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BACKGROUND PAPER

BP/14/07

IMF Macroeconomic Policy Advice in the Financial Crisis Aftermath

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October 8, 2014

JEL Classification Numbers:

Keywords:

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ABBREVIATIONS

CBO	Congressional Budget Office
ECB	European Central Bank
EME	emerging market economy
FAD	Fiscal Affairs Department (IMF)
GFSR	*Global Financial Stability Report*
G-20	Group of Twenty
GDP	Gross Domestic Product
IMFC	International Monetary and Financial Committee (IMF)
ISD	Integrated Surveillance Decision
MCM	Monetary and Capital Markets Department (IMF)
OECD	Organization for Economic Cooperation and Development
PPP	purchasing power parity
QE	quantitative easing
RES	Research Department (IMF)
SPN	Staff Position Note
TSR	Triennial Surveillance Review
UMP	unconventional monetary policy
WEO	*World Economic Outlook*
ZLB	zero lower bound

EXECUTIVE SUMMARY

The IMF was an influential spokesman for coordinated macroeconomic stimulus following the collapse of Lehman Brothers. It had been urging countries to plan for such stimulus starting in early 2008. Its own work on the topic over the course of 2008 positioned itself to be a leading proponent of a global fiscal stimulus at G-20 meetings, as well as in the public discourse. The IMF also appropriately supported the aggressive interventions led by the U.S. Federal Reserve and other central banks to address the financial panic in the immediate aftermath of the Lehman collapse.

By early 2010, following indications of a possible recovery and in view of its concerns about fiscal solvency and possible public debt crises, the IMF called for fiscal consolidation in advanced economies to begin as soon as there was evidence of self-sustaining recovery. In parallel, the IMF advocated the use of accommodative monetary policies including quantitative easing to counteract fiscal drag and sustain growth if needed. In the event, the IMF in 2010 endorsed the shift from fiscal stimulus to consolidation that was initiated in the United Kingdom in 2010, the United States in 2011, and recommended that each euro area economy including Germany engage in fiscal consolidation by 2011 at the latest, inter alia to enhance investor confidence. The call for fiscal consolidation turned out to be premature, as the recovery turned out to be modest in most advanced economies and short-lived in many European countries. As economic growth consistently disappointed during 2011–13, the IMF recommended progressively easier monetary policies to stimulate demand. In 2012, the IMF began to reassess its views on fiscal policy and subsequently called for a more moderate pace of fiscal consolidation if feasible.

The thrust of IMF macroeconomic policy advice to advanced economies since 2010—of fiscal consolidation coupled with monetary expansion—appears at odds with longstanding assessments of the appropriate policy mix following a financial crisis. In particular, private sector efforts to deleverage rendered credit demand less sensitive to expansionary monetary policy, irrespective of its ability to maintain low interest rates or raise asset prices. By contrast, a large body of analysis, including from the IMF itself, indicated that fiscal multipliers would be elevated following the crisis, pointing to the enhanced power relative to the pre-crisis environment of expansionary fiscal policy to stimulate demand and reactivate the economy.

The IMF's recommended policy mix in major advanced economies was influenced by its concerns about fiscal sustainability and crises even where financial markets were not signaling such risks. However, it expressed less concern about the spillovers from ultra-expansionary monetary policies in advanced economies on emerging markets in the form of destabilizing capital flows and exchange rate volatility that did materialize.

There was also room for greater differentiation in the advice provided across countries to make it better aligned to domestic conditions and to market perceptions of risk. For example, the initial phase of IMF support for fiscal stimulus extended in a few cases to countries where domestic conditions or their access to financing did not warrant such stimulus. Conversely, the later call for fiscal consolidation extended to countries with relatively solid fiscal positions and ample access to financing, where a more sustained stimulus could have played a beneficial role in offsetting the slack in domestic and global demand.

I. INTRODUCTION[1]

1. The objective of this paper is to assess the effectiveness with which the IMF responded to the major macroeconomic challenges faced by its membership in the aftermath of the collapse of Lehman Brothers. Thus the paper assesses the cohesiveness of the Fund's messages on the need for fiscal stimulus, the role played by the Fund in guiding major economies to exit from fiscal stimulus, and the nature of the Fund's advice on monetary policy in the crisis aftermath.[2] The period of focus is from September 2008 through 2013.

2. To address this objective, the paper reviews the IMF's institutional stances in the context of Management statements, key publications such as the *World Economic Outlook* (*WEO*), *Fiscal Monitor*, and *Global Financial Stability Report* (*GFSR*), Article IV consultations and other relevant policy papers presented to the IMF Executive Board. It draws on interviews conducted with country authorities, IMF staff, and officials of other international agencies. And it assesses IMF advice to some of the largest advanced economies which bore the brunt of the financial crisis, as well as messages delivered to G-20 members.

3. The Fund has promoted a number of reforms to its surveillance following the crisis, inter alia, to better integrate multilateral with bilateral surveillance and macroeconomic with financial sector analysis, and to enable the IMF to conduct spillover analysis in the context of Article IV consultations. Spillover Reports for five large systemic economies were launched in 2011, and an Integrated Surveillance Decision (ISD), adopted in 2012, clarified the framework for surveillance, including the scope of risk and spillover analysis.[3]

4. The paper's task is complicated by the lack of consensus among economists and policy makers on some basic tenets of macroeconomic policy after the crisis. Given the wide range of economist opinions, wherever possible the paper evaluates IMF policy advice against its own analysis of post-crisis developments, as expressed in its flagship documents and other influential papers.[4]

5. The structure of the paper is as follows. Section II describes the economic context for the provision of IMF advice and analysis. Section III provides an overview of IMF views and

[1] I would like to thank Jack Boorman, José Luis Escrivá, Edwin Truman, and IEO colleagues for comments, Alisa Abrams, Franz Loyola, Andrew Martinez, Tam Nguyen, Roxana Pedraglio, Jerome Prieur for research assistance, Arun Bhatnagar and Amy Gamulo for administrative assistance.

[2] The paper does not dwell on the early phase of central banks' liquidity provision to financial institutions, since this action, while crucial to preventing greater instability, did not involve direct IMF input. The paper also does not assess the nature of structural reforms recommended by the IMF.

[3] It is too early for the IEO to evaluate the full impact of these reforms, in particular of the ISD. The recent Triennial Surveillance Review (TSR), IMF (2014a), describes these reforms and the initial implementation of the ISD.

[4] The use of "post-crisis" in this paper is defined as the aftermath of the Lehman collapse. It should not be taken to signify an end to the crisis.

pronouncements on fiscal stimulus and consolidation and the appropriate role of monetary policy following the crisis. Section IV discusses aspects of IMF macroeconomic advice to major advanced and emerging economies in the course of its bilateral surveillance, drawing on a fuller description in Annex 1. Section V describes key elements of IMF analytical work on these issues. Section VI discusses the paper's main findings and conclusions.

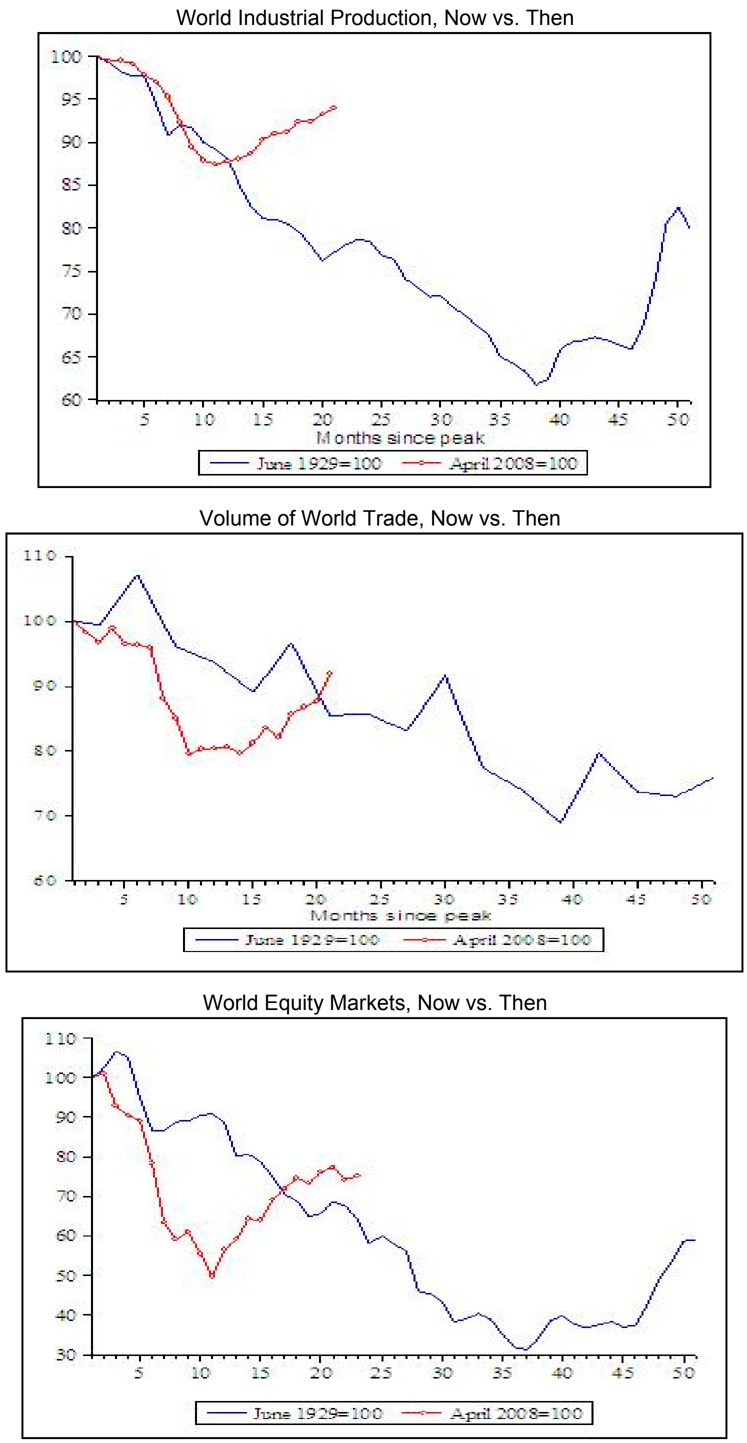
II. Economic Context

6. For about a year after the collapse of Lehman Brothers, global industrial production, trade and equity prices fell at an equivalent or faster pace than after the 1929 stock market crash (Figure 1). The provision of massive liquidity to financial institutions by the major central banks in the early stages of the crisis and the rescue of several systemic institutions cut short an incipient run on the global financial system, avoiding the cascading bank failures that had characterized the Great Depression—notwithstanding a financial crisis that arguably surpassed its pre-war precedent in complexity and scope. The prevalence of automatic stabilizers and adoption of discretionary fiscal stimulus after the Lehman collapse also limited the initial loss of output compared to the Great Depression.

7. Although the depth of output loss was contained relative to the Great Depression, the fall in advanced economy GDP since 2007 was steeper and more prolonged than the average of output losses suffered following other post-war advanced economy banking crises, particularly in the United Kingdom and euro area (Figure 2). Moreover, the gap between potential and actual output in advanced economies has persisted (Figure 3). Recoveries in the United States and United Kingdom were constrained by the bursting of housing and credit bubbles that rendered households and financial institutions overburdened by debt and in pursuit of deleveraging over extended periods. Some euro area economies faced these problems as well, but were constrained from responding with standard countercyclical policies by the architecture of the currency union. At the same time, major euro area banks were burdened by U.S. subprime exposure, in addition to the growing stress among European borrowers whose credit boom they had financed.

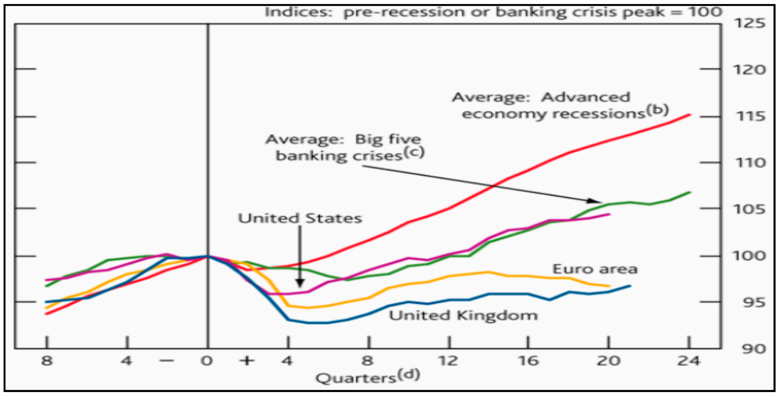
8. Indeed, the duration of the downturn and pace of recovery in many European economies during the current crisis compares unfavorably to their experience during the 1930s, with GDP in the United Kingdom and euro area trending lower in the recent period following five to six years of recession or modest growth (Figures 4 and 5). Unemployment reached record levels in several countries and for the euro area as a whole (Figure 6).

Figure 1. Great Recession vs. Great Depression



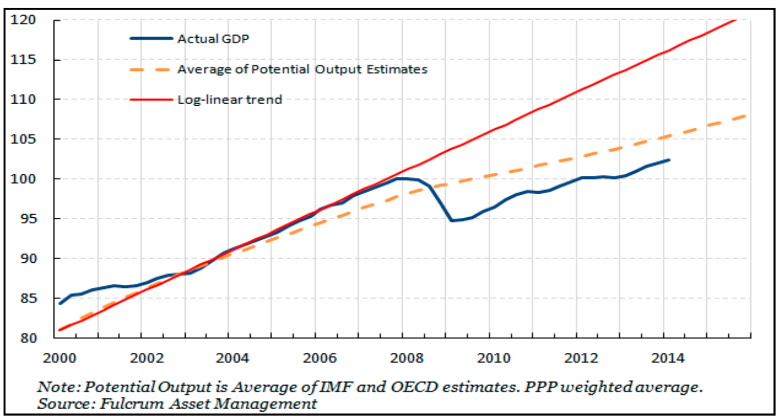
Source: Eichengreen and O'Rourke (2010).

