INTERNATIONAL MONETARY FUND

Exiting from Crisis Intervention Policies

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EXECUTIVE SUMMARY

As the crisis winds down, policymakers need to formulate and begin to implement strategies for exiting from crisis-related intervention policies. The overarching objective is to attain strong, sustained, and balanced growth. This requires large scale fiscal adjustment when the recovery is securely underway, normalizing monetary policy while unwinding crisis monetary measures, gradually withdrawing financial sector support, and ensuring consistency of policies both within and across countries.

The appropriate timing, pace, and mode of exiting from crisis-related policies depend on the state of the economy and the health of the financial system. The key challenge will be to map a course between unwinding such policies too early, which would jeopardize progress in securing economic recovery, and maintaining intervention for too long, which would distort private incentives and create risks to price, financial, and fiscal stability. In general, fiscal and monetary stimulus may need to be maintained well into 2010 for a majority of the world's economies, including several of the largest, although the timing of exit is likely to differ substantially across countries.

To reassure investors and the public at large, policymakers need to devise exit strategies that are coherent, credible, and clearly communicated. The following principles should guide this effort:

- **Fiscal policy.** Restoring fiscal sustainability is a key priority that will require not only unwinding crisis-related fiscal stimulus but also substantial improvements in primary balances for a sustained period. Fiscal adjustment strategies should include: (i) reducing government debt to prudent levels, which in some cases are below pre-crisis levels; (ii) strengthening fiscal institutions; (iii) reforming health and pension entitlements, containing the growth of other primary spending, and increasing revenues; (iv) enhancing asset and liability management; and (v) maintaining adequate social safety nets.

- **Monetary policy.** Central banks have the tools to exit from unprecedented crisis-intervention measures, but methods will vary with individual country and market specific circumstances. Raising policy interest rates does not necessarily require the unwinding of unconventional policies. Some unconventional policies, including systemic liquidity easing measures, continue to unwind naturally with improvements in financial market conditions. Others, however, notably those aimed at alleviating impaired credit markets, may need to remain in place until conditions in these markets normalize further. Maintaining central bank independence remains a key prerequisite for price stability in the long run.

- **Financial policies.** Unwinding financial sector support measures should be gradual and will require flexibility and judgment. It can be facilitated by incentives that make measures less attractive as conditions improve and by the judicious use of termination dates. A new financial regulatory framework and more capital will be needed to reduce the risks ensuing from the unwinding of crisis-related financial policies.

- **International linkages.** Policy coordination—in particular, cross-country consultation on macroeconomic policies and consistency across some types of financial and monetary support—can lead to better outcomes. The Fund can play a key role in reducing uncertainty and the likelihood of inconsistencies, by reporting on the unwinding process through its surveillance mechanisms, additional monitoring, and technical support.

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I. INTRODUCTION

This paper identifies broad principles for exiting from extraordinary and unprecedented crisis-related intervention policies implemented by countries across the globe following the onset of the crisis in the summer of 2007. It responds to the requests of the IMFC and the Board to make Fund advice and views on exiting from crisis-related intervention measures more concrete. Drawing on previous and ongoing work by staff, it mostly focuses on medium and large advanced and emerging market economies, in which interventions have been more substantial.[1]

1. **Many economies around the world have implemented bold and wide-ranging policies to address the financial crisis and global recession, yielding tangible benefits.** Exit strategies must not only aim to roll back many of the exceptional crisis measures, but also bridge from unwinding extraordinary short-term support to establishing the foundation for strong, sustainable and balanced growth over the long-term. Ensuring long-term fiscal and debt sustainability will require adjustments well beyond rolling back crisis-related fiscal stimulus. There is also a need to ensure that the world enters a new era of safer finance, based on updated financial regulation and supervision.

2. **Appropriate exit strategies will have common features, as outlined in the body of this paper, though they will also reflect country specific circumstances.** The timing and form of recovery is expected to differ more widely across countries than the onset of the crisis. Further, with global economic and financial conditions in a state of flux, credible exit strategies need to be flexible with respect to changing circumstances, integrated across policy areas and institutions, market-based, and clearly communicated.

3. **Indeed, a review of crisis-intervention measures taken to date indicates that the pace and form of exit is differing across countries**. A majority of countries, including the largest economies, plan to maintain the fiscal stimulus provided in 2009 at least through 2010 (relative to pre-crisis levels). Some countries, however, are targeting a significant withdrawal of stimulus in their 2010 budgets, compared with 2009. Beyond this year, few countries have articulated a

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[1] The paper builds on the note on exit principles prepared by staff for the G-20 Meeting of Finance Ministers and Central Bank Governors held on November 2009 (http://www.imf.org/external/np/g20/110709.htm) and draws on "A Strategy for Renormalizing Fiscal and Monetary Policies in Advanced Economies" by Carlo Cottarelli and José Viñals (IMF Staff Position Note SPN/09/22; September 2009) and "Crisis-Related Measures in the Financial System and Sovereign Balance Sheet Risks" (IMF, August 2009; http://www.imf.org/external/pp/longres.aspx?id=4361). Staff work on these issues includes the High Level Conference on Exit Strategies (December 2009; http://www.imf.org/external/np/seminars/eng/2009/unwinding/index.htm) and the High Level Conference on Exiting from High Public Debt (January 2010; http://www.imf.org/external/np/seminars/eng/2010/publicdebt/index.htm). The impact of the global crisis on low income countries, as well as their policy reactions and challenges, have been recently discussed in "The Implications of the Global Financial Crisis for Low Income Countries—An Update" (IMF, September 2009; http://www.imf.org/external/pp/longres.aspx?id=4371).

long-term fiscal strategy or initiated fundamental fiscal reform. While global monetary conditions remain accommodative, some central banks have raised policy rates or are considering doing so. Crisis-related liquidity-provision is winding down, consistent with the normalization of financial market conditions, although liquidity levels remain high. The withdrawal of financial sector intervention measures is proceeding more slowly.

