursuit of maximum employment, stable prices, and moderate long-term interest rates; supervising and regulating banking institutions and maintaining stability of the financial system and containing systemic risk that may arise in financial markets, and providing financial services to depository institutions, the U.S. government, and foreign official institutions". As such, discretionary monetary policy is most likely to comply with changeable short-term political economy goals at the expense of long-term obligations. It is inevitable that the world's leading central bank goes astray, away from its solemnly declared responsibility of maintaining currency value to protect its IOU holders both at home and abroad.

In Western democratic societies, political pressure from prevailing populism in electoral governments to seek favor from constituencies creates stress on modern welfare states which are beyond sustainable tax resources. For most politicians, it is "politically correct" to ratchet up welfare provisions for the current voters, leaving prudential budgeting as a policy choice to come later. Parallel to European-style cradle-to-grave welfare stateism, the U.S. has quickly

caught up in recent years—the federal government has spent a quarter of its budget on healthcare services, together with most outstanding mortgages guaranteed or owned by government-sponsored enterprises (GSEs). To overcome budget constraints due to already-high taxes, governments of advanced countries are deeply indulging in borrowing, such that gross sovereign debt of the eurozone countries are over 85 percent of their GDP and the U.S. federal debt is more than 100 percent of its GDP.

Herein, it is central banks' implicit political priority, regardless of their willingness to directly keep interest rates low (like the Fed) or indirectly provide an umbrella of good rating (like the ECB), to depress costs of capital for issuance of new government bonds and service outstanding debts, so as to sustain financing of welfare provisions. Subsequently, these practices sabotaged market discipline, devastated incentive problems of financial institutions and mortgage holders and accelerated moral hazard of the prophetical governments in the euro system, resulting in the global financial crisis.

As soon as the financial meltdown starting with the burst of the housing bubble in the U.S., the Fed played "kind father" by extending the coverage of bailouts or assuming a role of a lender of last resort to financial institutions, which further exacerbated all the adverse incentive problems. Though bailout actions temporarily stabilize the situation, it is not always so clear who benefits from them. "The question is, what would have happened, were there not a bailout? Who is better off? Who is worse off? Clearly, taxpayers are worse off: at the very least, they have assumed risks that would otherwise have been borne by others. The full answer depends in part, of course, on the terms of the bail-out"[13]. The exact same problems were repeated in the continental eurozone as the ECB resumed its first duty of lender of last resort to bail out financial institutions and troubled prophetical countries.

In addition, differences in political dynamics for domestic and foreign debts may also account for actions of major central banks in the financial crisis. "In the case of domestic debt there is a constituency that will vote for governments that want to avoid default. This is not the case for foreign debt; defaulting on 'foreigners' might actually be highly popular"[14]. That is, the main central banks of leading advanced countries are more likely to issue unlimited reserve currencies to partly shift to foreign holders the burden of their obligations.

On the other hand, China's monetary policy also has similar but much stronger political economy undertones. Contrary to its Western peers with legislatively autonomous status, the PBoC is *de facto* a ministry-level unit in the Chinese cabinet. Therefore, monetary policy is not independently formulated by the central bank, but determined by the government and employed as a direct instrument to fulfill the most urgent macroeconomic objectives. This may basically explain the expansion of the central bank's size by leaps and bounds in a brief period of time.

Due to China's unitary government structure implicitly guaranteeing lower level obligations without limit, local governments across the country are sheltered from opportunism with little, hard budget constraints and can engage in free borrowing from banks, markets and other available intermediaries. Moreover, agency problems of bureaucrats within multiple governmental layers, originated largely from selective elitism by a top-down approach, opt to lead to self-benefiting and rent-seeking activities in local public policy decisions. History reiterates that internal hierarchical disciplines have a limited and diminishing role to check moral hazards as long as information asymmetry between local and central government is big and wrong-doing stakeholders set up conspiracies. The easy monetary policy in recent years, coupled with these mechanisms and conducts, enhances soft budget constraints of local governments, accelerating a pile-up of local debts and obligations to the central government.

A Possible Solution

Against a backdrop of the Fed's recent conduct, Taylor[15] claimed that highly discretionary policy is moving in the wrong direction. He also suggest-

ed that "the Fed should follow the perfectly good framework for monetary policy in much of 1980s and 1990s without large deviations from simple policy rules, without pro-cyclical capital buffers, and without unorthodox policies". Taylor's moral persuasion is a good wish but it won't work for the Fed or for other central banks.

Over the past decade, experiences of major central banks have taught the world big lessons on how to maintain the integrity of basic principles of the free market system in both global and local monetary markets. First of all, central banks must protect but not destroy private property rights for current and future generations by safeguarding currency values. To fulfill this obligation, the international community needs to put handcuffs on central banks to prevent ordinary people's wealth from being eroded by their discretionary monetary policies. Second, central banks must abide by a universal decree in the provision of exchange media—the most important public goods in the market system. This requires a clearly defined rule of law to govern behaviors of all central banks. Third, a virtuous framework must be set up for major central banks to ensure that good money drives out bad money. This needs a free but fair competition mechanism embedded in the international monetary system.

To fulfill these objectives, there must be a globally binding system to govern the behavior of major central banks around the world. In almost all respects, gold can play the role perfectly. It has two basic features that are especially fitting for central bank functions. One is that gold imposes real but not nominal restrictions on all central banks without any mercy. The other is that it represents a natural order of commodities in the entire human history. Any central bank-designed policy target is movable and able to be manipulated, but natural order is not. For example, the Fed has its own selective target called the prices of consumption expenditures (PCE), and it claims that the target is always fulfilled[16]. The same stories are repeated in the consumer price index (CPI) target used by other major central banks such as the ECB and PBoC.

In fact, modern fiat monies provided by the main central banks of advanced countries have two fundamental roles of exchange media and reserve currencies. These two roles can be separated. The track records of free-lanced and politicized monetary policy disqualify these central banks in their provision of inter-generational and reliable global reserve assets. Only gold can be trusted to resume this role. On the other hand, central banks can still manage media of exchanges or conduct monetary policy, for both global and local ends. In this regard, monetary policy can be simplified to insist on maintaining long-term value while managing adequacy of liquidity. As far as development of information and communication technology creates a long list of substitutes to replace conventional money stocks, central banks should pay much closer attention to monitor the costs of capital including interest rates and exchange rates. This leaves enough space for central banks to perform their domestic monetary policies.

Nevertheless, gold has inherent drawbacks in serving this end. Since there is not enough supply of gold on earth to facilitate expanding market transactions, the return of gold as a reserve currency may lead to global deflation. In addition, uneven global gold production and hoarding may lead to a significant redistribution of wealth in favor of gold producers and existing big gold-holders. These problems can be solved by creating certain gold-equivalent products. Many proposed that the IMF should use special drawing rights (SDRs) to replace sovereign fiat monies as a global reserve currency[17]. However, the man-made SDRs lack intrinsic value and are too hollow to play a designated anchoring role. Indeed, the IMF can lead the creation, distribution and supervision of gold-linked products to amend these shortcomings of gold. For example, the IMF can supply a particular type of gold-backed certificate (or gold-equivalent SDRs) which is directly enriched by gold, and allot it among member countries in line with their respective shares in global GDP or in global value-added trade volume. As such, these countries can secure reserve assets to shore up their currencies and be free from worry of wealth redistribution caused by the return of gold.

Due to the existence of strong resistance from different vested interests, the network of gold-linked sovereign currencies plus gold-equivalent certificates may be implemented in a progressive way, letting free market mechanisms work incrementally and win eventually. That is, some countries may move first to anchor their own currencies with gold and gold-equivalent certificates. As long as good money debuts in the international monetary market, free competition will commence and good money will drive out bad ones. To facilitate the establishment of a virtuous framework, the particular gold-equivalent SDRs should be tradable among central banks as well as financial institutions, and derivatives against it should also be created for promotion of market competition and enforcement of market disciplines.

Conclusion

In retrospect, world economic history suggests that there is a close causal linkage between loose monetary policy and financial woes. Empirical evidence reveals that this time is not much different. In particular, the Fed's too long and too easy monetary policy at the turn of the century fostered a housing boom. Coupled with agency problems of financial institutions and the absence of prudential regulations, discretionary monetary policy was the primary cause of the financial crisis. Ironically, the most important and possibly the only tool for the Fed to combat the financial crisis would have been to implement even looser monetary policy. Similar situations are also observed with some differences in other major economies including the eurozone, Japan and China. As a consequence, the world is falling into a vicious cycle: easy money—financial crisis—easier money—further deformation. This chaotic process will wreck the global market system.

Money is proven to be neutral in long-run. However, major central banks still manipulate it to circumvent binding budgetary constraints for political economy purposes, violating basic pillars of modern capitalism such as property rights, free competition and the rule of law. Recent lessons indicate that easy money contributes little to social well-being but create big distortions. Moreover, it softens budgetary constraints of both private and public sectors, nurtures excessive speculation in financial markets and worsens agency problems and moral hazard of financial intermediaries, regardless of central bank autonomy in democratic systems or authoritarian settings.

Monetary policy at large must be stopped and workable global governance machinery must be installed to regulate randomness of central banks. It is essential to adjust monetary policy from pursuing multiple goals within a "finite political short-term" to meeting fundamental obligations on "the constitutional long-term" for central banks around the world. Gold is the sole object with which a well-designed framework is able to handcuff central bankers and restore the sustainability of the world monetary system. It is high time for the leaders of major economies, following the footsteps of their predecessors in the early 1870s and the late 1940s, to take decisive action.

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The ECB's OMT Programme and German Constitutional Concerns

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In June 2013, the German constitutional court (Karlsruhe) debated the legality of the European Stability Mechanism (ESM) and the European Central Bank (ECB)'s Outright Monetary Transaction (OMT) programme. After the court had preliminarily approved the ESM in September of last year, Karlsruhe is now evaluating the scope and boundaries of the ECB's monetary policy mandate and the OMT programme and its consequences on the budget right of the Bundestag. While it is very unlikely, the court, in theory, could force the German government to bring the ECB to the European Court of Justice or, even more dramatically, it could request Germany to leave the eurozone as the former constitutional court judge, Udo di Fabio argued in a recent study[2].

So how should the ECB's programme be evaluated? Is the ECB acting beyond its mandate? Are the potential fiscal consequences of the OMT programme a relevant dimension for the constitutionality of the OMT programme? Or is the OMT programme without fiscal consequences?

The ECB's OMT Programme

As a first step, the ECB's OMT programme needs to be described in detail. The ECB released on September 6, 2012 the programme outlining its potential "Outright Monetary Transactions". The details of the programme are[3]:

1. Objective: "safeguarding an appropriate monetary policy transmission and the singleness of the monetary policy".
2. Conditionality: An EFSF or ESM programme with the possibility of EFSF/ESM primary bond market purchases must be in place in the respective country.
3. Decision: The decision on starting and ending OMT for a country is taken by the ECB governing council.
4. Unlimited purchases: no ex ante quantitative limits exist on bond purchases.
5. Focus on short-term debt: OMT will concentrate on buying one to three year bonds.
6. No direct government financing: Bonds are purchased on secondary bond markets only.
7. No seniority: The Eurosystem has "pari passu" creditor status (unlike in the SMP programme).
8. Full sterilisation of the liquidity effect.

Two features of the OMT programme have generally been seen as particularly important: its potentially unlimited nature as well as the conditionality defined in a standard financial assistance program in the eurozone. The ECB has emphasized that the conditionality would be a necessary but not sufficient condition for a program and that it would keep its discretion when deciding on an OMT programme. Yet, precisely those two conditions have also been criticized the most. As regards conditionality, Boone and Johnson (2012) argue that conditionality on austerity programs will eventually fail, as further austerity is politically impossible to enforce in Southern Europe. Along similar lines, Steltzner and Starbatty (2012) argue that the conditionality of OMT is not credible: if conditions are not met, stopping bond purchases would cause further harm to the monetary policy transmission mechanism. Once started, bond purchasing can no longer be stopped.

The more recent debate is about the potentially unlimited nature of the OMT programme. It is exactly this point that is at the core of the constitutional complaints against the ECB's program in the

German court. The plaintiffs argue that exactly the fact that the program is unlimited leads to incalculable costs to the German tax payer. Since there is no budgetary decision by the German parliament, the Bundestag, the plaintiffs argue that the potential bond purchases may lead to unlimited costs to the German taxpayer without a proper involvement of the Bundestag that is supposed to take this decision. This in turn would undermine the budgetary autonomy of the German parliament.

Before assessing the OMT programme in light of the discussion of the German constitutional court, I will review the OMT programme's context and effects as well as its importance for proper monetary policy transmission.

The Effects of the OMT Programme and Its Importance for Monetary Policy Transmission

The situation in the eurozone was dramatic before the announcement of the OMT programme. Nominal interest rates had hugely diverged, banks' access to finance was severely hampered, and the eurozone's financial system was deeply fragmented. Changes in the monetary policy stance of the ECB were not transmitted throughout all the eurozone and the ECB was therefore not able to fulfil its mandate of ensuring the proper conduct of monetary policy in the eurozone.

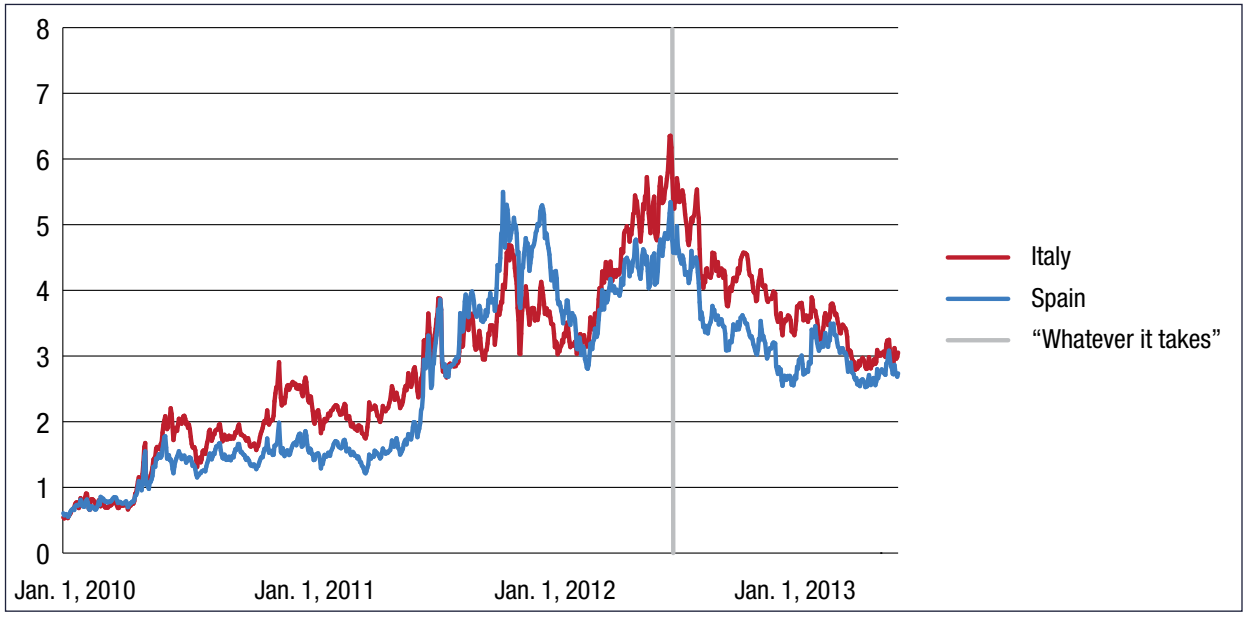
To fix this untenable situation for the ECB, bold action was required and the OMT programme delivered.

The decision has led to a dramatic improvement in the monetary policy transmission. Sovereign bond yields in Spain and Italy fell by 100 and 50 basis points in the first month after Draghi's 'whatever it takes'-speech in July 2012 and are now 200–300 basis points lower. Also, the bond spreads fell very significantly (see Figure 1).

Why was the OMT programme so successful in bringing down sovereign spreads? The effects materialized without the ECB needing to buy any bonds. So the pure announcement by the ECB that it could potentially buy bonds sufficed. It appears that the announcement moved the sovereign bond market from a "bad" to a "good" equilibrium.

The bad equilibrium is one in which doubts about the solvency of a government lead to a self-fulfilling crisis. Once investors start losing trust in the

Figure 1: Spreads (%) on 10 year bonds relative to Germany (1.1.2010–9.7.2013)

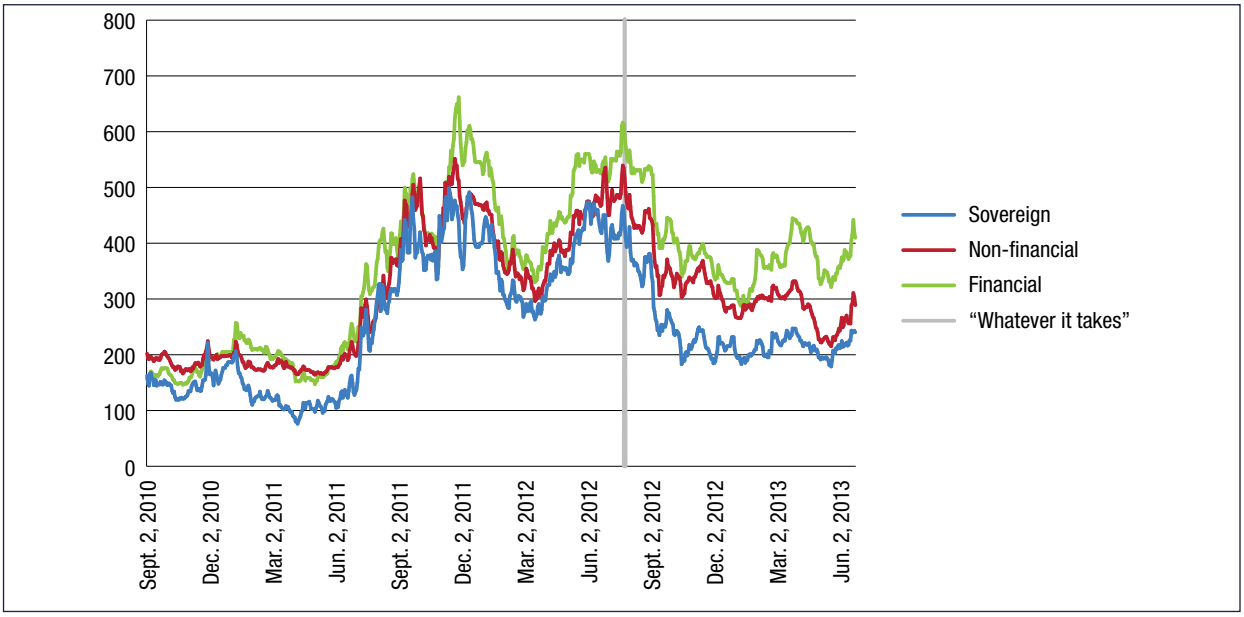


Source: Bruegel based on Datastream.

government's fiscal sustainability, they start selling bonds and push up interest rates. Yet, it is in fact the rising interest rates themselves that eventually render government debt unsustainable and thereby the initial doubt is self-fulfilling[5].

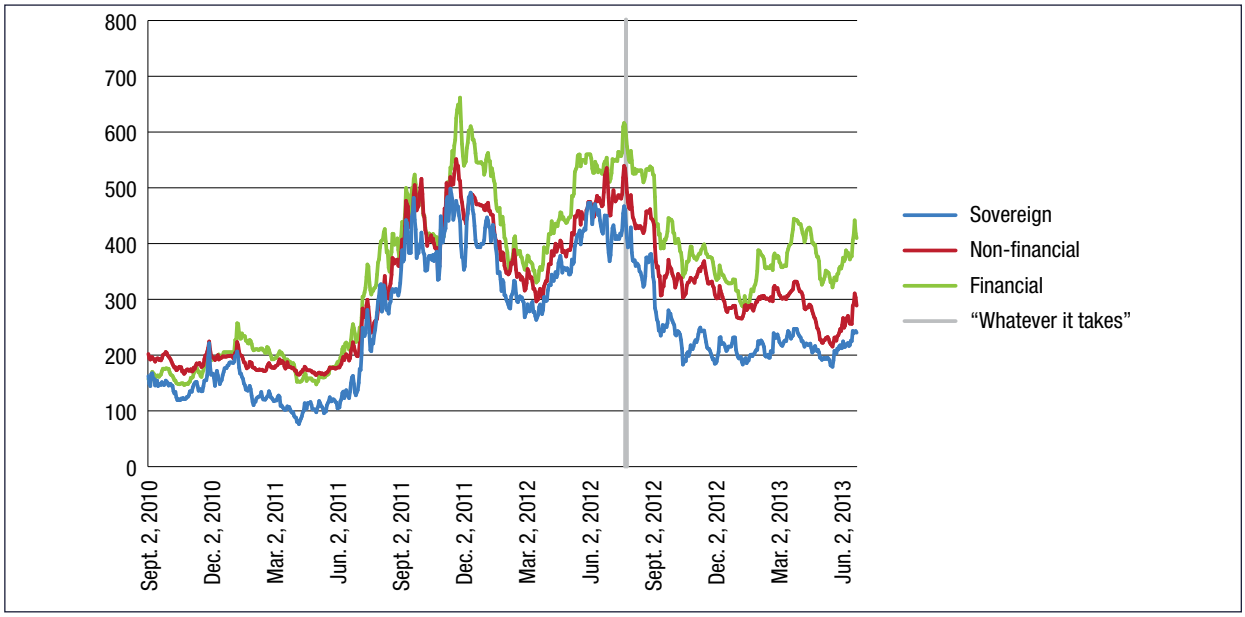
The programme was thus successful because it addressed a fundamental problem of the monetary union. Countries in the eurozone do not have direct influence on monetary policy, but issue debt in euros. This constellation resembles a situation

Figure 2a: Credit default swap risk premia on 5 year bonds by sector – Italy



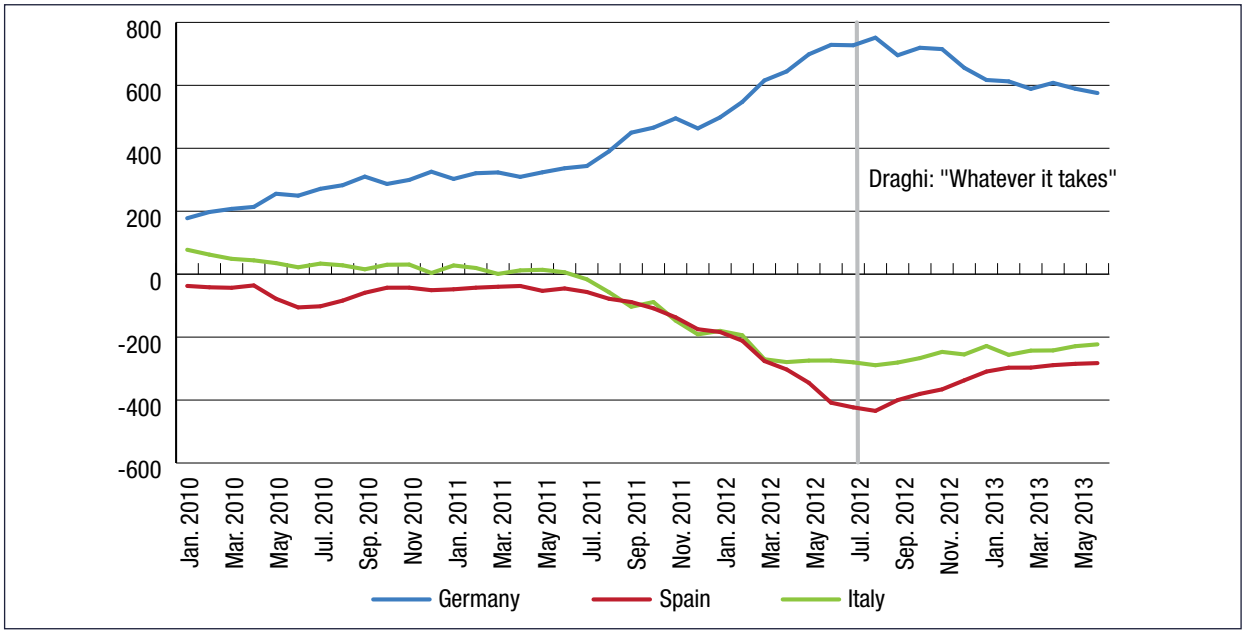
Source: Bruegel based on Datastream.
Note: The non-financial and financial series refer to the unweighted average of bonds by the five largest financial and non-financial corporations in the country.

Figure 2b: Credit default swap risk premia on 5 year bonds by sector – Spain



Source: Bruegel based on Datastream.
Note: The non-financial and financial series refer to the unweighted average of bonds by the five largest financial and non-financial corporations in the country.

Figure 3: TARGET2 net balances (bn EUR)



Source: Bruegel based on Osnabrück University.

in which governments issue debt in a foreign currency—and the breeding ground for a self fulfilling crisis is established[6]. Only the ECB has the capacity to address this problem and to credibly prevent a self-fulfilling crisis. Before the OMT programme, investors believed the ECB would not stand ready to do this and therefore betting against a country made sense as it would justify such setting ex-post due to the self-fulfilling nature of the bet.

Monetary Policy Transmission

The OMT programme was necessary from the point of view of ensuring proper monetary policy transmission. Figures 2a and 2b show that sovereign risk and financing conditions for financial and non-financial corporations are closely linked. In other words, the stress visible in the sovereign bond market related to a possibly self-fulfilling crisis did not only affect the sovereign but at the same time undermined the ability of the ECB to properly transmit monetary policy signals to the private sector.