Figure 2. Evolution of GDP Around Recessions and Banking Crises



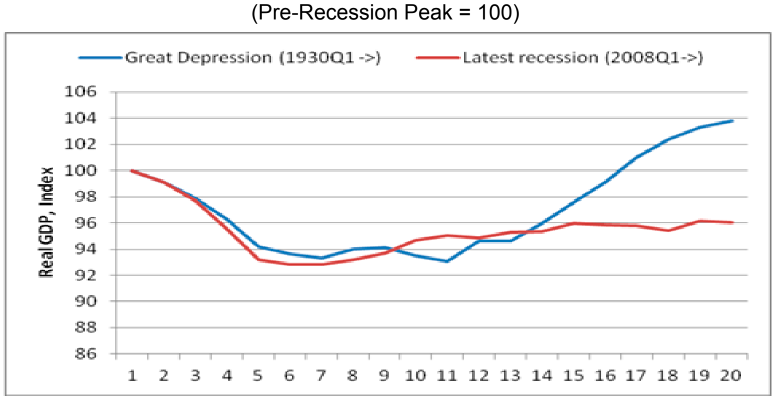
Source: Dale and Talbot (2013).
(a) Defined as at least two consecutive quarters of falling output.
(b) Where data are available, covers the G-20 advanced economies over the period from 1960 to 2006.
(c) Spain (1977), Norway (1987) Finland (1991), Sweden (1991) and Japan (1992), as defined in Reinhart and Rogoff (2008).
(d) Zero denotes the pre-recession peak in GDP or the peak in GDP during the year of the banking crisis, as listed in footnote (c).

Figure 3. Aggregate G4 (U.S., Euro Area, Japan, U.K.) GDP, Potential and Trend



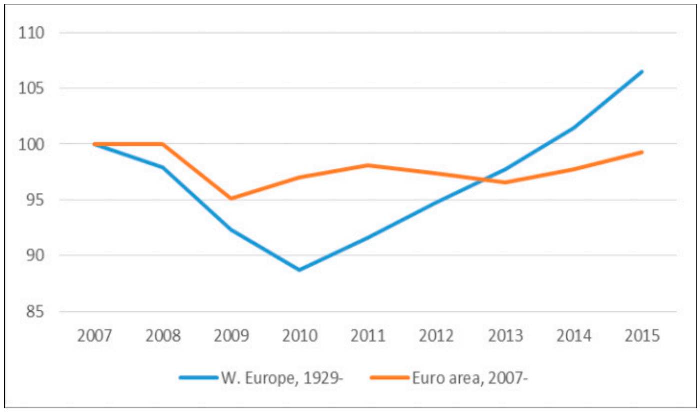
Source: Davies (2014).

Figure 4. United Kingdom: Decline and Recovery in GDP Levels During the Latest Recession and the 1930s Depression
(Pre-Recession Peak = 100)



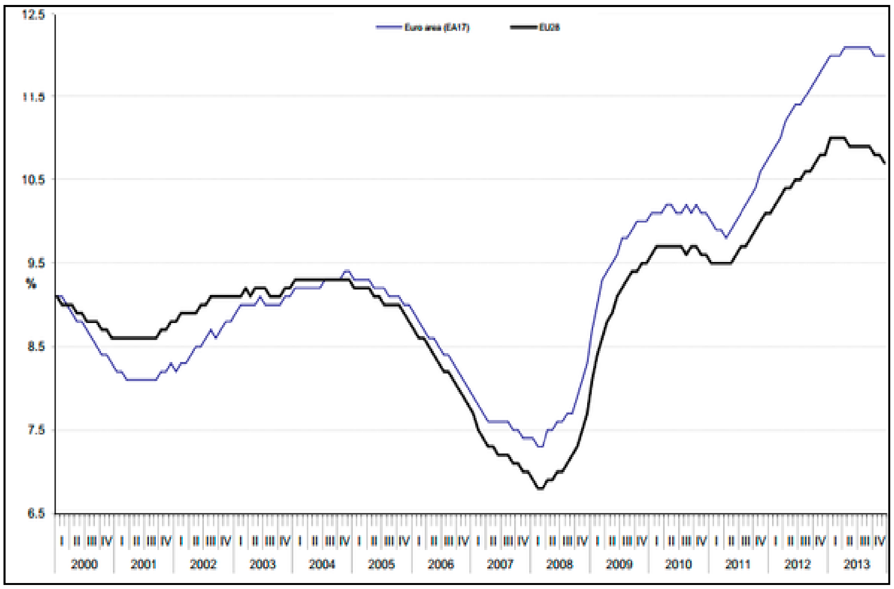
Source: Office for National Statistics, United Kingdom.

Figure 5. Real GDP Per Capita: Europe



Source: Krugman (2014).

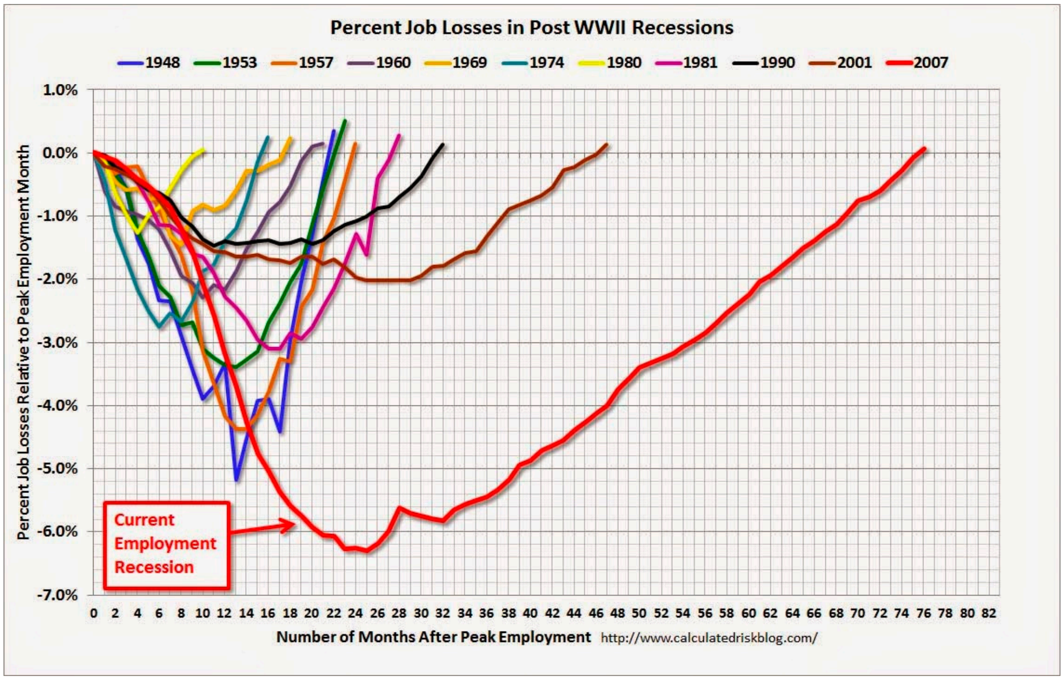
Figure 6. Euro Area and EU28 Unemployment Rates



Source: Eurostat.

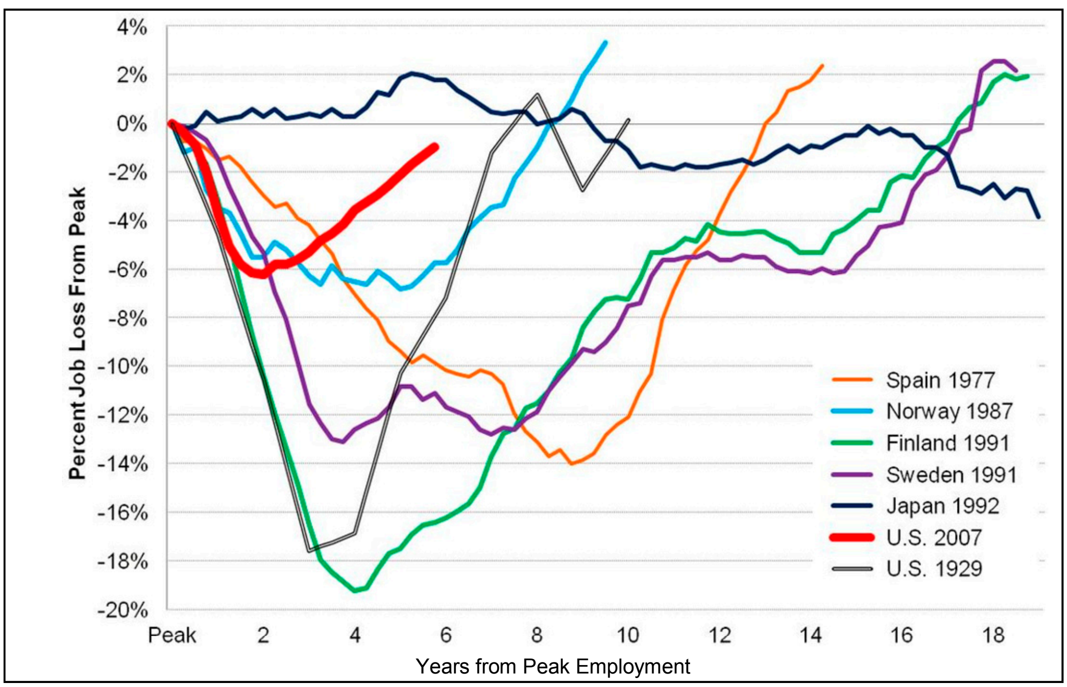
9. In the United States, even the deepest and longest post-war employment losses during the recent crisis (Figure 7) paled in comparison to employment losses that have typically followed other financial crises (Figure 8), highlighting the depth and duration of economic damage that financial crises tend to cause. However, the U.S. labor market was slow to heal as the number of long-term unemployed peaked at unprecedented levels (Figure 9), and unlike in past recoveries, the labor force participation rate stagnated even as the unemployment rate declined (Figure 10).

Figure 7. U.S. Recession Employment Loss



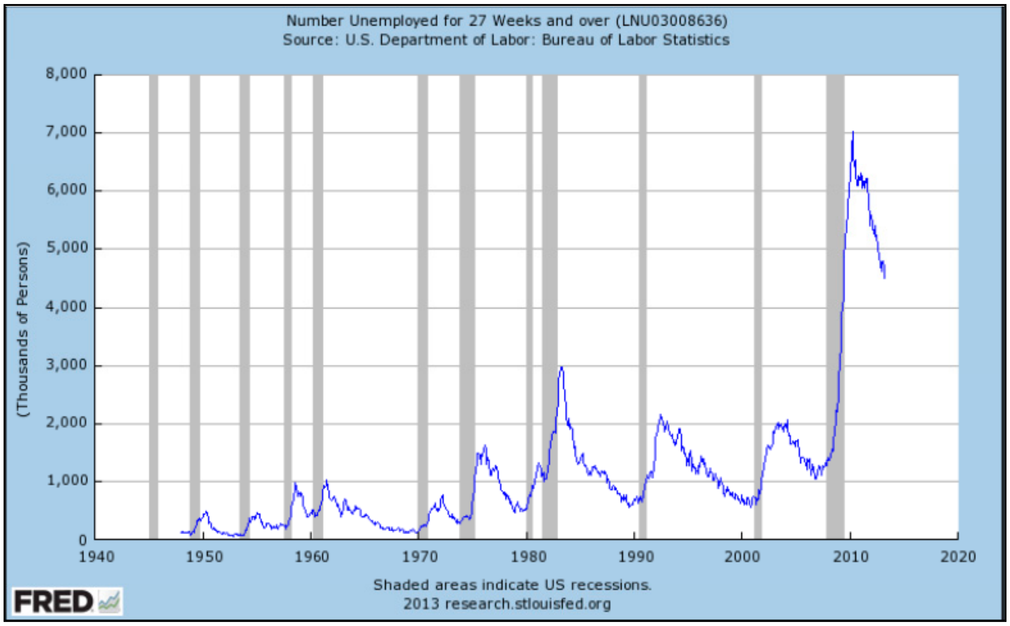
Source: http://www.calculatedriskblog.com.

Figure 8. Financial Crisis Employment Loss



Source: OECD, BLS.

Figure 9. United States: Number Unemployed for 27 Weeks and Over



Source: Federal Reserve Economic Data, St. Louis Fed.

Figure 10. U.S. Unemployment Rate Declined, But Without Labor Force Participation Recovery

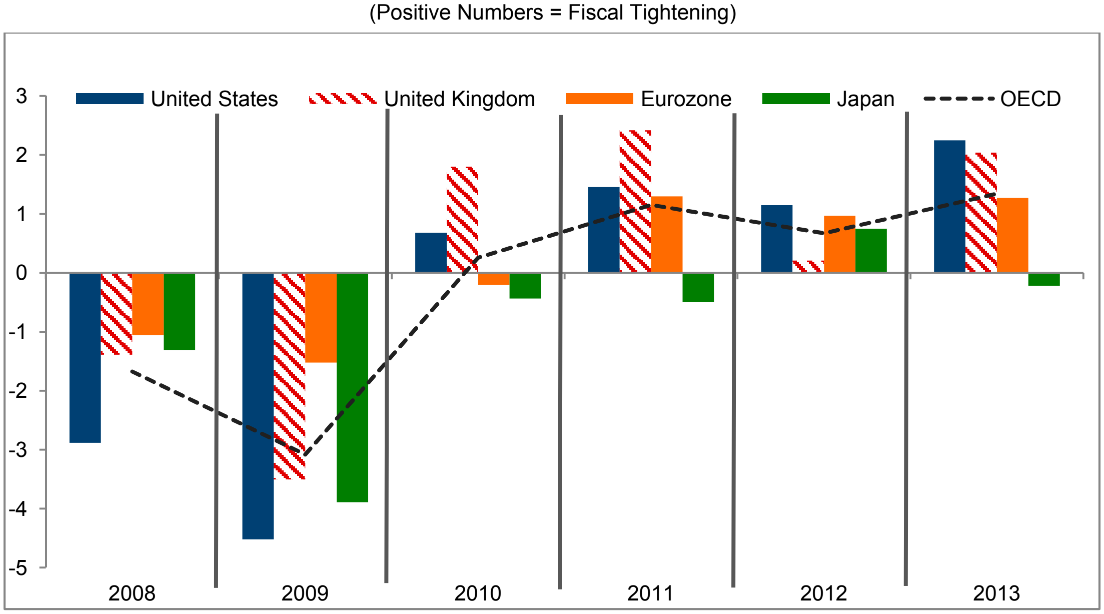
Source: U.S. Bureau of Labor Statistics.