4. **The paper is structured as follows.** The next section discusses the overarching policy challenges. Sections III, IV, and V address the unwinding of fiscal, monetary and financial intervention policies, respectively. Section VI discusses international policy consistency and the operational follow-up by the Fund. Section VII summarizes the broad exit principles. Section VIII lists issues for discussion. The current status of exiting from crisis measures is documented in Appendix I. A set of background papers, issued separately, will also inform the Board's discussion.

II. Overview of Exit Strategies

5. **Exiting from crisis-related intervention policies should be viewed in the context of achieving strong, sustained and balanced growth**. Attaining this objective will require: meeting the onerous challenges to fiscal sustainability; normalizing monetary policy while unwinding crisis monetary measures; carefully withdrawing financial sector support; and, avoiding policy inconsistencies across countries, as well as in the policy mix.

Effective exit strategies share common features

6. **The common features of effective exit strategies are as follows**:

- *Integration*—The crisis strengthened and raised awareness of linkages among different sectors and policy areas, and thus the strategy must be integrated across policy-making entities.

- *Flexibility*—Exiting will not involve a single, one-off decision, but will rather comprise a series of evolving decisions and tradeoffs. Strategies should retain some flexibility to adjust the form and pace of unwinding in response to unforeseen developments.

- *Market basis*—The strategy should rely to the extent possible on market-based incentives to take advantage of price signals. More generally, policies must aim to restore the role of market forces, including in sectors in which the government has taken on a larger role during the crisis. Failure to do so could have long-lasting effects on economic growth.

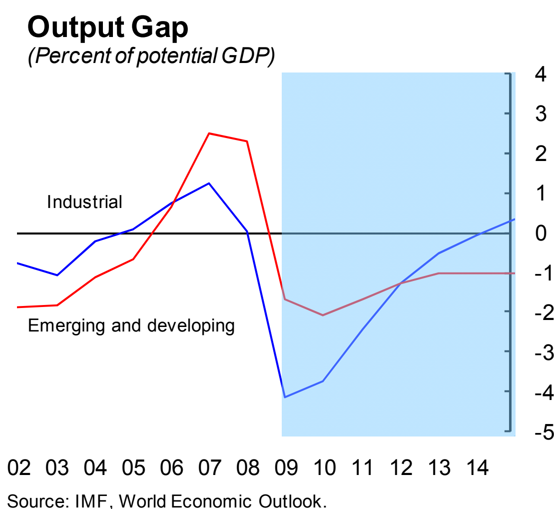
- *Clear communication*—Basic principles and plans for exit should be established early and communicated clearly and consistently by policymakers, with a view to reducing uncertainty, anchoring expectations, and mustering public support for necessary measures. However, policymakers should be careful about making irreversible

commitments to a schedule; rather, they should explain the factors that will determine unwinding decisions.

Macroeconomic stimulus should not be withdrawn until there is firm evidence of durable financial stability and a self-sustaining recovery in private demand

7. **Timing the withdrawal of macroeconomic stimulus poses a difficult tradeoff.** Unwinding public intervention too early could jeopardize progress in securing a sustained economic recovery, while maintaining intervention for too long could distort private incentives and pose risks to price, financial, and fiscal stability. One of the key lessons from experiences of similar crises is that a premature withdrawal of policy stimulus can be very costly, particularly if the financial system is weak. Thus, in the current context, the potential risks associated with an early withdrawal of policy stimulus seem to outweigh the risks of maintaining it for longer than possibly needed. Against this background, financial restructuring and balance sheet repair (including bank recapitalization) remain priorities to underpin a resumption of strong economic growth. At the same time, in light of the large increases in government debts, countries should draw up plans for a major improvement in fiscal balances. However, if fiscal consolidation gains sufficient traction once recovery is entrenched, a slower withdrawal of monetary stimulus than during past recoveries may be possible if inflation expectations remain anchored. If fiscal consolidation is not sufficiently ambitious, somewhat greater monetary tightening may be needed to anchor inflation expectations.

8. **For the global economy, with the exception of some countries, current conditions do not justify a significant rolling back of macroeconomic stimulus or financial policies in 2010**. The recovery remains sluggish compared with past standards, at least in the advanced economies. Output gaps are projected to remain large for the next few years, even after taking into account reductions in potential output as a result of the crisis. Thus, unemployment is likely to remain high in the advanced economies well into 2010 and inflation pressures are expected to remain subdued. Moreover, notwithstanding the recent pick-up in growth momentum, there is little evidence as yet that private demand is self-sustaining. Hence, fiscal and monetary stimulus may need to be maintained well into 2010, although if developments proceed as expected, withdrawal could begin in 2011.



Source: IMF, World Economic Outlook.

9. **The timing and pace of recovery from the crisis is also likely to differ across countries, and would call for a differentiated response in the unwinding of stimulus, which in turn could pose spillover risks and challenges to macroeconomic management**. Although

the crisis initially hit most countries broadly at the same time, its impacts and associated policy responses have increasingly differed across countries. In advanced economies, private demand is being held back by limited credit availability, higher household saving rates aimed at restoring household balance sheets, persistent unemployment, and income insecurity. In contrast, activity in several emerging and developing economies continues to gain momentum, and signs have emerged in some of an incipient pick-up in inflation and deterioration in the quality of new loans. That said, an increase in policy interest rates in these countries could further boost capital inflows, especially if advanced country interest rates remain low for a prolonged period, posing challenges for macroeconomic management, as discussed in section VI.