The ECB could not ensure monetary policy conditions to be broadly similar throughout the eurozone, as the sovereign bond market divergences led to a dramatic financial fragmentation. This financial fragmentation was clearly visible in the interbank market, as banks in countries with stressed sovereigns were essentially prevented from accessing the unsecured interbank market[7].

This fragmentation meant that banks had to increasingly rely on the ECB for liquidity provisioning. The TARGET2 balances also increased dramatically, reflecting asymmetric liquidity flows within the European System of Central Banks (ESCB), up to the announcement by Mario Draghi. Since then this financial fragmentation trend was reversed and the so-called TARGET2 net liabilities fell by €141 billion in Spain and €57 billion in Italy between July 2012 and June 2013 (see Figure 3). The OMT programme was thus successful in improving and re-establishing the monetary policy transmission, even though the transmission mechanism has not been fully restored yet.

The Fiscal Implications of the OMT Programme

So, has the ECB with its OMT programme taken on board excessive budgetary risks? Has this

undermined the budgetary sovereignty of the German Bundestag?

To answer these questions, one first has to understand the fiscal implications of the OMT programme. Like any bond purchase programme, the OMT programme can have fiscal implications if a country were to default on its bonds[8]. The resulting loss would imply a reduction of seigniorage revenues that would normally be distributed via the national central banks of the eurozone governments. If the losses are even larger and the capital of the ECB is depleted, the value of the ECB would be lower. From the point of view of the eurozone as a whole, the net wealth of the government sector would not change as the losses by the ECB would be compensated by lower debt levels of the treasury. In other words, if we take the government sector as consisting of the treasuries and the ECB, there is no fiscal effect. However, the zero net effect masks gains by the defaulter that are paid by other members. The gain for the defaulting country would be equal to the difference between the total defaulted amount and the share of the country in recapitalisation determined by its capital key.

De Grauwe and Ji (2013) argue that in principle, the ECB would not need to be recapitalised in the event of a default on some of its asset holdings that would lead to a negative equity position. While this is true in principle, such an event would still have fiscal implications for the member states as shareholders of the ECB and that do not default. The country defaulting would obviously benefit, at the expense of others. Their claim that "because of the zero money multiplier there is a free lunch" cannot invalidate the distributional consequences of a bond purchase program targeted at one country. In the context of the money multiplier of zero, one can indeed make a case for a quantitative easing program as the effects on inflation would be limited. However, depending on which assets are bought and on which assets creditors default has distributional consequences.

The real case for the OMT programme should thus not be made on the question of its distributional and fiscal consequences. An asset purchase program can always have fiscal implications and even standard monetary policy operations can have fiscal consequences. The recent Long Term Refinancing Operation (LTRO) programme of the ECB, for example, by increasing the ECB's balance sheet size, increased the risk on the ECB's books with potential fiscal consequence. Yet, it was not at all put into question.

The central question is whether it falls in the remits of the ECB's decision-making power to use government bond purchases as a way to fulfil its mandate and to fulfil the mandate in an effective way. Arguably, before the OMT announcement, monetary policy did not operate properly. The OMT programme also reduced the budgetary risks for Germany, which were higher due to its exposure in the standard liquidity operations by the ECB. Only the OMT programme managed to bring down financial fragmentation and thereby helped the ECB to reduce its current role as a financial intermediary between banks in the fragmented financial system.

The ECB took action that was effective and appropriate in solving a fundamental problem it faced, namely a dysfunctional monetary policy transmission mechanism. Its action was clearly within its mandate of ensuring the proper conduct of monetary policy. The pure announcement of a potential OMT programme helped to reduce risks and to coordinate markets in a good equilibrium. For the German constitutional court, the only relevant question should be whether the OMT programme falls outside of the ECB's mandate.[13] For this, potential fiscal and distributional consequences are irrelevant, as many actions by the ECB can have fiscal consequences and it would be absurd to argue that the eurozone does not need a central bank. The OMT programme was an effective measure to help the ECB fulfil its mandate. This is what matters.

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[6] See De Grauwe (2011).

[7] See ECB (2013) "Financial Integration in Europe", (http://www.ecb.europa.eu/pub/pdf/other/financialintegrationineurope201304en.pdf).

[8] See Ricardo Reis at Columbia University summarized in *The Economist* (http://www.economist.com/blogs/freeexchange/2012/09/ecb-bond-purchases).

[9] Which in legal speak means that it would qualify as ultra vires, thereby undermining German sovereignty.

Uncomfortable Exits: A Tale of Two Lenders of Last Resort

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Introduction

In 2008, governments and central banks faced an unprecedented crisis. In response, they reacted swiftly and adopted policy measures that were until then considered heresy. Huge budget deficits and quasi-unlimited liquidity provision became widely considered as necessary by policymakers. And these were the right decisions that prevented the Great Recession from turning into another Great Depression. However, the recovery has remained weak in the U.S., and the eurozone has and continues to face a severe sovereign debt crisis. This has prompted policymakers on both sides of the Atlantic to pursue even more unconventional policies.

Policymakers and experts debated the effectiveness of these policies and many expressed concerns about the unwinding process. Most considered that such "unconventional measures" could not last forever and yet here we are. Fed Chairman Bernanke suggested in May, and confirmed in June, that the Fed would be "tapering" its massive program of GSE and bond purchases with a view to end it in the summer of 2014. Although a sort of toning down came from the Fed in July 2013, policymakers, experts and investors know that an "exit" strategy will have to be designed. The initial announcement, even cautiously wrapped within many conditions, made markets uncomfortable. Capital flows to emerging markets abruptly started to reverse and many today foresee that we are entering a completely new phase of the financial crisis. The goal of this article is to discuss the different challenges facing the Fed and the European Central Bank (ECB) when "exiting" their previous policies.

Central Banks with a Mission

We start with the dramatic increase in the size of central banks balance sheets, a distinctive feature of the present global economic outlook. Due to different policies in the past, total accumulated assets (measured as a proportion of GDP) in 2007 was much lower for the Fed or the Bank of England (BoE) (5 percent) than for the ECB (15 percent) or the BoJ (20 percent or so). The Bank of Japan had already been involved in aggressive monetary expansion for more than a decade as it worked to extract the Japanese economy from its deflationary trap; the ECB traditionally holds large amounts of gold and currency reserves. In 2008, following the collapse of Lehman Brothers, the Fed, the BoE, and the ECB simultaneously adopted extraordinary measures to flush the financial system with cash. This was a time of decisive actions that stopped a crisis that was threatening the global financial system. Jean-Claude Trichet summarized this experience by saying, "We have witnessed the abyss and we (*the central bankers*) will not allow it to happen again." But the return of the balance sheets to more normal levels would not happen soon. Further actions to increase the monetary base proved necessary for the years ahead in order to fight the weakness of the recovery in the U.S. and the sovereign debt crisis in Europe. The Fed and the BoE expanded their respective monetary bases by purchasing bonds while the ECB and the BoJ—reflecting the bank-centric structure of their respective financial systems—focused their programs on direct lending to banks. Despite the different contexts, these "unconventional measures" have strikingly similar consequences on balance sheets; the typical balance sheet of a western central bank in 2013 amounts to somewhere between 20 or 25 percent of the GDP,

35 percent for the BoJ. This is why these policies have been frequently labeled with the same expression, "quantitative easing". But this common expression is misleading because the Fed and the ECB fundamentally have different missions: fueling the recovery on the one side and contributing to the rescue of the European monetary union on the other.

In the U.S., after the initial massive stimulus, the implementation of which coincided with the beginning of the Obama administration in 2009, Congress neither wanted to add new expansionary fiscal measures nor start reducing the deficit. Marching from debt ceiling stalemate to fiscal cliff paralysis, fiscal policy proved more or less neutral until 2012. On the monetary side, the Fed has a "dual mandate", which means trying to keep the economy at full capacity as well as trying to ensure price stability. In light of the low inflation expectations, the main concern until the summer 2012 remained the weakness of the labor market. Conventional monetary policy had reached its limits with short-term interest rates practically reduced to the zero bound as early as in December 2008. As perfectly expressed by Chairman Bernanke, inflating the balance sheet through large-scale asset purchases (LSAPs) and targeting the whole yield curve appeared to be the best available decision to help a failing recovery. After all, lowering interest rates of longer-term securities could be described as "monetary policy by another name".

The eurozone story is very different. After the initial answer to Lehman's failure, the dominant goal of economic policies in the eurozone quickly became the design of the rescue operations following the Greek debacle. The disaster was a surprise for policymakers as well as for markets. But, after its acknowledgment, action should have followed the design of traditional IMF-style principles. Applied to a country that represents a small proportion (2 percent) of the eurozone's GDP, the Greek crisis normally would not have turned into major systemic risk. But there were two big differences between the eurozone and previous experiences in Latin America, Asia and elsewhere as emphasized in the ex-post IMF assessment of the crisis. First, the risks of contagion between Greece and the others were threatening; and the others were OECD countries that nobody, in particular the U.S. Treasury, was willing to see default. Second, the monetary union had been built as a currency "without a state" and based on a "no bail-out" principle; the definition of "IMF-style" principles of intervention adapted to the case proved a difficult political exercise, particularly in Germany. Absent a eurozone Treasury, the eurozone institutions that would have been needed to organize a rescue were nonexistent and had to be created at the same moment that they had to be fully operational. Once the doctrine had been adopted and the institutions created, IMF-style programs were implemented by the Troïka (the European Commission, the ECB and the IMF) but this chaotic process extended the crisis to major European countries, specifically Spain and Italy. As a result, the risk of a eurozone breakup was seriously considered by market participants in the fall of 2012. Obliged by its single mandate, acting under the suspicion of its German members (think of Axel Weber and Jürgen Stark's resignations), the ECB constantly and successfully acted within the limits of its mandate. It maintained a cautious monetary policy; and despite loud calls from the markets and from the financial press, the ECB did not use a "big bazooka" to cure tensions on Southern European countries' financing conditions before credible governments' commitments had been made. The ECB certainly did not duplicate what the Fed did, a decision that would have ignited a major political crisis between eurozone governments; but far from being shy, the ECB, the only federal institution in the eurozone, always undertook decisive action when needed. As regularly stated by ECB officials, the constant goal has been to ensure depth and liquidity in dysfunctional securities markets and, in so doing, to restore a proper functioning of the monetary policy transmission mechanism.

Different policies have different results. One way to look at them is to compare the respective evolutions of the monetary base and the money stock (M2). In times of crisis, "unconventional measures" increase

liquidity, causing the relationship between the monetary base and the money stock to be much looser than in conventional times. The traditional linkage between the monetary base and M2 continued until the fall of 2009, but the subsequent deviation in the evolution of the indexes calls for two observations. First, there was no explosion of M2. The monetary base, however, increased in much greater proportion in the U.S. and, until now, in successive permanent steps; in the summer of 2011, for example, the U.S. monetary base had grown 2.5 times faster than M2, taking Q1-2007 as starting point. In contrast, the reversal of exceptional ECB financing reduced the monetary base index in the eurozone almost to that of the M2 index. As Mario Draghi rightly emphasized, it was simply not right to say that the ECB's balance sheet had grown in extraordinary proportions as compared with the Fed's; at that date, the ECB's policy was close to being back to "normal". But the eurozone in the summer of 2011 took a turn for the worse with the sovereign debt crisis that spread from Greece to all southern countries and set up a vicious circle between banks and sovereigns. The acute phase of the debt crisis warranted additional measures from the ECB and these measures explain the sudden and extraordinary expansion of the monetary base after the summer 2011.

Unconventional Monetary Policies

Extraordinary policies should by definition remain extraordinary. What both central banks did in the aftermath of the Lehman's failure when quickly and massively inflating their balance sheets was extraordinary. It was a perfect example of the "lender of last resort", providing liquidity to a banking system threatened by the freeze of the inter-bank market. Once confidence is restored, banks start to lend each other and extra-funding is reimbursed to the central bank. This can be risky for the central bank, which can suffer losses (Chairman Bernanke proudly notes that the lender of last resort program has been reversed without any cost to the taxpayer); if too lengthily implemented, this can also affect the credibility of the central bank. But it is well recognized that this is what the central banks are made for in extraordinary times like the one we went through. Interventions in the bond and credit markets are of a very different nature.

Chairman Bernanke suggested that buying securities through the large-scale asset program that amounted to $2 trillion had nothing to do with "printing money"; that is confirmed by the modest expansion of M2. But if the monetary base is not "printed money", neither is it a "resource" that the institution has received and can use to buy securities on the market as if it were a portfolio choice; it is money creation by the central bank as well. A major tool of monetary policy being the short-term interest rate, it has also been argued that targeting longer-term interest rates follows the same logic. However, this is highly debatable. First, conventional monetary policy relies on the expansion or contraction of the balance sheet in a way that respects asset-liability maturities. Second, the conventional role of a lender of last resort is to refinance banks, not to help finance the Treasury or other governmental agencies at lower rates. Are interventions on the bond and credit markets respecting these principles? Yes, but under a strict—and rather implausible—condition that the assets purchased by the central bank are only temporarily parked on its balance sheet and will be sold to the market in due time. This looks like the Bagehot principle—lending to the banks with the expectation that these loans will be shortly reimbursed—but the risks involved are very different. Action made to directly finance the Treasury or the government-sponsored enterprises is not an answer to a temporary liquidity shortage; it is explicitly devoted toward reducing their rates. "Quantitative easing" in that sense has a long track record; it is conventionally called "monetary financing of the Treasury".

Contrary to the Fed's policy, the ECB never announced a target for sovereign debt purchases under the securities market program and the total amount remained limited to €300 billion at their peak. In fact, most of these have been sterilized, thus reversing the impact on the monetary base. The bulk of these purchases were made during two

episodes of particular tensions in the eurozone negotiations: first in the summer of 2010 (with a focus on Greek, Irish, and Portuguese debt) and second in the fall of 2011 (with a focus on Italian, Spanish, Portuguese, and Irish debt). The expansion of the ECB's balance sheet mostly reflects the impact of the main refinancing operations (MRO) and the long-term refinancing operations (LTRO) programs. Why did the banking sector need such a massive refinancing?

The ECB as a Substitute to a Failing Interbank Market

One of the most fascinating features of the monetary movements in the eurozone in recent years is linked to the so-called TARGET2 imbalances. Hans-Werner Sinn and his colleagues have attracted attention toward the massively diverging positions of the Bundesbank and Southern European economies' accounts in the ECB's books. At the end of 2012, the Bundesbank was in effect on the hook vis-à-vis the euro system for more than €700 billion. There is a very inconvenient reality beyond these figures: would the monetary union collapse, these claims would become unrecoverable and that would raise immense risks for Germany. This is possibly one of the most discernible reasons explaining why, despite its reluctance toward what it sees as the many ill-doings of its partners, Germany has never been tempted to go it alone. Pushing the argument ahead, these authors subsequently produced a much more controversial analysis, claiming that the Bundesbank was "financing deficit countries" through these TARGET2 accounts. The essence of their argument is summarized in the comparison between the evolutions of diverging current accounts and TARGET2 accounts for Germany and Southern European countries. The debate remained confused for months but, in the end, it clearly concluded that the TARGET2 accounts had little to do with "financing" current account deficits. Here is the simplest form of the argument. The only way for Greek customers and companies to pay for German goods is to use resources that have been previously properly financed. How? Either by current incomes (exports, transfers…) or by capital inflows. A deficit of the current account in Greece can only be financed by capital inflows; this is precisely the result of decisions made by the "Troïka" to rescue the Greek government and, good or bad, these are financial not monetary decisions. Where then do TARGET2 imbalances mostly come from?

Within a monetary union, the concept of balance of payments is properly qualified as irrelevant.[1] If we take the U.S. Federal Reserve system as an example, there could naturally be districts with "trade or current account deficits". This can happen for a variety of reasons but always because they receive funds from other districts; pensioners transfer their resources from Wisconsin to Florida during the winter, investment decisions to relocate the car industry fuel capital inflows into Alabama, or the federal government spends in red deficit states money collected in blue surplus states. In terms of "balance of payments", the resulting current and capital flows are necessarily balanced and the equivalent of the TARGET2 accounts only reflects the erratic result of day-to-day interbank operations[2].

It is striking to observe that things were working exactly along these lines in the eurozone until 2008: between 2000 and 2007, German exporters accumulated hundreds of billions of trade surplus vis-à-vis the Southern European countries without any significant movement in the TARGET2 accounts that remained close to zero. The difference thereafter is the result of precautionary behaviors that moved financial assets from southern-based banks to German ones. Cecchetti et al (2012) from the BIS described this as largely due to "hedging against the redenomination risk". This can be the case because southern agents became afraid of the "vicious circle between banks and sovereigns" or because banks simply flew for security toward a safe haven. The BIS has shown that British banks in particular have had in that way a much bigger impact than usually suspected. The BIS goes on to say "TARGET2 balances reflected something more akin to a currency attack than current

account financing or credit reversal". At that time, the German banks did not lend anymore the excess resources flowing into their accounts to Greek or other southern banks. Since trust was severely damaged, the North-South compartment of the interbank market froze. Funds held in German banks were parked into the ECB through the Bundesbank and the central bank balance sheet had to substitute for the failing interbank market.

Exiting Unconventional Policies

Where are we now after these extraordinary measures? There are two alternative narratives. Five years after the start of the global financial crisis, the U.S. and the EU are still suffering from high output gaps. Growth and unemployment figures nonetheless suggest a better economic performance between 2010 and 2013 in the U.S., which is enjoying a fragile recovery, than in the eurozone, which is in stagnation and close to recession in 2013. This comparison is a frequent reason to commend the boldness of the Fed and it is only one of the many criticisms addressed to the ECB for not having followed this American example, for having been obsessed with inflation, for having been reluctant to use a "big bazooka" and much more.

But how much did the quantitative easing help the recovery in the U.S.? The short answer is: somewhat, but not much. The yield curve has surely been pushed down; thirty-year mortgage rates have been reduced below 4 percent, which at historically low levels. But four years after the bottom of the cycle, real GDP remains significantly below what it should be according to the average historical recovery profile. However, demand has remained sluggish. Improved credit conditions have helped support the housing market but numerous structural factors still prevent a robust recovery in the housing market. The business sector is still suffering from excess capacity, which has discouraged investment and made cash hoarding attractive. Limited job creation, modest increases in income and efforts by households to deleverage continuously have weighed on consumption growth. The best news has undoubtedly come from the financial markets; in contrast with real economic indicators, the stock market topped its previous peak in the early months of 2013; was it another episode of irrational exuberance? Optimists see that as a promise of a progressively reinforcing recovery in 2013 and 2014, and this is the basis on which the Fed is (cautiously) preparing the "tapering" of the LSAP. Prudent observers emphasize the weakness of the recovery, as exemplified by the IMF, which has recently reduced its growth forecast. Regarding the exit strategy, the important point is that the assets purchased by the Fed should have launched a robust recovery so that they could "at some point be sold back to the market". If the recovery turns out solid enough, stocks and credit markets will be able to absorb a progressive return to a more conventional monetary policy and the Fed would have restored the conditions for growth at no cost. If the markets mirror the fear that characterized the 1994 and 2004 policy reversals, 2014 could see another rocky adjustment. As market reactions illustrated after the "tapering" announcement, this is the biggest question mark the Fed is now facing.

The eurozone in 2013 has entered calmer times. Since the spring 2012, its balance sheet has been shrinking and is now 15 percent below where it was one year ago. In fact, banks are starting to repay the three-year loan they took in the winter 2011-12. This success is frequently attributed to Mario Draghi's July 2012 statement that the ECB would do "whatever it takes to preserve the euro". Although this was a major turning point, this bold declaration should not be considered in isolation. There is a constant dialectic relationship between the posture and actions of the ECB on one side, and the vision and decisions of governments on the other. In a testimony before the German constitutional court on the OMT program, it has been argued "it was not in the power of the ECB to decide to rescue the monetary union"; true enough. But the commitment by Draghi was precisely made possible only because the European Council had confirmed in its June 2012 decision its willingness to do whatever was needed to build a more resilient monetary union and to push integration further through the "four unions". The ultimate

responsibility to confirm the "irreversibility" of the euro was in the hands of the governments and the subsequent duty of the ECB was to preserve the integrity of the monetary union and give time to adopt the necessary reforms. If governments adequately deliver, trust will be restored and the ECB will have saved the euro at no cost, but the major existing challenge facing the ECB is if markets conclude that policy actions do not follow; the major risk now facing the eurozone is a political one, complacency.

Conclusion

I have emphasized the important differences in the way the Fed and the ECB have implemented "unconventional policies". Far from introducing a new concept in monetary theory, the expression "quantitative easing" rather obscures the very fact that the policies of the Fed and the ECB are fundamentally different in their motivations as well as in their implementation. We have identified three major differences between the Fed and the ECB policies: the economic and political contexts, the logic and operational design of balance sheet expansions, and the results in terms of monetary and financial conditions. The Fed has designed a substitute for conventional easing once the policy rate reached the zero lower bound while the ECB has preserved a proper transmission mechanism of monetary policy in a particularly troubled context. The former has taken on its books a vast amount of sovereign assets with a view to reduce longer-term interest rates and fuel the recovery; the latter has mostly offered generous loans to banks in order to substitute a failing interbank market with a view to give time to the necessary policy decisions to build a better monetary union. They both have successfully managed the challenges following the first and the second phases of this crisis, the initial reaction to the Lehman's failure and then a weak recovery or a dysfunctional monetary union. This is ample proof that central banks have new and immense responsibilities in the wake of the crisis. But they still have to find the proper exit strategies.

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Endnotes

[1] This statement is different from any judgment regarding "competitiveness" which was one of the unsustainable weaknesses of the southern economies in the decade before the crisis; this is not the place to elaborate that argument.

[2] The accounting summary of these operations is reported within the « *Inter-District Settlement Account* » whose operations are defined as follows: "At the close of business each day, each Reserve Bank aggregates the payments due to or from other Reserve Banks. These payments result from transactions between the Reserve Banks and transactions that involve depository institution accounts held by other Reserve Banks, such as Fedwire funds and securities transfers and check and ACH transactions. The cumulative net amount due to or from the other Reserve Banks is reflected in the "Inter-district settlement account" in the Statements of Condition." Source: Kansas City Federal Reserve Bank's statement of conditions.

The World Economy According to an Excess Savings Country

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The position of any country in the process of global economic policy discussion and coordination is determined to a large extent by a combination of its economic fundamentals and the perception of how the economy works.

For the German economy, the key fundamental characteristic is that of continuing excess savings. Indeed for most of the time since the early 1950s, national savings in Germany have tended to exceed national investment, resulting in a continuing series of current account surpluses. The decade following unification constitutes the only deviation from this constant characteristic as the cost of unification was so large that Germany ran a current account deficit for over 10 years. But once the country had adjusted to its new situation, the old pattern of excess savings re-asserted itself.

Most German savings are intermediated by the domestic banking system, which has difficulties investing these surpluses abroad given that it cannot really take any large exchange rate risk. Before the launch of the Economic and Monetary Union (EMU), this constraint kept the surplus within limits most of the time (less than 1-2 percent of GDP). With the advent of the euro, however, German surpluses could become much larger and seem now to have become structurally engrained at 6 percent of GDP, or over one-quarter of total national savings.

When the excess savings reappeared in the early years of the euro, the large German surpluses did not constitute a problem for the global economy, as the excess German savings went into the eurozone periphery with the assumption that the high growth rates of these economies and the 'umbrella' of the euro made these a secure investment. The external current account of the eurozone thus remained in rough balance until 2011, as excess German savings were initially offset by dis-savings in the eurozone periphery.

The euro crisis, however, has changed this picture radically. As capital has fled from the euro periphery, these countries have had to adjust by reducing their domestic expenditure, thereby eliminating their current account deficits. The result has been that the eurozone is now on course to run a large current account surplus. In 2014, it is likely that the current account surplus of the eurozone will be much larger than that of Japan and about the same size as that of China (around $300 billion); and the surplus of the eurozone plus that of Switzerland (whose currency is pegged to the euro) will be the largest in world. Excluding Germany, the rest of the eurozone is now also in surplus in the aggregate. Moreover, the current account surplus of the eurozone is projected by the IMF to increase to about 2.5% of GDP. This implies that the eurozone (together with its satellites) is now exerting a substantial deflationary impact on the global economy.

Given that the current account surplus has by now persisted in Germany for a decade, it has become ingrained in the economic structure of the country. Powerful interest groups, which are often inclined to defend the status quo, thus have a tendency to portray this situation as 'natural' and in the interest of the country. This has affected the perception of the government which tends to argue that the German surplus is an expression of a superior economic system, one that is more 'competitive' than others.

A strict economic view of the situation would be different: the large current account surplus reflects an excess of domestic savings over domestic investment. Whether a continuation of this situation is in the interest of the German economy depends on the relative rates of return one can expect on domestic investment relative to foreign investment.