10. The North Atlantic financial crisis impacted emerging markets initially through trade contraction, financial market downturns and capital outflows accompanied in some cases by temporary termination of credit lines. Although growth slowed across the board, it remained positive in the major emerging economies of Asia, whereas some large emerging economies in Europe and Latin America suffered sharp recessions, albeit of shorter duration than in advanced economies. Whether or not they contracted in the immediate post-Lehman period,

the nature of the slowdown in their growth differed from that of advanced economies at the center of the crisis. There was no wholesale collapse in domestic demand or parallel downturn in interest rates. Indeed, several emerging economies continued to grapple with high inflation and current account deficits and witnessed rising sovereign borrowing costs, aggravated by the outflow of capital to global financial centers.

11. In terms of policy responses, the October 2008 IMFC Communiqué called for advanced economies to provide macroeconomic stimulus to counter the anticipated economic downturn. In November 2008, the Leaders of the G-20 agreed to use fiscal measures to stimulate domestic demand as appropriate, and the IMF Managing Director called for a fiscal stimulus of 2 percent of global GDP. By mid-2010, however, in the context of a G-20 Communiqué, advanced economies committed to at least halve their fiscal deficits by 2013, and to stabilize or reduce their debt/GDP ratios by 2016. Indeed by 2011, the combined fiscal policy thrust of advanced economies had turned contractionary as measured by the change in cyclically adjusted general government balance (Figure 11) or real government spending, which after 2010 trended well below its more typical post-recession pace (Figure 12). As fiscal policy was tightened, monetary policy remained expansionary in the major advanced economies as policy interest rates were held at record lows and the purchase of government securities and private assets accelerated (Figure 13). At the same time, weaker-than-anticipated economic activity during 2011–13 coupled with weakness in labor markets became a persistent feature of the advanced economy landscape.

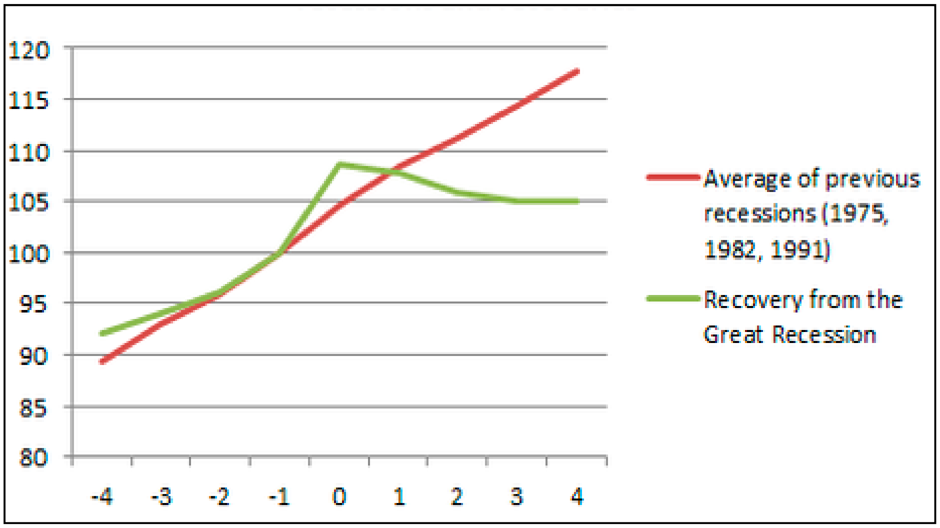
Figure 11. Fiscal Policy Thrust
(Percent of Potential GDP)[1]
(Positive Numbers = Fiscal Tightening)



Source: Davies (2012), estimated using IMF, *WEO* Spring 2014 database.

[1] Calculated as the change in cyclically adjusted general government balance as percent of potential GDP. OECD and euro area weighted by nominal GDP. OECD and euro area exclude Estonia.

Figure 12. Advanced Countries: Real Government Spending in Recessions and Recoveries



Source: *WEO* April 2013.

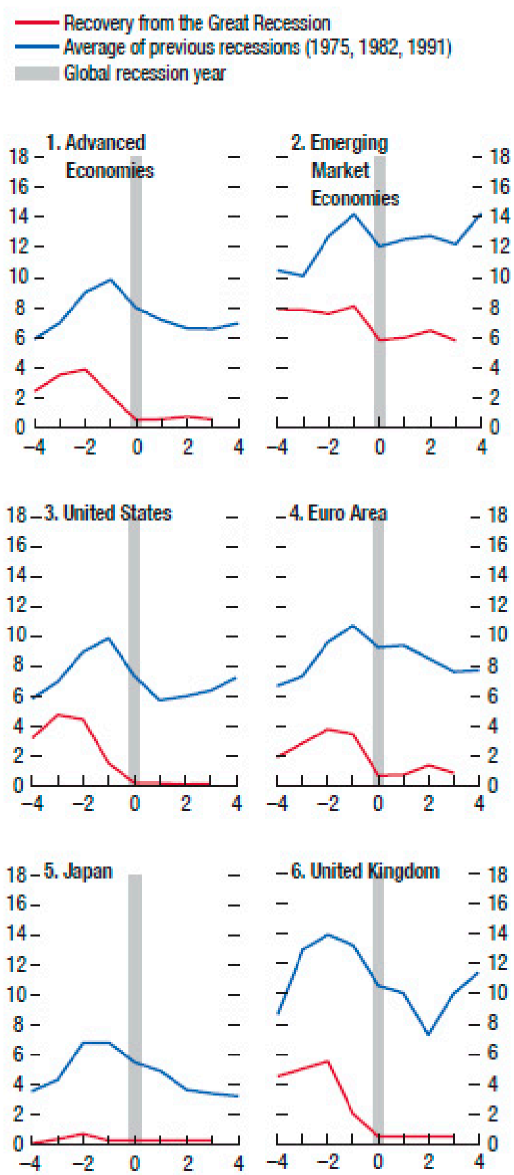
12. The shock to the functioning of advanced economies following the crisis generated extended debate about appropriate macro policy responses on how large a fiscal stimulus was needed, how long should the stimulus be maintained if applicable, what mix of policies it should comprise, how monetary policies should respond once the zero lower bound for interest rates had been reached, and whether greater coordination between monetary and fiscal policies was warranted. Diagnoses varied widely according to how the costs and risks associated with the crisis were weighed against the benefits and risks of the policies to address them.

13. The slow recoveries in advanced economies and periodic bouts of capital flow volatility afflicting emerging markets fueled the debate on the efficacy of the macroeconomic policies pursued after the crisis. Could more active fiscal policies have limited the severity and duration of the output and employment losses in advanced economies? What risks would more prolonged fiscal stimulus in advanced economies have entailed? Was the mix between fiscal and monetary stimulus appropriate, and could an alternative policy mix have been more effective and entailed less damaging spillovers? Could there have been more clarity on which countries should and should not have embarked on a fiscal stimulus? These issues are addressed in the context of IMF analysis and advice in the remainder of this paper.

Figure 13. Monetary Policy During Global Recessions and Recoveries

Figure 1.1.3. Short-Term Interest Rates during Global Recessions and Recoveries[1]

(Percent; years from global recession on x-axis)

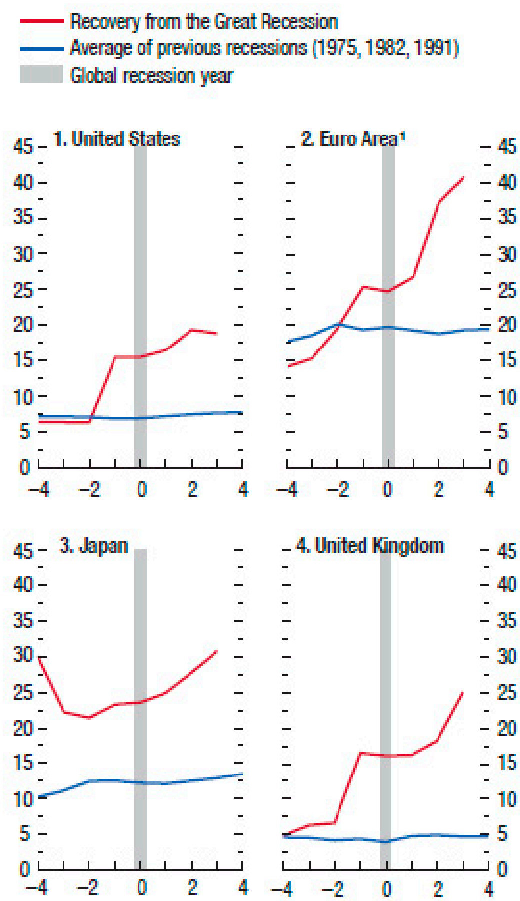


Sources: Haver Analytics; IMF, *International Financial Statistics*; and IMF staff calculations.

[1]Aggregates are market weighted by GDP in U.S. dollars; observations are dropped for countries experiencing inflation 50 percent greater than in the previous year. Policy rate used as the principal series. Three- or four-month treasury bill data used as a proxy if data series was longer.

Figure 1.1.4. Central Bank Assets in Major Advanced Economies during Global Recessions and Recoveries

(Percent of real GDP of year before global recession; years from global recession on x-axis)



Sources: Bank of England; Eurostat; Haver Analytics; IMF, *International Financial Statistics;* World Bank, World Development Indicators database; and IMF staff calculations.

[1]Aggregate is market weighted by GDP in U.S. dollars. Data unavailable before 1975.

Source: *WEO*, April 2013.

III. THE IMF STANCE ON POST-CRISIS MACROECONOMIC POLICY

A. The Institutional Stance on Fiscal Stimulus: Supportive but with a Tendency to Provide Conflicting Messages

"If there has ever been a time in modern economic history when fiscal policy and a fiscal stimulus should be used, it's now." (Strauss-Kahn, November 2008, IMF, 2008)

14. The IMF is widely acknowledged as having led the call for a global fiscal stimulus. To a large extent, the IMF's forceful stance on the need for stimulus can be attributed to leadership taken by its Managing Director (Box 1). It signaled a turnaround in IMF thinking about fiscal policy and positioned the Fund to be the leading proponent of global fiscal stimulus in the aftermath of the Lehman collapse. This section examines the evolution of the IMF's call for stimulus during the crisis.

Box 1. An Early and Sustained Call for Stimulus by the Managing Director

Strauss-Kahn's calls for stimulus began in January 2008 and continued through 2010.

At the World Economic Forum's annual meeting in January 2008 he signaled what was interpreted as a turnaround in IMF thinking when he suggested that fiscal policy would have to be utilized to tackle the crisis:

"In a dramatic *volte face* for an international body that as recently as the autumn called for 'continued fiscal consolidation' in the US, Dominique Strauss-Kahn, the new IMF head, gave a green light for the proposed US fiscal stimulus package and called for other countries to follow suit. 'I don't think we would get rid of the crisis with just monetary tools,' he said, adding 'a new fiscal policy is probably today an accurate way to answer the crisis'." (Giles and Tett, reporting from Davos, January 2008).

He reiterated his views in a *Financial Times* article, which elaborated on why it was important for countries to begin planning for a fiscal stimulus: "… medium-term fiscal policy is all about saving for a rainy day. It is now raining… Countries that have fiscal and monetary space should consider now what it would take to line up a temporary fiscal stimulus that can be deployed if needed as events unfold in 2008" (Strauss-Kahn, 2008).

Stauss-Kahn's calls for a fiscal stimulus became more explicit and precise after the collapse of Lehman Brothers: in October 2008, he called for governments that could afford it to undertake a broader fiscal stimulus, and in November 2008 he indicated that the IMF was trying to organize a coordinated action plan to boost growth including via a fiscal stimulus amounting to 2 percent of global GDP.

Stauss-Kahn continued to pursue this approach in 2009 and 2010. For example:

"Let me start with fiscal policy. To put it bluntly, fiscal policies should counteract the crisis, not make it worse. As you know, the IMF has been at the forefront of the call for a global fiscal stimulus for countries with the fiscal space to do it" (Strauss-Kahn, 2009).

"In the medium term, our message is clear: all countries—especially advanced economies with a high level of debt—have to go back to fiscal sustainability ... But while the recovery is still fragile, all the fiscal room still available has to be used to boost growth" (Strauss-Kahn, 2010).

15. The Managing Director's calls for stimulus even before the Lehman collapse prompted IMF staff to address the issue earlier than other agencies, and to analyze feasible stimulus options in major countries during the course of 2008. The support for fiscal stimulus was cautious until the impact of the financial collapse became evident in late 2008. For example, the Fall 2008 *WEO*, largely drafted before the collapse of Lehman Brothers, was

concerned about the costs of a stimulus and suggested it would be more effective if administered through tax cuts rather than spending increases:

> "New evidence … indicates that effects from fiscal stimulus can be positive, albeit modest. But policymakers need to be very careful about how stimulus packages are implemented, whether they are timely, and whether they are likely to become entrenched, leading to concerns about debt sustainability… In advanced economies, the multipliers are statistically significant and moderately positive—a 1 percentage point fiscal stimulus leads to an increase in real GDP growth of around 0.1 percent on impact, and up to 0.5 percent above its level in year 0 after three years."

> "The evidence from this analysis indicates that discretionary fiscal policy can successfully stimulate output growth, especially if it is revenue-based. But there are reasons for caution in employing stimulus packages during downturns, with evidence suggesting that, if it is to work at all, it will do so only when underlying fiscal positions are sound."