The composition and sequencing of withdrawal should reflect fiscal space and policy flexibility

10. **Ensuring fiscal sustainability is a key priority and policy challenge, notably in light of the upsurge in government debts in many countries**. Maintaining an expansionary fiscal stance has a clear and direct impact on the build-up of debt, while maintaining an accommodative monetary policy stance has no obvious direct downside, other things remaining unchanged (e.g. the absence of price pressures in goods, labor, and asset markets). Moreover, while monetary tightening will contribute to a worsening of the fiscal position, a tightening of the fiscal stance does not necessarily complicate monetary management. 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, tightening as needed to prevent the emergence of inflation. In advanced economies with subdued price pressures, monetary policy may therefore be able to remain accommodative for an extended period. Indeed, if fiscal policy is tightened as growth gains momentum in these countries, it will be possible to raise policy interest rates more slowly than during previous recoveries. However, delays in fiscal consolidation would call for faster tightening of monetary conditions to maintain an appropriate overall policy stance, with adverse consequences for borrowing costs, at least at the short end of the yield curve.

11. **The desirable policy mix may be different for economies with more fiscal space and experiencing faster recoveries.** For economies that have relied on export-led growth and with sufficient fiscal space, rebalancing from external to domestic demand may require additional reforms to reduce precautionary savings, through further efforts to strengthen social safety nets, reform pension and healthcare systems, and improve corporate governance. At the same time, in a number of emerging economies, monetary policy may have to be tightened relatively soon—and might therefore lead fiscal consolidation—owing to signs of rising inflation or incipient financial vulnerabilities, including credit booms.

III. Exiting from Fiscal Support and Implementing Long-Term Fiscal Consolidation

It is in the fiscal area that the most daunting tasks lie ahead. Discretionary action in support of aggregate demand (fiscal stimulus) and of the financial sector explains only part of the rise in government debt observed in 2008-09 and projected for the medium-term, particularly for advanced economies. Thus, in general, unwinding discretionary support will be only a first step to ensure government debt trends consistent with fiscal sustainability and growth:

- *A strategy for fiscal adjustment should be communicated now, to reassure markets. The key decision countries will face is whether to stabilize debt ratios at the (generally) high post-crisis levels or to bring them down. Reducing debt ratios would lead to better economic outcomes.*

- *Letting the fiscal stimulus expire should be straightforward from a technical standpoint, because much of the stimulus has consisted of temporary measures.*

- *The bulk of the adjustment, however, will require more difficult reforms to improve the structural primary balance. Reforms of entitlements in aging countries will be necessary but far from sufficient: in many economies, particularly in advanced economies, reforms of other spending and revenues will also be required. As noted, the timing of implementation will have to take into account output developments. However, this does not mean postponing all action. Institutional fiscal reforms and reforms with long term effects on spending and revenues, but not compromising the recovery in the short run, can be undertaken now.*

12. **The design and communication of strategies to ensure the solvency of fiscal accounts is thus a top policy priority.** Comprehensive, credible, and transparent fiscal consolidation strategies are needed to anchor fiscal solvency and inflation expectations, contain possible increases in borrowing costs, and reduce the likelihood of further growth slowdown and unfavorable government debt dynamics. An important aspect of communication of strategies relates to informing the public at large about the scale of the fiscal challenges, and to making a compelling case for the reforms needed to ensure solvency.

A daunting fiscal challenge

- At a **global level**, the crisis has had the largest and most pervasive impact on public finances since World War II. While the extent of the deterioration has already been documented elsewhere,[2] it is useful to recall some key facts. In 2007, almost 40 percent

[2] See "Fiscal Implications of the Global Economic and Financial Crisis" by Carlo Cottarelli et al. (IMF Occasional Paper No. 269; http://www.imf.org/external/pubs/cat/longres.cfm?sk=22848.0); "The State of Public Finances Cross-Country Fiscal Monitor: November 2009" (IMF, Staff Position Note SPN/09/25;

(continued)

of the countries in the sample reported in Figure 1 were running overall surpluses. In 2009, this share is projected to have dropped to 10 percent. In contrast, countries with deficits higher than 3 percent of GDP had increased from 20 percent to 70 percent. Government debt increases have been most pronounced for the advanced economies, but the implications have been significant also for the emerging markets and low income countries.

- For the **advanced economies,** deficit increases (from 2 percent of GDP in 2007 to 10 percent of GDP in 2009 for the G-20 advanced economies, PPP-weighted average; Figure 2) stem not only from cyclical factors, financial support operations, and the stimulus, but also from significant underlying increases in non-stimulus spending.[3] Moreover, the crisis has led to a long-lasting, if not permanent, step decline in revenues—as a result of lower revenues from asset prices and financial services, and the step loss in potential output (Chapter 4, IMF, World Economic Outlook, November 2009). In addition, the interest bill will also grow in the years ahead to service higher government debts. Altogether, the general government gross debt-to-GDP ratio is projected to rise from 73 percent in 2007 to 109 percent in 2014, for the average of all advanced economies. Indeed, the government debt/GDP ratio for the largest advanced economies is now as high as it was in the early 1950s, i.e., in the immediate aftermath of World War II (see "Strategies for Fiscal Consolidation in the Post-Crisis World," IMF, February 2010, henceforth referred to as SFC). An analysis of the sources of this increase suggests that financial sector support, and the related accumulation of financial assets by the government sector, accounts only for a small part of this increase (Figure 3). The increase in net debt is therefore almost as large.[4]

- In **emerging economies,** debt ratio trends are generally more favorable: government debts are expected to decline moderately after 2010 and to remain below 40 percent of GDP in the medium-term for the emerging G-20 economies, on average. This reflects smaller output losses and lower primary deficits in the midst of the crisis, as well as, more recently, a considerable economic recovery accompanied by some discretionary

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http://www.imf.org/external/pubs/cat/longres.cfm?sk=23340.0); and "Strategies for Fiscal Consolidation in the Post-Crisis World" (IMF, February 2010).