This question of what Germany actually earns on its foreign assets constitutes the Achilles heel of Germany's economic strategy. Since the start of the euro crisis, German private savers have repatriated a large part of their investments from the eurozone periphery, effectively unloading their exposure onto the public sector as German banks have deposited hundreds of billions of euro at the Bundesbank. The interest rate paid by the ECB on these hundreds of billions of euro deposits is zero. This implies that German savers receive a negative real return on a significant part of their foreign investments. At the end of 2012, the claims of the Bundesbank towards the euro system totalled some €800 billion, which is about equal to 80 percent of the entire net foreign asset position of the country.[1] The return on a very large part of German investment abroad is thus zero in nominal terms and thus necessarily negative in real terms. But at the same time, there must be plenty of domestic investment opportunities that would yield a positive real return for the country. Public investment in infrastructure has been falling in Germany and is now below the average for the eurozone, and much below the average for developed countries in general. Moreover, an incipient housing shortage is developing in a number of German cities. More investment in housing should thus also yield a good real return. This suggests that it cannot be in the long-term interest of the German economy to continue to accumulate very large current account surpluses when the rate of return on foreign investments is so low.[2]

During a financial crisis, excess savings provide of course a quite different advantage for the country as they protect the country's financial system from the disruption that the debtors face. In this case, the onset of the crisis actually led to the realisation of large losses that German banks had made in their investment in U.S. subprime assets, which had during the boom years been regarded as riskless and classified as AAA. However, these losses could be hidden from public view by putting them into special vehicles whose accounts are so opaque that the true losses, which will have to be borne by the government, will not be known for years. The financial crisis thus created the impression to the German public (and political elite) that a current account surplus protects against any negative effect from a financial crisis. This is partially true in the sense that Germany was protected from the financial distress that brought havoc to the debtor countries. But one must keep in mind that Germany could have such a large surplus only because the debtors had run up such large deficits and debts.

This brings one back to the obvious point that it would be impossible for all countries in the world to have a savings surplus. The key issue for the global economy is thus where additional investment would have the highest return. This question should be placed at the centre of G-20 discussions on the global economy. In reality, however, the 'mutual assessment process' is driven by the perceptions of the participating governments of their national interests, each taken individually.

The position of the German government in the G-20 process is thus determined mostly by its perception that ideally, the global economy should be managed in such a way that the German surpluses can continue, while that at the same time, other countries adopt policies that enable them to service their debt towards German investors. A priori this would imply that an expansionary monetary policy in the rest of the world is not in Germany's interest as this would tend to depress other currencies relative to the euro, which in turn would make it more difficult for German exports, but also, and this might be more relevant, it would devalue the foreign assets held by German investors.

It is thus not surprising that from a German point of view, the various rounds of quantitative easing (QE) by the Fed were not welcome when they

were instituted. However, it now appears that unconventional monetary policy actually is about to achieve its aim, namely to kick-start the U.S. economy such that both consumption and investment start growing again without needing further stimulus. Indeed, the U.S. economy seems now close to this situation. This implies that German criticism of 'excessively lax' macroeconomic policies must now be more muted as these policies seem to have yielded a result which should be in Germany's interest: a resumption of growth without a major depreciation of the U.S. dollar.

Germany is of course not the only player whose past criticism of U.S. macroeconomic policy must be re-evaluated. The talk about 'currency wars' from some emerging market economies thus seems, in retrospect, misplaced.

The key question now is whether the eurozone as such will become effectively a greater Germany. One might compare the eurozone today with the situation of Germany before EMU. Before the introduction of the euro, German excess savings exerted generally upward pressure on the nominal exchange rate of the deutsche mark. But the exchange rate appreciated very unevenly, with periods of relative stability interspersed with periods of rapid appreciation, during which the real economy suffered numerous exchange rate shocks. In periods of a quickly appreciating exchange rate, slowing export growth tended to reduce the current account surplus, but it also lowered GDP growth and raised unemployment. Conversely, in periods of exchange rate stability, accelerating export growth tended to lead to growing current account surpluses but also to stronger GDP growth and lower unemployment.

The exchange rate barrier thus kept the German current account surpluses from rising much above 2-3 percent of GDP. An economy of the size of the eurozone is also likely to experience similar difficulties in running a surplus above this size. It would thus appear to be in Germany's best interest that the rest of the eurozone does not become too Germanic in its savings habits. As for the rest of the world, Germany can only hope that stimulus abroad works so that foreigners can continue to buy German goods and services and hopefully service the debt accumulated in the meantime.

Endnotes

[1] The German government might receive a small positive nominal return since these funds are being lent by the ECB to banks in the eurozone periphery (at 25 bps), and the ECB might thus make a minuscule return on these funds, of which the Bundesbank will receive a large share. Still, this return will certainly be negative in real terms.

[2] Over the period 2008-2012 Germany accumulated current account surpluses worth €644 billion, but the net foreign asset position of the country improved by €200 billion less than this figure. These €200 billion represent the losses on the value of German foreign investment abroad. In this way the country wasted resources worth about 10 percent of GDP.

Need for Thought Diversity to Combat Group-Think in Central Banking

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History tells us that there has been no constancy in the practice of central banking since central banking as we know it began at the turn of the twentieth century. There is no one size that fits all. Central banking functions and practices change in conjunction with the economic environment. This can be seen over time in the same jurisdiction, and at the same time across different countries, as can also be observed today. Central bankers around the world, and those who oversee them, need to acknowledge this and act accordingly. We need different horses for different courses. Yet a good deal of discourse on central banking and monetary policy around the world is conducted as if the same nostrums can be prescribed across space and time.

This principle applies to a large number of issues ranging from the practice of monetary policy for price stability and exchange rate arrangements, to the management of financial stability and reserve assets. Emerging market economies (EMEs) and developed countries have very different preoccupations and these need to be borne in mind when devising strategies for their proper functioning. This is especially important as the EMEs have generally emerged from the North Atlantic financial crisis (NAFC) in better shape than the old-established industrial nations: their precepts and experience should therefore be heeded more in the future than hitherto. Advanced economies themselves have witnessed a sea change in their practice of monetary policy since the advent of the NAFC.

What are the lessons from the new developments of the last few years? The costs of this economic crisis are consistent with those suffered by other countries in the past, but this time the fall-out has been concentrated on the core of the world economy in the U.S. and Europe. The lasting social and economic costs of extended economic stagnation and the sharp unemployment levels that prevail now, seldom experienced in advanced economies (AEs) since the great depression, are yet to be evaluated comprehensively. Poor countries or EMEs like India can ill-afford such severe consequences that typically emanate from the eruption of systemic financial instability. A case in point is Indonesia, which lost more than a decade after the 1990s Asian crisis. AEs may also experience a lost decade as a consequence of the NAFC, but their income levels are such that they can possibly afford such stagnation, though at a tremendous social cost. EMEs, however, do not have this luxury, so the maintenance of financial stability assumes greater significance in the ordering of economic policy objectives.

Central Banking in the Pre-Crisis Period: Narrowing Mandates

Not surprisingly, rethinking is now under way on what constitutes best practices in macroeconomic management, encompassing fiscal, monetary, and financial policies. The narrow monetary policy fixation on consumer price index-based inflation targeting frameworks is being questioned, as is the phenomenon of the Great Moderation itself. This was a period when, in fact, massive credit expansion took place along with an eventually unsustainable asset price boom putting in question the idea of the "Great Moderation" itself. Furthermore, there was an increasing consensus on the role of central banks being confined to monetary policymaking to the exclusion of financial regulation and supervision, and narrowing of monetary policy itself to

inflation targeting through changes in the short-term policy rate. The U.K. led this movement when it took away responsibilities for banking regulation and supervision from the Bank of England (BoE), set up the Financial Services Authority (FSA), unified all financial sector regulation and supervision in this authority and formally adopted inflation targeting for their monetary policy. As a result the BoE lost day to day contact with banks and financial markets as a whole and initially had difficulty in responding when the financial crisis erupted. In the conduct of monetary policy, central banks later had to adopt various measures now characterized as "Unconventional Monetary Policy" (UMP), and depart from the narrow confines of inflation targeting. They had to give equal consideration to the restoration and maintenance of financial stability and the need for shoring up of economic growth. There is now a reversal in thinking and practice, with the UK again leading the way. The FSA has been folded back into the BoE; and banking supervision is sought to be brought into the fold of the European Central Bank (ECB). There is also increasing consensus that the primary responsibility for financial stability should rest with central banks, along with that of price stability.

The wisdom of light-touch financial sector regulation, earlier promoted as international best practice on the back of the efficient markets hypothesis, is also being questioned now and more intrusive and comprehensive regulation is being reconsidered and made respectable. A great deal of discussion is taking place on the introduction of tighter financial sector regulation and supervision and its coordination internationally, in multilateral fora such as the Bank for International Settlements (BIS), the Financial Stability Board (FSB), and in the European Union. This is also finding its reflection in national level jurisdictions in new legislations such as the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 in the U.S., which are strengthening the role of central banks in maintain financial stability. In addition, as a result of the huge fiscal expansion worldwide, fiscal policy is back at the center of economic policymaking, with monetary policy having been seen to be constrained by the zero interest rate bound. Even this constraint was then addressed by the practice of UMP with unprecedented quantitative expansion being used by leading central banks in the North Atlantic.

So we have now experienced an extended era of close to zero interest rates. This policy has been instituted to stimulate lending so that economic growth can be revived. The huge expansion of central bank balance sheets, accompanied by near zero interest rates has so far not led to expansion in lending, although financial markets have clearly benefitted. But, perhaps counter intuitively, is it possible that interest rates below a certain level actually lead to lower lending? Below a certain interest rate level, there is no incentive for banks to take the risk that lending implies. It is better for them to buy so called risk-free treasury bonds and to keep reserves in central bank deposits, especially if they are interest-bearing.

Partly as a result of this, quantitative easing by the Fed, the BoE, and the ECB, has brought attention back to the symbiosis between national treasuries and central banks, shifting from the previous trend that had emphasized the 'purity' of independent monetary policymaking. Moreover, the European Central Bank has effectively had to abandon its declared policy of no bail-outs for sovereign debt in order to preserve European financial stability.

All of this has an impact on central banks' real or perceived independence, but we need a proper debate on this. We shouldn't see the independence of central banks as an objective in itself, but much more as a means toward some end. The addition of various new responsibilities, particularly related to financial stability, is seen as a problem because it could erode the perceived independence of central banks. However, the subject is more complicated than this and needs more discussion and clarification.

As one example, it is clear now that a great deal of financial innovation in the West was misguided, and central bankers should have developed the right tools to keep this under control. Loose mon-

etary policy and very low interest rates were responsible for the search for yields that led to a great deal of innovation that has been neither economically nor socially useful. All of this was abetted by light-touch financial regulation. There was rare academic unanimity on the neatness of inflation targeting and light touch financial regulation over the 15 years preceding the crisis. Much of this view was rooted in the belief in rationality of financial markets that we now know was wholly misplaced.

Resilience of the EMEs During the NAFC: The Role of Their Central Banks

The experience of the Reserve Bank of India (RBI), and other central banks in EMEs is noteworthy and perhaps worthy of emulation. In the years before the North Atlantic financial crisis, the RBI followed a course of active policy intervention, both in terms of monetary policy and in pursuing active and intrusive financial regulation. This went against the received wisdom of the time and was viewed critically by both domestic and foreign observers—but this policy has now largely been vindicated. In contrast to the then prevailing approach of laissez-faire liberalisation, the RBI demonstrated the value of independent thinking in the face of considerable group think that was characteristic of much thinking on monetary policy and financial regulation around the world. Such an eclectic approach has a long tradition. Pragmatism in the interest of maintaining financial stability has been the RBI's hallmark, with the former governors, Bimal Jalan and Y. Venugopal Reddy playing an invaluable role in the pre-crisis decade.

Additionally, the orthodox doctrine of free cross-border capital flows is now being reconsidered in light of the imbalances that have become a staple of the global economy. There has been a persistence of inflation and growth differentials between developed countries and EMEs for an extended period. This implies a corresponding nominal interest rate differential, leading to arbitrage capital flows that then put further upward pressure on exchange rates and result in even more arbitrage flows. The International Monetary Fund, after a careful review lasting over two years, has itself now come out with a new policy endorsing capital flow management in certain conditions. For example, it now recognizes that in the face of global spillovers from UMP in leading AEs, central banks in EMEs may need to take capital flow measures to preserve financial stability in their own economies, as they had indeed been doing even before the NAFC. Similarly, it has endorsed the actions of the Swiss National Bank in setting a ceiling on the appreciation of the Swiss Franc through aggressive forex intervention. Thus, central banks have to act in many different ways depending on objective economic developments domestically or in the world economy. For EMEs there has been little alternative but to practice regular foreign exchange intervention, reserve accumulation and some degree of capital account management. Now some similar actions have to be taken by some of the most AEs such as Switzerland.

Reserve accumulation in EMEs is often perceived as resulting only from precautionary motives and viewed critically. What is forgotten is the need for the expansion of central bank balance sheets in the presence of seven percent-plus real GDP annual growth (nominal growth of 12-15 percent) in some significant EMEs over a sustained period. In such circumstances, base money needs to grow at some similar rate and hence central bank assets too. If the EME is practising prudent fiscal policy, the supply of domestic securities may not be adequate for expanding the central bank balance sheet: hence the demand for foreign securities and foreign exchange reserves. When this happens with a large economy like China, the whole world feels the consequences. More needs to be done to expand the supply of risk-free foreign assets for such central bank needs. As large EMEs like India and Indonesia, among others, join China in such a growth mode over the next couple of decades, the demand for such assets can only expand.

All of these considerations must be seen against the background of the resilience exhibited by Asian and Latin American EMEs including, in particular, India. We need to look at the underlying reasons

for this. The immediate impact of the crisis on these economies during 2008-2010 was through two channels. First, there was a sudden reversal of capital flows, which had been unprecedented in magnitude during the years prior to the crisis. This reversal had significant impact on the capital and foreign exchange markets in these countries. The foreign exchange reserves accumulated in the surplus years were then put to good use. Second, the fall in global trade far exceeded the contraction in global GDP. In spite of these setbacks, no significant banks or financial institutions in these countries exhibited substantial stress: none required a bail-out. After the initial reversal of capital flows, with the onset of zero interest policy rates and UMP in advanced economies, capital flows again resumed with the associated impact on their exchange rates and foreign exchange management.

Evidently, these countries have been doing something right since the various Latin American crises of the 1980s and 1990s, and the Asian crisis of the late 1990s.

While much of the world increasingly insulated the central bank from financial sector and banking regulation, the RBI, and other central banks in EMEs, consciously viewed regulation as an integral tool of monetary policymaking, broadly interpreted, which also focused on financial stability. Furthermore, they actively intervened in their foreign exchange markets and undertook capital account management to varying degrees. They viewed the barrage of financial innovations, ostensibly to aid risk management, with caution and had programmed their introduction on a gradual basis. On the external side, opening the capital account had been pursued with great circumspection, though much of professional economic advice was to the contrary. Had the RBI and other EME central banks not deviated from then established received wisdom of central banking practice, they might not have fared so well.

The consequence of this overall policy stance was that India escaped the worst consequences of this international crisis, as it had also done during the Asian crisis. It was able to resume its pre-crisis growth path relatively quickly, and at relatively low fiscal cost, though some storm clouds have indeed appeared recently, primarily due to excessive continued fiscal expansion. Prior to the crisis, this cautious approach had merely been seen as one being pursued by non-modern, inadequately-informed, conservative policymakers.

Conclusion

In this post-crisis period, international discussion on financial sector reform is revisiting many of these questions, and the Indian approach is no longer an outlier. Other EMEs in Asia and Latin America have followed similar approaches since the late 1990s. A generally cautious but consistent approach to economic liberalisation appears to have brought greater financial stability as well as accelerating economic growth. These are all rich lessons to which the world should pay greater attention if it is to re-embark on the road to growth and prosperity.

As economic conditions change, financial markets grow and deepen in EMEs, and the world creeps back to some degree of normality, EME central banks will have to keep changing their approach as needed. Correspondingly, central banks of AEs will also have to unwind their UMP, but are likely to remain with their new responsibilities for maintaining financial stability. The important point is that we must encourage diversity in thinking both across time and space and eschew group-think in monetary policy and financial regulation.

Poor Politics That Destabilized the Good Economy

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Introduction

Indonesia came out of the global financial crisis fairly unscathed. It experienced a limited banking deleveraging as a result of the crisis. However, it was soon discovered that structural issues, including burgeoning fiscal subsidies and inward-looking trade policies are more of a threat to the economy than the crisis itself. The case of Indonesia serves as a reminder that structural reforms, including fiscal and trade reforms, are needed for financial and monetary stability.

Early in the Crisis: The Limited Impact of Banking Deleveraging

Up until 2012, evidence showed that the impact of the bank deleveraging as a result of the crisis was limited in Indonesia. Funding exposures from European and American foreign bank branches are extremely small compared to those from local banks. With regards to loans in foreign currencies from foreign bank branches, up to 2012, deleveraging in the West had no impact in Indonesia. To begin with, the contribution from European creditors (bank and non-bank creditors) in domestic financing is relatively small, amounting to less than 30 percent of the total foreign liabilities to Indonesia. Exposures of trade financing are also considered relatively limited given its small share in the foreign liabilities figure.

In terms of onshore banking, the impact of post-crisis global deleveraging on Indonesia's banking activities has been miniscule. Nominal loans in foreign currencies extended by both foreign bank branches and local banks (in other words, foreign bank subsidiaries and local national banks) experienced a V-shaped decline in 2009, followed by a strong recovery up to 2011, which brought the post-crisis level above its pre-crisis level. Meanwhile, nominal loans in local currency by foreign bank branches mostly flattened out in 2009 while nominal loans in local currency by local banks remained strong.

In addition, local banks have been able to attenuate the impact of a decline in inter-bank borrowing as a result of the crisis. Total sources of funds, which include deposits, inter-bank borrowing—securities issued, and loans received by local banks—have remained strong and growing. One of the key reasons for this is that local banks were able to gradually shift towards deposit-based sources of funding from the inter-bank borrowing. The proportion of deposit to total sources of funding showed an increasing trend starting from 2007 to 2009.

Further deleveraging of European and U.S. banks will continue to have minimal effects on Indonesia's financing, as local banks replace the financial services of European and U.S. bank branches. Despite the strong lending recovery up to 2011, which brought the post-crisis level above its pre-crisis level, market shares (in terms of average total assets) of foreign bank branches of European and U.S. banks have continued to decline. Following the crisis, the role of local banks has increased, reducing Indonesia's exposure to foreign banks' activities.

On the financial account side, direct investments, portfolio investments and other investments in Indonesia remained stable until 2012, despite a substantial outflow in the third and fourth quarters of 2011. Short-term deleveraging was clearly

demonstrated in portfolio investments in this period, as Indonesia experienced outflows of $4.7 billion and $261.3 million in the third and fourth quarters respectively. Nevertheless, this was not the case for foreign direct investment (FDI) in Indonesia. FDI flows remained positive at $1.71 billion in the third quarter and $2.1 billion in the fourth quarter.

Despite Indonesia's limited exposure to the crisis, some precautions were taken. Due to the very high level of leverage across multiple sectors in advanced economies, the deleveraging process in these advanced economies was expected to be a long one. To mitigate the unintended consequences of such shocks, Bank Indonesia (BI) implemented several measures. BI intensified macro-prudential and supervisory intensity on all banks, particularly on dollar liquidity issues. Liquidity backstop facilities were in place both for normal times (intraday liquidity facilities and short-term funding facilities) and to prevent systemic crises (emergency liquidity assistance in extremely stringent terms and conditions) for all banks operating in Indonesia. BI also has bilateral swap arrangements (as part of ASEAN+3 Chiang Mai Initiative). This enabled Indonesia to cushion liquidity issues for individual firms and systemic risk prevention. In addition, BI, together with the Ministry of Finance, implemented a Crisis Management Protocol (CMP) which acts to prevent and mitigate the risk of a crisis.

Other than increasing prudential regulatory measures and implementing financial stability infrastructure, it was not until 2013 that the central banks and other related government agencies made significant monetary and other structural policy changes. Rising structural issues forced these institutions to react to the rising threats against economic stability.

Later in the Crisis: How Domestic Politics Created its Own Economic Turbulences

Rising oil demand in Indonesia due to a growing middle class has made Indonesia a net importer of oil for some years now. However, further growth of the middle class and volatile global oil prices, exacerbated by black market trading on subsidized fuel prices, have increased the pressures of oil subsidies on the government budget. In the revised 2013 national budget, energy subsidies, which include fuel and electricity subsidies, are as much as 25.1 percent of the central government expenditure. Compare this to social expenditures of only 6.7 percent and capital expenditures, which are mostly spent on infrastructure, which are 15.7 percent of the budget.[1] In 2012 energy subsidies were 30.4 percent of central government expenditures. After the Asian Financial Crisis of 1997-1998, Indonesia adopted the terms of the *Maastricht* Treaty, a fiscal rule that caps the government deficit at 3 percent and the debt-to-GDP ratio at 60 percent. Currently, the large fuel subsidy expenditures are restricting Indonesia's capacity to spend in growth-enhancing categories, including social and capital spending. Ballooning oil subsidies are not only affecting Indonesia's fiscal space. Subsidizing fossil fuel with poor targeting increases inequality, degrades the environment, discourages innovations of renewable energy and is a drain on Indonesia's balance of payments.

Trade deficits in Indonesia are driven by the "structural deficit" on oil and gas trade. Indonesia's current account showed a significant reversal in 2012, starting from a small surplus in 2011 into a 2.7 percent deficit in 2012. Through mid-2012, most of the decline originated from a rapidly shrinking non-oil and gas trade surplus, followed in more recent months by a widening oil deficit. There is a domestic political-economy aspect of trade policies contributing to the trade deficit in 2012.[2]

In addition to weaker external demand (and in some cases, bad weather), the rapidly shrinking non-oil and gas trade surplus could be partly due to a recent ban on rattan[3] exports, export taxes on minerals and some inward-looking import policies. In late 2011, the government put a ban on the export of raw and semi-processed rattan materials. In May 2012, the government imposed an average of 20 percent export tax on 65 mining commodities. In addition to the export tax, export licensing on these minerals also became more restrictive,

requiring mining exporters to be registered with the Ministry of Trade, after having secured an approval from the Ministry of Energy and Natural Resources.[4] Imports on finished goods have also become more restricted while a significant share of manufactured exports consist of imported value-added. What is more, in May 2012, the government passed a new regulation on finished goods. A general importer is now only allowed to import goods that fall under one heading, and an importing producer is now only allowed to import finished goods for market testing and as complementary goods. This may have contributed to a weak performance of exports. Measuring Indonesia's trade in value-added terms shows that while the bulk of overall exports consist of domestic value-added due to the high share of commodities, a significant share of manufactured exports consists of imported value-added.[5] About a third of imported intermediate goods are in fact re-exported, underlining the close link between import availability and the performance of manufactured exports.

In addition, Indonesia's value-added in service exports is particularly low.[6] This reflects little contribution of domestic subsidiary services for supporting exports. More robust developments of these services would have likely helped the overall export performance.

Two-thirds of Indonesia's gross exports rely on natural resource-based products. The aforementioned factors, combined with falling commodity prices, have weakened export performance, which declined by 6 percent in dollar terms in 2012. Compared to 2011, exports to China in 2012 alone declined by 5.6 percent, which is significant considering that export growths to China are usually positive and strong. China has also recently put a restriction on low-quality coal, which makes up about one third of Indonesia's coal export to China. Considering China's new growth norm[7] and trade restriction on low-quality coal, Indonesia's weak export performance could be structural. It may necessitate structural changes since it cannot rely on exporting raw commodities to big emerging markets, like China, anymore.

Some trade policies have also contributed to skyrocketing prices on basic food commodities. In the spirit of "self-sufficiency", since 2010 the government has gradually re-introduced import quotas on a range of agricultural products. For example, the Ministry of Agriculture issued a strategic five-year blueprint for 2010-2014, for 39 government-identified production targets, namely rice, sugar, soybeans, beef and corn. The target is to achieve self-sufficiency by 2014. In March 2012, the Ministry of Trade restricted the handling of all horticultural imports to Indonesia from seven ports of entry to four, which forced virtually all of Java's horticultural trade through Surabaya. Only after pressures from some trading partners, were the U.S., Canada, Australia, and New Zealand (those countries with Mutual Recognition Agreement) were exempt from the restriction. In 2012, the Ministry of Trade also regulated licenses to importers of horticultural products following an earlier recommendation by the Ministry of Agriculture. This was not the only measure that complicated the import licensing process. API (*Angka Pengenal Importer* or Importer Identification Number) regulations were later introduced by the Ministry of Trade. It is speculated that this measure is one of the main causes for the recent congestion at Jakarta's Tanjung Priok Port, Indonesia's main port, which handles about 70 percent of containers circulating in and out of the country.

Since June 2013, Tanjung Priok Port has had congestion problems with regards to processing containers of imported goods and controlling the flow of traffic in and out of the port itself. One of the main reasons for the congestion in containers is the explosion in the number of containers identified as "red lane," which jumped to 25 percent this year from about 8 percent last year. One possible reason for this sudden increase has to do with API. The regulation has forced companies to set up new subsidiaries that deal with their import needs. Since these subsidiaries are classified as new companies, customs automatically move their container to the red lane. Only after some time, when they have built a reliable track record, can they be classified differently. In the meantime,

four main food commodities reported having very limited supplies during the June-August period. These four food commodities are shallots, big chilies, 'rawit' (or small) chilies, and beef. If the trend extends through the end of the year, sugar, 'rawit' chilies and beef will have a negative supply. This is yet another example of how restrictive trade policies have impacted food security and inflation of the domestic food market.