16. By December 2008, as the magnitude of the crisis had become clear, a paper co-authored by the Directors of the Research (RES) and Fiscal Affairs (FAD) departments among others, and distributed to the Executive Board prior to its publication, Spilimbergo and others (2008), produced perhaps the most forceful arguments by IMF staff for fiscal stimulus. It indicated that spending increases were likely to have among the highest multipliers (in contrast to the Fall 2008 *WEO*), as this excerpt illustrates:

> "The optimal fiscal package should be timely, large, lasting, diversified, contingent, collective, and sustainable: timely, because the need for action is immediate; large, because the current and expected decrease in private demand is exceptionally large; lasting because the downturn will last for some time; diversified because of the unusual degree of uncertainty associated with any single measure; contingent, because the need to reduce the perceived probability of another 'Great Depression' requires a commitment to do more, if needed; collective, since each country that has fiscal space should contribute; and sustainable, so as not to lead to a debt explosion and adverse reactions of financial markets. Looking at the content of the fiscal package, in the current circumstances, spending increases, and targeted tax cuts and transfers, are likely to have the highest multipliers. General tax cuts or subsidies, either for consumers or for firms, are likely to have lower multipliers."

17. However, a month later in January 2009, an FAD paper, also discussed at the Board, IMF (2009a), adopted a decidedly more concerned posture about the fiscal repercussions of the crisis and called for a strategy to address concerns about fiscal solvency[5]:

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[5] This paper was released to the public in March 2009.

> "It is now critical to reassess the state of public finances in light of the crisis and pursue strategies to ensure fiscal solvency. Major doubts about fiscal solvency would lead to a surge in risk premia on government paper, destabilize expectations, and further shake market confidence. A clear strategy to ensure fiscal solvency is, therefore, an important element for the resolution of the current crisis."

18. Shortly after the issuance of the FAD paper, the January 2009 *WEO* update, IMF (2009b) retained its enthusiasm for fiscal stimulus:

> "In current circumstances, the timely implementation of fiscal stimulus across a broad range of advanced and emerging economies must provide a key support to world growth. Given that the current projections are predicated on strong and coordinated policy actions, any delays will likely worsen growth prospects. Countries that have policy room should make a firm commitment to do more if the situation deteriorates further."

19. This pattern continued through much of 2009, with the *WEO* and other RES papers more stimulus-friendly, and FAD papers more concerned about fiscal solvency and the consequent urgency to articulate strategies to return to fiscal sustainability. From an external perspective, however, the IMF was viewed as an effective voice advocating robust stimulus through 2009 given the higher profile of the *WEO* and the strong pronouncements of the Managing Director.

20. The perceived expansionary stance of the IMF in the months following the Lehman collapse was boosted by the advice offered, including to emerging market economies, in the context of the frequent G-20 meetings that followed. Thus, for example, in March 2009, an IMF document prepared for the G-20 included advanced and emerging economies in their recommendation to increase the size of their fiscal stimulus:

> "Most G-20 advanced and emerging countries—including the United States, China, Germany, India, Russia, and Saudi Arabia—are providing large stimulus packages. While the overall stimulus being provided by G-20 countries is sizeable, it falls well short of the 2 percent of GDP recommended by the Fund, especially in 2010. However, given the rapid slowdown in global activity, stimulus will need to be sustained in 2010" (IMF, 2009c).

In September 2009, the IMF estimated the discretionary fiscal expansion of emerging and developing G-20 members in 2009 to be a higher share of their GDP than the advanced economy fiscal stimulus, IMF (2009d). Moreover, IMF advice to a larger number of countries spanning well beyond the G-20 and including advanced, emerging as well as low-income countries turned more expansionary in the post-Lehman period (IEO, 2013).

B. Shifting to Favor Fiscal Consolidation

"As the crisis winds down, policymakers need to formulate and begin to implement strategies for exiting from crisis-related intervention policies" (IMF, 2010, January).

21. By mid-2009, concerns about financial stability had eased, thanks in large part to massive provision of central bank liquidity and guarantees to the financial sector. Financial markets were strengthening and output in the advanced economies had begun to recover. Moreover, the general government debt/GDP ratio in advanced economies was projected to rise by some 40 percentage points between end-2007 and end-2014 (weighted by GDP at PPP), of which only 3.5 percentage points was estimated to be due to fiscal stimulus (IMF, 2010). More than half the projected increase was estimated to originate from the increased cost of automatic stabilizers and revenue losses from lower asset prices and financial profits.

22. Forecasts of economic recovery and of the crisis's projected fiscal repercussions appear to have altered the balance of opinion within IMF staff in favor of fiscal consolidation, or at least in favor of preparing for an exit from the extraordinary polices utilized after the Lehman collapse.[6] A paper titled "Exiting from Crisis Intervention Policies," IMF (2010), submitted to the Board in January 2010 and approved by the heads of FAD, RES, and MCM (Monetary and Capital Markets Department), brought together earlier strands of work by IMF staff and argued that fiscal consolidation should begin as soon as there was clear evidence of "self-sustaining recovery."[7] It recommended that a strategy for fiscal adjustment should be immediately communicated to reassure markets, even though fiscal and monetary stimulus may need to be maintained for a majority of the world's economies well into 2010. If developments proceeded as expected, withdrawal could begin in 2011. The Summing Up of the Executive Board discussion on this paper supported the staff view, while noting the need to pay attention to individual country circumstances.

23. Notwithstanding such caveats about the timing of stimulus withdrawal, the main thrust of IMF (2010), echoed in the May 2010 *Fiscal Monitor*, was on why and how to shift to fiscal consolidation. It stressed the magnitude of the fiscal adjustment that lay ahead. Advanced economies in particular were said to face a daunting fiscal challenge since the increase in their deficit, from 2 percent of GDP in 2007 to 10 percent in 2009 (PPP-weighted average) stemmed not only from cyclical and crisis-related factors but also from non-stimulus spending. IMF (2010)'s proposal to target public debt ratios below 60 percent for

[6] In early 2010, the IMF was forecasting a slow but gradually rising advanced economy recovery during 2010–13. In the event, the 2010 recovery was faster than anticipated but in subsequent years growth in advanced economies either slowed or fell back into recession.

[7] The focus here on IMF (2010) is motivated by its multi-departmental approval. Several other Board papers, *WEOs* and *Fiscal Monitors* contained similar messages during this period.

many advanced economies for the medium term set the tone, since this would require very significant adjustments to structural primary balances given the projected rise in debt ratios through 2014.

24. Soon after the paper was discussed at the Board, G-20 officials agreed on the need to shift fiscal policy towards greater focus on consolidation. Subsequently in 2010, the IMF's Article IV Consultation on the United Kingdom supported the new government's adoption of a more ambitious fiscal consolidation program than envisaged by the outgoing government, and Article IVs for the United States and euro area economies also advised the implementation of fiscal consolidation (Section IV).

25. As discussed in Section V, the shift in favor of fiscal consolidation coexisted awkwardly with analytical work inside and outside the Fund that stressed the need for sustained fiscal stimulus following the crisis and found that fiscal multipliers would be elevated under post-crisis conditions if monetary policy remained accommodative.

Highlighting the risk of fiscal crises

26. An important element motivating the IMF's shift in favor of fiscal consolidation was the perceived risk of a fiscal crisis precipitated by loss of confidence in government bonds. This concern extended to the major issuers of reserve currencies. Moreover, following the crisis in euro area periphery economies, which experienced sharp increases in sovereign borrowing costs, these developments were interpreted as a warning for the United States and Japan:

> "This somber fiscal outlook raises issues of fiscal solvency, and could eventually trigger adverse market reactions. … Therefore, there is an urgent need for governments to clarify their strategy to ensure that solvency is not at risk" (IMF, 2009a).

> "At the same time, fiscal positions need to be placed on sustainable medium-term paths by implementing fiscal consolidation plans and entitlement reforms supported by stronger fiscal rules and institutions. This need is particularly urgent in the United States to stem the risk of globally destabilizing changes in bond markets" (Spring 2011, *WEO*).

> "The speed and severity with which financial pressures spread in the euro area should serve as a cautionary tale to Japan and the United States. … The credibility of Japan and the United States could suddenly weaken if sufficiently detailed and ambitious plans to reduce deficits and debts are not forthcoming" (September 2011, *Fiscal Monitor*).

C. IMF Views on Monetary Policy in the Crisis Aftermath

27. Monetary policy conducted by the four major advanced economy central banks (the Federal Reserve, European Central Bank, Bank of Japan, Bank of England) following the crisis was characterized by lowering short-term policy interest rates towards the zero lower bound (ZLB), enacting various forms of quantitative easing—the purchase of longer-term government bonds and/or private assets from commercial banks and other financial institutions—and regular communication about the conditions under which such policies would be maintained or adjusted ("forward guidance"). Figures 12 and 13 make clear that for the post-Lehman collapse period taken as a whole, expansionary monetary policy, in particular quantitative easing, is what distinguished the advanced economy policy response from past recessions, whereas government spending was more restrained than in the past (with higher deficits during the recent crisis reflecting the depth and duration of the downturn, rather than an extended period of expansionary fiscal policy).

28. The objectives of QE were to reduce the risk of deflation, stimulate aggregate demand in general as well as for depressed segments of the economy such as housing more directly.[8] The purchase of longer-term assets would flatten the yield curve on government securities, encourage a shift in private portfolios in favor of riskier assets, and lift the price of financial assets more broadly in support of these goals. Demand would be stimulated as asset prices increased and the cost of borrowing, including for mortgages, declined.

29. The range of views about post-crisis monetary policy in general, and QE in particular, has been wide. Many supporters view both traditional and unconventional monetary policy (UMP) as essential to the post-crisis conditions that have prevailed, ideally in conjunction with more expansionary fiscal policies that they consider also should have been sustained beyond 2010. Many of these same supporters however view monetary policy, both conventional and unconventional, as less effective than fiscal policy in promoting robust recovery since lower interest rates and easing credit conditions are thought to be less effective in stimulating demand when the private sector is deleveraging, in comparison, for example, to the ability of fiscal policy to directly impact demand.[9] Yet they nevertheless support aggressive monetary expansion given the weak economy and labor market, and in light of the policy or political factors constraining more expansionary fiscal policy across major advanced economies. Finally, many supporters of QE would argue that raising

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[8] The discussion in this section refers to QE as a tool of monetary policy while the ZLB is in effect, rather than the emergency measures taken immediately after the Lehman collapse to rescue the financial system.

[9] In several of his Congressional testimonies, Bernanke was clear that monetary policy could not compensate for the fiscal contraction enacted in the United States, for example: "The Congressional Budget Office (CBO) estimates that the deficit reduction policies in current law will slow the pace of real GDP growth by about 1½ percentage points during 2013, relative to what it would have been otherwise. In present circumstances, with short-term interest rates already close to zero, monetary policy does not have the capacity to fully offset an economic headwind of this magnitude" (Bernanke, 2013).

inflationary expectations is the means by which QE can be most effective since this would serve as a counter to the post-crisis tendency of households and firms to reduce spending. Higher inflation would also reduce the real value of debt.

30. Others are more distrustful, viewing the benefits of sustained QE to be outweighed by risks for the domestic as well as the global economy. Opponents have questioned the effectiveness of QE as an ongoing policy, pointing to the fact that almost the entire expansion in the Fed's addition to reserves under QE2 and QE3 has been held by banks as excess reserves instead of supporting additional lending. Moreover, to the extent that QE is successful in increasing private borrowing, it would undermine private deleveraging, which has yet to run its course. This latter group, however, also tends not to support sustained fiscal expansion, and places its faith on structural reforms to restore growth, or implicitly accepts slower recovery/more prolonged unemployment as the least cost consequence of the financial crisis. QE is also blamed for fostering excessive froth in financial markets, mispricing risk and spawning capital flow and asset price volatility, which can be particularly damaging in EMEs where markets are shallower.

IMF views

31. The IMF was highly supportive of expansionary monetary policies essentially since the start of the crisis: it initially supported lowering the policy rates traditionally targeted by central banks as far as possible; and subsequently supported UMP in all its forms. However, the IMF presented a somewhat different perspective from many other supporters of expansionary monetary policies. Its advice from 2010 onwards about the need for advanced economies to transition to fiscal consolidation led to a position that viewed monetary expansion as *the* policy of choice to sustain aggregate demand:

> "Hence, on balance, fiscal consolidation should take priority, all else given. Achieving fiscal sustainability will be a difficult and prolonged process, making it imperative for consolidation to begin as soon as there is clear evidence of self-sustaining recovery, whereas monetary policy being generally more nimble can respond more flexibly to evolving macroeconomic conditions. In particular, given a path for fiscal policies, monetary policy can be set to achieve a desired level of overall stimulus ..." (IMF, 2010).

> "In advanced economies, strengthening the recovery will require keeping monetary policy accommodative as long as wage pressures are subdued, inflation expectations are well anchored, and bank credit is sluggish. At the same time, fiscal positions need to be placed on sustainable medium-term paths by implementing fiscal consolidation plans …" (Spring 2011, *WEO*).

IMF discussion of unconventional monetary policy risks

32. The IMF's stance on accommodative and unconventional monetary policies usually began by articulating the benefits they have provided to support aggregate demand. Its 2011 and 2012 Spillover Reports tended to downplay the direct impact of QE on emerging markets. More recently, however, the IMF pointed to the growing tension between accommodative monetary policies and risks to financial stability from credit markets that were maturing more quickly than in typical cycles (Spring 2013, *GFSR*), and to the possible risks to emerging markets from destabilizing capital flows (IMF, 2013a).

33. The Spring 2013 *GFSR* found that accommodative polices in the major advanced economy central banks had lessened vulnerabilities in the domestic banking sector and contributed to financial stability in the short term. But it also found that financial stability risks may have been shifting to other parts of the financial system such as shadow banks, pension funds and insurance companies, and could spill over to other economies. Among the risks discussed were that corporate bond issuance had become more elevated and increasingly geared toward less productive uses; balance sheet leverage was steadily rising; and weaker underwriting standards were increasingly prevalent. A prolonged period of low interest rates could accentuate these trends.

34. The Spring 2013 *GFSR* also pointed to the greater proclivity by corporate borrowers in emerging markets on U.S. dollar issuance, which may be vulnerable to a reversal in favorable credit trends. A prolonged period of extraordinary monetary accommodation could push risk appetites to the point of creating significant adverse effects. A parallel paper, IMF (2013a), found that capital flows to emerging markets had been ample but not alarming to date. Nonetheless, the impact on emerging markets could be destabilizing if amplified by shallow markets.