[3] The structural primary balance deteriorated by 4.7 percentage points of GDP, for the same group of countries, between 2007 and 2010 (see also IMF Staff Position Note SPN/09/25). Of this, nonstimulus spending accounts for 1.7 percentage points of the deterioration, reflecting increases in defense and entitlement outlays in the United States, social security spending in Japan, and various expenditure items in Italy and the United Kingdom.

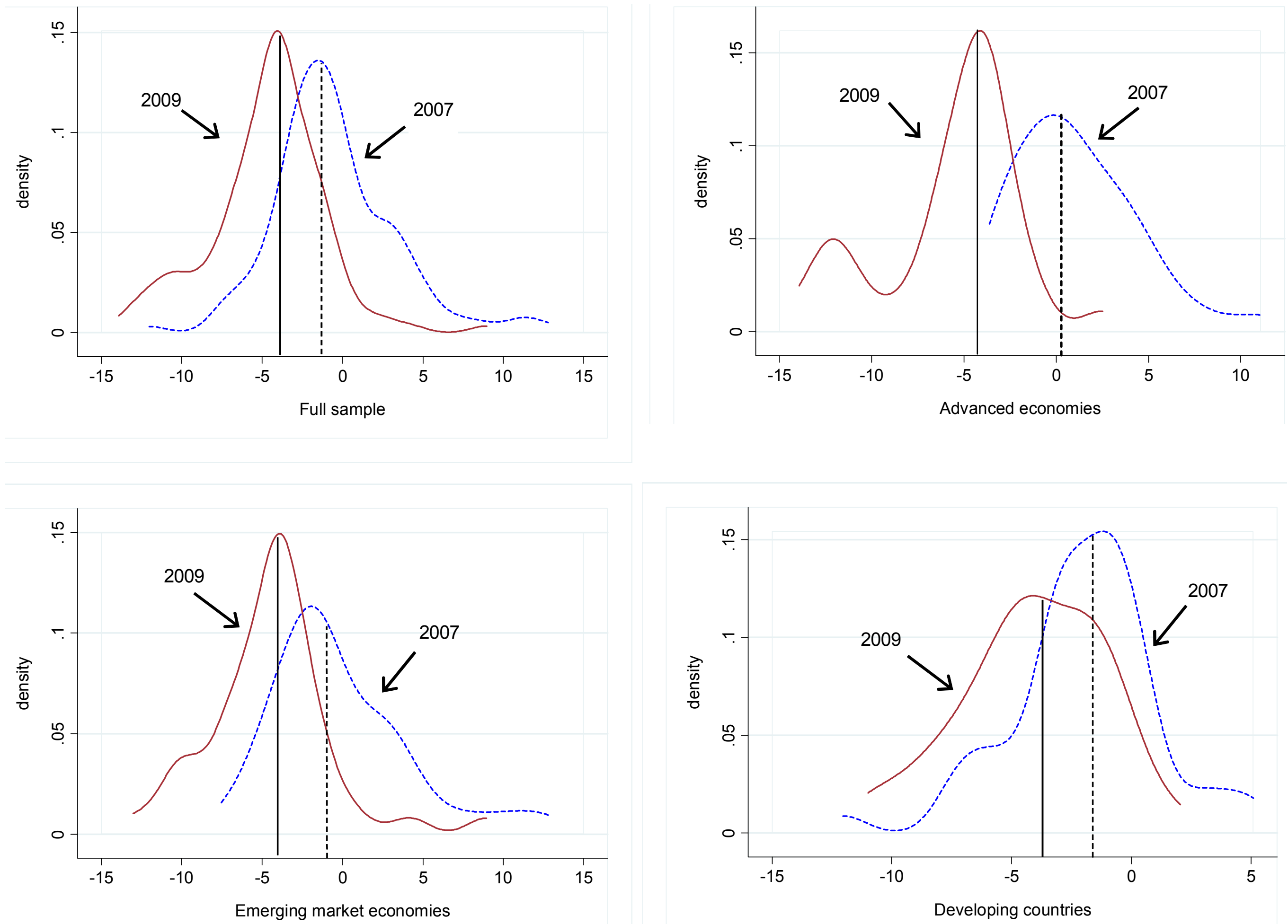
[4] Of course, the consolidated balance sheet position of governments and central banks would show a larger increase in financial assets matched by a rise in base money, but the central bank operations are expected to be unwound over the medium term. However, if central banks incur losses in the process, they would have to be recapitalized though further government debt issues.

tightening to be implemented in 2010.[5] However, these economies face important risks, especially from possible international spillovers. Indeed, large debt buildup in the advanced economies could lead to higher borrowing costs and crowding out of emerging markets' borrowers.

- In **developing countries**, risks to debt sustainability, which had improved sustainability in recent years, may be again on the rise. Prior to the crisis, debt-to-GDP ratios in these countries had declined as a result of fiscal consolidation, strong growth, and debt relief. However, this decline came to a halt in 2009, and debt ratios are projected to remain broadly stable into the medium term. Thus, in the absence of fiscal adjustment, the risk of debt distress could increase in some developing countries. Fiscal woes in the advanced economies will also affect developing countries through higher interest costs and lower concessional and non-concessional financing.

[5] However, in several Central and Eastern European countries, output losses have been much larger than in G-20 emerging economies and recovery is still far from entrenched.