The new licensing system and port-entry restrictions had a negative impact on the import volumes and domestic prices of horticultural imports. Prices soared initially, between January and March 2013. For example, the prices of shallots climbed between $1.20 to $7 a kilogram in March alone. The price of garlic has tripled from around Rp.20,000.00 per kilogram in January to Rp.60,000.00 in March. Garlic price inflation is also a clear example of distortionary trade policies. While almost 90 percent of Indonesia's garlic consumption relies on imported garlic, the government sets a restricted quota that has caused a supply shortage and inflation. The government even admitted its mistake on the garlic quota.[8] The share in the food basket of four food items—red and green chilies, garlic and onions—is only 5 percent, however they contributed to almost 50 percent of the recent increase in food inflation.[9]

In the case of beef, the government's quota for live cattle and frozen beef between 2011 and 2013 caused a severe shortage in the domestic market, triggering a very sharp increase in beef prices. In 2011, a new restriction required importers of beef to have a special license and required them to import from designated "disease-free" countries. In 2012, the government decided to cut the beef import volume available to importers by 57 percent. This likely triggered a shortage of supply at the initial price, bidding up prices to clear the market.

Indonesia's restrictive trade policies have not gone unnoticed in the international community. In January 2013, the U.S. lodged a complaint with the World Trade Organization as it reported Indonesia's trade policies as being "restrictive" with its "complex web of import-licensing requirements" unfairly limiting U.S. exports.

The increase in food prices brought the poverty basket inflation rate up from its near three year low of 5.3 percent in November to 6.1 percent in February. Whether there is a justification for trade policies to promote self-sufficiency of agricultural products is subjective, but one study shows that there is little evidence these actions improve the terms of trade for farmers or increase rural real wages.[10]

Based on the continuing pressures on the "bleeding" fiscal budget from fuel subsidies, the threat of inflation, and the widening current account deficit, Standard and Poor's downgraded the outlook on Indonesia's credit rating. S&P not only cites Indonesia's waning reform momentum as the reason for this outlook. It explains that the subsidies are the main reason why S&P had not upgraded Indonesia's credit rating to investment grade yet. The consistent decline of the balance of payments has put pressure on the rupiah and has forced BI to intervene. As a result, International reserves have declined from the record high $120 billion in 2011 to less than $100 billion by July 2013, exacerbated by portfolio outflows due to the news of the Fed's exit strategy, which includes increasing the interest rate and winding down QE3.

Accelerating portfolio outflows have also put pressure on the currency. The onshore rupiah rate has depreciated to as low as Rp.9,960.00 per dollar in late June for the first time since September 2009, while offshore non-deliverable forward rates neared Rp.10,000.00 in early June.[11]

Moreover, the recent reduction on capital goods imports suggests that the recent slowdown in investment growth may extend due to the expected co-movement between imports and investment. The weaker commodity market may also continue to impact capital investment spending in capital-intensive resource sectors. At the same time, inflation will erode real purchasing power which could slow down domestic demand, one of the main drivers of Indonesia's GDP growth.

Investment is also likely to face some negative outlooks from ongoing and possibly further difficult politics as the 2014 election approaches.

The fiscal distortions and restrictive trade policies have clearly complicated macroeconomic stability in the country. Although public discussion to raise the fuel prices started in 2010, difficult coalitional politics and a lack of decisive leadership are delaying the decision to raise fuel prices, most likely until it becomes too late to save the rupiah. Moreover, a series of trade policies that adopt the spirit of 'promoting domestic industry' and 'protecting the balance of payments', as reflected in the new draft trade and industry laws, have adversely affected the trade balance and caused inflation.

As a reactive rather than systemic response to threats on macroeconomic stability (including downgraded growth, which is projected to be less than 6 percent in July 2013 by the World Bank[12]) and political stability, especially ahead of the *Idul Fitri*, also called the Feast of Breaking the Fast in Indonesia, different government agencies and the central bank have taken strong actions to reverse some of the policies they have adopted.

The government just made a revision to the 2013 national budget. The key features of the revised budget, which was approved by the parliament on June 17, 2013, include a revision of projected spending on fuel subsidies and a package of compensation measures designed to reduce the impact of higher fuel prices on the poor (including direct cash transfers, rice for the poor and scholarships for children). The rise in subsidized fuel prices was made effective on June 22 with the subsidized petrol prices rising by 44 percent to Rp.6,500.00 per liter and the subsidized diesel price increasing by 22 percent to Rp.5,500.00 per liter. The 2013 deficit has been revised upwards by 0.7 percentage points to 2.4 percent of GDP, due to lower projected nominal revenues, in line with weaker anticipated GDP growth, and higher total expenditure (including fuel subsidies, despite the increase in subsidized prices, due to higher projected global oil prices).

Higher temporary inflation is expected in the near-term due to the fuel subsidy reform package. It is predicted that the higher fuel prices will initially have a large impact on inflation, raising the annual average inflation in 2013 by around 1.8 percentage points to 7.2 percent, peaking at around 9 percent year-on-year, towards the end of 2013.[13]

However, despite the intention to narrow the oil trade deficit, it is estimated that the increase in subsidized fuel prices will only reduce the 2013 current account deficit by 0.2 percent of GDP relative to a no-reform scenario.[14]

At the same time, the BI reacted swiftly to the threat of the dollar liquidity condition. It issued sizable external sovereign and state-owned enterprise dollar bonds. Tight U.S. liquidity conditions were partly eased by net foreign purchases of domestic equities and bonds.

Moreover, rising inflation and the recent Fed announcement to unwind QE3 by the end of next year and increase the U.S. interest rate have prompted BI to increase interest rates. BI raised the overnight deposit facility rate (FASBI) (from 4 percent to 4.75 percent) and the policy rate (from 5.75 percent to 6.5 percent) by 75 basis point in less than one month since early June 2013. Although this increase is not as significant as the 400 basis point increase in 2005-2006 and the 150 basis point increase in 2008 when the government cut fuel subsidies, it is the first significant interest rate increase in five years. The increases in FASBI and the policy rate have prompted banks to also increase consumer and investment borrowing costs.

Meanwhile, complaints by the trading partners and media criticism of rising prices in domestic markets have prompted the Indonesian authorities to rescind several of their licensing requirements and to raise quotas for the affected products. On April 24, the Ministry of Trade issued a new regulation easing import restrictions and simplifying procedures for 39 of 57 horticultural items on the original list. In early June, the government appointed the National Food Logistics Agency (Bulog) to

import additional beef outside of the established quotas, to help stabilize prices ahead of *Idul Fitri*. On July 20, the Ministry of Trade announced that it would remove import quotas for beef and live cattle to further stabilize domestic prices on beef.[15]

Whether Indonesia's economy has remained insulated from the crisis because of good economic management or pure luck is uncertain. What is certain, however, is that Indonesia's resilient economy is now exposed to the destabilizing effects of poor domestic politics and a lack of leadership.

Conclusion

Although the effects of the financial crisis were wide reaching, Indonesia has come out unscathed, as it was protected from the deleveraging of European and American banks. However Indonesia's macroeconomic landscape is quite different in 2013 than it was during the turbulent crisis period. Indonesia's economy is now characterized by rising inflation, the lack of fiscal space due to fuel subsidies, increasing stress on the balance of payments, declining international reserves, the depreciating rupiah, and a lowered forecasted growth. The picture above illustrates that structural (not cyclical) fiscal and trade issues are complicating policymaking in Indonesia and have led to ineffective and costly monetary policies. Some even accused the central bank for trying to do too many things at once as they worked to manage this range of issues. The most recent portfolio outflow that resulted from the Fed's exit strategy announcement reminds us of the integrated global banking and financial system and the various monetary transmission channels that operate across borders. Monetary coordination needs to be strengthened at the G-20 as no open economy is isolated from the monetary policy of another country. For example, the G-20 can provide a solution to better manage the spillover effects of QE measures implemented by an economy. Without better monetary coordination, tensions among member countries might escalate to name calling and finger pointing. Moreover, the above story also indicates how important structural reforms are to macroeconomic stability. The G-20 must not only prioritize financial regulatory reforms and monetary coordination, but it must also address structural reforms. In the case of Indonesia, for example, China's new lower growth norm and its trade restrictions on low-quality coal, may necessitate Indonesia to make structural changes so as not to rely too much on importing raw commodities from big emerging markets, like China, anymore. Traditionally, a poor economy often results in political instability. Across the modern world this lesson seems to ring true as America, Europe, and Arab nations face different political struggles. Indonesia, however, cautions that the reverse is also true; poor politics can result in economic instability.

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Endnotes

[1] See Nehru (2013) pp. 151
[2] Indonesia has never had an annual trade deficit at least since 1998.
[3] Rattan plant stems are used for binding and making cane furniture.
[4] See Anas (2012).
[5] See World Bank (2013) pp. 27
[6] See World Bank (2013) pp. 28
[7] See Huang (2013).
[8] See Lubis (2013).
[9] See World Bank, 2013, pp. 12-13
[10] See Nehru (2013) pp. 157
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The Rise of Unemployment in the Eurozone: The Worst of the Crisis is Not Over

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The Unemployment Crisis in Europe

The relentless rise in unemployment, particularly youth unemployment in the majority of the eurozone member countries over the last three years is one of the most dramatic consequences of the protracted crisis in the euro area. At this stage, a quarter of young Europeans have no job and face daunting prospects, to say the least, with reference to the possibility of finding employment. Finding measures to mitigate this problem and prevent the deepening of the unemployment crisis has become a major undertaking in Europe.

An effective and wide plan of action with concrete answers to this challenge is needed. The real contribution that Europe can make to the fight against unemployment, including youth unemployment, today is actually linked to the revival of the growth process. In the context of a prolonged overall stagnation in the euro, no incentive to the labor market will be sufficient in the absence of a sustained economic recovery. This applies today, as we argue below, to the profound changes in the austerity policies adopted so far. These policies are at the root of the ongoing crisis and will penalize the European economies for an extended period of time. The recent recognition in Brussels that a further softening of budget-cutting targets is required given the economic reality of record unemployment and a second year of recession in the euro area is not enough. Rather than being abandoned, austerity has simply been prolonged.

Another reason why Europe should act is that Fed Chairman Bernanke recently announced that the several rounds of QE, the greatest experiment in the history of central banking, might be nearing its end. Since 2009, the Fed has been buying financial assets–U.S. Treasury bonds and some types of corporate debt–paid for by an expansion of the monetary base. This kept interest rates low and helped indebted businesses and households. It has also been the major support for booming financial markets.

After the announcement by Chairman Bernanke, there has been a big sell-off of risky assets in emerging markets and, to a lesser extent, in developed markets. It is too early to say whether this is a temporary development or just a moderate de-risking. There are substantial risks with the Fed's exit plan. Stimulatory effects could be reversed before private demand is strong enough and the U.S. recovery might slowdown, taking the entire global economy down with it. Bond yields could rise too rapidly or too unevenly, and become a danger to the financial system. Both effects could have negative repercussions for the euro area and in particular for the peripheral high debt countries. This is yet another reason not to further delay policy reform to boost growth and reduce unemployment in the euro area.

The Recessionary Phase of the Euro Area

The euro area registered its second recessionary phase in the last four years and a very modest recovery of 0.7 percent is expected for 2014 although the unemployment trend will continue. The other very disappointing outcome shown by the data is that the gap between the reasonably prospering North and the struggling South is persistent but has slightly consolidated. Unemployment rates are around 5 percent in Austria, Germany and the Netherlands in 2014, but above 25 percent in Greece and Spain and in the 11 to 16 percent range in Ireland, Portugal, Italy and France.

Despite these alarming trends, the dominant and rather optimistic European view is that the current combination of fiscal austerity and national structural reforms are working well. According to this view, these policies need more time and a more flexible application at the country level to produce the expected results. France and Spain were among those provided with this flexibility to meet their fiscal deficit-reduction programs.

My fear, however, is that this apparent shift in policy amounts to little more than a tactical retreat to respond to the backlash against austerity. Austerity is prolonged through these means, and this strategy will not be sufficient to modify the present negative trends in Europe.

The optimistic reading suggests that the economic performance of high debt countries has in fact started to improve, and an effective adjustment process is underway. It is true that some recent improvements and real adjustments are taking place. A more careful look at the ongoing rebalancing in the euro area and European Union (EU) indicates that, in quantitative terms, the external adjustment of current account deficits is not sustainable and fiscal problems remain devastating. Additionally, rebalancing to-date is predominantly the result of the adjustment in the deficit. The main issue is that the improvement of the deficits and economies of these member countries largely reflects internal devaluations and collapsing domestic demand, which have plummeted in all highly-indebted countries (more so in Greece and Ireland, less in Italy, Spain and Portugal). It is not at all clear that these countries could maintain their external balance if growth and imports start to recover.

Developments in the eurozone member states with large current account surpluses have so far contributed only very marginally, if at all, to the rebalancing of the euro area. And this asymmetry has produced a deflationary bias in the eurozone as a whole. If most eurozone country governments cut spending at the same time, the deflationary effect on internal demand on GDP would be further magnified.

As a consequence, growth has suffered, recession and stagnation trends have hit all peripheral countries and the euro area at large.

The Deflation Will Not Work and Will Increase the Risk of Populist Revolts

The flexible approach to austerity adopted in Brussels, even assuming deflation is mitigated, will neither solve the difficulties of the eurozone nor offer a viable exit strategy from the prolonged debt crisis for two reasons. First, austerity has a self-defeating impact on growth when interest rates are close to zero. The IMF references this numerous times in its recent papers and analyses. Second, the unresolved banking crisis and associated credit crunch in the euro area will further depress nominal growth. As a consequence, this will increase the stock of debt in many highly-indebted countries. By deciding that the crisis was largely fiscal, policymakers ignored the underlying cause of the difficulties—irresponsible cross-border lending for which bank suppliers of credit are surely as responsible as citizens.

Given this perspective, it is very likely that the eurozone will face a prolonged slump of the kind that Japan has experienced over many years and will not return to significant economic growth for at least the next decade. In particular, the economic and social situation in Southern Europe is bound to remain grim for several years. As things stand, all Southern European countries are facing the prospect of a true lost decade. According to the IMF, their GDP *per capita* will be lower in 2017 than it was in 2007.

In this kind of scenario, one could see two main risks. The first risk is beyond this year and involves restructuring public and possibly private stocks of debts, which will likely become unavoidable in many eurozone countries. The second is that societies may lose patience as long as stagnation persists. As a result, the risk of populist revolts against EU-driven policies will increase and some countries may become difficult to govern.

Already, anti-European movements have gathered an increased following as voters associate structural reforms with rising unemployment and social stress. These forces have even had electoral success, as is the case with Beppe Grillo's Five-Star Movement (M5S) in Italy. There is no doubt that European leaders need to address these dangers and try to avoid an extended period of populism-inspired movements.

An Effective Growth Strategy Requires Actions on Multiple Fronts

Is there any alternative to status quo policies in Europe? As we know the answer is yes—at least on paper. One should first acknowledge that the current strategy for combating the eurozone crisis is failing and needs deep reformulations and recalibrations. The issue is not whether fiscal consolidation and external rebalancing are necessary—they are. Instead, it is how to make them economically and socially sustainable. An alternative approach must combine more symmetrical macroeconomic fiscal adjustment and investments with microeconomic policy measures aimed at encouraging structural reforms and productivity increases (to narrow competitive gaps across member states). The categorical imperative for Europe is to return to growth. Only growth can allow peripheral countries in Europe to pursue a strategy of fiscal consolidation and gradual reduction in unemployment that is sustainable and effective at the same time.

An effective growth strategy requires actions on multiple fronts. First, policies that support demand are needed in the near-term. In this regard, the recent commitment by the ECB to keep the monetary policy stance accommodative for as long as necessary, is effective. Expansionary monetary policy can provide very useful space through additional conventional and unconventional measures. These measures include forms of credit easing, looser collateral requirements for securitized bundles of loans to small and medium-sized enterprises, a negative deposit rate, and credit easing for lending schemes.

Still, monetary action is not enough. To revive eurozone demand, Europe's internal imbalances and Germany's huge external surplus must be addressed. Large trade surpluses will remain a powerful drag on economic activity in the eurozone and put a big obstacle in the way of the needed adjustments between member states. European countries with current imbalances will have to demonstrate how they intend to close them; the onus lies equally with those running trade surpluses as those with deficits. In effect, the pace of fiscal adjustment and policy in the North has major implications for the Southern European countries. Collectively, the economies of the eurozone comprise the second largest economy in the world. The trouble is that the eurozone is managed as no more than the sum of its parts. The dramatic error of the austerity policy was, and is, to repeat this fallacy of composition.

In other words, convergence and adjustment will not happen automatically in the eurozone, but need to be policy-driven. New policy and governance priorities are thus required in the eurozone in order to put more emphasis on cooperative games in convergence and competitiveness. Three years ago, the European Commission argued that rebalancing within the eurozone needed to be symmetric if it was to be consistent with economic growth. It followed that economies with big trade surpluses are obligated to rebalance their trade as much as the deficit countries. In reality, very little emphasis has been placed on rebalancing the surplus economies so far.

A Banking Union is Essential for the Eurozone

Second, a banking union should be established and completed since it was always considered essential for the eurozone. The "vicious circle" between collapsing banks and national governments forced to bail them out lay at the heart of the eurozone crisis. Many countries are forced to seek EU rescue aid when they cannot afford on their own to bail out banks that misbehaved in the easy credit years before the crisis. In the present fragile situation of many banks and in a world that could soon be de-

prived of the Fed's QE support, a credible assessment of the quality of banks' assets is needed. Restoring the health of banks' balance sheets requires quantifying capital needs and creating a clear plan on how to meet these needs. Furthermore, a banking union process should be completed, with common deposit insurance and common resolution procedures. So far, only the single supervisory mechanism (SSM) pillar of the banking union has been realized and will enter into force next year. The European Commission has very recently published a proposal for a single resolution mechanism (SRM). In its proposal, the European Commission has a lot of power to make the final decision on which banks to resolve and how resolution funds are used. This is relatively reasonable, but Germany is unlikely to accept the commission's proposal. The risk is a delay in reaching a final agreement on the bank resolution and recovery directive. Still, the amount of hidden losses in bank balance sheets is ultimately quite large. In the meantime, the danger is that the bank-sovereign link will be reinforced causing an increase in systemic and contagion risks across the eurozone.

Third, there will also have to be some form of fiscal union and eurobonds, or an equivalent instrument. On the one hand, the eurozone periphery suffers from too little competitiveness to achieve external balance without significant domestic deflation and unemployment. On the other hand, the periphery has too large a stock of debt problem—both public and private. We know that the most direct way to address an excessive debt problem is to write down the debt, a very extreme solution indeed. As already mentioned, in the absence of a significant change in the obtuse austerity policy, this extreme solution could become inevitable. Before that point, however, one should look to take alternative routes, and growth can also help address the problem. The "European Redemption Pact" in which EU countries without bailout programs would transfer the portion of their government debt that exceeds 60 percent of GDP into a common fund remains a valid proposal. Under the various versions of this proposed scheme, countries participating in the fund would have to make a binding pledge to redeem their debt over 20-25 years with convincing measures such as earmarked national tax revenues. Very recently the president of the European Commission formally launched the high-level expert group whose function is to recommend reforms of the banking sector. It is set to provide a feasibility analysis on a eurozone debt-mutualization scheme in the form of a redemption fund and eurobills.

The Fall of Popular Support for Europe

These proposals and necessary steps are obviously complex and difficult. But they are absolutely necessary to change the economic policy of the eurozone, moving in the direction of boosting growth and creating jobs, especially for the younger population. While some of these steps will be achievable within the current framework for European economic governance, other equally fundamental steps call for a significant deepening of the integration process together with a further centralization of policymaking at the European level.

This process will not be easy. The majority of European citizens are deeply disappointed and discouraged by the continuing crisis and the failed austerity policies intended to counter the effects. They now seem very unwilling, if not downright hostile, to the transfer of policy sovereignty to Brussels. Certainly there is still a strong consensus in all member countries—according to recent opinion polls—in favor of the euro choice. Yet popular support for the further strengthening of EU institutions is at very low level.

Ultimately this key issue should be addressed to ensure a smooth functioning of the monetary union and a revival of growth and employment in the eurozone. It is a narrow but mandatory path. The alternative is that Europe will keep muddling through; member states will continue with their current policies which will lead to depression and EU authorities will become increasingly unpopular. This scenario risks transforming the European dream into a nightmare for all euro member countries, Germany included.

Overcoming Deflation and Moving Forward

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Five years have passed since the global financial crisis, but the risk of deflation is still present in the global economy. Japan's recent signs of economic recovery and improved market sentiments provide an excellent opportunity to reconsider the challenges of overcoming deflationary expectations. This article argues that overcoming entrenched deflationary expectations rests primarily on monetary policy and that its success will depend on credible fiscal policies to reduce public deficits. The overall long-term policy goal is to encourage entrepreneurship and foster innovation, which proves difficult under a deflationary environment. Such policies should be supported by a regulatory framework that can ensure fair and transparent functioning of capital markets, thereby enabling efficient pricing of risks in allocating scarce risk-taking capital.

Bold Monetary Policy

Monetary policy in major countries has played a predominant role in responding to the global financial crisis. In the wake of the failures of many large financial institutions, major central banks provided liquidity to the financial systems under unprecedented stress. They also assumed a decisive role in macroeconomic management, resorting to nontraditional policies both in terms of instruments used and in terms of the scale in which they implemented them.

The Bank of Japan (BoJ) had pursued a strategy, now being followed by other major central banks after the crisis, centered on very low interest rates and quantitative easing (QE). With an aim of dispelling prolonged deflationary expectations, the BoJ recently embarked on a significantly bolder monetary policy, as part of the three-pronged approach of "Abenomics", an economic policy strategy of the new government headed by Prime Minister Shinzo Abe. This three-pronged policy consists of bold monetary easing, flexible fiscal policy, and a growth strategy to promote private investment.

Markets have so far responded favorably to this new policy initiative. The Nikkei 225 stock market index rose by 38 percent in the first six months since Prime Minister Abe took office. The developments in currency markets have helped ease deflationary pressures caused earlier by larger scale monetary easing in the U.S. and Europe. The optimism in Japan's stock markets has also been helped by the buoyancy of U.S. stock markets, where investors have become more sanguine about the recovery of the U.S. economy. There are now more signs that the recovery in Japan is gaining momentum, gradually spreading the optimism that the prolonged period of deflation will be finally over in the near future.

Lingering Nervousness

In Japan, given the prolonged and entrenched deflationary expectations, it is not easy to completely reverse such expectations. Nervousness and skepticism still remain about "Abenomics" and these new policies in the mind of some critics. These feelings seem to have been heightened by the recent volatility in the stock and currency markets, which have been driven primarily by the concern that the program of large-scale bond purchases in the U.S. will be tapered off much earlier than had been expected. This nervousness has spread around the world, but it has been most pronounced in Japan, where it is thought that a rise in long-term interest

rates would have an adverse impact on the health of the banks that have been the major holders of government bonds. With the level of outstanding government debt extremely high, there are also worries that the impact on the government's borrowing costs might further enlarge fiscal deficit. This concern seems to be amplified by the signs of a stronger recovery that may edge up long-term interest rates, adversely affecting a long-term recovery prematurely.

While uncertainties are inherent in markets, the nervousness in the Japanese markets may be exaggerated for several reasons. Compared with other countries, the level of long-term interest rates is still the lowest in Japan. At the same time, the stock and bond markets are in the process of digesting the policy changes and it will take some time for a new steady-state to emerge. No signs have yet emerged that would encourage inflationary expectations to rise. In fact, an interesting analysis by the IMF's *World Economic Outlook*[1] argues that over the past decade or so, inflation in advanced economies has become less responsive to changes in economic slack and that long-term inflation expectations have become more firmly anchored. This suggests that ongoing monetary policy accommodation is unlikely to have significant inflationary consequences as long as inflation expectations remain anchored. This analysis is particularly valid for Japan, where deflationary expectations are deeply entrenched. In addition, while the potential impact of the rise in long-term interest rates may have an adverse impact on the profitability of banks, it is believed that the effect would be limited. In fact, encouraging banks to increase lending in order to support investment by borrowers, and discouraging them from sitting on investments in government bonds, is an important part of the overall economic policy strategy.

Obviously, it is premature to prescribe an "exit" from the unconventional monetary policy in Japan. Deflationary expectations will have to be dispelled and replaced by expectations of "price stability", defined as an inflation rate of 2 percent. This process will certainly entail a rise in *nominal* long-term interest rates above 2 percent from the current level of slightly below 1 percent. The key to the success of a bold monetary policy lies in ensuring the stability of long-term *real* interest rates, and will depend crucially on the ability of the government to set its deficits on a sustainable path toward reduction. If the ability of the government to ensure the sustainability of debt were to be seen as fragile, the perceived risk of the premature increase in interest rates would be heightened, jeopardizing the favorable impact of the bold monetary policy to sustain and support real economic activity. The effectiveness of the bold monetary policy therefore cannot be separated from the credibility of fiscal policy in controlling deficits over the medium term. In this environment, the "exit" policy of the central banks will not be an easy road back to the normal conduct of monetary policy, but will involve pressing the government to proceed with fiscal consolidation.

Preventing Deflation

Following the global financial crisis, preventing deflation has become a main policy agenda in many countries. The bold monetary policies pursued by major central banks reflect the sense of urgency with which they aim to prevent deflation and a return to recession, having in mind the prolonged deflation which has persisted after the bubble burst in Japan. Five years after the crisis, however, the fight against deflation and recession is not yet over in many countries.