35. The above risks notwithstanding, this *GFSR* concluded that monetary policy should remain highly accommodative to meet macroeconomic goals, while macroprudential and other tools should be employed to lean against undesirable credit excesses. Similarly, IMF (2013a) concluded that capital inflows could in principle be adequately managed with the application of sound macroeconomic policies, allowing currencies to appreciate if they were not overvalued, or intervention to slow the appreciation and build reserves if appropriate. This was consistent with the IMF's work during 2011–12 on capital flow management, which had culminated in an institutional view that capital flow management measures could be useful in certain circumstances, but should not substitute for warranted macroeconomic adjustment (IMF, 2012). By September 2013, IMF (2013c) highlighted to a greater extent the adverse spillovers to the rest of the world from the prospective exit from UMP, but by this time EMEs had already experienced substantial volatility in their foreign exchange markets from the prospect of tapering.

IV. IMF Macroeconomic Advice to Individual Economies

36. This section examines IMF advice to selected countries in the context of bilateral surveillance. It first discusses the advice to the United States, United Kingdom, euro area, Germany, and Japan, followed in subsection B by the advice to emerging market economies. Details and quotes from selected Article IV consultations are provided in Annex 1.

A. Advice to Advanced Economies

37. IMF bilateral advice on macroeconomic policies to key advanced economies in the aftermath of the global financial crisis was generally consistent with the messages delivered via multilateral surveillance. Once fiscal stimulus had been announced and implementation had begun, the IMF returned quickly to its recurring concern about fiscal sustainability and solvency. It stressed the need for medium-term fiscal consolidation plans to return debt-to-GDP to a declining path, and also supported enactment of fiscal consolidation from 2010 or 2011. At the same time, the IMF position on monetary policy was that it could remain highly accommodative and should be the principal instrument charged with calibrating demand toward the desired level.

38. **United States.** Through most of the post-crisis period, the IMF expressed deep concern about the fiscal outlook in terms of unsustainable debt dynamics, including the damaging prospect of triggering a crisis through a loss of fiscal credibility—even as real borrowing costs were declining towards historic lows (Figure 14). The thrust of IMF advice in the post-crisis period was for the Administration and Congress to agree on a medium-term fiscal consolidation framework, which should ideally enact a back-loaded program of fiscal adjustment. Thus much of the fiscal policy discussion in the 2009 Article IV was devoted to managing the exit from "extraordinary support." In 2010 the IMF endorsed the authorities' proposed fiscal tightening of 2 percent of GDP for FY2011. During 2011–12, the message was that fiscal consolidation needed to proceed at a measured pace with greater back-loading only if a medium-term consolidation plan could be agreed (which was not the case). By 2013, there was consensus between IMF staff and the authorities that the pace of fiscal consolidation was too fast and was poorly structured.

39. IMF concerns about fiscal sustainability were in part driven by its projections of sharply rising public debt over the medium term, which were higher than government projections, but which by 2013 had been revised down substantially.[10] In contrast, the IMF expressed less concern about the decline in public sector spending, public investment and

[10] By 2013, IMF projections were for public debt to remain stable a decade into the future, in contrast to its earlier post-crisis projections, which indicated debt/GDP continuously rising for the next decade. The discrepancy between staff's and authorities' projections appeared because staff debt projections assumed that current fiscal policies would continue whereas the authorities assumed policy changes would occur.

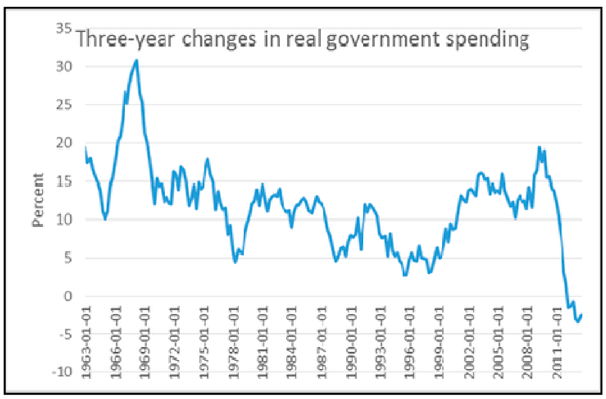
public employment that was occurring in the years following the crisis (Figure 15), even as private deleveraging was also limiting demand.

Figure 14. The Real Cost of Government Borrowing in the United States

Source: Federal Reserve Economic Data, St. Louis Fed.

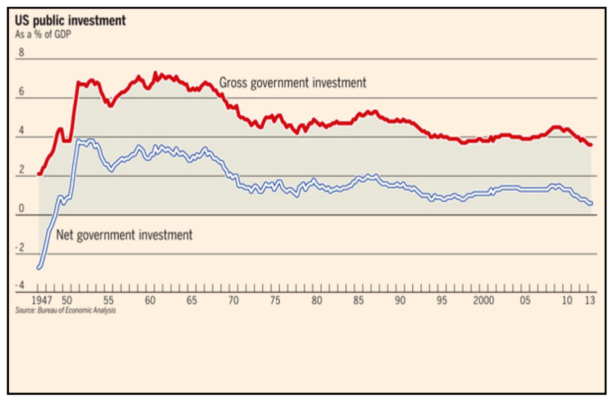
Figure 15. Indicators of Post-Crisis Public Sector Stance in the United States

Initial Spending Spurt Outweighed by Subsequent Cuts



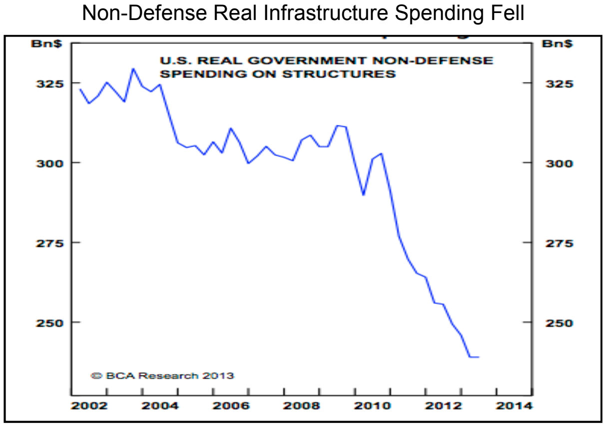
Source: Krugman (2013c).

Public Investment: Lowest Since the 1940s



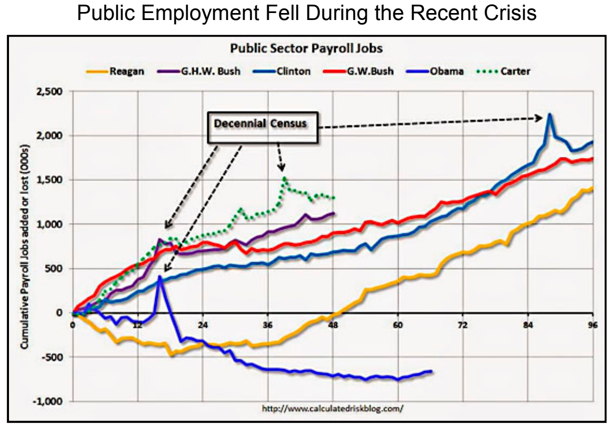
Source: Harding and others (2013).

Non-Defense Real Infrastructure Spending Fell



Source: Garcia (2013).

Public Employment Fell During the Recent Crisis



Source: http://www.calculatedriskblog.com/.

Note: Public sector refers to federal, state and local governments.

40. **United Kingdom.** In May 2010, the incoming U.K. government announced a program of frontloaded fiscal consolidation, accelerating the prior government's policy of a more gradual shift from stimulus to consolidation. IMF advice in 2008–09 had been to implement fiscal adjustment *once* the economic recovery had been established. The 2010 Article IV report enthusiastically endorsed the new government's fiscal consolidation proposals, while projecting growth to strengthen in the medium term. As the economy weakened after 2010, the IMF retained its support for fiscal consolidation during 2011–12, although in 2012 it acknowledged that the pace of structural fiscal tightening would need to slow if monetary stimulus and credit easing had not managed to boost the economy.[11] Against the background of a weak economy through mid-2013, by which time real GDP was about 4 percent below its pre-crisis peak,[12] the 2013 Article IV became more concerned that deleveraging and impaired credit creation were constraining growth. Its suggestions for greater flexibility in the short term (by bringing forward capital investment) were met by criticism from the government, with disagreements between the authorities and IMF staff prominently highlighted in the press.

41. **Euro area.** Among the three major advanced economy blocs most impacted by the financial crisis, the euro area witnessed the deepest economic decline, sharpest increases in unemployment, and arguably faced the most difficult issues to resolve in confronting the crisis.

42. IMF fiscal policy advice in 2009 for the euro area was to maintain the discretionary stimulus through 2010, although by 2010, the IMF was supportive of the authorities' "neutral" aggregate fiscal stance in 2010 and for consolidation to begin in *each* country at the latest by 2011. In 2011, it suggested that pursuing such fiscal consolidation would enhance confidence, generating positive spillovers to the rest of the world; and in 2012, it maintained its position that fiscal consolidation should proceed in all countries of the euro area, albeit at different speeds. As the euro area economy weakened further and unemployment continued to rise, the IMF acknowledged that the pace of fiscal adjustment may need to be slowed, but it did not make the case for fiscal stimulus in individual euro area economies with the space to sufficiently counteract the overall contractionary fiscal policy stance in effect since 2011 (Figure 11). It urged additional monetary easing in 2012–13 given the benign inflation outlook as bank credit to the private sector through 2013 was continuing to contract.

43. A critique heard from some authorities is that there was not sufficient differentiation in IMF macroeconomic advice across euro area economies in the Lehman aftermath. They argued that the IMF did not take adequate account of the special constraints under which

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[11] To its credit, the 2011 Article IV staff report advised against monetary tightening, arguing that the increase in inflation was likely to be temporary.

[12] Wolf (2014) reported the shortfall in UK output relative to pre-crisis trend at 18 percent.

euro area economies were obliged to operate. Particularly if the IMF considered fiscal stimulus in the euro area to be important in 2008–09, it should have urged European authorities to reform the architecture of the currency union to enable countercyclical macroeconomic policies to be enacted without undue risk to individual economies.[13] And in the absence of such policies, for the euro area to contribute to the sought-after global stimulus, the onus should have been placed more heavily on the most creditworthy economies in the currency union, primarily Germany. The IMF supported Germany's fiscal stimulus in 2009–10 but in 2010 it suggested that fiscal consolidation from 2011 onwards should be pursued to set an example for fiscal consolidation in the rest of Europe—rather than to provide a counter to the unavoidable adjustment being enacted in the periphery.[14]

44. Spain provides an example where more caution on fiscal stimulus advice could have been exercised.[15] The Article IV report, issued in April 2009, estimated discretionary fiscal expansion of 4 percent of GDP during 2008–09. Although the Article IV was critical that more had not been achieved in terms of structural reform in labor and product markets, it was supportive of fiscal stimulus in a situation where the current account deficit was estimated at 10 percent of GDP in 2007–08, and it was recognized that the fiscal position was bound to deteriorate sharply. The Article IV reports some authorities expressing "puzzlement at further pressure, including from the Fund, for even larger deficits." The Summing Up of the corresponding Board discussion indicates: "Directors commended the authorities for their timely and substantial fiscal and financial sector responses to help cushion the downturn." Absent reform of the rules governing euro area borrowing or ECB bond purchases—the announcement of the ECB's "Outright Monetary Transaction" program was more than three years away—Spain would arguably have been better advised not to engage in aggressive discretionary fiscal stimulus given that its sovereign borrowing spreads had already begun to widen (Figure 16), and ample pre-crisis private capital inflows were no longer forthcoming.

45. **Japan.** Japan experienced mild but persistent deflation for much of the decade prior to the financial crisis and through 2012. Although its public debt/GDP ratio is by far the largest within OECD economies, its nominal sovereign bond yields have remained among the lowest in the OECD, falling further in the wake of the global financial crisis. Its economy declined at a faster pace during 2008–09 than the other large advanced economies even though Japan did not experience its own financial crisis at the time.

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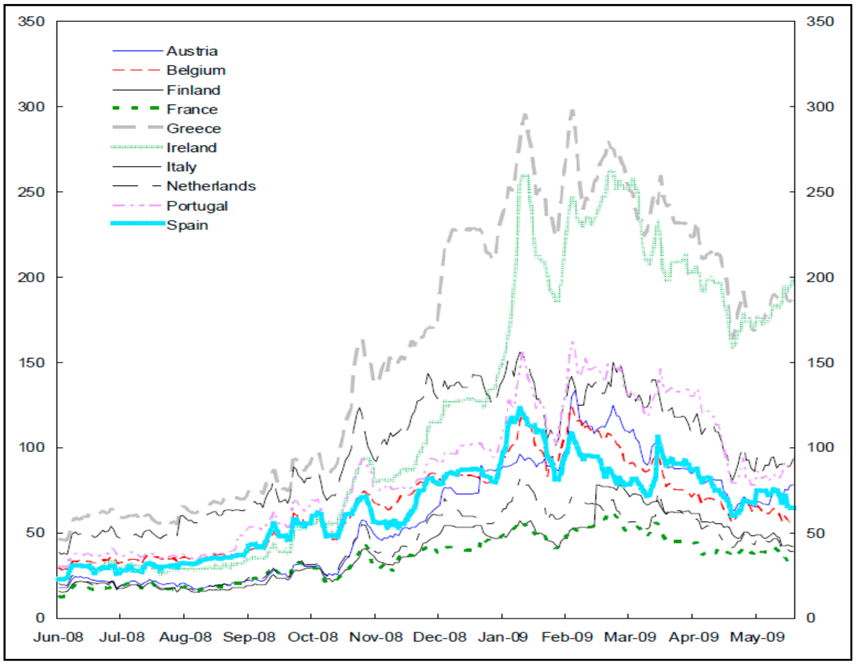
[13] IMF staff has indicated that the need for reforms to the currency union was conveyed in informal discussion with euro area authorities. But it is still questionable whether vulnerable euro area economies should have been advised to stimulate in the absence of reforms in this direction (see below reference to Spain).