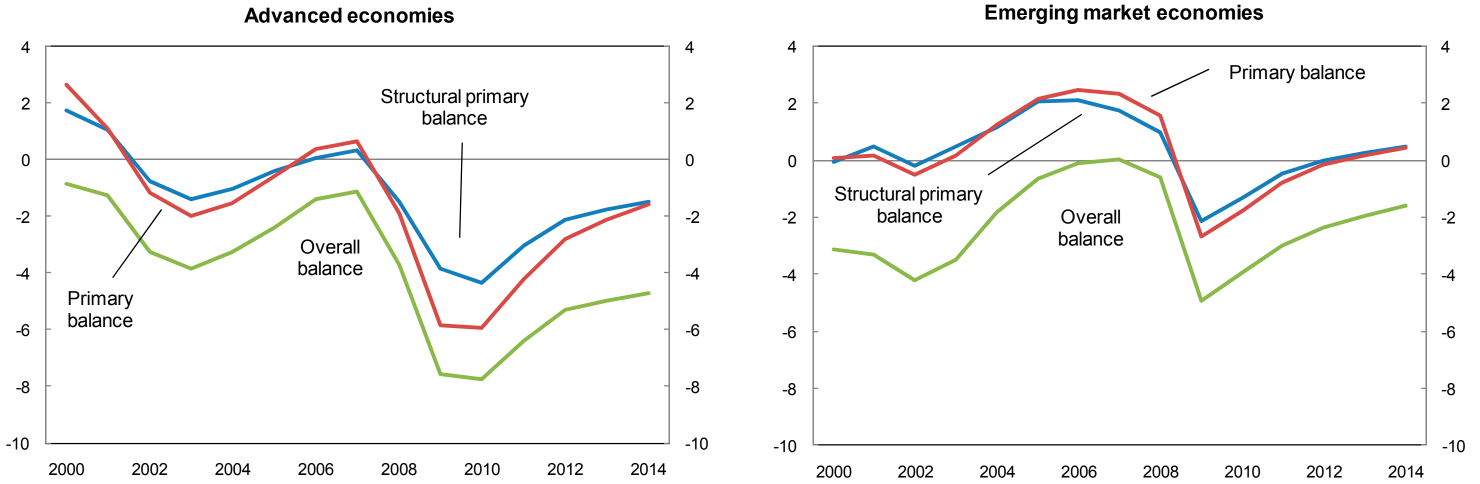
Figure 1. Fiscal Balances, 2007 versus. 2009



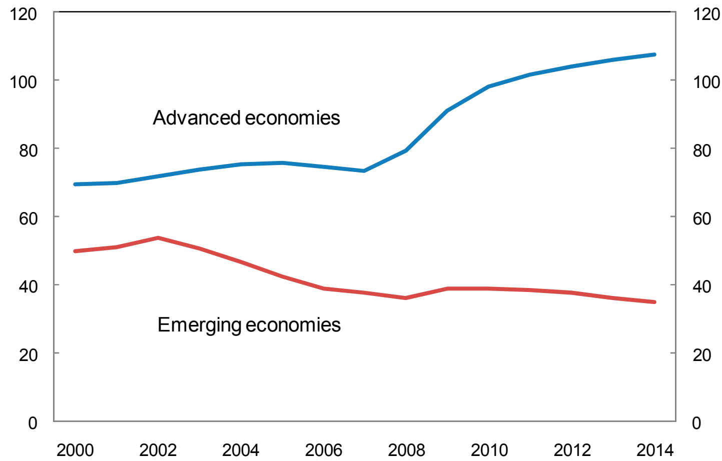
1/ The figures display the frequency distributions of the general government balances (in percent of GDP) for 32 advanced economies, 44 emerging markets, and 49 developing countries, for 2007 and 2009, respectively. The vertical lines are the medians of the distributions.

Figure 2. Fiscal Balances and Debt Ratios, Advanced and Emerging Economies, 2000–14

Fiscal Balances
(In percent of GDP)

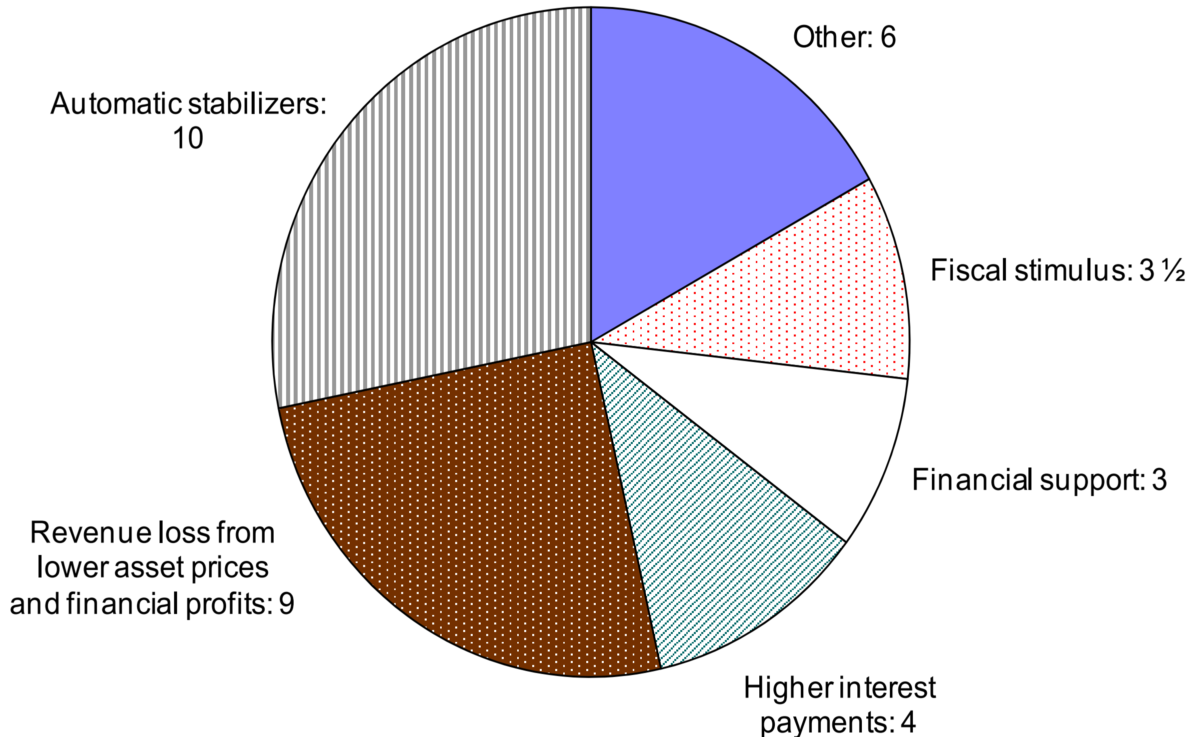


General Government Debt
(In percent of GDP)



Note: Based on January 2010 IMF World Economic Outlook projections, which include some fiscal tightening starting in 2010 in emerging market economies and 2011 for advanced economies. Averages are weighted by GDP at PPP. For the United States, all concepts of fiscal balance in this chart exclude losses from financial sector support measures.