Deflation can be very dangerous. It threatens the stability of the economy and the society in the long-run. Deflation makes firms and households excessively risk-averse, due to the devaluation of assets held by households and firms. Inability to lower real interest rates toward zero hampers monetary policy. Households and firms who have outstanding debt suffer from the real increase in the debt burden. With the prospect of decreasing prices, household consumption is postponed and businesses become cautious in making investment decisions given the perceived high real interest rate. Business sentiment is also adversely affected by greater uncertainties about the future of the

economy and the undervaluation of the market capitalization of firms in the stock market. Risk-taking activities, necessary for innovation, are generally suppressed and the economy starts shrinking, depriving the youth of job opportunities and on-the-job learning—an impact that could last a generation. Investments are likely to shift abroad due to high real exchange rates, further depriving job opportunities at home.

When deflation is mild, however, such danger may not be fully recognized by political leaders or by the public. The danger of prolonged mild deflation is likely to be underestimated and fighting deflation might not gain policy priority. In fact, there are some segments of society, such as pensioners, who may benefit from prolonged mild deflation. The public begins to accept a zero increase or mild decrease in the consumer price index as price stability, not recognizing the real dangers. Deflationary expectations become entrenched, leaving the long-term real interest rate at a high level and slowly depriving the economy of entrepreneurship and the risk-taking that is necessary to move the economy forward. Only when this deflationary process becomes a visible vicious cycle does its danger become recognizable.

Exploring Policy Options

Debates will continue on the effectiveness of various policy options in preventing and overcoming deflation. The assessment will not be easy as there have been varying degrees of clarity of policy intentions, and in the strength of their implementation. In the absence of clear positive results of policies, the public may become impatient in the process, triggering political changes and bringing about policy reversals which can exacerbate uncertainty. In many cases, various policies are mobilized simultaneously and the outcome is the product of all, influenced simultaneously by external developments.

Several points seem worth noting, especially in light of Japan's experiences so far. The role of fiscal policy in supporting the economy and the social safety net should not be underestimated. In the immediate aftermath of the financial crisis, private sector net savings spiked as households and firms cut investment, and households saved more, resulting in a huge increase in budget deficit. Tax revenues fell sharply while expenditures adjusted slowly, serving as an automatic stabilizer in the economy. Fiscal policies have also been used more proactively to fight deflation and reduce unemployment. Expenditures on the social safety net have helped alleviate the burden that falls on the socially vulnerable, including the young and the unemployed. Fiscal expenditures on infrastructure projects helped upgrade the quality of public services, which may have been needed regardless of the economic situation.

Overall, however, the effects of fiscal policy on reversing deflationary expectations seem to have been limited. The ballooning deficits have raised concerns about debt sustainability, and eventually eroded confidence in the ability of government to sustain the level of public services and social safety nets including public pensions and medical insurance. These greater uncertainties of the future dampen household consumption and depress business sentiment. In the eurozone, the situation is more complicated and room for fiscal policy is limited. The withdrawal of fiscal stimulus is being required in countries with financial difficulties in order to steadily restore fiscal sustainability. In addition, the use of fiscal policies is further constrained by the level of real interest rates, which may have external effects on the economy. In an open economy, the effects of fiscal policies might spill over abroad through the appreciation of exchange rates.

In summary, fiscal policies may have proven effective in the short run, particularly in supporting the economy and maintaining the social safety net, but not in overcoming deflationary expectations in the long-run.

Under these circumstances, monetary policies naturally assumed a predominant role in fighting deflation, as discussed above. There have been a series of debates on how much of the deflation

is a monetary phenomenon. Certainly, there are non-monetary factors—such as demographic factors, technological changes and intensified international cooperation—that exert downward pressure on the general price level. Nevertheless, it has also been clearly recognized that monetary policy has a crucial role to play in reversing deflationary expectations.

The BoJ has been taking a bold approach. Since the spring of 2013, it has replaced the gradual and incremental approach with a bold one in pursuing the explicit inflation target of 2 percent. In April, it announced that the monetary base and the central bank's outstanding amount of Japanese government bonds and ETF holdings would be doubled in two years, with the average remaining maturity of the bank's bond purchases extended to more than twice as long.

The challenges facing central banks in fighting deflation are enormous. First, short-term interest rates are close to zero and do not effectively serve as operating targets. Even if there is room for cutting interest rates, the effect on the cost of new financing would not be as large when households and firms are cutting the existing debt by active deleveraging. The operating method therefore needs to depend on unconventional policies, including QE, with the monetary base serving as the operating target.

Second, monetary and fiscal policy become closely intertwined in a deflationary environment. In such an environment, household and corporate sectors tend to record surpluses while the government sector runs deficits. The QE approach can be taken by the central bank confidently only if it has a reasonable basis to judge that its independence is respected and that its actions are in no way interpreted as monetizing fiscal deficits. The credibility of a medium-term fiscal consolidation program is therefore a prerequisite to bold QE, as discussed above. In the case of the BoJ, its policy decision was made possible by a joint statement with the Japanese government, in which the government stated that it would steadily promote measures aimed at establishing a sustainable fiscal structure and at ensuring the credibility of fiscal management. The BoJ also made it clear that its purchases of government bonds would be carried out solely to achieve the price stability target and not in any way to finance the fiscal deficit.

Finally, central banks need to overcome ideological hurdles in pursuing unconventional policies. No central banker would want to be seen as compromising its independence, and many of them are naturally hesitant about embarking on non-orthodox policies, particularly on QE through aggressive purchases of government bonds. There are "hawks" that would be willing to criticize any departure from the orthodoxy within and outside their circle. These hawks can be politically strong in many countries, particularly where the memories of high inflation or excessive real estate bubbles are still fresh. In the case of eurozone countries, the orthodox philosophy seems to be combined with the fear that such policies may eventually lead to countries with strong fiscal discipline bailing out countries with less fiscal discipline. This heightens the challenges for the European Central Bank in carrying out bond purchasing policies, as necessary. Ultimately, many central banks will have to navigate through rough waters of skepticism and criticism.

Fostering Business Investment and Innovation

Overcoming deflation means bringing the economy back to a steady path of growth, based on private sector consumption and investment particularly on robust business investment, embracing entrepreneurship and fostering innovation. Business investment requires mobilizing scarce risk-taking capital of private sector investors. The role of capital markets is to mobilize such scarce capital and allocate it to innovative firms and projects. For capital markets to function effectively there should be sufficient risk-taking capital and a willingness to utilize it, with the depth and liquidity of the markets, supported by robust institutions

and practices, allowing efficient and fair pricing of risks and returns.

Deflation erodes the core function of capital markets in several ways. In a deflationary environment, the totality of risk-taking capital becomes smaller as excessive risk aversion becomes a rational behavior. When prices are generally expected to decline, credit risk premiums become larger with the rise in the real interest rate and the probability of default becomes higher. Most importantly, the general lackluster stock market performance, a measure of general recognition of these risks in the economy, and the undervaluation of the capitalization of listed companies reduce the confidence of business leaders, who become excessively risk-averse and hesitant to take forward-looking decisions on investment.

Bold monetary policy through QE has therefore had a favorable impact on the ability of capital markets to play a significant role in creating an environment for reviving business investment. In this regard, setting a clear inflation target, typically 2 percent, is particularly helpful in reversing deflationary expectations and embracing adequate risk-taking in a market economy.

The faster recovery of the U.S. economy, both in terms of international comparison and in terms of historical experiences, is due in no small part to the monetary policy strategy of preventing deflationary expectations and ensuring vibrancy of its capital markets. Thanks to bold monetary policy, the deflationary impact was contained, with no significant decline in general price levels. The reforms to improve the function of capital markets have been pursued largely independently from the reforms made to strengthen capital requirements of financial institutions while preserving the depth and liquidity of capital markets. The existence of a broad range of risk-taking investors and entrepreneurs has also helped to keep the market working well. Had the financial intermediation been predominantly based on banks, it would have taken much longer for the U.S. economy to start its recovery.

The situation differs in other countries, particularly in Europe. Many banks have been struggling to raise capital to meet stricter capital requirements, limiting their ability to provide financing on risky investments. In the wake of the global financial crisis, hostility toward financial institutions has naturally grown stronger, due to the excessive risk-taking behaviors or inappropriate conduct prior to the crisis. Such hostility is especially strong in countries where large financial institutions were bailed out with public funds. The purpose of the financial regulation reforms initiated by G-20 countries is to prevent financial institutions from taking excessive risks that could jeopardize the stability of the system and to ensure their soundness. While it is important to reform the financial system to prevent future crises by preventing excessive risk-taking by individual financial institutions—particularly by systemically important financial institutions, it is also important to distinguish risk-taking by individual institutions with the risk-taking activities in capital markets within the economy as a whole.

The reforms to prevent excessive risk-taking by financial institutions should be accompanied by efforts to strengthen the role of capital markets to allow risk-taking capital to be allocated to investment, stimulating innovation and growth. The appetite of investors to take measured risk and endorse entrepreneurship is not unlimited in any circumstance, but it is particularly limited in the wake of financial crises. Strengthening investor protection and ensuring integrity and transparency in financial markets is the only way to preserve the depth and liquidity of capital markets, enable efficient pricing of risks and foster entrepreneurship.

For capital markets to function efficiently, a robust regulatory framework must be in place to ensure fairness, integrity, and transparency. Regulating capital markets is a complex exercise. It involves not only supervising financial institutions according to their changing risk profiles, but also monitoring their conduct and behavior to protect investors. It is important to work with many governmental and non-governmental institutions,

including judiciary authorities, exchanges, clearing houses, self-regulatory organizations and other stakeholders. It requires the collaboration of a variety of stakeholders supported by the rule of law, good market practices and institutions to provide efficient market infrastructure within individual jurisdictions. In addition, given the rapid integration of financial markets, international harmonization and consistency in regulatory policies are indispensable. Embracing openness and avoiding nationalism are key to ensuring sufficient liquidity and depth of the markets. Otherwise, regulatory arbitrage would take place, making regulation less effective for all investors around the world.

Financial markets are changing rapidly, with technological innovation and international integration continuing to pose many new policy challenges. They include implementing internationally-agreed regulatory codes and standards, as well as addressing other emerging issues related to new trading technologies, increased complexity of financial products, and the reliability of financial benchmarks, among others. Addressing these issues requires international cooperation with strong political leadership. Going forward, G-20 leaders will continue to have a major stake in this process.

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Endnotes

[1] See International Monetary Fund (2013), Chapter 3.

Global Imbalances, Financial Crisis and Economic Recovery

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Global current account imbalances, expressed as percent of world GDP, have narrowed considerably since 2006. According to the IMF, however, the quality of this adjustment leaves much to be desired. Most of the adjustment took place during the global financial crisis of 2008-09, reflecting lower demand in economies with external deficit. Whereas exchange rate adjustment played some role, policy adjustment contributed "disappointingly little".[1] Hence the IMF prescribed a broadly unchanged set of policies to further reduce global imbalances: 1) the two major surplus countries, China and Germany, need more consumption and investment, respectively, 2) the major deficit economies, including the U.S., need to boost national savings through fiscal consolidation, 3) other deficit economies also need structural reforms to rebuild competitiveness. Conspicuously missing from this prescription was what was to be done with macro-financial linkages, which played a critical role in the build-up to global imbalances. Unless savings-investment perspectives on the balance of payments are complemented by financial-capital perspectives, policy prescriptions for resolving global imbalances may interfere with economic recovery and leave intact many of the factors that contributed to the global financial crisis.

Before the global financial crisis, global imbalances typically referred to the persistent, large current account deficit in the U.S. matched by persistent, large current account surpluses in the rest of the world, especially China. Politically, the problem of global imbalances was often framed as a bilateral issue between the U.S. and China, focused on the nominal exchange rate. Many economists believed at the time that 1) the global imbalances were not sustainable, 2) correction would be disruptive, and 3) the more the correction is delayed, the bigger the disruption would be. The dynamics leading to the crisis was conceptualized as follows: the build-up of current account deficits by the U.S. would shake investor confidence and lead to a sudden stop of capital inflows, which in turn would precipitate a large and swift fall of the U.S. dollar and a steep rise in the U.S. interest rate and risk premium. The resulting disruptions could lead to a deep recession.[2] To resolve global imbalances, it was recommended that countries with current account surplus increase consumption and countries with current account deficit increase national savings, with requisite structural reforms. Policy recommendations also included exchange rate adjustment to correct "fundamental misalignment".[3]

This diagnosis of global imbalances was problematic on multiple accounts. First, reducing current account imbalances to zero should not be a policy objective in and of itself. Even if the savings-investment gap is large, it can be sustained if the imbalance in the capital and financial account is equally large in the opposite direction. As long as capital flows are channeled into productive uses for which the return on investment covers the opportunity cost of capital on a sustainable basis, a large current account deficit by itself does not lead to a crisis. A capital-poor country with good growth prospects provides a prime example where a current account deficit actually represents a win-win situation for borrowers and lenders alike. By contrast, even if the imbalance in the current account is not large, a sudden change in capital flows may precipitate a crisis. For example, a country even with solid growth fundamentals can get into serious trouble if it does not have enough liquidity to deal with abrupt capital outflows. Hence an exclusive focus on achieving zero imbalances through

policies that affect the savings-investment gap is misguided. Instead, policy prescriptions should also cover financial resource allocation and micro- and macro-prudential issues, as well as financial safety nets to deal with capital flow reversals.

Second, the pre-crisis discussion on global imbalances under-appreciated the privileged position of the U.S. dollar as the world's leading reserve currency and safe-haven currency in a time of crisis. The U.S. does not suffer from the "original sin"[4] as it issues debt denominated in a currency under its control. Because the U.S. can print dollars to pay off debt if necessary, a sudden stop of capital inflows would not trigger a currency crisis. Also, if the U.S. is concerned that the accumulation of its current account deficits would shake investor confidence and ultimately undermine the privileged position of the dollar, it has under its disposal policy tools to address the problem. Most simply, it could raise the interest rate, which would reduce the savings-investment gap by dampening domestic demand. It could also try to prevail on current account surplus countries to appreciate their currency or boost their economy. This would allow the U.S. to increase its net exports without having to raise the interest rate to dampen domestic demand across the board.

In the first half of the 2000s, however, the U.S. failed on both domestic and external fronts to deal with its rising current account deficits. In 2001, in the wake of the collapse of the IT boom, the Fed slashed the target federal funds rate from 6.50 percent to 1.75 percent. Over the next three years, due in part to high unemployment and low inflation, the Fed made additional interest rate cuts. But the resulting interest rate around 1 percent was well below the level consistent with the Taylor rule. In fact, although the Fed began raising the rate from June 2004, the policy rate in real terms remained negative until late 2005. Combined with imprudent financial deregulation, the low interest rate fueled a housing market boom, where escalating asset prices helped justify further investments. Although the return on investment appeared to cover the opportunity cost of capital for some time, housing prices became unsustainably high compared with the fundamentals, and borrowers' ability to pay back debt deteriorated over time. On the external front, the U.S. did not have as much negotiating leverage over China as it had over Japan in the 1980s to craft a second Plaza Accord. China built up its foreign exchange reserves well beyond the level justified by precautionary motives and strategically used these reserves for its foreign policy objectives. The purchase of U.S. government bonds by China and other countries with current account surplus also helped to keep long-term interest rates low, providing further support to the housing market in the U.S. The year 2006 marked the peak of the U.S. current account deficit, at six percent of GDP. Although domestic and external adjustments had begun to be made by then, they were too little, too late. To sum up, the popular doomsday scenario for global imbalances under-appreciated the privileged international position of the U.S. dollar on the one hand and the risk of domestic financial resource misallocation on the other. Global imbalances subsequently led to a financial crisis, not a currency crisis.

Third, the build-up of global imbalances before the crisis was much more than a bilateral issue between the U.S. and China. On the deficit side, the U.S. clearly dominated the scene as early as 1998. However, since the launch of the euro in 1999, the combined current account deficits of the eurozone periphery (Greece, Ireland, Portugal, Spain, and Italy) increased rapidly, from 3 percent of their combined GDP in 1999 to 8 percent in 2007. On the surplus side, although China and Emerging Market Asia received most of the attention in pre-crisis discussions on global imbalances, the current account surpluses of Germany, Japan, and oil exporting countries were significant as well. Driven by precautionary motives in the aftermath of the Asian economic crisis of 1997, Emerging Market Asia accumulated foreign exchange reserves to guard against sudden capital flow reversals. In the case of Germany, its current account balance swung from -1 percent of GDP (deficit) in 1999 to plus 7 percent (surplus) in 2007. Over the same period, Germany's international

competitiveness (proxied by unit labor cost trends) improved a great deal. Had it not been for the currency union, the German mark would have appreciated to reduce its current account surplus. But the launch of the euro took away this option. Alternatively, if the corresponding capital inflows into the eurozone periphery had been invested productively on a sustainable basis, their current account deficits might not have become a problem. However, what happened instead in the eurozone periphery was a finance-driven boom and bust similar to the one in the U.S. In the case of Japan, it failed to deal resolutely with deflationary pressure and zombie lending, and instead opted for an odd combination of output being produced to satisfy external demand, while demand in the large domestic market stagnated.[5]

Even in the aftermath of the global financial crisis and the ensuing deleveraging shock, many of the pre-crisis ideas about global imbalances still had considerable influence on policymaking. Calling the eurozone crisis a "fiscal crisis" and prescribing austerity might be the most egregious example. Conveniently overlooked in this prescription is the macro-financial linkage. The eurozone periphery had benefited from lower capital costs since 1999, but massive capital inflows helped to fuel asset price escalation. And when the deleveraging shock occurred, they had to face sharply rising interest rates and depressed growth prospects. In some cases, they had to stabilize the financial system by injecting public funds to take over nonperforming loans and recapitalize the banking sector. The combination of these factors dramatically raised the public debt-GDP ratio. Fiscal consolidation would not solve this problem.

Fortunately, there has been important progress as well. Faced with a weak economic recovery and uncertainty about fiscal policy, the Fed aggressively pushed quantitative easing (QE). Although the Fed justified its action on the basis of its domestic mandate to promote "maximum employment, stable prices, and moderate long-term interest rates," not international bargaining, it demonstrated that the U.S. still has the power to create problems for others if they do not cooperate. In other words, the U.S. might not have the leverage to pull off a second Plaza Accord, but it has the power to affect the global economy if others are slow to make the necessary adjustments, as was the case in 2010. If the U.S. can avoid premature QE tapering and abrupt fiscal contraction, its recovery should gather steam as the private sector's balance sheet has improved. Faced with QE and the risk of dollar devaluation down the road, China understands that an aggressive build-up of foreign exchange reserves is unwise. In fact, China's current account surplus relative to GDP declined from the peak of 10.1 percent in 2007 to 2.3 percent in 2012. China's main concern now is minimizing the risk of financial resource misallocation by the shadow banking sector and avoiding the mistakes that the U.S. and Europe made before the global financial crisis. A slowdown in the rate of growth may be the price China pays for an improvement in the quality of growth. Japan, for its part, finally began to fight deflationary pressure with aggressive monetary and fiscal policy of its own. It remains to be seen, however, whether Japan will be as resolute in dealing with zombie lending and other structural problems. Even in the eurozone, policy discussions appear to be turning away from fiscal austerity. Due to tepid economic recovery and slow progress in deleveraging and restructuring, however, the eurozone faces tougher challenges than the other economies.

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Endnotes

[1] See IMF (2013): 12.
[2] See Edwards (2005).
[3] See Blustein (2012).
[4] See Eichengreen, Hausmann, and Panizza (2003).
[5] See Hoshi and Kashyap (2011).

QE Exit and the Emerging Market Challenge

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Although all crises share common traits, each is very particular in its own way. At times the resolution of a crisis can create a new set of problems for which the original response is ill-fitted. In rare cases, these problems become as substantial as the original catastrophe and overlap with the recovery. In these circumstances, there is no rulebook to guide policy. The challenge then is to adequately prepare for the ensuing disruption. Such is the case of the current global conundrum. The unprecedented monetary stimulus, which flooded the global economy after the great financial crisis, now risks destabilizing the world economy and the international financial system if the appropriate policy measures are not taken to limit the potential costs of collateral effects from unconventional policies.

The massive policy response to the global financial crisis was necessary in order to keep financial markets running and avoid greater harm to the real economy. However, it has brought with it unintended consequences as the recovery consistently has failed to meet projections and diminishing returns to policy measures have forced officials to stretch their tools beyond all previous expectations, potentially creating an ever-growing array of dangerous equilibriums, which threaten to cause a renewed bout of elevated volatility. The challenge going forward will be to achieve a solid foundation for sustained growth amid an international climate dominated by short-term interests.

Liquidity Fueled Rallies

Since the crisis erupted in 2008, several measures have been taken to provide support for the real economy and recover an efficient functioning of financial markets, all in the context of the current global regulatory overhaul. Results have varied depending on circumstances and instruments. In the U.S., asset purchases and recapitalizations were quite effective in getting banks back on their feet, but repairing household balance sheets has been more subdued.[1] In the U.K., bank deleveraging remains substantial and is still taking its toll on productivity. The euro area has combined these features while it struggles to resolve deep structural imbalances, which stand in the way of a sustainable currency union. Everywhere, fiscal space has been exhausted and consolidation is now underway. Japan stands somewhat apart as it seeks to instrument a policy regime shift and induce a reflation of its economy.[2]

The need to provide additional monetary stimulus, beyond zero short-term rates, has bred a plethora of unconventional policies in advanced economies (in most cases, demanding a substantial expansion of the central bank's balance sheet). The combined assets of the central banks of the G-4 countries now stand at $10 trillion and are expected to add an additional $2 trillion by the end of 2014.[3] At present, central bank assets represent 22.6 percent of GDP for the U.S., 26.7 percent for the U.K., 27.4 percent in the euro area, and 31.5 percent in Japan.[4] Naturally, this scope of policy accommodation by the world's large central banks has had significant global effects.

Emerging markets, on the other hand, have managed to pull through the crisis in strong footing. Solid macroeconomic fundamentals, a robust policy response, and adequate preemptive supervision limited the economic costs imposed by the global crisis and set the stage for a resilient post-crisis performance. This global economic diver-

gence stands at odds with past global recessions.[5] In per capita terms, the average economic recovery for advanced economies is an average growth of 2.7 percent per annum in the four years following the crisis, while it has been only 1 percent since 2008. In contrast, emerging markets have achieved an average annual per capita growth rate of 5.3 percent this time round, rather than the historical average of 2.9 percent.

Extremely easy global monetary conditions coupled with a strong economic performance in developing economies fueled a large flow of capital from advanced economies to emerging markets.[6] Capital flows, since the global recovery began in 2010, have remained at historically elevated levels. Since 2010, private capital flows to emerging markets have averaged $1.1 trillion, a figure surpassed only by the level observed in 2007, which was incidentally a pre-crisis outlier.[7]

Capital flows to emerging markets can be highly beneficial when they are supportive of investment and economic growth. But there are also a number of risks associated with such flows which should be closely monitored. Market failures or inadequate regulation could lead to unsustainable increases in the price of assets, an overly generous provision of credit and lax standards, and excessive currency appreciation with negative effects on real activity. Additionally, if improperly managed, they can lead to a deterioration of a country's external balance and increase its vulnerability to an abrupt reversal.[8] Indeed, several experiences of balance of payments crises in the 1990s illustrate the large costs external shocks can impose on a vulnerable economy.

However, until recently, many policymakers around the globe have carried on under the assumption that when the time ultimately comes to reduce monetary stimulus, the exit would be gradual and orderly. Thus, policy was kept easy in much of the emerging world and externally-financed debt allowed to flourish. Some governments attempted to support domestic growth through expansive monetary and fiscal policies, exacerbating the buildup of domestic imbalances and increasing vulnerability to a rapid decline in global liquidity.

The result has been a strong rally in emerging market assets which responded more to investors' global search for yield than capital receptor countries' underlying growth perspectives. This trend has been quite broad, depressing risk premiums on emerging market assets significantly. For instance, the post-crisis EMBI+ index average has been 200 basis points below the average level observed throughout 2000-2007. Naturally, this mispricing of risk (not unlike the pre-crisis spread compression observed in the euro area) created a boom in both corporate and sovereign debt throughout the emerging world; public sector issuance increased by 50 percent since 2008 and dollar-denominated corporate debt by 350 percent.[9]

In the case of Mexico, the influx has been dramatic. Net private capital inflows since 2010 have averaged over $60 billion, skewed primarily toward government debt and equity investment. Foreign holdings of government debt have increased by a factor of 10 since mid-2007. The result is that now, foreign investors hold around 37 percent of total public debt in Mexico,[10] up from 9 percent in 2007. This trend has pushed rates down to historical lows; with the two-year and ten-year notes registering 3.8 percent and 4.4 percent, respectively in May 2013. This is a substantial drop from their 2001-2007 average levels of 8.5 percent and 9.1 percent, respectively.

Similar cases include Turkey, where foreign holdings have increased from 11 percent in 2008 to 30 percent now, and South Africa with an increase of 25 percent to 38 percent.[11] In general, the broad flow of capital to emerging markets greatly relaxed the external financing environment they faced. This supported robust domestic credit growth and asset inflation in some regions. Where external balances have deteriorated, it has significantly increased vulnerability to a sudden stop in capital inflows. This is a scenario which now seems to be playing out.

Bursting of a Global Bubble

When the Fed set out in May its preferred timeline for closing QE3, it drastically shifted perceptions regarding the committee's balance of risks for the U.S. economy, its level of conviction in the recovery, and its hawkish bent. Since then, volatility in global financial markets has increased significantly, but disproportionate pressure continues to fall on emerging market assets. The market reaction registered after the Fed's announcement demonstrates the potential external shocks emerging markets will face as the economic recovery in the developed world gathers momentum.