[14] The 2013 Article IV report on Germany did support the small projected loosening of the fiscal stance for 2013.

[15] The IMF's 2014 TSR found that short-term stimulus was recommended in about three-quarters of Article IV reports in 2009 (IMF, 2014b). A similar finding is reported in IEO (2013).

Figure 16. Selected Euro Area Sovereign Spreads
(Yields on 10-year Government Bonds over Bunds, in Basis Points)



Source: IMF euro area Article IV, 2009.

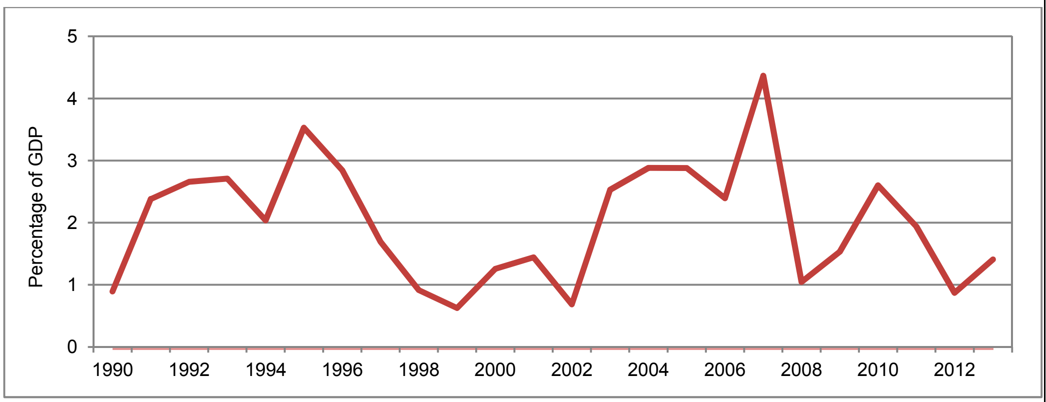
46. Article IV reports on Japan during 2008–12 consistently proposed stronger fiscal consolidation than the government felt it could deliver, and Japan was not included in the group of countries (amounting to about half the global economy) with room for fiscal expansion in the Spring 2008 *WEO*. Nonetheless, Japan's large fiscal stimulus was judged in the 2009 Article IV report to be appropriate given the depth of the slump following the Lehman collapse.

47. The 2013 Article IV was ostensibly supportive of Abenomics and its "three arrows" initiative designed to boost growth and inflation. But the thrust of the advice on fiscal policy was for the fiscal arrow to be pointed in the direction of fiscal consolidation rather than the intended stimulus—given "little room for further fiscal stimulus" and a fiscal adjustment of 11 percent of GDP over a decade that was said to be needed. However, a vital objective of Abenomics was to jolt consumer and investor expectations onto a more favorable trajectory, which, if successful, would itself help to boost private demand, after which fiscal deficits could be reduced with less risk to the recovery. In the context of influencing expectations in such a manner, the IMF's reaction in terms of advising large fiscal consolidation to avoid the threat of fiscal crisis before the recovery was well established or deflation had been convincingly reversed does not appear helpful.

B. Advice to Emerging Market Economies

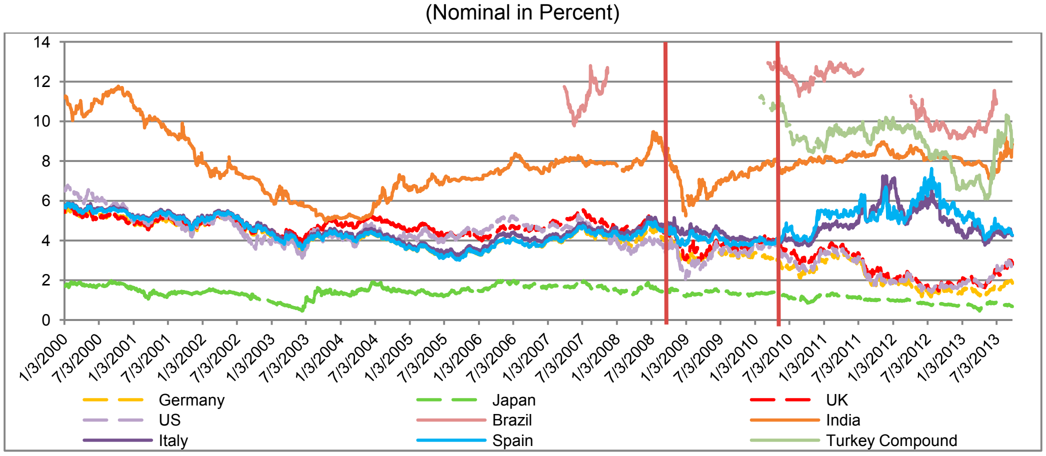
48. A key issue following the Lehman collapse was the extent to which emerging market economies should participate in the global macroeconomic stimulus. With their growing share of the world economy, a coordinated fiscal expansion by emerging market economies (EMEs) would help to cushion the anticipated downturn of the global economy and compensate for the resulting export weakness. However, several major EMEs faced some combination of large fiscal and current account deficits and high inflation, and were not expected to (nor did they) experience the type of domestic demand-triggered output collapse witnessed in advanced economies at the center of the crisis. Consequently, monetary policy could not afford to become unconcerned about inflation, and higher public deficits could crowd out private spending. Moreover, private capital flows to emerging and developing economies were already falling sharply by 2008 (Figure 17); and in contrast to major advanced economies, sovereign borrowing costs would not fall significantly and in some cases would rise (Figure 18). In short, most of the factors typically constraining fiscal expansion and making it risky continued to prevail in many EMEs following the Lehman collapse.

Figure 17. Net Private Capital Flows to Emerging Markets and Developing Economies



Source: IMF *WEO* database.

Figure 18. Ten-Year Sovereign Bond Yields
(Nominal in Percent)



Source: Bloomberg.

49. To what extent did the IMF weigh these factors in advising which EMEs should engage in fiscal stimulus? The evidence is mixed. Spilimbergo and others (2008) indeed cautioned that not all countries would have the space to expand fiscal policy, making it all the more important that those that did play their part. Indeed, most IMF reports and speeches indicating the need for stimulus added the proviso that this should be subject to available fiscal space. In practice, however, the latter was not adequately defined. In some of its documents the IMF appeared less discriminating; at times using the IMF-proposed goal of a 2 percent of GDP fiscal stimulus as a common benchmark for emerging as well as advanced economies—see, for example, the citation from IMF staff notes for G-20 meetings in Section II.A (IMF, 2009c).

50. Country authorities interviewed for this evaluation indicated that in the months following the Lehman collapse, the messages from IMF Management favored fiscal expansion for EMEs, sometimes in contrast to advice heard from IMF country teams. Moreover, it was often the case that the administratively simplest route to more expansionary policies turned out to be through the credit channel, for example, by a loosening of credit standards for the banking system, or encouraging public sector banks to expand their loan portfolios.

51. A review of Article IV reports for large EMEs (which often were scheduled for well after the Lehman collapse), reveals a more balanced discussion that is cognizant of the risks of fiscal or credit expansion. Article IV reports on China, for example, are notable for their advice to undertake fiscal expansion and encourage greater private consumption, while at the same time cautioning on the use of expansionary monetary policy given the risks from rapid credit growth and rising property prices. Article IV reports for other large EMEs tended to support stimulus programs that had already been undertaken following the Lehman collapse, while highlighting the risks of ongoing fiscal or credit expansions, and often appropriately urged an exit from such expansions with greater emphasis on fiscal sustainability.

52. Notwithstanding the relatively balanced assessment of the risks of expansion emerging from a review of post-Lehman Article IV reports, the fiscal expansion in 2009 by EMEs in the G-20 was estimated in IMF (2009d) to be at least as large proportionately as that enacted by the advanced economies. Moreover, subsequent Article IV reports suggest that the initial estimates of EME stimulus may have been too low, given the large stimulus provided through credit channels in several EMEs. In some cases, these expansions accompanied by looser credit standards, led to overheating with adverse repercussions for inflation and the balance of payments. Such policies, coupled with low interest rates in the advanced economies also appear to have encouraged greater use of corporate debt denominated in foreign currencies. The expansion of public and private debt in some EMEs rendered them more vulnerable to capital flow volatility, even as the policy mix of fiscal consolidation and monetary stimulus utilized in many advanced economies from 2010–11 onwards exposed such EMEs to greater capital flow volatility.

V. IMF Analytical Work on Fiscal Policy

> *"We find that forecasters significantly underestimated the increase in unemployment and the decline in private consumption and investment associated with fiscal consolidation" (Blanchard and Leigh, 2013).*

53. The advice in favor of fiscal consolidation for major advanced economies evident in several IMF flagship reports and Board papers from 2010 onwards and in subsequent Article IV consultations was not necessarily consistent with longstanding views of the conditions under which counter-cyclical fiscal policies would be most effective, or indeed with analytical work conducted on post-crisis fiscal policy within the Fund. This section summarizes key elements of IMF analytical work in the crisis aftermath, and provides examples of work inside and outside the Fund that stressed the variability of fiscal multipliers and the consequent effectiveness of expansionary fiscal policy in conditions such as those prevailing in the post-Lehman period. Issues of possible inconsistency between such analytical work and IMF policy stances are discussed in Section VI.

(i) The use of fiscal multipliers

54. As noted, the December 2008 Staff Position Note (SPN), "Fiscal Policy for the Crisis" (Spilimbergo and others, 2008), contained perhaps the most forceful advocacy of sustained fiscal stimulus issued by IMF staff. This was followed in May 2009 by another SPN titled "Fiscal Multipliers" (Spilimbergo and others, 2009) prepared initially as an internal note to inform IMF country teams. It emphasized the large variation in multipliers that could result from country-, time-, and circumstance-specific factors, and that the multiplier would be larger if leakages were few and if monetary conditions were accommodative. As the following excerpts indicate, it stressed the need for caution in using multipliers calculated from the pre crisis environment for the crisis aftermath, and also stressed the need for judgment in interpreting past quantitative estimates for use in current conditions:

> **"Which multipliers should be used in specific applications and projections?**
>
> Fiscal multipliers have been calculated for some countries but should be carefully re-examined in light of the current events.
>
> A rule of thumb is a multiplier (using the definition $\Delta Y/\Delta G$ and assuming a constant interest rate) of 1.5 to 1 for spending multipliers in large countries, 1 to 0.5 for medium-sized countries, and 0.5 or less for small open countries. Smaller multipliers (about half of the above values) are likely for revenue and transfers while slightly larger multipliers might be expected from investment spending. Negative multipliers are possible, especially if the fiscal stimulus weakens (or is perceived to weaken) fiscal sustainability."

> **"Is it a good idea to re-estimate the size of fiscal multipliers in the present situation?**
>
> *Probably not,* as the current economic situation is unique and the structural parameters have changed, negating a crucial estimation assumption. Past research on multiplier estimates … can provide guidance in developing multiplier estimates, but judgment, based on current conditions, is important."

(ii) Refuting "expansionary austerity"

55. A widely quoted chapter of the Fall 2010 *WEO*, "Will it Hurt? Macroeconomic Effects of Fiscal Consolidation," questioned the results of academics who had argued that fiscal adjustments tend to be expansionary when they rely primarily on spending cuts, pointing out a number of methodological and measurement problems with these studies. Examining episodes of fiscal consolidation in advanced economies over the past 30 years, the IMF found that: fiscal consolidation, when measured correctly, typically has a contractionary effect on output; reductions in interest rates and depreciation of the real exchange rate typically moderate the fall in output during such episodes of consolidation; and fiscal retrenchment in countries that face higher perceived sovereign default risk tends to be less contractionary, but even among such high risk countries, expansionary effects of fiscal consolidation are unusual.

> "Based on a historical analysis of fiscal consolidation in advanced economies, and on simulations of the IMF's Global Integrated Monetary and Fiscal Model (GIMF), it finds that fiscal consolidation typically reduces output and raises unemployment in the short term. At the same time, interest rate cuts, a fall in the value of the currency, and a rise in net exports usually soften the contractionary impact. … These findings suggest that budget deficit cuts are likely to be more painful if they occur simultaneously across many countries, and if monetary policy is not in a position to offset them" (Fall 2010, *WEO*).

56. These *WEO* findings were consistent with longstanding views developed during and after the Great Depression by Keynes (1937), Hicks (1937), Samuelson (1948), and many others. On the other hand, a recent spate of articles, of which Alesina and Ardagna (2010) was perhaps the most influential, had been cited by several policymakers as providing the intellectual rationale for exiting from the fiscal stimulus enacted after the Lehman crisis.

(iii) Underestimating fiscal multipliers during the Great Recession

57. The Fall 2012 *WEO* indicated that post-crisis fiscal multipliers were much larger than the IMF had implicitly been assuming. It surmised that fiscal multipliers used in the IMF forecasting process during the Great Recession were about 0.5, in line with earlier analysis by IMF staff of fiscal multipliers in advanced countries during the three decades leading up

to 2009. However, it estimated that since the Great Recession, fiscal multipliers may actually have been in the 0.9 to 1.7 range.

58. In concluding that fiscal multipliers were sharply higher after the crisis, the Fall 2012 *WEO* was in effect corroborating the observation of a large number of academic studies conducted since the financial crisis that have found fiscal multipliers tend to increase precisely in the conditions characteristic of post-crisis advanced economies. Box 2 contains a sample of their findings.

Box 2. Fiscal Multipliers and Their Variability

"The boom, not the slump, is the right time for austerity at the Treasury." Keynes (1937)

"What gives the biggest bang for the buck? Existing studies provide a range of fiscal multipliers from less than zero to larger than four, depending on the identifying assumptions, the type of fiscal policy, and the country of interest" (Spilimbergo and others, 2008).

"There is one important source of information on the effectiveness of monetary and fiscal stimulus in an environment of near-zero interest rates, dysfunctional banking systems and heightened risk aversion that has not been fully exploited: the 1930s. This column gathers data…for 27 countries covering the period 1925–39 and shows that where fiscal policy was tried, it was effective. …Our estimates of its short-run effects are at the upper end of those estimated recently with modern data; the multiplier is as large as 2 in the first year, before declining significantly in subsequent years" (Eichengreen and others, 2009).