Figure 3. Sources of Increase in Government Debts between 2007 and 2014, Advanced Economies
(in percentage points of GDP)



Sources and note: IMF, World Economic Outlook projections and staff estimates. The overall increase in the general government debt/GDP ratio for advanced economies amounts to about 35 percentage points on average (weighted by GDP at PPP) between end-2007 and end-2014.

The scale of fiscal adjustment needed

13. **The key fiscal choice facing policymakers is whether they should aim at stabilizing government debt ratios at the current high levels, or reducing them to more prudent levels.** There is general agreement that the rise in government debts needs to be curbed as soon as a private sector recovery is securely under way. But choosing the level at which debt ratios should be stabilized could be more controversial. Stabilizing debt ratios at the higher post-crisis level would be less difficult: in most countries, it would require bringing back the structural primary balance to the pre-crisis level plus what is needed to service the higher debt. Instead, bringing down the debt would require a much higher primary surplus, in light of the magnitude of the ongoing government debt increase. All this is in the context of unfavorable demographic trends, which will put further pressure on spending.

14. **Although the temptation to stabilize debts at high levels will be strong, maintaining high government debt levels worldwide into the medium term would have significant**

drawbacks. First, for most advanced economies, stabilizing debt ratios at their post-crisis levels would be insufficient to create or restore fiscal space for a flexible response in the event of future crises. Second, higher debt levels would be associated with greater vulnerability to crises in all countries where the risk of (even partial) default were not seen as immaterial. Third, should high debt levels persist for many of the largest economies at the same time, higher real interest rates could ensue worldwide, with adverse consequences for private investment and global growth. Recent staff estimates based on regressions for panels of countries suggest that long-term interest rates rise by five basis points for each 1 percent increase in the debt/GDP ratio (IMF Staff Position Note SPN/09/25, Appendix 1).[6] The effect can be even larger when debts are high. There is also evidence that the effect of weaker fiscal accounts on interest rates is greater when it occurs in many countries at the same time, as a larger fiscal deficit in a few countries can be more easily financed abroad. Finally, although it is difficult to establish the direction of causality, higher debts seem to be associated with slower growth—the experience of Italy and Japan in the past two decades is suggestive in this regard (see SFC). Thus, while stabilizing debt ratios at their current high levels would be consistent with sustainability, a more ambitious strategy aimed at lowering debt ratios to prudent levels within a pre-defined timeframe would lead to better economic outcomes.

15. **Specific debt targets should reflect country-specific characteristics.** These include the initial level of debt and its composition, and the depth of domestic financial markets. For many advanced economies, targeting debt ratios below 60 percent (the median debt ratio for G-20 advanced economies in 2007) may be appropriate. Emerging economies should aim at even lower debt ratios, given lesser market tolerance for high debts on their part—consistent with lower and more volatile revenue bases and greater reliance on short term, external debt (see FBP). The proliferation of quasi-fiscal activities by various public sector entities to assist the financial system during the crisis suggests that debt targets should have a broad institutional coverage. Moreover, guarantees provided to the financial and other sectors need to be closely monitored and taken into account when setting fiscal targets.

16. **The fiscal adjustment will require major improvements in structural primary balances.** In this respect, it is worth focusing on the advanced economies, where the task ahead is more challenging. On average, bringing government debt ratios in advanced economies below 60 percent by 2030 would require steadily raising the structural primary balance—that is, the primary balance adjusted for the economic cycle and other temporary factors—from a deficit of 4⅓ percent of GDP in 2010 to a surplus of 3⅔ percent of GDP in 2020—an 8 percentage point swing—and keeping it at that level for the following decade (Figure 4). The challenge is exacerbated by the projected increase in aging-related entitlement spending. A possible alternative strategy—a moderate increase in inflation to erode the real value of the debt—would