Within a month from the Fed's communiqué on May 22, as investors scrambled to unwind highly leveraged positions, emerging market equity and bond funds registered a combined net outflow of $25 billion.[12] The selloff in emerging market assets was broad as the yield on the U.S. Treasury note climbed 60 basis points: government bonds fell 5.3 percent, corporate bonds declined 7.2 percent, currencies depreciated 5.1 percent and equities fell 13.9 percent.[13] As the mirage of a smooth and gradual exit from QE dissolves, investors will continuously tend to frontload the implications of Fed tightening.

In the case of Mexico, the selloff was just as intense but somewhat less broad-based. The currency depreciated 7.9 percent, but was mainly technical as investors closed long positions. Equities fell 6.2 percent and dollar-denominated corporate bonds lost a similar 6.7 percent.[14] But, while longer duration government debt sold off and 10-year government bond yields increased 133 basis points, foreign holding of short-term government debt increased by around 5.5 percent. This relative stability in public sector debt was most likely due to the country's strong external position, as will be further elaborated below.

In general, it is clear that the monetary forces which inflated the emerging market asset bubble are now retrenching and the rise in advanced economies' risk-free rates now represents a broad shift in trend, rather than short-term volatility. This is being accompanied by increasing risk premiums for emerging market assets; credit default swap spreads have widened over 100 basis points from early May to the end of June.[15] In this context, the most pressing questions for policymakers are how far will risk premiums rise before they stabilize and how can they smooth the adjustment.

What Can Emerging Markets Do?

These considerations have led many to refer to the 1994 bond selloff and capital reversals experience, which caused severe crises in many emerging market economies, as a precedent of what may come. However, emerging markets have come a long way in the past two decades. The fact that no emerging market economy experienced a severe financial dislocation as a result of the great financial crisis bears witness to this. Future episodes of capital reversals are more likely to follow the pattern set out by the 2008 financial shock than the 1994 episode.[16]

In 2008, the debt profile of emerging market economies was quite solid and several countries had embraced orthodox macroeconomic management frameworks. The net debtor international investment position of emerging markets and external accounts were markedly better than a decade prior and central banks had dramatically increased their holdings of international reserves. In general, private and public balance sheets were much stronger than before and financial markets had developed with prudent regulatory regimes.[17]

These factors contributed to the resilience exhibited in the past half-decade. However, gains notwithstanding, the 2008 financial shock caused a great deal of stress all throughout the developing world. The ensuing policy response played as important a role in navigating the great financial crisis as did stronger fundamentals. So, it is useful to assess the measures implemented during 2008-2009 in the context of the sudden stop in capital flows which many emerging markets experienced. While a full assessment of the policy response of emerging markets to the great financial crisis is far

beyond the scope of this paper, the Mexican experience offers valuable insights on the matter.[18]

Following the collapse of Lehman Brothers, financial disruptions quickly came to Mexico in the form of tighter external financing conditions and selloffs of long-term securities. International commercial banks reduced extensions of new credit and did not rollover existing ones. Investors significantly reduced their financing, causing a net portfolio investment outflow of 2.5 percent of GDP in the fourth quarter of 2008 and a fall of 1.4 percent of GDP in foreign direct investment. Additionally, demand for corporate and government bonds became extremely scarce.[19] This evaporated liquidity in the foreign exchange market and caused the currency to depreciate around 23 percent within one month following the Lehman collapse. The stress experienced in financial markets can be gauged through the increase in government bond yields experienced during the crisis: 10-year yields, which averaged 7.9 percent in the first part of the year, spiked to 11 percent in October 2008; similarly, 30-year yields jumped from an average of 8 percent to 11.3 percent per year.

These circumstances were exacerbated by the collapse in external demand and the deterioration of the country's terms of trade which followed the financial shock. The result was an economic contraction at the end of 2008, which interacted with the greater risk aversion to further depress economic activity.[20] All this led to a fall in annual real GDP of 6 percent in 2009. Policy intervention was necessitated on many fronts to avoid more severe domestic financial sector disruptions and facilitate economic adjustment to the new environment.

To provide liquidity to the foreign exchange market and restore its proper functioning, an absence of which threatened to preclude corporations from meeting their U.S. dollar obligations, the central bank implemented two types of dollar auctions starting in October 2008. On the one hand, extraordinary auctions were held to sell dollars directly to the market, providing a total amount of over $12 billion. On the other hand, in order to limit the level of exchange rate volatility, while maintaining a free floating regime, daily auctions were held to sell dollars at a minimum price of a 2 percent depreciation on the previous working day's exchange rate.[21] Thus, volatility was limited in the foreign exchange market while market forces continued to determine the price of the currency.

To restore confidence that financial and economic disruptions would not overwhelm the government, and that the country had the means to meet its obligations, three important measures were taken. Firstly, the federal government's exposure to oil revenue was reduced through the purchase of put options on the price of the country's export mix, effectively hedging about 70 percent of gross exports of oil.[22] Secondly, additional financial buffers, besides the central bank's international reserves, were obtained through access to the International Monetary Fund (IMF)'s flexible credit line (FCL) to the amount of $47 billion, and a currency swap line was established with the Fed.[23] Finally, the Mexican Ministry of Finance published a thorough analysis of the country's balance of payments for 2009, detailing the scope available to accommodate expected increases in the current account deficit. Together, these measures served to reassure markets that the government would facilitate the economy's economic adjustment and support the functioning of financial markets through adequate provision of liquidity without undermining fiscal soundness.

Measures in financial markets were also implemented to normalize the functioning of money and credit markets. The central bank introduced a new liquidity facility for commercial banks at a reduced cost, relaxed collateral requirements to improve liquidity in the interbank market and implemented interest rate swap auctions to help the market better manage interest rate risk. The Ministry of Finance also provided support in the form of a program of government guarantees to corporate credit to reduce the risk premium on firm loans and several debt management measures were taken to facilitate a shortening of investors' portfolio duration. Thus, prices were allowed to adjust in an

orderly manner. Local financial markets, enabled by adequate capitalization and quality assets, were able to play a stabilizing role in the crisis. Commercial banks and institutional investors replaced to some extent government funding as external players withdrew from the market.

In general, the Mexican economy was able to adjust to the external shocks because adequate liquidity was provided to financial markets, excessive volatility was curbed in the context of market-friendly interventions, confidence was restored through an effective communication strategy, and sizable and credible financial backstops. At the same time, solid fundamentals allowed macroeconomic policy to attenuate aggregate fluctuations through countercyclical monetary and fiscal policies which provided support to aggregate demand. Since the crisis, the economy has experienced robust growth, a strong recovery in domestic credit, and steep inflows of private capital.[24]

The Mexican case was not unlike that of many other emerging markets during the crisis. One may therefore surmise a few points which could prove helpful going forward. The first is that fundamentals matter. Emerging markets' capacity to withstand large external shocks was due in large part to the significant advances in macroeconomic fundamentals achieved prior to the crisis. Today, however, a number of countries look more vulnerable as activity has become dependent on external financing and governments sought to support growth through expansive policies, exacerbating the build-up of external imbalances in some cases. Pockets of currency and maturity mismatches, large current account deficits, and high external debt stocks have emerged. In these cases, the set of policy options available is more restricted and it will be more difficult to limit the damage to the real economy induced by the tightening of financial conditions.

Thus, countries should rebuild policy buffers that have been exhausted and strengthen their fundamentals to reduce vulnerabilities. Especially vulnerable are commodity exporters that are likely to face a long-term decline in their terms of trade. Additionally, a greater development of emerging markets' financial systems is essential in order to increase stability in the international financial system. As foreign investors may withdraw from government financing, the capacity of local private investors to fill the gap could prove pivotal in avoiding greater economic costs.

As mentioned earlier, strong balance sheets need to be fostered by emerging markets to limit potential costs of tightening external financing conditions. In the case of Mexico, this has played a key role in the country's relative stability. Although the inflow of capital has been significant in recent years, this has not translated into a large current account deficit; with an average of 0.6 percent of GDP since 2010. Nor have resources served to unsustainably expand financial intermediaries' balance sheets; rather, foreign investment has allowed residents to invest abroad at a historical level of 2.2 percent of GDP in 2012 (up from around 0.5 percent between 2000-2008)[25] and accumulate foreign reserves (now around 15 percent of GDP) which serve to self-insure against negative external shocks.

Additionally, the government has extended the average duration of its debt from six years in 2008 to eight years at the end of 2012 while maintaining a moderate level of foreign-currency denominated debt, around 5 percent of GDP. Strong supervision of the banking sector has avoided currency mismatches and maintained robust levels of capitalization.[26] And finally, the government has actively sought to widen and diversify its investor base, with a particularly important promotion of pension funds as institutional investors (now holding around 17 percent of government debt).[27]

This contrasts with the cases of South Africa and Turkey, cited above, who at present register some of the largest current account deficits among emerging markets at 6.5 percent and 6 percent of GDP, respectively. Additionally, over 90 percent of Turkey's external debt is foreign currency-denominated, and short-term debt stands close to 100 percent of reserves. Both countries' external debt has a large component of volatile bank and

corporate lending, representing 42 percent in South Africa and 70 percent in Turkey. In circumstances such as these, it is important that countries take action to strengthen their balance sheets to avoid potential disruptions ahead.

The second point which must be emphasized is that policy matters. A strong policy response in the event of an abrupt reversal of foreign capital is important not only in avoiding financial dislocations, but also for restoring investor confidence in the economy. An adequate provision of liquidity is essential in mitigating undue damage to the real economy. But it should be done while respecting market forces. In this respect, international reserves are an important element in policymakers' toolbox and should be determined in terms of the risks inherent in the international financial environment. Also, the benefits associated to floating exchange rates (an aspect of Mexico's policy framework which has been essential in smoothing economic adjustment costs) should not be overlooked.

As external financial conditions tighten, policymakers need to support an adequate pricing of financing instruments. So, it is important that governments maintain credibility in their financial markets during episodes of exogenous stress through a strict adherence to a rules-based policy framework. However, not all tightening is the same. Much depends on the gyrations observed in yield curves rather than on level variations on any particular term. In episodes of uncertainty, investors may switch to a generalized *risk-off* mode, selling their holdings of risky assets to the degree which market liquidity will allow, or they may take a more sequenced approach, initially rebalancing toward shorter-duration and more liquid assets. In these instances, governments have a greater role to play, as seen in the Mexican 2008-2009 experience, in facilitating the recomposition of private portfolios.

Going forward, the strong tailwinds which supported the macroeconomic improvements of several emerging markets during the 2000s (namely accelerating growth in the BRICS, rising commodity prices, improving external balance sheets, and falling real yields in advanced economies) are unlikely to be present in the years to come. Rather, underlying growth fundamentals and macroeconomic management frameworks will be the basis for discrimination by international capital flows. Policy officials should not delay to recover a sustainable growth path and implement structural reforms to increase productivity growth.

Toward a More Stable Global System

During the crisis, much of emerging markets' response capacity, especially in addressing liquidity issues in foreign exchange markets, owed to the multilateral liquidity lines which were set up with the IMF and the Fed during the most turbulent period of the financial shock. Even as several countries entered the great financial crisis in a much stronger position than in the past, central bank swap lines played a hugely important role in providing much-needed foreign exchange liquidity.[28] As effective a measure as self-insurance via reserve accumulation may be, there are clear advantages in strengthening international liquidity provision mechanisms.

Emerging markets are looking to sponsor greater economic development and promote growth; this is complicated if resources need to be locked up in the form of reserves. Cheaper alternatives, more supportive of long-term economic growth, come in the form of reciprocal currency arrangements between central banks and credit lines with the IMF or other international institutions. Additionally, mechanisms such as the IMF's FCL provide strong incentives for governments to improve their countries' fundamentals, while reassuring markets about the country's debt repayment capacity and signaling a high level macroeconomic stability. However, with the current growing divergence between emerging markets' contribution to global GDP and their board representation, the fund's resources will continue to seem less adequate if reforms on this front are not forthcoming.

With regard to central bank cooperation, there is much room for improvement as strictly parochial viewpoints continue to dominate the policy deci-

sions of large central banks. Here too, special responsibility falls with the IMF as it is the only multilateral organization with the mandate and the strength to mitigate the global effects of policy-driven capital flows, both through resources and counsel. So, as post-crisis imbalances threaten havoc in the emerging world in light of a sooner-than-expected exit for the Fed's QE program, the international community should foster a greater level of cooperation if it wishes the recovery to truly gain traction.

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Endnotes

[1] Recently, the Federal Reserve Bank of St. Louis documented that of the $13 trillion loss in household net worth in the U.S., to date only 91 percent has been rebuilt in nominal terms and 45 percent when adjusting for inflation and population growth. See Federal Reserve Bank of St. Louis (2013).

[2] For a detailed exposition of the policies implemented during the past half-decade, see Blanchard et al. (2013).

[3] JP Morgan forecasts. See JP Morgan (2013a).

[4] This is roughly the size of Germany for the U.S., Switzerland for the U.K. and Canada for Japan. The European Central Bank's assets are equivalent to the combined annual GDP of South Korea, Indonesia, and Mexico. Data is from IIF (2013c) and IMF (April 2013).

[5] The comparison is with respect to the 1975, 1982 and 1991 global recessions; see Kose et al. (2013).

[6] For a quantitative assessment of emerging markets' growth and advanced economies' liquidity provision contribution to the surge in capital flows, see IIF (2013a). For evidence on the impact of U.S. monetary policy on capital flows to emerging markets, see Reinhart and Reinhart (2008) and Ghosh et al. (2008)

[7] All data on capital flows refer to the database in IIF (2013c), which follows *private net capital inflows* to a sample of 30 countries; figure for 2012 is an estimate. The figure for 2007 is considered an outlier on the basis of it being over two standard deviations above the pre-crisis, 1995-2007, average.

[8] The management of capital flows has become a theme of much policy discussion and has been analyzed from various perspectives. For a thorough discussion of the arguments defining the debate about capital flows management see IMF (2012).

[9] See JP Morgan (2013b)

[10] This is equivalent to 11 percent of GDP.

[11] In terms of GDP, these figures represent 9 percent for Turkey and 12 percent for South Africa.

[12] See IIF (2013b).

[13] Emerging market government and corporate bonds and currencies are proxied though the JP Morgan GBI-EM, CEMBI and EMCI, respectively. Emerging market equity performance is measured through the MSCI index.

[14] As measured by the JP Morgan CEMBI Mexico index.

[15] As measured by the JP Morgan CDX.EM index.

[16] Admittedly, the 1994 bond selloff could be considered a more appropriate precedent on the grounds that its main cause was the initiation of a tightening cycle on part of the Fed, not a financial shock which commenced a global easing cycle. However, the Fed's context is now radically different from what it was 20 years ago, making it extremely unlikely that this tightening cycle will be as aggressive as that of 1994.

[17] See Jara, Moreno and Tovar (2009).

[18] For a comprehensive assessment of emerging markets' management of the great financial crisis see Ghosh et al. (2009) and Llaudes et al. (2010). For a brief account of the episode in the Latin American context see Ortiz (2009).

[19] The increase in risk aversion was amplified by episodes of corporate losses linked to speculation with foreign exchange derivative instruments which threatened to bankrupt firms which had issued a large amount of debt in the commercial money market. This feature of the crisis was also present in the case of Brazil. See Jara, Moreno and Tovar (2009).

[20] It is worth mentioning that the situation was complicated by a third shock to the economy in the form of a swine flu pandemic which halted economic activity for one week during the second quarter of 2009, when real GDP fell by an annualized rate of 9.4 percent.

[21] The initial daily amount of dollars auctioned through this mechanism was $400 million, gradually reduced to $250 million in May 2009, and finally suspended in April 2010.

[22] At the time, oil revenue represented around one third of total government revenue.

[23] Additionally, the government obtained long-term loans from the World Bank and the Inter-American Development Bank. The combined amount of the loans obtained was around $14 billion for 2009, while the IMF's FCL and the Fed's currency swap line took the central bank's support capacity from $80 billion in international reserves in August 2008 to over $150 billion in April 2009.

[24] For a more detailed account of the policy measures implemented by the Mexican government during the great financial crisis see IMF (2009), Banco de México (2009) and Sidaoui et al. (2010).

[25] This figure refers to net private capital outflows by residents.

[26] Foreign currency liabilities are about 5 percent of total liabilities. The sector's capital adequacy ratio has averaged around 16 percent since 2008.

[27] All data for Mexico are from local authorities—primarily the Ministry of Finance, the central bank and the banking regulatory agency (*Comisión Nacional Bancaria y de Valores*).

[28] For an account of the role of central bank cooperation played in the great financial crisis, see Allen and Moessner (2010).

Reinvigorating Growth Potential: Priorities for the Central Bank of Russia

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The pace of global recovery remains weak. More than twelve months since the G-20 summit in Los Cabos, G-20 members are laboring their way towards "Strong, Sustainable and Balanced Growth" in a clouded world economic outlook, with the eurozone in a state of recession, a combination of policy stalemate and across the board fiscal consolidation constraining growth in the U.S., and emerging markets and developing countries experiencing a clear slowdown compared to their rapid pre-crisis expansion.[1] A durable recovery that creates good jobs, which G-20 leaders agreed to cooperate for in September 2009, proves to be an elusive objective. Fiscal consolidation acts as a drag on economic recovery and the G-20's capacity to deliver on the growth and jobs agenda is questioned by its citizens. This calls for the G-20 members' commitment to a balanced and coordinated mix of policies and instruments, reflective of the state of their economies, which would gradually strengthen economic growth and promote macroeconomic stability. Responding to global and domestic priorities, Russia has placed growth and jobs at the core of the G-20 agenda[2] within the fundamental question of what should be the main macroeconomic and financial policy requirements for growth.

Growth prospects for Russia are projected at 2.5 percent in 2013 and 3.25 percent in 2014, a downgrade from the targeted 5 percent.[3] In this context, a domestic debate is unfolding on what instruments can be most effective for unleashing the growth potential. At the front and center of the debate is the course of monetary and fiscal policies, financial regulation and structural reforms, as well as the role of the Central Bank of Russia (CBR), soon to acquire the functions of a mega-supervisor. There are two schools of thought which advocate different approaches. Some experts and certain authorities propose that the CBR should explicitly prioritize support for economic growth in its policy, stimulating the real sector of the economy using all the instruments and resources it has. These include lowering interest rates, depreciating the ruble, expanding refinancing instruments, and slowing down financial supervision reform by delaying the adoption of Basel 2.5 and Basel III capital frameworks. According to the competing second school of thought, the CBR should focus on inflation targeting, consolidate its liquidity instruments, raise flexibility of the ruble exchange rate with limited interventions to soften short-term fluctuations, strengthen the supervisory framework and build a reliable, stress-resistant financial markets infrastructure.

Proponents of the first approach claim that in times of weak economic growth, measures to stimulate economic activity should be a priority. According to this approach, central banks should bear responsibility not only for purely monetary policies, but for implementing other growth-oriented policies as well. Special measures could include providing financial support to large scale investment projects using excess reserves. Central banks using this approach keep interest rates at a low level by buying government bonds. During the global financial crisis and its aftermath, with short-term interest rates in major advanced economies close to zero, their central banks started buying instruments with longer maturity than short-term government bonds, thus increasing the monetary base. The rationale for this policy is that given low interest rates which cannot be further decreased, an increase in the monetary base remains the last available source for stimulating economic growth.[4]

However, this is not the case for Russia, where the refinancing rate currently equals 8.25 percent.[5]

Another growth-stimulating factor within this strategy is currency devaluation. Increased money supply associated with quantitative easing leads to national currency depreciation, which benefits domestic export-oriented industries and import substitutes. Some experts claim that this effect can be further strengthened by central banks measures such as direct interventions in the currency markets. Control over inflation under this line of defense is not a priority as most countries which resort to these instruments have low inflation. This policy is believed to have helped reduce systemic risks and strengthen trust in the G-7 countries' financial markets.[6] While there are different views on the relationship between quantitative easing and inflation, the risk of higher inflation, especially during an exit from such a policy, should not be underestimated. For Russia, where the inflation target for 2013 is within the range of 5 to 6 percent,[7] further increases would mean enhanced investments risks, higher nominal interest rates, lower predictability and shorter planning horizons, as well as a decline in business and consumer confidence.

CBR's monetary policy is guided by the second approach, though there has been pressure to reconsider the strategy, especially after recent growth projections and a change of the CBR Governor. To manage inflation expectations, the CBR pursues the adoption of formal inflation targeting to cut inflation down to 3-4 percent over the 2013-2015 time horizon, a trajectory which is estimated not to undermine growth prospects.[8] To enhance transparency and efficiency, the CBR has shifted its focus from currency interventions to bank refinancing,[9] expanding the set of instruments and optimizing interest rates on different types/durations of operations and retaining the one-day auction repo rate at 5.5 percent, below inflation. A case in point is the decision of the CBR Board of Directors in June. For the first time in its recent history, the central bank set the minimum floating interest rate of 5.75 percent on the auctions for provisions of loans secured by non-marketable assets and guarantees for 12 month terms, thus expanding the set of available monetary policy instruments.[10] Resisting the call to devalue the national currency to help export-oriented, mostly extractive industries, the CBR is pursuing a managed floating exchange rate regime,[11] protecting the economy from speculative capital flows and allowing companies to adapt their expenditures in periods of abrupt exchange rate fluctuations by currency interventions. According to CBR data, its foreign exchange interventions amounted to $4.3 billion and €382 million in the first half of 2013, which is a significant change in pattern compared to 2012 interventions of $15.2 billion and €1.1 billion over an equal period.[12] By 2015, the CBR intends to fully switch to a floating exchange rate by gradually increasing exchange rate flexibility. Thus, its currency interventions to influence the short-term ruble exchange rate dynamics will be terminated.[13]

Effective financial regulation and supervision is regarded as a cornerstone of ensuring financial stability and growth. As a response to the crisis, G-20 member governments have launched reforms aimed to strengthen control over financial markets, expand the coverage of the regulatory system to include new financial products and address systemic risks to prevent future crises. To make financial market reforms more effective and comprehensive, the Russian authorities proposed a concept of establishing a mega-supervisor responsible for the supervision of both banks and non-banking entities. In January 2013, this idea was supported by the President,[14] and in July 2013, the draft law on a potential mega-regulator was adopted by the State Duma.[15] The law provides for a gradual take-over of the Federal Financial Markets Service functions, currently responsible for regulating the non-banking financial sector (insurance companies, pension and investment funds, exchanges etc.), to the central bank. The creation of a mega-supervisor aims to ensure effective control and oversight across the entire Russian banking and financial sector. The new authority, expected to be fully operational by September 2013,[16] will be combining traditional monetary functions of the

central bank with the overall financial markets supervision, thus avoiding inconsistencies between the two policy area objectives.

The CBR has begun implementing internationally-agreed financial sector reforms proposed mainly by the Financial Stability Board (FSB), including new banking capital and liquidity standards, sound compensation practices and systemically important financial institution resolution regimes. Similar to the inflation curbing strategy, the CBR tries to calibrate the pace of reform such as to not hinder growth prospects. For instance, at the above-mentioned Board of Directors meeting, the central bank decided to synchronize the implementation of the Basel III framework with the EU and the U.S., and to postpone it from the original national implementation plan to help commercial banks better prepare for the new regulations. The new standards set the core Tier 1 and Tier 2 ratios at 5 and 5.5 percent, respectively, starting on January 1, 2014, with the latter to be increased to 6 percent by 2015. The total (Tier 1 + Tier 2) capital ratio will remain unchanged at 10 percent. The CBR has also provided for additional capital requirements for the risk of credit valuation adjustments (CVA) on derivatives and over-the-counter (OTC) contracts to become effective October 1, 2014, which is in line with FSB recommendations.[17]

Thus, the CBR envisages its contribution to generating strong, sustainable and balanced growth by decreasing inflation and developing a healthy financial sector. It regards macroeconomic stability as a key factor for economic growth, and low inflation as a key factor for investment-led growth at the current stage of Russia's economic development.[18] Indeed, the new growth model can only be based on stable macroeconomic conditions, more efficient use of resources, long-term investment and a sound financial sector. These ingredients will help implement the much-needed structural reforms where progress remains subdued. A historically low unemployment level and a narrow output gap imply that Russia may face constraints in economic growth if no actions are taken to stimulate investment and expand productive capacities and to stimulate innovations that make the national economy more competitive. Much-needed structural reforms will certainly be facilitated by providing macroeconomic stability and consolidating financial market infrastructure on the basis of internationally-agreed standards, strengthened supervision and sufficient powers acquired with the establishment of a mega-regulator. Greater stability, transparency and trust are the levers for improving the Russian investment climate, which is a priority for boosting economic growth.