"Plainly, the size of the multiplier varies considerably over the business cycle. For example, in 1985 an increase in government spending would have barely increased output. In contrast, a dollar increase in government spending in 2009 could raise output by about $1.75. Typically, the multiplier is between 0 and 0.5 in expansions and between 1 and 1.5 in recessions" (Auerbach and Gorodnichenko, 2010).

"the range of plausible estimates for the multiplier in the case of a temporary increase in government spending that is deficit financed is probably 0.8 to 1.5.... If the increase is undertaken during a severe recession, the estimates are likely to be at the upper bound of this range" (Ramey, 2011).

"In a depressed economy, with short-term nominal interest rates at their zero lower bound, ample cyclical unemployment, and excess capacity, increased government purchases would be neither offset by the monetary authority raising interest rates nor neutralized by supply-side bottlenecks. Then even a small amount of hysteresis—even a small shadow cast on future potential output by the cyclical downturn—means, by simple arithmetic, that expansionary fiscal policy is likely to be self-financing" (DeLong and Summers, 2012).

"the multipliers used in generating growth forecasts have been systematically too low since the start of the Great Recession … Informal evidence suggests that the multipliers implicitly used to generate these forecasts are about 0.5. So actual multipliers may be higher, in the range of 0.9 to 1.7" (October 2012 *WEO,* referring to prior IMF forecasts).

"We conclude that multipliers were substantially above 1 in the early years of the crisis" (Blanchard and Leigh, 2013).

59. Most researchers who concluded that fiscal multipliers rise sharply in the post-crisis conditions characteristic of the Great Recession have called for expansionary fiscal policy as a means to stimulate the economy when there are large underutilized resources and when government borrowing costs are low. For example, assuming a fiscal multiplier of 1.3 for the United States for the post-crisis period (by drawing from Blanchard and Leigh, 2013), Krugman (2013a) suggests that an estimated cumulative output gap of $2.3 trillion for the

United States over the 4½ years since the beginning of 2009 could have been closed at a cost of 4 percentage points of the debt/GDP ratio. He further indicates that the U.S. fiscal position would likely have *improved* if fiscal policy had remained expansionary during this period, since reducing the corrosive effects of long-term unemployment would have boosted GDP, both in the interim period and in the future. In the same vein, referring to the United States, Summers (2014) indicates: “If the government had invested more over the past five years, our debt burden relative to our incomes would be lower: allowing slackening in the economy has hurt its potential in the long run.”

60. In contrast to the conclusions of most academic researchers with similar findings, the IMF did not conclude that the shift to fiscal consolidation had been premature.[16] Its take from its analytical results was that countries should consider slowing the pace of fiscal consolidation if the economy was still exhibiting weakness. For example, IMF (2013b) frames the debate in terms of the *pace* of fiscal consolidation, rather than *whether* such consolidation should have been undertaken in the first place:

> “New research points to large fiscal multipliers when economic conditions resemble those prevailing in advanced economies in the post-crisis period. Against this background, debate continues on the merits of frontloaded versus gradual (but steady) fiscal adjustment when financing permits.”

This manner of framing the debate essentially ignores the work of those who view the advent of post-stimulus fiscal consolidation to have been premature.

61. The Spring 2013 *WEO* thus adopted a cautious approach to the findings of the previous *WEO* and similar analysis outside the IMF. Under the heading of “Requirements in Advanced Economies,” the sub-headings were: “Fiscal tightening must continue at a pace the recovery can bear” and “Monetary policy needs to stay easy.” It suggested: “Fiscal plans for 2013 are broadly appropriate in the euro area.”[17] At the same time this *WEO* did note that some advanced economies such as the U.S. and U.K. could consider smoothing the pace of consolidation if they had fiscal policy room to maneuver.

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[16] This refers to IMF commentary through its reassessment of fiscal policy, IMF (2013b). The 2014 TSR acknowledges the possibility that fiscal consolidation may have been premature in some cases. See, for example, Box 3 of IMF (2014a).

[17] Notwithstanding further tightening of the cyclically adjusted fiscal balance (Figure 11).

VI. Summary and Conclusions

62. The IMF displayed leadership in calling for fiscal expansion following the Lehman Brothers bankruptcy. Its stance was important in conveying the need to re-examine economic policy assumptions and relationships in the crisis aftermath, and to position the Fund itself as a leader in these discussions. The IMF was the leading international institution arguing for coordinated fiscal stimulus following the Lehman bankruptcy, highlighting in particular how stimulus enacted by many countries simultaneously would limit leakages from the national standpoint, thereby countering potential protectionist pressures. It emphasized that fiscal expansion be accompanied by accommodative monetary policy. Some of the IMF's analytical contributions have been widely cited in policy and academic circles: particularly its work refuting the notion that fiscal consolidation under post-crisis circumstances would be beneficial to growth; and in acknowledging its own underestimation of fiscal multipliers in the early years of the crisis.

63. In 2010–11, IMF advice to major advanced economies shifted to favor fiscal consolidation, and recommended that expansionary monetary policies be used instead, if policy support was still needed. This advice arose from concern that the large fiscal deficits and rising public debt in the crisis aftermath accentuated the risk of fiscal crises. Moreover, IMF projections indicated that recovery would take hold in 2010 and strengthen in the medium term. This advice proved to be premature, as growth projections after 2010 proved optimistic.

64. The IMF's concern about fiscal crises extended to countries such as the United States and Japan, even as two of the largest global sovereign bond markets were pushing yields to historic lows. In articulating its concerns, the IMF was influenced by the fiscal crises in the euro area periphery economies, although their experiences were of limited relevance given their inability to conduct independent monetary policy or borrow in their own currencies.[18] In addition, the IMF's debt sustainability analysis did not incorporate the fact that elevated multipliers and the prevalence of hysteresis in the conditions prevailing after the crisis would render fiscal policy a more powerful tool for reactivating the economy than was the case during the Great Moderation.[19] This recommendation also did not give sufficient weight to the prolonged deleveraging that typically occurs as private sector balance sheets are repaired following a financial crisis.[20]

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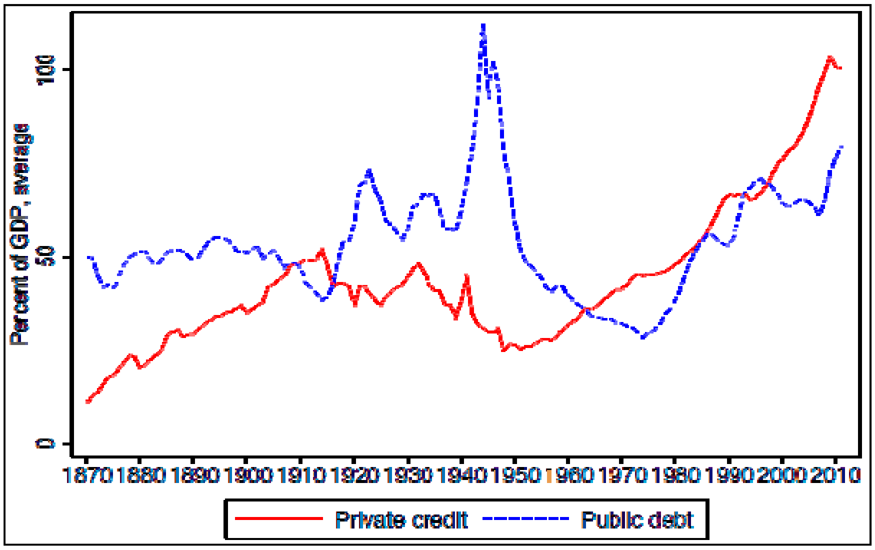
[18] Krugman's (2013b) Mundell-Fleming lecture at the IMF elaborates on the misdiagnosis of fiscal crisis concerns following the financial and euro area crises.

[19] A number of economists have suggested that under the post-crisis conditions that prevailed, fiscal expansion would have been beneficial to fiscal sustainability. See, for example, DeLong and Summers (2012).

[20] The length of private deleveraging cycles tends to be proportional to the size of the private debt overhang that constrains spending in the crisis aftermath (Reinhart and Rogoff, 2008; Koo, 2008). Koo (2013) reports it took until 2005 for Japan's private balance sheets to be repaired following the bursting of Japan's debt-financed credit bubble in 1990, and there was aversion to incurring new debt by the private sector even after 2005.

(continued…)

Figure 19. Private Credit and Public Debt in Advanced Economies:
A Long-Term Perspective



Source: Jordà, Schularick, and Taylor (2013). Private credit is aggregate private bank loans to the non-financial sector. Public debt is general consolidated government debt. The average is for 17 advanced economies: Australia, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the UK, and the US.

65. The dominant IMF view became that monetary policy should be the main driver for boosting aggregate demand given the assessment that the major advanced economies still needed further policy support. Contrary to this view, many analysts and policymakers have argued that expansionary fiscal and monetary policies working together would have been more effective in stimulating demand and reducing unemployment, which in turn could have reduced adverse spillovers.[21] This mix could have resulted in less monetary expansion, thereby reducing its negative side effects.[22] Thus, the IMF supported a policy mix in advanced economies that was less than fully effective, and appears to have exacerbated capital flow volatility.

Figure 19 indicates an extended period of rising private indebtedness in advanced economies preceding the financial crisis.

[21] For example, Bernanke (2013) emphasized that monetary policy could not fully offset the fiscal contraction in the United States. Draghi (2014) noted that "since 2010 the euro area has suffered from fiscal policy being less available and effective, especially compared with other large advanced economies. … Thus, it would be helpful for the overall stance of policy if fiscal policy could play a greater role alongside monetary policy …" Ball, DeLong, and Summers (2014) indicated that fiscal expansion would reduce the need for extraordinary monetary policies that potentially create instability. Turner (2013) noted the possibility that fiscal and monetary cooperation to reactivate the economy could be more effective than the policies utilized, while reducing adverse spillovers.

[22] Because expansionary fiscal and monetary policies would have been more effective if enacted in conjunction, macro policy support could have been withdrawn earlier relative to the status quo of more prolonged monetary expansion. Moreover, capital flow volatility would likely have been more contained since stronger growth in advanced economies would have reduced the initial capital outflow to EMEs.

66. The risks of ultra expansionary monetary policy were not comprehensively discussed until 2013, when the IMF concluded that UMP would have to continue since demand stimulus was still needed. Its analysis downplayed the destabilizing impact of this policy mix on capital flow and exchange rate volatility in EMEs. The significant damage from capital flow volatility in 2013 could have escalated into more serious crises in several EMEs simultaneously in the opinion of several interviewed authorities.

67. Finally, there was insufficient differentiation of the policy advice to countries in very different circumstances. Authorities interviewed in several countries argued that more caution should have been exercised in recommending that they participate in the fiscal stimulus following the Lehman collapse, given their precarious fiscal situation.[23] In most cases, however, this advice was rectified by the time of the next Article IV consultation. Similarly, the IMF should have differentiated more in its advice to consolidate after 2010. In particular, countries with large current account surpluses, especially those benefiting from easy access to credit, could have sustained expansionary fiscal policies for longer thereby offsetting the negative impact on global demand from countries forced into rapid consolidation by the debt crisis.

68. Caution is needed in drawing lessons from an unprecedented episode. Professional opinions on the nature of the financial crisis and how to address it have not converged. The fact that IMF staff engaged in this debate and expressed differing views is to be welcomed. At this juncture, the IMF should strive to remain a focal point of debate and discussion and continue to encourage an environment which remains genuinely open to alternative perspectives. This is particularly important since fundamental macroeconomic policy issues for the crisis aftermath remain unresolved.

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[23] This view was expressed by authorities in several EMEs, and by some Euro Area countries.

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ANNEX 1. IMF MACROECONOMIC ADVICE VIA BILATERAL SURVEILLANCE

This annex examines IMF advice on macroeconomic policies to key advanced economies—the United States, United Kingdom, euro area, Germany, Japan—in the aftermath of the global financial crisis as delivered through its bilateral surveillance. The advice is consistent with the messages delivered via multilateral surveillance: once fiscal stimulus had been announced and implementation had begun, the IMF returned quickly to its recurring concerns about fiscal sustainability and the need to announce and implement medium-term fiscal consolidation plans. At the same time, the IMF position on monetary policy was that it could remain highly accommodative and be charged with calibrating demand toward the desired level.

A. United States[1]

The 2009 US Article IV welcomed the fiscal stimulus that had been enacted, estimated at over 5 percent of one year's GDP spread over 2009–11. At the same time, much of the discussion was devoted to managing the exit from "extraordinary support," both fiscal and monetary, even though IMF growth projections at the time indicated sharply falling output in 2009 and a modest recovery of less than one percent GDP growth for 2010.

The 2010 Article IV had become considerably more optimistic about the recovery, projecting growth averaging close to 3 percent during 2010–13. Consistent with the messages from multilateral surveillance, it indicated:

> "A credible and strong consolidation plan is needed to anchor confidence in fiscal sustainability, particularly in light of the risk of an adverse reaction in bond markets if fiscal sustainability concerns heighten…"
>
> "… monetary policy can maintain an accommodative stance to offset fiscal drag. … the mission saw the budget's proposed fiscal tightening of 2 percent of GDP in 2011 as appropriate under the baseline outlook."
>
> "… given the risks posed by budgetary imbalances, the ground should be laid for fiscal consolidation, with a determined start made in 2011; meanwhile, monetary policy can maintain an accommodative stance to offset fiscal drag."

It called for an "upfront adjustment in FY2011," and endorsed the authorities' proposed fiscal tightening of 2 percent of GDP in 2011. At the same time, the Article IV continued to emphasize the need for additional fiscal consolidation in the medium term, driven in part by a more pessimistic fiscal outlook than that of the authorities, with debt/GDP increasing at a

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[1] Article IVs for the United States were issued in July.

faster pace over the medium term, and with Treasury bond rates assumed to be higher than officially assumed (and much higher than the outturn thus far).