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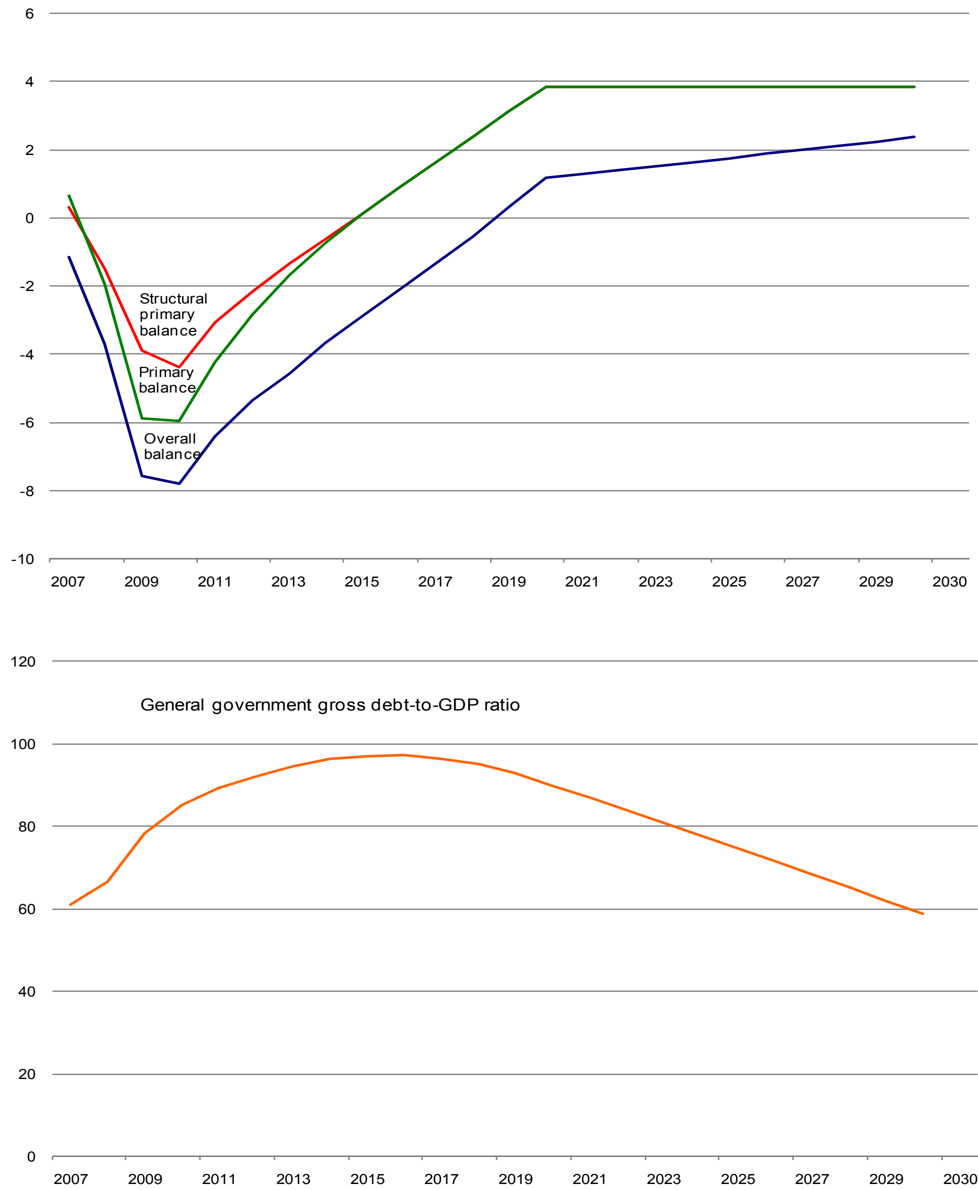
[6] This implies that the 35 percentage point increase in government debt ratios projected for advanced economies during 2007–14 could, other things equal, raise interest rates by about two percentage points.

not make much difference to debt trends but would de-anchor inflation expectations and eventually entail large output costs to restore price stability (see SFC).

Figure 4. Advanced Economies: Illustrative Scenario for Fiscal Adjustment
(In percent of GDP)



Sources: IMF, World Economic Outlook, January 2010, and Fund staff estimates.
Notes: Structural balances are reported in percent of nominal GDP. For the United States, losses from financial sector support measures are excluded in this chart. In this paper's scenario, the primary balance is assumed to improve gradually from 2011 until 2020; thereafter, the primary balance is maintained constant until 2030. The primary balance path is set to stabilize a country's debt/GDP at its end-2012 level if this is less than 60 percent; otherwise, it is set to reduce the debt/GDP ratio to 60 percent by 2030. Illustrative scenarios for Japan are based on its net debt, and assume a target of 80 percent of GDP. For Norway, maintenance of primary surpluses at the projected 2012 level is assumed. The analysis is illustrative and makes some simplifying assumptions: in particular, beyond 2011, an interest rate–growth rate differential of 1 percent is assumed, regardless of country-specific circumstances.

17. **This fiscal adjustment will be difficult to implement, but is not unprecedented.** As shown in the SFC, over twenty advanced and thirty emerging economies have undertaken adjustments in the structural primary balance of at least 5 percentage points of GDP at least once over the past four decades; ten advanced economies and twelve emerging economies have adjusted by more than 10 percentage points of GDP. Furthermore, a majority of the advanced economies that implemented large fiscal adjustments experienced an improvement in real economic growth compared to the three years preceding the adjustment episode. The historical experience is mixed, however, regarding the extent to which large primary surpluses can be sustained after adjustment episodes: while the odds are reasonably high for maintaining large primary surpluses for five years after the end of adjustment, doing so for ten years, as in the simulations above, will be a challenge. Moreover, the challenge is compounded by the unfavorable demographic trends. Finally, a simultaneous tightening of fiscal policy across most advanced economies for such a long period is also unprecedented, and will involve significant challenges for managing global demand.

The composition of fiscal adjustment[7]

18. **It is informative to consider possible ways in which the required structural fiscal adjustment of 8 percentage points of GDP in the illustrative scenario for advanced countries could be attained**. With a view to obtaining a sense of broad magnitudes, it is useful to recall that 1½ percentage points of the adjustment could come from unwinding the fiscal stimulus (three quarters of which, in turn, consist of expenditure items); another 3½ percentage points in savings would obtain if expenditures other than health care and pension entitlements were kept constant in per capita terms for ten years; and the remaining 3 percentage points could come from increasing revenues. Beyond this, further action would be required to maintain entitlement expenditures stable as a share of GDP: in the absence of reforms, entitlements would grow by 4-5 percentage points of GDP over the next two decades. To sum up, a large part of the adjustment would likely need to take place on the spending side, with a sizable but smaller role for the revenue side, consistent with the already high tax burden in several advanced economies. Of course, these are illustrative exercises for broad averages, and country specific considerations would need to underpin deliberations regarding the appropriate scale and composition of adjustment for each country.