To conclude, it would be safe to assert that the CBR, given its strong balance sheet and good track record of independent performance, could make a major contribution to reinvigorate the country's growth potential. Looking forward, it seems appropriate to suggest that central bank governors should play a greater role in G-20 decision-making, where finance ministers have so far tended to dominate the discussion. The latest G-20 Finance Ministers and Central Bank Governors communiqué, released following the meeting on July 19-20, 2013, has gone in this direction with an explicit statement on central bank mandates for macroeconomic policy, directed towards domestic price stability and the support of economic recovery.[19]

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Endnotes

[1] See IMF (2013).
[2] See report at the official website of The Russian Presidency of the G20 (2012).
[3] See IMF (2013).
[4] See Bank of England (undated) online document for a description of quantitative easing (QE).
[5] Data obtained from Macroeconomic Indicators on Bank of Russia website. (http://cbr.ru/eng/daily.aspx).
[6] See Kluyev, de Imus, and Srinivasan (2009).
[7] Data obtained from "Key Indicators", Russian Ministry of Finance. (http://info.minfin.ru/project_fb_fbproject.php).
[8] See CBR (2013a).
[9] See CBR (2013b) for an interview of the Governor of CBR, E. Nabiullina to the Kommersant (in Russian).
[10] See CBR (2013c) for an unofficial translation of the Board of Directors' decision on the Bank of Russia Interest Rates.
[11] See CBR (2013a).
[12] Data on CBR interventions on the domestic foreign exchange market from CBR (2013d).
[13] See guidelines for the single state monetary policy in CBR (2012).
[14] See reports from the meeting on stock market development on January 25, 2013, Russian Presidential Executive Office (2013).
[15] See Draft Law No. 249469-6. Russian State Duma (2013).
[16] See Ostroukh (2013) in *The Wall Street Journal*.
[17] See CBR (2013e) for CBR press release of information on introducing regulation of lending agencies in accordance with Basel III.
[18] See CBR (2013b).
[19] See the final communiqué of the meeting of Finance Ministers and Central Bank Governors in Moscow, July 19-20, 2013 in the lead up to the G-20 Summit in St. Petersburg at official website of The Russian Presidency of the G20 (2013).

The Political Economy of Monetary Policy in South Africa: Real Economy Outcomes

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Introduction

South Africa has the highest level of unemployment in the G-20. This reflects the continued impact of apartheid policies pursued before 1994, not all of which have been effectively countered. While monetary policy can hardly take primary responsibility for restructuring a severely distorted economy, its impact on employment and growth is not negligible in this context and needs to be considered.

The practice and impact of monetary policy in the emerging market context are subject to a unique set of constraints, which differ considerably from those in advanced economies. These range from political economy constraints—in many cases still involving a lack of Central Bank independence, the need to maintain some broad exchange rate stability, debt servicing by the fiscus, and a weak transmission mechanism borne out of shallow financial markets.[1] While the South African economy does not contain all these constraints, each element is important in understanding the factors impacting monetary policy decisions in the economy.

The inflation target-based monetary policy regime introduced in the early 2000s marked a decisive break from the apartheid regime to an appropriate post-apartheid policy.[2] At the same time, there is a general consensus that South Africa's monetary policy did not make a smooth transition from international isolation to a post-apartheid full global integration, even though the appointment of Tito Mboweni as the Governor of the South African Reserve Bank (SARB) was an important step forward. We argue below that monetary and macroeconomic policies have some way to go before they can appropriately address the challenges of growth and employment creation in South Africa. It is important to note that, in recent decades, monetary policy has often shouldered the burden of sub-optimal fiscal policies. Nevertheless, there are some specific concerns about the impact of monetary policy on growth and employment that need to be considered.

This short note briefly considers three issues. First, it analyzes the extent to which monetary policy has an influence on labor market conditions in South Africa with a particular focus on cyclical unemployment. Second, it assesses whether the most appropriate price index is being targeted by the monetary authorities as the South African economy is characterized by high levels of income inequality and hence, highly skewed consumption bundles. The third point is a review of the impact that the current policy framework has on domestic consumer credit creation, and its consequences.

Monetary Policy, Cyclical Unemployment and Poor Household Inflation Rates

Economic growth is subject to a range of determining factors, wherein the role of interest rate movements is but one of these factors. While the short-run actions of the monetary authorities are important, it is crucial to consider how building a reputation for price and financial market stability over time impacts long-run economic growth.

We are interested in the extent to which short-run fluctuations in the interest rate, through their impact on business cycle movements, impact conditions in the labor market. It is generally accepted that the excess supply of labor in South Africa is driven by structural and institutional factors such as

a mismatch of skills, factor market regulation, institutional inefficiency, spatial segmentation and so on. However, it is also true that the unemployed who have worked before and who have made contributions to unemployment insurance must be subject to fluctuations consistent with movements in the business cycle. In this context, we explore the extent to which monetary policy may be able to affect dynamics within the labor market through an examination of the cyclical component of unemployment.

The significant monetary policy reaction following the financial crisis in the third quarter of 2008, evident in the steady downward adjustment in the repurchase rate as the SARB searched for real economy adjustments to the crisis, was an action common to developed and emerging market central bank responses around the world. Regardless, though, the cyclical unemployment rate increased steadily until the fourth quarter of 2009, briefly dropped, and then rose sharply again during this environment of declining interest rates. Interest rate adjustments have been a weak predictor of cyclical unemployment movements since the onset of the recession.

There are two reasons why this matters. First, it suggests that short-run labor market adjustments are not within reach of monetary policy in South Africa. For an economy with one of the highest unemployment rates in the world, it is a significant policy concern that monetary policy, within the inflation targeting framework and with the policy interest rate as its instrument, is ineffective in changing the level and rate of cyclical joblessness. Second, it suggests that a series of factors, well beyond the control of monetary policy, lie behind firm decisions to lay off workers. In addition to responding to weak demand, layoff decisions are influenced by factors such as regulatory considerations around the marginal wage and non-wage costs of labor, institutional inefficiency of the courts of law, the rise of temporary employment services, the share of the wage bill in total costs, and the perceived productivity-reducing effects of workplace practices induced by unionized workers.

Political economy concerns for monetary policy in the emerging market context, as Hammond *et al* (2009) note, arises when the authorities target headline inflation, but exclude the inflationary experiences of households in the bottom half of the income distribution. Targeting core inflation in an era of high food and fuel prices is often politically unpopular, but it can also have the unintended consequence of fuelling inflation through excessive wage demands. Hence, targeting an inappropriate or non-representative price index can result in unexpected or unpredictable inflationary outcomes.

In the case of South Africa, which remains an economy with one of the most unequal distributions of income in the world and certainly the most unequal in the G-20,[3] there are two important considerations. First, the standard construction of the price index based on a plutocratic weighting technique is inappropriate as a measurement tool for inflation because it often does not represent the consumption bundle of the average household. More often than not, it is representative of households in the upper percentiles of the income distribution.[4] Indeed, more unequal societies yield less representative core inflation indices.

Second, targeting the CPI or CPIX—as the South African monetary authorities do—means that domestic factors fuelling inflation in the economy, most notably wage demands, implicitly may not be well predicted in the decision framework of the Reserve Bank. Inflation cycles are notably different across the deciles of the income distribution in South Africa. For example, the inflation cycle following the global economic turmoil sparked by the attacks of September 11 in the U.S. yielded a rate of inflation across the income distribution at levels not seen since before January 1998. However, the highest price increases were found among the poorest deciles, while the top 10 percent of households saw the lowest increase in prices for their consumption bundles. Though prices since then declined steadily in the 2003-2006 period, the differential in household inflation rates across the deciles remains evident.

Ultimately though, monetary policy based on average inflation rates and, arguably, on an index construction weighted towards the top-end of the distribution runs the risk of basing decisions on incomplete or incorrect information. The gap between policies and perceptions leads to distrust and higher political risks. In an emerging market context, understanding the uneven patterns of price movements across the income distribution should be a key tenet of developing informed monetary policy decisions.

Monetary Policy and the Management of Cyclical Risks

South Africa's recession during the global financial crisis was more severe than in any other African country or in many of its developing country peers, with GDP shrinking by –1.8 percent in 2009. Employment fell by about one million people—8 percent of those employed—in just one year. Unemployment, narrowly defined, rose by 20 percent and remains extremely high at around 25 percent, narrowly defined.[5] The overall employment rate fell from about 45 percent to 40 percent. Growth has remained sluggish in absolute terms and relative to the rest of Africa and developing country peers since the crisis of 2009.

Several reasons can be offered to explain this unusually poor performance. One reason proffered for South Africa's slow growth in African terms is that it started from a higher level of per capita income. But a recent OECD Economic Survey of South Africa points out that South Africa's growth is low, even when corrected for its level of income.[6] Another reason is the electricity shortage that has hampered growth since 2008. To address the shortage, new power plants are being built, but the process remains behind schedule. Political uncertainty has also amplified due to conflicts in the gold and platinum mines between employers and unions, and among unions. But this is a relatively recent phenomenon. One point that is not frequently mentioned is that South Africa had a credit crunch, not entirely unlike those in the U.K. and the U.S. Even though asset prices were affected less than in the U.K. and the U.S., and the banks remained sound, the credit crunch was real and significant.

After damagingly high interest rates in 2002-2003, South Africa reduced interest rates to the lowest levels (nominal and real terms) in many decades. As a consequence, consumers went on a borrowing spree. Household debt as a percentage of household income had never exceeded 63 percent in any previous boom. This may seem low compared to advanced markets, but it reflects the distribution of credit-worthy consumers, as well as some shallowness in the financial system. Between 2004 and 2009, household debt rose from 56 percent to 83 percent of household income. The introduction of a consumer credit law to restrain credit encouraged banks (buoyed by capital inflows) to lend enthusiastically because the implementation of the regulations was delayed by one year (to mid-2008) "to allow adjustment". Household debt was 35 percent higher than ever before. Before a domestic correction could take place, world markets made it happen. The resulting damage was severe and long-lasting.

South Africa would most likely have had a minor recession, even without the global financial crisis. For policymakers, the global crisis was a fig leaf to hide their mistakes, although it is not undoubtedly true that the external trade and capital flow shocks compounded the homegrown crisis.[7]

The SARB thought that growth at 5.5 percent between 2004 and 2007 was above potential (then estimated at 4.5 percent). However, when capacity utilization bumped up against its historical maximum level in the pre-crisis years, credit expansion to consumers continued without abating. The SARB appeared to maintain the view that investments in new productive capacity needed to be encouraged and raising interest rates would inhibit this from occurring. When the government was faced with the suggestion that it would be possible to limit the growth of consumer credit without raising the interest rate, their response was that in a financial market as broad and deep as South

Africa's, credit was fungible and credit markets could not be separated.

Other countries have used a wide range of tools to insulate their economies against the most destabilizing effects of cyclical flows of goods and capital. These are now commonly called "macro prudential tools" and they include caps on loan to value ratios, caps on debt to income ratios, countercyclical capital requirements, caps on leverage, levies on non-core liabilities and varying reserve requirements.[8] Korea's success achieved by implementing macro prudential measures to protect their domestic economy from the excesses of global liquidity shocks is widely documented.[9] It is not clear why such measures have not been implemented by the SARB (in conjunction with the National Treasury), in light of their success elsewhere in protecting domestic stability without requiring an increase in interest rates or other economy-wide measures.

Conclusion

The appointment of Tito Mboweni as the Governor of SARB in 1999 marked a welcome transition to central bank leadership attuned to South Africa's reintegration to the global economy. However, the modernized monetary policy of the first decade of this century still failed to address some key challenges. Further policy reforms could reduce the negative impact of monetary policies on employment and of the living standards of the poor. As an emerging market country and a member of the G-20, South Africa's monetary policy formulation and its potential impact on real economy outcomes remains a key area for future debate and discussion.

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Endnotes

[1] Hammond et al (2009).
[2] Jeanine Aron (2011) summarises this history.
[3] See also Bhorat and Kanbur (2006).
[4] See Ley(2005) and Prais (1959).
[5] The 'narrow' definition of unemployment includes only actively searching work-seekers, and is the standard definition of unemployment used by the International Labour Organisation (ILO). The 'broad' definition of unemployment would also include discouraged work-seekers.
[6] See OECD (2013).
[7] Alan Hirsch was a deputy head of policy in the South African Presidency until mid-2008.
[8] See Borio (2011) and IMF (2012).
[9] See Valetina and Shin (2013).

Unconventional Monetary Policy and Its Reflections on the Global Economy

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The recent economic crisis is one of the most significant macroeconomic phenomena experienced among industrialized countries after World War II. Many economies suffered from low investment rates, high unemployment, and production levels worse than that observed in any post-World War II downturn period. Financial markets not only triggered the crisis, but also played a big role in the transmission of shocks to the real economy. Collapse of major financial institutions, a sharp decline in several asset prices, lack of credit, and the loss of confidence in the building blocks of the financial system were indicators of the grave situation.

These exceptional economic conditions called for unconventional policy measures, particularly by central banks. Monetary policy in crisis-affected industrialized countries aimed to ameliorate the functioning of financial markets, and promote investment and production back again. In doing so, central banks in industrialized countries followed massive expansionary policies, which had global effects. International spillovers caused many emerging market economy (EME) policymakers to change their own monetary and economic policy.

In this essay, we will first elaborate on the practices of unconventional monetary policy in industrialized countries and briefly discuss the extent to which these policies were effective. Second, we will turn to the EMEs and sketch out the obstacles that their central banks are facing while conducting policy. Then, we will argue that unconventional measures that have been taken in industrialized countries have had serious consequences for EMEs. Among other EME central banks, the Central Bank of the Republic of Turkey (CBRT) stands out by its very active and somewhat unconventional approach, and deserves credit for its innovation. Later, we will highlight that exit strategies in industrialized countries will adversely affect the policy instruments available to EME central banks (including CBRT), and the need for further innovation on this front. Finally, we will draw attention to recent events in Turkey and its effects on CBRT's policy.

A New Era of Monetary Policy

Post-1945 monetary policy and practice moved from pursuing multiple economic objectives to overwhelming emphasis on a single objective— price stability. Prior to the crisis, the main policy instrument of central banks was the short-term interest rate, and this was in line with Tinbergen's famous principle that "the number of *independent* objectives must be less than or equal to the number of *independent* policy instruments."[1] A credible central bank and a transparent interest-rate rule were seen as capable of guiding expectations on long-term interest rates through a *well-functioning* financial sector.

The financial meltdown in 2008 not only caused a huge recession and outpaced conventional monetary policy response, but also damaged the transmission mechanism of monetary policy.[2] Therefore, unconventional policy actions were conducted to reset the malfunctioning financial intermediation and to provide further accommodation. Although these objectives are not independent from each other, this way of categorization (*i.e. (i)* to restore a functioning financial sector and *(ii)* to promote real activity) is useful in identifying the tools used by the monetary authorities.

To restore financial intermediation, central banks provided large amounts of liquidity to a select

number of institutions and specific markets, and acted as a lender of last resort. However, as Fed Chairman Bernanke pointed out, "Central Banks face a tradeoff when deciding to provide extraordinary liquidity support. A central bank that is too quick to act as liquidity provider of last resort risks inducing moral hazard; specifically, if market participants come to believe that the Fed or other central banks will take such measures whenever financial stress develops, financial institutions and their creditors would have less incentive to pursue suitable strategies for managing liquidity risk and more incentive to take such risks."[3] To mitigate this moral hazard problem, limitless funding was made available at longer maturity and against eligible collateral, such as in full-allotment Long-Term Refinancing Operations (LTROs) in the eurozone and in Term Auction Facility (TAF) in the U.S.[4,5] Similar programs that were introduced later on, such as Term Asset-Backed Securities Loan Facility (TALF) in the U.S., the Securities Market Program (SMP) and Outright Monetary Transactions (OMT) programs of the European Central Bank (ECB), and Comprehensive Monetary Easing (CME) policy of Bank of Japan (BoJ) are also in line with the aim of restoring intermediation and healing bank balance sheets.[6] To prevent bank-runs and ease borrowing costs, these central banks also bought some class of private assets (such as Mortgage Based Securities (MBS) by the Fed and corporate bonds, exchange traded funds, and real estate investment trusts by the BoJ) to support key asset prices.

To promote real activity in the economy and to affect/reduce longer-term interest rates, central banks performed bond purchasing programs[7] and tried to convince markets that low interest rates and expansionary policy will be operational for a sufficiently long period. Forward guidance measures such as managing market expectations and extensive monetary policy communication were rather helpful to flatten the yield curve in the U.S. However, the time inconsistency problem points out that it can be preferable for central banks to commit to an early exit from these policies despite their *ex-ante* commitment. To deal with this issue, several types of explicit policy rules, such as nominal GDP targeting and price level targeting,[8] have been discussed among central bankers.[9] The prevailing approach seems to be the *threshold-based guidance* that the Fed is currently using. The Fed announced that expansionary policy will continue "until the unemployment rate falls to 6.5 percent, provided inflation expectations remain subdued."[10] By doing so, the Fed has been trying to control market expectations based on the performance of the economy. Most recently, both the ECB and the Fed made further announcements on the commitment to low interest rates for an extended period of time.[11] This clearly indicates that they are trying to use forward guidance as an effective policy tool.

These advances in the field of monetary policy were mostly experiments conducted by policymakers, since the standard models used in academia were not suitable to predict the effects of most of these unconventional measures.[12] Lack of explicit economic modeling of such policies in the financial sector prevent studying the implications of problematic intermediaries. Therefore, the analysis of these policies should be conducted with caution.

Keeping these challenges in mind, several studies found that the Fed's purchase of Mortgage Based Securities (MBS) and Treasuries significantly brought down the yields.[13] Besides, the OMT program in the eurozone proved to be decisive in decreasing bond spreads of Southern European countries vis-à-vis Germany. However, despite the relative success of the OMT, credit allocation still proved to be problematic in the eurozone due to a lack of a common eurozone-wide macro-prudential regulatory mechanism as well as the depth of the recession in the peripheral European countries. The ECB's influence on financial intermediaries could be amplified if the eurozone proceeds with the establishment of a banking union in the area. Last but not least, a recent IMF publication summarizes the studies on the effects of bond purchases on the broad economy.[14] It estimates that GDP growth increased around 2 percentage points in the U.S. and the U.K. due to these purchases.

Although the literature mostly points to the constructive implications of the unconventional measures, these policies do not guarantee a permanent

alleviation of problems. Indeed, a past occurrence of a crisis does not imply that the risk of recurrence is low. Maintaining a balance between recovery and restructuring to decrease the risk of getting into a similar disaster in the future, should be the *sine-qua-non* component of new policymaking. Steps should be taken towards a healthier financial sector that facilitates lending for investment. Many central bankers of industrialized countries indicated that if conditions return to normal, they will start using their conventional short-rate as their single instrument, once again.[15] But the question is whether the structure of the world economy will be the same again.

Central Banking in Emerging Market Economies

Central banks in EMEs have been pursuing multiple objectives for many years. Most of them are also responsible for macro-prudential regulation, in addition to the price stability objective. The political context in which they operate often force them to promote GDP growth. Having only one instrument—the short-run interest rate—for multiple objectives, highlights their challenging task.

Besides, the constraints they face are not limited to a single instrument's capabilities. Lack of central bank independence, weak long-term fiscal discipline and underdevelopment of financial markets are other problems that monetary authorities face in many EMEs.

For example, a central bank under the influence of a country's government might not be able to commit to price stability. With the lack of independence, governments can assign duties to central banks that increase their popularity in the short-term at the cost of diverging from long-term goals. Moreover, having statutory independence does not secure operational independence. If the central bank is forced to choose specific instruments, it is again hindering its capability to achieve its optimal policy. For instance, the literature points out that attributing more weight to the aim of dampening exchange rate volatility would be a serious deviation from a policy focused on price stability.[16]

Many EMEs are subject to a lack of longer-term budgetary discipline, and this constitutes another serious obstacle for monetary policy in these economies. Fiscal policy is crucial for redistribution, but unsustainable budget deficits and public debt can force monetary authorities to step in and adjust interest rates accordingly, despite the previously set price level objective. Therefore, it also becomes very hard to manage inflationary expectations and to act as a credible institution.

Lack of deep and liquid financial markets points to an additional severe problem. Central bank policy in the absence of a well-functioning financial system might create asymmetric effects among different regions of an economy. Distorted transmission mechanism will dampen the impact of a central bank policy tool. Lags in the policy response and limited feedback from the real economy due to a malfunctioning intermediary sector can create additional difficulties to adjust market expectations and to implement necessary policy actions.

Last but not least, increasing openness in the capital account makes it very difficult for EMEs to conduct their monetary policy independent of external dynamics. Massive inflows and sudden stops can be very destabilizing, and neutralize the power of the monetary authority. Imposing some form of capital controls might not be sufficient to stabilize financial flows if there are strong incentives for investors to circumvent these controls.

Recent economic circumstances made it even harder to conduct monetary policy in EMEs. For instance, volatile food and energy prices complicate the question of which price index to focus on. The most common index being used, "core inflation", does not include food and energy prices. A central bank not responding to highly volatile food and energy prices therefore may not be able to achieve the most desirable policy outcome. In addition, unconventional policies carried out by industrialized countries' central banks not only altered the structure, but also increased the volatility of capital flows to EMEs. The quantitative easing policies in the U.S., the U.K. and Japan led to lower

bond yields, higher equity prices and appreciation of currencies in the rest of the world, through the availability of ample and low-cost liquidity.[17] Combined with weak external demand from industrialized countries, these imply an inefficient allocation of resources and growing imbalances for EMEs. Importantly, if a country runs a structural current account deficit (such as in Turkey), these implications aggravate the consequences by creating asset bubbles, increasing the amount of leverage and a further appreciation of the (overvalued) currency.

In this global environment, the CBRT has stood out with its new policy-mix to mitigate these adverse effects.

Alternative Tools of the Central Bank of Turkey

The Turkish Central Bank Law, which was amended on April 25, 2001, is a landmark in the history of central banking in Turkey. The amendment provided the Bank with the capability to manage the instruments that would help attain the inflation objective jointly determined with the government. Among other changes, maintaining financial stability was also described as an objective of the bank (combined with its primary mandate of achieving price stability). Therefore, CBRT's attempt to cope with the adverse effects of capital flows remained in line with its mandate.

Armed with instrument independence and accompanied by a supportive fiscal policy, the CBRT was extremely successful in reducing inflation from well over 40 percent to single digits over the last decade. General macroeconomic stability contributed significantly to Turkey's successful economic performance, with economic growth averaging above 5 percent. The CBRT's success in monetary policy was accompanied by measures that have increased transparency, including publication of regular reports on inflation and financial stability. In addition, the CBRT took an active part in Turkey's global engagement in the area of global financial stability: Turkey became a member of the Financial Stability Board (FSB), the Basel Committee on Banking Supervision and the Group of Governors and Heads of Supervision in 2009. In 2013-2025 Turkey will participate in the FSB Steering Committee. The CBRT will also contribute up to $5 billion to IMF resources, to be counted as part of its international reserves. [18]

However, the global financial crisis adversely affected the Turkish economy just as it did to other EMEs, and the CBRT took several actions to counter the difficulties. As pointed out by CBRT Governor Basci, "in addition to the policy rate, complementary tools such as *reserve requirement ratios* and the *interest rate corridor* are also used in order to cope with financial imbalances. These policies aim to ensure sounder economic growth in a gradual way without hampering the medium-term inflation outlook. Accordingly, policies are pursued to prevent excessive deviation of the exchange rate from economic fundamentals, while the necessary measures are taken in collaboration with other regulatory institutions, to avoid excessive credit growth."[19]

The degree of policy predictability has been very important for the central banks of industrialized countries to manage market expectations. Basically, the CBRT has introduced the term "interest rate corridor" for degree of policy predictability as an additional tool. When capital inflows are stronger than usual, the aim is to decrease policy predictability, generating a disincentive for short-term capital inflows. Whereas when capital inflows are thin and risk appetite of investors is lower, the CBRT's aim becomes to increase policy predictability. In this setting, the degree of policy predictability is adjusted by expanding/contracting the interest rate corridor.[20] For instance, in the period between November 2010 and August 2011, due to escalating uncertainties in the eurozone, capital inflows were stronger than usual. Consequently, CBRT widened its interest rate corridor by moving its lower bound further to discourage short-term carry trade. Simultaneously, foreign exchange buying auctions were held to take advantage from inflows by expanding reserves. CBRT announced that these measures decreased the pressure on ap-

preciation of the Turkish Lira and diminished credit growth. Conversely, in the period after August 2011, concerns over the global outlook intensified the risk aversion and capital outflows from EMEs started to grow. The CBRT reacted to this in a similar fashion, but in the reverse direction: the interest rate corridor was narrowed by moving the lower bound upwards, and Turkish Lira reserve requirements were set to be met by banks at a lower cost.

The mechanics of an expansion in the interest rate corridor is as follows: when the interest rate becomes more volatile, financial intermediaries price the interest rate risk and consider it in their loan rates. This facilitates the dampening of credit growth. Moreover, short-term capital inflows are discouraged due to increased uncertainty on policy rates. Shrinking the corridor is expected to have the opposite results.

These policies are innovative and provide further monetary adjustment to the changing dynamics of the world economy. However, the CBRT has also been criticized for complicating the task of a central bank. A central bank acting too much as a Banking Regulation and Supervision Agency can diverge from its main objective of preserving price stability. Increasing the frequency of interest rate revisions might have adverse effects on financial intermediaries. Imposing a withholding tax could be as effective as expanding the range of the interest rate corridor in order to adjust capital flows. But it is still too soon to conclude the exact effects of the alternative measures followed by the CBRT.

Exit From the Unconventional Policy Era and Its Possible Consequences

For advanced economies, an orderly exit can be challenging and undermine recovery. We also partially witnessed this rigidity when Chairman Bernanke announced that the "Fed could slow the $85bn-a-month pace of asset purchases 'in the next few meetings' if the labor market is strong." In response, stock market indices declined and yields of 10-year government bonds soared again. Investors' perception lay in the possible unfavorable real outcomes of an exit from unconventional measures.