The 2011 and 2012 Article IV reports acknowledged that the U.S. recovery had been unusually weak relative to the average of post-war recovery cycles, unemployment and "broad labor underutilization" remained elevated, employment and labor force participation had not recovered from their post-crisis slumps, and large output gaps still persisted. At the same time, the Article IVs remained more concerned about the long-term fiscal outlook in terms of unsustainable debt dynamics than the authorities, and were also concerned about the damaging prospect of triggering a crisis through a loss of fiscal credibility—even as long-term bond rates were continuing to decline towards record lows. Both Article IV reports continued to call for a credible medium-term fiscal consolidation framework endorsed by Congress, in which case the pace of adjustment in the short term could be more attuned to cyclical conditions—although they did not call for reversing the consolidation that was in process (the fiscal impulse had turned negative by 2011). These Article IV reports, as well as the 2013 report, also called for monetary policy to remain accommodative to stabilize demand as long as inflationary pressures were benign, in the process endorsing the monetary initiatives taken by the Fed.

By 2013, there was consensus between the authorities and IMF staff that the pace of fiscal consolidation, estimated by staff at 2.5 percent of GDP was too fast and poorly structured. Staff agreed with the authorities that the sequester should be replaced with a back-loaded set of deficit reducing measures that would address the longer-term fiscal position, which the staff still considered to be unsustainable. The change in IMF projections of the longer-term fiscal position is nonetheless worth noting: the 2010 Article IV projected federal debt held by the public would increase from 64 percent of GDP in 2010 to 96 percent by 2020; by 2013, the Article IV had revised down the public debt estimate for 2020 to 74 percent, which was *below* its estimate for 2013. U.S. government projections of federal debt held by the public were lower than those of the IMF throughout this period.

B. United Kingdom[2]

IMF Article IV reports in 2008 and 2009 had called for fiscal consolidation in the U.K. to strengthen investor confidence and reduce the risk of a fiscal crisis. Initially, the advice was to implement the fiscal adjustment *once* economic recovery had been established:

"A strong commitment to reverse the sharp deterioration of public finances within a reasonable timeframe is crucial. … once the economic recovery is established, implementing an ambitious fiscal consolidation plan will be essential." (2009 Article IV)

[2] Article IVs for the United Kingdom were issued in July, except in 2010 when it was issued in November.

But after the incoming government announced and began to implement its fiscal consolidation proposals in 2010,[3] these were strongly endorsed by the IMF—with accommodative monetary policies designated as needed to support economic recovery—and the proviso that fiscal consolidation should *follow* the onset of sustainable recovery downplayed. Indeed, the IMF's oft mentioned recommendation (across countries) for policy makers to spell out a fiscal consolidation plan backed by specifics perhaps came closest to fruition with the arrival of the new government in the U.K. in May 2010. The 2010 Article IV mission was thus very supportive of the government's plans for tighter fiscal and looser monetary policies.

> "With record-high budget deficits, credible *fiscal tightening* is essential to preserve confidence in debt sustainability and regain fiscal space to cope with future shocks. To offset this contractionary impulse and keep inflation close to target over the policy horizon, a highly *accommodative monetary stance* remains appropriate, supporting private demand and net exports. … The consolidation plan … greatly reduces the risk of a costly loss of confidence in fiscal sustainability and will help rebalance the economy." (2010 Article IV Concluding Statement of the Mission)

> "The challenge now is to support a balanced and sustainable recovery. The government's forceful multi-year fiscal deficit reduction plan will promote such rebalancing and is essential to ensure debt sustainability, thereby greatly reducing the risk of a costly loss of confidence in public finances." (2010 Article IV)

How did IMF advice adapt to the weakening of the economy relative to forecast—U.K. GDP was some 4 percent below its pre-crisis peak as of mid-2013? In 2011, despite increasing signs of an economic slowdown, the Article IV argued that fiscal consolidation remained essential and that both the tightness of the fiscal stance and the accommodative monetary stance "remain appropriate for now."

> "The weakness in growth and rise in inflation raises the question whether it is time to adjust macroeconomic policies. The answer is no, as the deviations are largely temporary. Strong fiscal consolidation is underway and remains essential to achieve a more sustainable budgetary position, thus reducing fiscal risks." (2011 Article IV)

The 2012 Article IV indicated that the recovery had "stalled" and confidence was "weak"—following two years of implementing fiscal consolidation and monetary accommodation, both of which had been endorsed by the IMF. Staff consequently argued for more demand stimulus, but emphasized the use of monetary and credit policies, while indicating that fiscal tightening would have to continue, albeit at a slower pace, and only as a last resort:

[3] Figure 11 indicates that the cyclically adjusted fiscal stance in the U.K. indeed turned contractionary in 2010.

> **"Demand support is needed**. More expansionary demand policies would close the output gap faster and reduce the risk of hysteresis. In particular:
>
> - Additional monetary stimulus via quantitative easing and possibly cutting the policy rate is required.
> - Credit easing measures announced in June to lower borrowing costs through provision of bank funding, as recommended in staff's May 2012 concluding statement, are welcome and may need to be expanded.
> - Budget neutral reallocations should be undertaken to make room to increase government spending on items with higher multipliers (e.g., public investment).
> - The planned pace of structural fiscal tightening will need to slow if the recovery fails to take off even after additional monetary stimulus and strong credit easing measures" (2012 Article IV).

The IMF position on U.K. fiscal policy appears to have shifted further in 2013, in light of an economy that remained "fragile, held back by deleveraging, impaired credit creation, and weak external demand." (2013 Article IV).[4] Thus the Spring 2013 *WEO* suggested "greater near-term flexibility in the fiscal adjustment path" was warranted, while the 2013 Article IV indicated:

> "It is essential to offset the drag from planned near-term fiscal tightening, notably by bringing forward capital investment, while preserving the medium-term framework."

This position was driven in part by the observation that the transmission of monetary policy was weakened by the fragility of the banks and final demand, which made support from "financial and fiscal policies vital."

C. Euro Area[5]

The 2009 Article IV estimated that fiscal deficits would increase by over 6 percent of GDP between 2007 and 2010 for the euro area as a whole, while public liabilities would also increase substantially. This reflected significant support to financial sectors, the functioning of automatic stabilizers, and the discretionary stimulus measures being enacted. Financial

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[4] Although the 2013 concluding statement of the Article IV mission was interpreted by the press as retreating from this stance: e.g., "IMF Backs Away from Criticism of U.K. Austerity Policies," *Financial Times*, May 22, 2013.

[5] Euro area Article IV reports were issued in July.

markets had already responded to these developments by requiring higher sovereign spreads over German bunds for other economies in the euro area (Figure 16).

The IMF's advice was that fiscal policies would need to continue to support economic activity in 2009–10. To address solvency concerns, short-term fiscal stimulus measures would need to be embedded in credible medium-term consolidation programs (supported by the application of the "Stability and Growth Pact"). In the context of its advice on monetary policy, the IMF indicated that "all unconventional measures would need to remain under consideration to deal with the risk of protracted deflation." But the IMF did not recommend reforms to facilitate financing of the increases in fiscal deficits it had endorsed and address prospective risks from the differentiation of bond spreads that had already occurred.

By 2010, the IMF had become very supportive of euro area fiscal consolidation plans, a position maintained through 2012:

> "Fiscal sustainability needs to be established, with ambitious medium- and long-term adjustment plans supplemented by short-term consolidation at a pace tailored to country circumstances" (2010 Euro Area Policies Article IV).

> "**Immediate action is needed to establish fiscal sustainability.** Credible fiscal adjustment must be at the core of the response. … For all countries, additional efforts must be made to turn around unfavorable debt dynamics over the medium term. The pace of consolidation should however be differentiated across countries. The aggregate fiscal stance of the euro area is correctly envisaged to be neutral in 2010, while consolidation will start everywhere at the latest in 2011" (2010 Euro Area Policies Article IV).

> "If contagion from the periphery can be contained, macroeconomic policies should be able to reflect that the recovery is becoming less dependent on public sector support. Pursuing fiscal consolidation as planned would then enhance confidence, with positive spillovers to the rest of the world, provided policy gaps between announced targets and actual policies are closed and automatic stabilizers are allowed to work" (2011 Euro Area Policies Article IV).

> "Fiscal consolidation should proceed decisively and credibly where market pressure is high, but more gradually elsewhere to help support demand in the region" (2012 Euro Area Policies Article IV).

By mid-2013, with a second consecutive year of recession forecast and record high unemployment, the IMF had grown more concerned about short-term prospects, and called for more expansionary monetary policy and less contractionary fiscal policy. The Article IV report thus indicated that further effort would be needed to address the twin challenges of growth revival and job creation.

D. Germany[6]

The German economy contracted by about 5 percent in 2009 but experienced robust recovery in 2010–11, relative to other economies in the euro area as well as other advanced economies. In contrast to many other euro area economies, the unemployment rate in 2008–09 was lower than in the pre-crisis period and continued to fall to 5.5 percent by 2012–13, despite a slowdown in GDP growth to below 1 percent. The current account surplus ranged from 6 percent to 7 percent of GDP through 2012, rising to above 7 percent in 2013.

The 2008 Article IV was supportive of Germany's fiscal policy while arguing for a somewhat higher stimulus than the authorities were proposing for 2009:

> "Additional significant fiscal stimulus that is frontloaded, well targeted, and internationally coordinated is necessary. Following sustained fiscal prudence, the authorities have rightly taken steps to stimulate the economy. But their net size, timing, and focus on bolstering private investment imply that the immediate benefit will be limited. Bringing GDP growth to zero in 2009 would require a fiscal stimulus of 1½ percent to 2 percent of GDP. Such an effort would be particularly effective if German actions were part of a joint European effort to bolster demand."

The 2010 Article IV endorsed the continued fiscal support planned for 2010, but advised against planned tax cuts for 2011 on the grounds that fiscal consolidation would be needed once private demand had become self-sustaining. In addition to its concern about Germany's increased fiscal deficit in 2010, the 2010 Article IV suggested that fiscal consolidation (from 2011) should be pursued by Germany to set an example for the needed fiscal consolidation in the rest of Europe:

> "The authorities are well aware that a successful fiscal exit will not only establish the credibility of the new national fiscal framework, it will also help anchor fiscal policy in the euro area. Germany's fiscal actions matter in Europe because of the country's relative size and because, as in the past, they could set an example for fiscal consolidation for the rest of Europe. This would reduce the risk of an undesirable policy mix of tight monetary and loose fiscal policy (which tends to increase interest rates and crowd out private demand) in the euro area, which in turn would weaken growth in Germany. Conversely, a failure to consolidate the public finances in Germany would damage the national and European fiscal frameworks."

Following stimulus in 2009–10, the German authorities shifted to fiscal consolidation from 2011 onwards, estimated by IMF staff at ¾ percentage points of GDP per year, which the staff supported as the economy was on a path to close its output gap. In the event, the public

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[6] Article IVs for Germany were issued in December 2008, March 2010, June 2011, June 2012, and July 2013.

sector's structural deficit was cut by 1.4 percent of GDP in 2011 and the overall deficit was reduced by more than 3 percent. By 2012, the structural balance was in surplus and the overall balance was estimated at 0.5 percent of GDP. In the 2013 Article IV report, a small projected loosening of the fiscal stance was deemed to be appropriate.

E. Japan[7]

Article IVs on Japan during 2008–12 consistently proposed stronger fiscal consolidation than the government felt it could deliver, while also arguing for more accommodative monetary policy if needed to strengthen demand or counter deflation. A key aspect of the IMF's argument for fiscal consolidation was to reduce the risk of a fiscal crisis given the high public debt ratio.

Thus the 2009 Article IV noted that although the widening deficit had little impact on market absorption of new debt, the "favorable market conditions" were likely to diminish over time. As a result, staff argued that "fundamental fiscal reform at an early stage is critical."

The 2010 Article IV argued that Japan's "economy is gaining strength, but vulnerability to sovereign risk is rising." Noting that the attention of financial markets was now focused on countries' fiscal positions and that Japan had "unprecedented levels" of public debt, it argued that "fiscal consolidation should start in FY2011" and the structural deficit should be reduced by 1 percent per year over the next decade.

The 2011 Article IV, which followed the devastating earthquake and tsunami, acknowledged the need for infrastructure repair but continued to push for a reduction in the primary structural balance by 10 percent of GDP over the next decade—faster than envisaged by the government. Backing this advice was the view that the favorable conditions for debt finance may diminish.

Similar themes were pursued in the 2012 Article IV, which found that though government bond yields remained low, even a moderate rise in bond yields could leave Japan's fiscal position "extremely vulnerable" and that "more needs to be done to reduce debt."

Throughout this period, the IMF favored further monetary accommodation to stimulate activity if needed, but was concerned that larger scale government bond purchases by the Bank of Japan without a credible fiscal strategy in place could "undermine fiscal discipline and raise sovereign risks" (2010 Article IV). The 2012 Article IV argued that strong actions on fiscal consolidation could "help ease the way for additional monetary accommodation."

Upon taking office in December 2012, Prime Minister Abe's government announced an aggressive policy agenda of monetary and fiscal stimulus and structural reforms to jump-start

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[7] Article IV reports for Japan were issued in June or July.

the economy and raise inflation to 2 percent in about two years. An important element of the program was to jolt consumer and investor expectations, which had been undermined by more than two decades of weak activity and intermittent but persistent deflation. The results through 2013 exceeded the expectations of most observers as real GDP increased by nearly 2 percent, inflation turned positive, the equity market soared and the yen depreciated significantly.

The 2013 Article IV was ostensibly supportive of Abenomics and its "three arrows" initiative designed to boost growth and inflation. While noting that "all three arrows need to be launched for the policies to succeed," the thrust of the advice on fiscal policy was for the fiscal arrow to be pointed in the direction of fiscal consolidation rather than the intended stimulus. In addition to arguing for implementation of the previously legislated increase in consumption tax by 3 percentage points scheduled for April 2014, the Article IV noted "a credible medium-term fiscal plan should be adopted as quickly as possible as fiscal risks have risen further." In particular, the Article IV called for a fiscal adjustment of 11 percent of GDP over a decade, while indicating "[t]here is little room for further fiscal stimulus."