When central banks start to shrink their balance sheets, several interest rate spreads might move unexpectedly. There is not much knowledge on the consequences of monetary policy when the monetary authority's balance sheet is as large as the ECB's or the Fed's—as is presently. It is possible that long-term interest rates will increase abruptly and destabilize the economy.

To mitigate possible adverse effects, further unconventional policies such as pushing nominal policy interests below zero can be deployed. However, these policies might create further problems. Although negative rates have been experienced in some countries (e.g. Denmark), such moves still carry the risk of incentivizing excessive cash hoarding by banks and households, and possible interbank-market failures.

For the EMEs, an exit could trigger large and volatile capital flows. Recipient countries should introduce macro-prudential policies to bolster their financial sector and mitigate the adverse effects of capital flows. Regulatory interventions and strengthening lending standards will play a crucial role in EMEs than the use of their monetary policy.

Our evaluation of the latest CBRT policy is in line with this aspect of counter policy reactions. In addition, the political instability in Turkey's geographical region may add further risks to its economy. Combined with the risk borne from possible exit strategies of the central banks of industrialized countries, further need for monetary policy tightening can be felt in Turkey. Pressure on the CBRT not to use its available instruments, such as increasing short rates to tighten its policy stance, has increased in this volatile internal and external political environment.

To be more specific, the Prime Minister and other ministers blamed the "interest rate lobby" for recent protests triggered by the government's apparent intention to build a complex

of hotels and a shopping mall in the Gezi Park near Taksim Square in central Istanbul. Other factors, however, played a dominant role, worldwide. When Chairman Bernanke made his now famous statement regarding an eventual tightening of the Fed's monetary policy in the future if the U.S. economy continues its recovery, Turkey was one of the EMEs with open capital accounts that were affected by capital outflows. As pointed out by Gürsel, the injection of domestic politics in the debate ran the risk of taking the central bank's monetary policy hostage, since it became difficult for the central bank to increase interest rates in response to external market developments.[21] It took a meeting of the Economic Coordination Board (ECC), which is chaired by the Prime Minister and whose members include ministers responsible for economic policy, apparently to *"allow the CBRT"* to announce its intention to enlarge its interest corridor by moving the upper bound upwards. The statement by the ECC emphasized the globally integrated nature of financial markets and the inevitable dependence of Turkey on fluctuations in these global markets.[22] It must be hoped that the CBRT will be able to retain the "instrument independence" it gained in 2001, and that Turkey's monetary policy will not be strongly affected by short-term political pressures.

The situation in Turkey and the difficulties faced are an illustration of how interdependent the world economy has become.

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Endnotes

[1] See Tinbergen (1952).

[2] Many post-crisis papers argue that optimal monetary policy was indicating a negative nominal interest rate. The zero-lower-bound (ZLB) on the interest rate constrained the interest rate instrument.

[3] See Bernanke (2008).

[4] See Bagehot (1873).

[5] Policymakers' verdict was that most financial institutions are solvent but illiquid. To that end they responded by expanding liquidity. This poses moral hazard risks; in case the verdict is wrong in the sense that highly leveraged financial intermediaries are indeed insolvent, expanding liquidity would lead to excessive forbearance, debt hangover and zombie lending as the Japanese experience in 90s show.

[6] For details of these programs, see http://www.newyorkfed.org/markets/talf.html, http://www.ecb.int/press/pr/date/2012/html/pr120906_1.en.html and http://www.boj.or.jp/en/statistics/boj/fm/ope/index.htm.

[7] Bond purchases mostly held in the U.S., the U.K. and Japan to stimulate aggregate demand.

[8] Price-level-targeting differs from inflation-targeting when the inflation target is missed. For instance, if inflation drops from its target rate for an extended period, the price-level-targeter will aim for a greater inflation rate in the next period to return the price level to original path, which will alter the beliefs of market participants.

[9] Among many others, see Woodford (2012).

[10] See Derviş (2012).

[11] On July 4th, the ECB started to use forward guidance by announcing that "it expected interest rates to remain at or below their current levels for an extended period of time."

[12] Many standard models in the literature predict an occurrence of massive inflation, after unconventional policies being applied (as happened in Germany after WWI and in Hungary after WWII). However, we have not observed such an inflation rate yet.

[13] Krishnamurty and Vissing-Jorgensen (2010) argue that asset purchases lowered MBS spreads with Treasuries by 150bps. IMF (2013b) finds out that the cumulative effects of government bond purchase programs are estimated to be between 90 and 200 bps.

[14] See IMF (2013b).

[15] See IMF (2013c).

[16] Among many others, see Ozhan (2009).

[17] IMF (2013b)

[18] Başçi (2012a)

[19] See Başçi (2012b).

[20] Interest rate corridor consists of overnight lending and borrowing rates. CBRT's main policy tool, short-run interest rate is one-week repo lending rate.

[21] See Gürsel (2012a).

[22] See Gürsel (2012b).

Coordinating the Next Move: Monetary Policy in the Post-crisis World

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Bank of England's New Face

Even before succeeding Mervyn King at the helm of the Bank of England (BoE), Mark Carney was a familiar face to many in Britain. For the first time since the BoE was established in the late 17th century, the governor came from abroad— Carney was the governor of the Bank of Canada. That aside, central bankers and monetary policy have been under the spotlight since the global financial crisis. This is a big change from the past when central bankers rarely hit the headlines and were regarded "being boring" as a virtue. Above all, they abhorred mixing up with politicians. Not anymore.

The need to rekindle and support economic growth in the U.S., the U.K., Japan, and to avoid financial collapse in the eurozone, has pushed central bankers towards more active monetary policy and a more aggressive language. They have descended from their ivory towers and joined the fight against deflation and stagnation. Their weapons? A "big bazooka" of monetary policy. They have embraced non-conventional measures, such as various forms of quantitative easing (QE). The Fed switched to QE in late 2008 as nominal interest rates—the conventional measure—could not be further lowered (they cannot be negative). Since then, liquidity has been injected in faltering economies through the purchase of financial assets in the market in order to lower the cost of borrowing. Then came the sovereign debt crisis in the eurozone and in July 2012, Mario Draghi of the European Central Bank (ECB) promised "whatever it takes to save the euro". That was enough to calm the markets. A few months later, Haruhiko Kuroda, the newly-appointed governor of the Bank of Japan (BoJ), embraced "aggressive" monetary policy—the first "arrow" of Japan's new approach to economic policy—in order to fight deflation and move consumer prices up—the objective is two percent inflation by 2015. What will Governor Carney do?

Many expect a sudden change in the approach to and in the stance of monetary policy at the BoE, and an end to the purchase of assets that, starting in March 2009, have been undertaken to inject money directly into the economy and so to boost nominal demand. But Governor Carney is unlikely to be thinking about changing yet. The economy is recovering at a historically slow pace, and a broader set of financial conditions are not quite right for exiting ultra expansionary monetary policy. The issue is rather how to get more traction and maximum effectiveness out of the existing QE and other measures such as Funding for Lending.

The change in monetary policy, however, will eventually happen, and it is most likely to happen under Carney's stewardship. The key challenge is therefore to adapt monetary conditions to how the economy evolves and 'forward guide' the market by sending a reassuring message, in particular to those sectors of the equity and credit markets where improving growth, rather than excessive liquidity, is the primary driver of expected returns.

'Forward guidance' will be the leading approach in monetary policy in the forthcoming months. The Fed has indicated that it will end QE in 2014 and interest rates are expected to rise again in 2015. In theory there is plenty of time to prepare the ground for a smooth exit. But this may not be the case if other central banks, notably the BoE and the BoJ decide to go for the exit too. While the latter is unlikely to change its stance—although that is

not impossible if the target of 2 percent inflation is achieved earlier than expected—the former might be pushed to move at the early signals of a steady recovery if the inflation outlook does not improve. Since the global financial crisis in 2008, inflation in the U.K. has been consistently above the 2 percent target, and the March 2013 Budget reiterated that the key objective of monetary policy is to meet the inflation target of 2 percent per year. This would be the best-case scenario for the U.K. But Governor Carney might not be so lucky and may end up dealing with a faltering recovery and growing inflationary pressures in a pre-election year when all eyes will be on the economy.

Back to Global Imbalances: Spillovers and `Hot Money'

Since 2008, the unprecedented level of monetary stimulus that the Fed, the ECB, the BoJ, and the BoE have engineered as a response to the global financial crisis has unleashed approximately $9.5 trillion. This looked like a collective response in the sense that the central banks in the advanced economies faced similar conditions and followed similar expansionary paths as their economies were confronted with recession, credit crunch, budget deficits and ballooning public debt. In reality, however, these central banks have been acting together more by chance than by design, following quite different approaches and trying quite different ideas under the unifying mantra of "going beyond the zero bound" and "thinking the unthinkable", while making policy against the correct expectation that others would also be following similar policies. Most of all, they have been acting on domestic grounds, with little coordination in terms of assessing the spillover impact of the huge additional liquidity they put into the system.

Fast-growing developing countries and financial centers like London, New York and Hong Kong have been flooded with money in search of investment opportunities and easy profits. Financial markets have been thriving even if economic growth has been sluggish. In the U.K. in the last 12 months, the FTSE All Shares Index produced an impressive 25 percent return despite the underlying weakness of the U.K. economy. The London property market has grown by almost 20 percent since late 2010, compared to the much more modest rate of 2 percent for the property market in the whole country. Properties in desirable parts of London command seven-digit prices. While acquiring residences in one of the most dynamic cities in the world, wealthy foreigners also buy into Britain's legal system and rule of law. And, in the most difficult times of the eurozone crisis in 2011 and 2012, individuals and companies from member states of Europe's monetary union turned to London as a safe haven.

Bond markets have also benefited from investors' search for yield in 'safe haven' securities. Even eurozone peripheral bonds have looked attractive thanks to the implicit support provided by the ECB and the Outright Monetary Transactions (OMT) programme. Even in China, where controls restrict capital movements, is experiencing strong inflows. In the first quarter of 2013, China's foreign-exchange purchases were $195 billion—in 2012 as a whole they were approximately $100 billion. Over the same period, China's foreign-exchange reserves expanded by $128 billion, reaching $3.4 trillion.

Spillovers have also been affecting emerging market economies such as Brazil, Thailand, Malaysia, and Turkey through both capital movements and the exchange rate. Since 2010, these countries have been juggling the spillover impact of QE, in an attempt to maintain financial stability and manage capital inflows, without resorting to crude forms of capital controls. The specter of outright 'currency wars' that was evoked by Brazil's Finance Minister Mantega has not materialized yet, partly thanks to some effort to coordinate policies made by the G-20, however modest. But the impact on the exchange rate of Japan's monetary policy is taking quite a heavy toll. Since December 2012, the yen has lost about 25 percent of its value against the dollar and even more against the renminbi and the South Korean won. The latter has doubled its

value against the yen over the last 12 months. And the ECB's cut in interest rates in May was more to adjust the exchange rate than to support economic growth. In addition, developing countries have expanded their foreign-exchange reserves by roughly $2.8 trillion since 2008. Inflexible nominal exchange-rate policies in countries like China may have intensified the effects of this process.

As interest rates remain close to zero, the search for yield has become frantic. What we see now is like a re-run of the pre-crisis years of the 'Great Moderation', when low inflation and low interest rates coupled with the "savings glut" in some parts of the world drove excessive debt and leverage, and more risk. But if world markets are back to the pre-crisis years, the world economy is not. In 2005-2006, the world economy grew at the annual rate of 5 percent while the U.S., the U.K. and the eurozone grew at 2.9, 2.7 and 2.5 percent respectively. Today, growth is sluggish as there is insufficient increased spending in surplus countries coupled with fiscal retrenchment in deficit countries, except the U.S. As a result this year the world economy is projected to grow at around 3 percent; the U.S. and the U.K. at 1.9 and 0.7 percent respectively, and the economy of the eurozone is expected to contract by 0.3 percent. Modest growth rates, and recession in the eurozone, make even more evident the disconnect between finance and the real economy.

Is Coordination the New Game?

It is arguable whether monetary policy 'on steroids'—both in terms of the size of interventions and instruments—has achieved the desired impact. Surely the first round of QE in early 2009 helped reduce the sovereign yields in the U.S. and boost confidence and put the economy back on track by the end of that year. In 2010 growth bounced back, at a 5.3 percent pace for the world economy as a whole, 2.4 percent for the U.S., 1.8 percent for the U.K. and even 2 percent for the eurozone. But the impact of the further rounds of QE has been more muted and less in the direction of the real economy.

Fed Chairman Bernanke has recently warned about excessive risk-taking and "reckless speculation", and expressed concern that "easy monetary policy could inflate new bubbles in asset prices". The Bank of International Settlement's Annual Report warns about financial instability that prolonged support from central banks risks generating. In particular, it stresses that central banks cannot substitute fiscal authorities and governments in ensuring the sustainability of public finances and the implementation of reforms that are necessary to move economies back to the growth path. "After all", the Report concludes "cheap money makes it easier to borrow than to save, easier to spend than to tax, easier to remain the same than to change."

Where do we go from here? As monetary policy will eventually roll back, the question is how coordination can be achieved to ensure an orderly exit and to avoid that domestic policies in systemically important countries—in this specific case the U.S., the U.K., the eurozone and Japan—generate negative spillovers on, and systemic risks for the rest of the world. The Fed's announcement in late June that it will begin to phase out QE has rattled financial markets in Europe. In early July, the Fed almost reversed its message to calm the markets. It has been a powerful reminder of how much disruption changes in U.S. interest rates can create. A sharp adjustment in bond and equity prices in response to a change in market sentiment could significantly jeopardize financial stability.

Both the BoE and the ECB are concerned about the direction of monetary policy in the U.S. and the impact on borrowing costs, given the fragile recovery in their respective economies. In particular, due to recent problems in Greece and Portugal, short-term interest rates in the eurozone periphery have grown significantly more than in the core countries, increasing the fragmentation of credit markets and continuing to impair the transmission of monetary policy in the region. Since the Fed announcement, ECB President Draghi has embraced a more forward-guiding approach, and

more crafted communication on future policy. In an unprecedented commitment, he said that the ECB would keep interest rates low "for an extended period of time."

As the world economy, through banking and finance, has become more interconnected and thus more complex, we need a policy framework to manage this complexity and to account for the spillovers or the negative externalities that a country's policies may generate on another country. This is the key lesson we learned from the global financial crisis. Risks to the world economy and global financial stability have therefore increased and have become systemic.

Growth continues to be elusive in many developed countries and the goal of "strong, balanced and sustainable growth" pledged by the G-20 in 2009 remains an empty promise. More action is necessary to channel the existing, risk-creating liquidity towards the real economy. Short-term speculative capital flows need to be curbed while long-term public and private investment, that create productive assets, need to be encouraged. We need to rethink monetary policy within a more coordinated and integrated framework where the impact of spillovers is assessed, action is sequenced and measures are consistent with fiscal policy and the agenda for growth. Most of all, we need active cooperation to rebalance the world economy, and to achieve changes in relative absorption between deficit and surplus countries, and changes in relative prices between deficit and surplus countries.

Unconventional Monetary Policy: Moving Toward the Exit in the U.S.

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Industrial countries and currency areas have had to rely on extraordinary monetary policy accommodation to encourage economic recovery following the financial crisis of 2008 and the problems in the eurozone and elsewhere. Private sector demand has been slow to bounce back, even at unusually low interest rates. This is in part because households entered the recession with too much debt and too many real assets—houses, autos, other consumer durables—that have been worked off gradually and only by sharp cutbacks in borrowing and spending. And businesses have been reluctant to add to capital when demand has been so sluggish. Because intermediaries and other lenders have had to adjust to greater borrower problems, uncertainty about collateral values, and questions about their own credit worthiness, access to and cost of credit for many borrowers did not improve as much as indicated by the decline in benchmark interest rates as monetary policy eased.

The pressure on monetary policy to support the recovery has been intensified by fiscal consolidation in many industrialized countries. The ability of fiscal policy to boost demand has been hamstrung by concerns about debt sustainability in industrial countries, especially in the face of prospective spending increases to meet the needs of aging populations. In the eurozone, pressures on government debt levels have been exacerbated by the perceived need to support banking systems as property bubbles burst and economies on the periphery went into deep recession. The result has been fiscal policies in the U.S. and elsewhere that have weighed on economic growth through tax increases and spending cuts, requiring much easier monetary policies than if fiscal policy had been less pro-cyclical. Demand has been stronger in the emerging market economies (EMEs), but not strong enough to fill the hole in global demand left by the retrenchment in industrial countries.

Weak demand also has been associated with inflation coming in below target in many industrial countries. Nominal interest rates were already at moderate levels when the various problems hit and central banks soon found themselves with their conventional policy instrument at zero, so they had to employ unconventional measures to ease financial conditions further in order to boost demand and raise inflation to target. Two types of unconventional policies have been used: portfolio expansion through asset purchases or increased lending, and guidance on how long or under what circumstances the short-term rate would be kept at zero, thereby reducing rate expectations and longer-term interest rates.

The U.S. has seen some signs of a revival in private demand, although the overall pace of expansion remains quite damped owing to fiscal consolidation. Debt levels have slowly been brought down through restraint on consumption and borrowing and by default on some debt. Overhangs of houses and consumer durables have been worked off by extremely low levels of production relative to population growth and trends in household formation. And credit has become more available as lenders become better capitalized and more confident and the financial condition of borrowers improves. The result has been a pick-up in the construction of houses and production of cars and other consumer durable goods. With fiscal policy restraint on the growth of spending expected to abate, many economists believe that sustained strength in private demand will lead to an acceleration in GDP over the second half of the year and beyond.

The progress, albeit slow, made to date on putting people back to work in the U.S. and that expectation of a pick-up in growth has in turn led to questions—both inside and outside the Fed—about an exit from unconventional monetary policies. This discussion and the market reaction to it have highlighted a number of issues the Fed, and ultimately other central banks, will need to confront as their economies strengthen and they prepare to wind down their unconventional policies.

Shifting the direction of policy is never easy. It requires a judgment that the previous risks to the economy and price stability have dissipated and that policy can be altered without undermining achievement of the central bank's objectives. The decision about when to exit will be more difficult this time around: it follows a long period of disappointing economic performance, making it hard to have confidence that adequate expansion can be sustained without unusual policies; policy interest rates are essentially zero, reducing the room for responding to further downward shocks, unexpected changes in market rate expectations, or errors in judgment reflected in too-early exit; the associated long period of extraordinarily low interest rates may have induced financial investment decisions that will result in losses and possibly even threats to financial stability as interest rates are raised; the exit will involve multiple dimensions of central bank policy—i.e. balance sheets as well as target interest rates—and adjustments to a number of instruments, not just the calling out a new level of a targeted short-term interest rate; and higher interest rates and reduced remittances from the central bank will increase pressure on the fiscal authorities at a time when longer-term budget trajectories may still not be fully sustainable.

For the U.S., three separate but related decisions are required for exit: when to stop expanding the portfolio through QE, when to raise interest rates, and when or even whether to sell down the longer-term securities acquired in the process of QE. All of these will have effects on longer-term interest rates, exchange rates, and asset prices. Asset purchases and portfolio expansion have certain drawbacks—possible exit complications, central bank exposure to duration risk, extra risk to financial stability because of low or negative-term premiums—that are not inherent in low interest rates and the guidance about how long they will stay low. As a consequence, and with the marginal benefit of such *purchases* seen to be diminishing, they *are likely to be stopped or tapered off when economic expansion is strong enough to put underutilized resources back to work over time, but well before the economy threatens to overheat.*

The decision to actually tighten monetary policy—to raise rates and possibly reduce or sterilize excess bank reserves—should be geared to the risk of overheating and of a sustained rise in inflation above target. For this decision, the cost of exiting too early, of raising rates and then seeing the economy slow more than desired, would seem to exceed the costs of being too late, allowing inflation to rise more than anticipated. Central banks know how to deal with inflation through tighter policies; we have seen over recent years the difficulties faced when trying to ease policy to encourage growth when interest rates are already very low. The Fed appears to have embodied this view of the appropriate risk management in its thresholds for considering a rate increase—an unemployment rate of 6.5 percent, provided inflation is not predicted to be more than 2.5 percent, a 0.5 percent above its target.

Sales of longer-duration securities on the books of central banks are not necessary to tighten monetary policy. Central banks can effect a tightening of policy by raising the interest rate they pay on deposits at the central bank, which should provide a floor for short-term market interest rates and in turn, tighten financial conditions more generally as longer-term rates, exchange rates and asset prices respond to actual and expected short-term rates. If the securities are not sold, they will run off slowly as they mature, and central banks could well need to deploy means of converting reserve deposits to other types of liabilities in order to firm up the floor and gain better short-run control over short-term interest rates. If the securities are sold, longer-term rates will rise more quickly, tightening

financial conditions and short-term rates will need to rise more slowly to achieve the same degree of restraint.

The role that domestic financial stability considerations should play in the monetary policy exit is difficult. Without a doubt, the financial collapse that accompanied the pricking of the housing bubble in the U.S. made the recession far worse and more widespread—affecting economies around the world that were otherwise sound. We need to make sure that doesn't happen again; the question is how. Particularly in the current circumstances, as implied by the preceding paragraph, raising interest rates on the early side to forestall bad financial decisions partly induced by very low rates could have especially adverse consequences on achieving inflation and output objectives. *Using regulation and supervision to detect vulnerabilities and build a more resilient financial system would seem far preferable to tightening monetary policy in order to head off threats to financial stability, although monetary policy in the form of earlier exit should be kept in reserve if other techniques don't prove effective.*

We've already seen that the decisions of industrial world central banks to undertake unconventional polices and shifting expectations about when they might exit have had important effects on a variety of financial markets globally. Various economies are facing different challenges and responding to different shocks. So, naturally, they find themselves in diverse cyclical positions with respect to the outlook for inflation and for economic activity, requiring monetary policy paths keyed to their individual circumstances and objectives. *Exit from unconventional polices will occur at different times and at different rates. It could occur in industrial economies when emerging market economies are struggling to keep growth up. And that unavoidable lack of consistency across jurisdictions will result in volatility in interest and exchange rates and spillovers from one jurisdiction to another*—just as the entry into unconventional policies, and in fact monetary policy adjustments under more normal circumstances, have had effects on other financial systems and economies.

The exit from unconventional policies might be especially disruptive given rates being as low as they will have been for as long as they will have been. Nonetheless, *individual central banks cannot be expected to steer away from the domestic objectives embodied in treaty, law, or remit*—say by deliberately running inflation above or below the price stability objective—*to help other jurisdictions reach their own domestic objectives.* And it is not in the interest of the global economy for major countries or currency areas to risk instability of prices or output that would come from a failure to optimize policy on domestic objectives, taking account, to be sure, of the feedback from the global situation onto the domestic economy. So, except for this feedback mechanism, decisions to exit should not be keyed to the consequences for foreign markets and economies.

It is up to authorities everywhere to adapt the regulation of their financial sectors and their monetary policy to protect themselves from any adverse consequences of the monetary policy actions of a major participant in the global markets for goods and services and capital. Financial sectors need to be monitored as to whether they are exposed to a sudden increase in volatility or in interest rates or exchange rates globally, and strengthened by requiring higher capital and liquidity and improved risk management if indeed they might not be resilient enough. Central banks need to be ready to adjust their monetary policies and to let their exchange rates move as required, to counter any undesirable tightening of financial conditions as other central banks exit unusual policies. In general, a rise in both interest and exchange rates for the exiting country will be part of the stabilizing process that heads off inflation pressures. Other countries will experience both a depreciation of their currencies and a rise in interest rates—probably smaller—with opposite effects on output and ultimately inflation. They must decide whether the net of those two influences requires a policy adjustment. That's not to argue that there might not be alternative policy mixes involving broad policy adjustments across many jurisdictions that would help everyone to achieve their own domestic objectives in the

context of greater global stability. The objective of IMF spillover exercises is to highlight the interdependencies and potential for different policy mixes to be helpful to global economic stability. Getting the global economy to fuller levels of resource utilization in a sustainable configuration continues to require more domestic demand from surplus countries to replace the lower domestic demand and borrowing from deficit countries, whose overspending and over-borrowing contributed to the crisis.

Communication about exit plans will be critical in keeping the financial markets and the economy on track, in order to achieve the central bank's goals for output and inflation. The effectiveness of unconventional policies rests importantly on the influence of central banks over expectations in financial markets and among households and businesses. Communication is key to keeping those expectations aligned with the thinking and goals of the central bank and avoiding unnecessary volatility and counter-productive movements in financial conditions. Among other things, keeping longer-run inflation expectations anchored requires the public to have confidence that the central bank has the tools and the will to exit in a timely way. Furthermore, other authorities both at home and abroad can use the communications of the central bank to anticipate and plan for exit.

Clear communication about plans for exit is difficult and faces limitations that are not always adequately recognized. Exit will be complex, involving multiple tools being exercised at different times. A diversity of views about the timing and techniques of exit within each central bank can undermine attempts to convey an unambiguous story of plans. An actual exit will depend on economic developments, many of which cannot be predicted with any confidence. Plans must be adapted to unexpected circumstances and to the evolving nature of the central bank balance sheet. We have seen in the reaction of markets to Fed statements about possible tapering down of its security purchases just how difficult clear communication can be. But it is essential that central banks keep trying to clarify their intentions and how their planned actions depend on shifting projections about prices and activity. The alternative of failing to communicate would be even more volatility and unintended consequences at a time when, with short-term rates already at zero, there is little room for maneuver if financial conditions tighten more than is consistent with progress toward objectives.

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