19. **Unwinding the fiscal stimulus measures should not be the overly challenging component of the fiscal adjustment, because a large share of the stimulus is temporary**. Altogether, only one-fifth of the stimulus is permanent and would require discretionary action for reversal. Indeed, the stimulus often consisted of time-bound measures (e.g., investment projects or one-off tax rebates) or contained explicit sunset provisions. This is particularly true for expenditure items, where only a small fraction of measures is permanent. By contrast, about half of tax measures introduced are permanent (Table 1). The share of permanent measures is higher

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[7] This issue will be further analyzed in a forthcoming paper under preparation.

in advanced than in emerging economies. However, the higher share of infrastructure spending in emerging countries' stimulus packages (half, versus one-fifth for advanced economies) will lead to higher recurrent outlays for operations and maintenance over the medium-term. More important, in many emerging economies major infrastructure needs increase the likelihood that public infrastructure investment will be maintained or increased further.

Table 1. G-20 Countries: Temporary and Permanent Stimulus Measures

(In percent of total and of revenue measures, by value)

	Total		of which: Revenues	
	Temporary	Permanent	Temporary	Permanent
G-20 total	80	20	54	46
Advanced G-20 countries	75	25	14	86
Emerging market G-20 countries	91	9	88	12

Source: Staff estimates. Share of total stimulus and revenue measures by the expected cost of specific measures.

20. **The remainder of the improvement in the average primary balances (some 6½ percentage points of GDP) will require more difficult fiscal adjustment, through medium-term reforms**. The appropriate composition of adjustment will depend on country characteristics such as the demographic profile and the initial size of the public sector, but is likely to include the following, in varying degrees:

- **Reforms of pension and health entitlements**. These items already represent a sizable share of total spending and, as noted above, would rise by 3–4 percentage points of GDP by 2030 in the G-20 advanced economies in the absence of reforms. A possible objective in this area would be to avoid a rise in spending in relation to GDP. Going beyond this, however, would be difficult, in light of demographic pressures. This means that the improvement in the primary balance would have to come from other sources.

- **Containment of other spending**. Further reforms could seek to stabilize real primary spending (excluding pension and health) in per capita terms. If this policy were maintained for 10 years, it would yield savings of 3½ percentage points of GDP for the advanced economies. Improvements in expenditure prioritization and enhancement of value for money tools would be helpful in this regard. Eliminating energy subsidies is an area where considerable savings could be achieved. In implementing these expenditure reforms, it will be important to protect the poor and the unemployed. This is desirable on equity grounds, and would enhance the social and political sustainability of the overall strategies.

- **Increased tax revenues**, through implementation of tax policy and administration measures, for the remainder of the adjustment (3 percentage points of GDP for the

advanced economy average). Priority should be given to reducing or eliminating special treatments, and combating evasion and avoidance (e.g., aggressive tax planning and use of tax havens). Carbon pricing or auctioned emissions rights should become more important revenue sources. Nevertheless, raising statutory tax rates is likely to be necessary to yield the requisite adjustment.

Supporting reforms and institutional arrangements

21. **Measures to increase potential growth can facilitate fiscal adjustment.** Higher growth through structural reforms—including greater competition in goods markets, and removal of labor market and tax distortions—could make a significant contribution to lowering debt ratios by increasing fiscal revenues and counteracting the undesirable effects of population aging (see SFC). This said, the timing and magnitude of the impact of structural reform on growth is uncertain. Thus, it would be wise, and more credible, to base fiscal adjustment strategies on cautious growth projections.

22. **A well established body of theoretical and empirical analysis shows that budget institutions can help to support successful fiscal consolidations**. Strong institutions can improve fiscal performance by identifying the magnitude of the required fiscal adjustment, developing a credible consolidation strategy, and implementing it through the budget process. Some of the characteristics of the recent economic crisis—such as the scale of fiscal challenges including the magnitude of the risks ahead, the array of government interventions, the range of public sector institutions involved— have highlighted the need for strengthening budgetary institutions across all countries. Recent work carried out by staff shows that most countries—including many advanced ones—have room for strengthening budget institutions, although in varying degrees (see SFC). In particular:

- **Basic fiscal reporting is not yet fully in place**. This problem is particularly acute in low-income countries, but gaps exist also in emerging economies and advanced economies, including issues of institutional coverage and balance sheet data. Moreover, while fiscal risks are increasingly being disclosed, comprehensive reporting is still limited, as few countries include a statement of fiscal risks in their budget documents, and with risk analysis often focusing only on formal guarantees.

- **Few countries, mostly among the G-20, have developed the comprehensive and binding medium-term budget frameworks needed to translate their fiscal objectives into budgets**. Procedural or numerical rules can strengthen achieving these objectives, once the consolidation effort is under way.[8] Independent fiscal agencies can also enhance

[8] Numerical rules played a significant role during past large fiscal adjustments, particularly in sustaining the pace of consolidations that were already underway (see "Fiscal Rules—Anchoring Expectations for Sustainable Public Finances," IMF, November 2009; http://www.imf.org/external/pp/longres.aspx?id=4402).

the overall credibility of fiscal policy, but are still limited to a few advanced countries and emerging market economies.

- **A more rigorous top-down approach to budgeting would safeguard the implementation of consolidation plans, along with some flexibility in execution.** Budget preparation follows a top-down procedure in an increasing number of countries, but budgetary rigidities and circumvention of the budget process diminish its disciplining impact, particularly in low-income countries. Budget execution arrangements for dealing with unforeseen developments remain in most case insufficient, thus endangering the credibility of the consolidation plans.

Government balance sheets

23. **The management of government balance sheets will also play an important role in supporting the fiscal unwinding**. As noted, the bulk of the projected increase in gross government debt is not related to the accumulation of financial assets. Yet, during the crisis governments have accumulated a sizable amount of financial assets, which will have to be properly managed and from which an orderly exit will be required. Moreover, governments have acquired large contingent liabilities, which will also have to be unwound over time. While issues related to unwinding the assets acquired in the financial sector and the guarantees provided are discussed in Section V (with similar considerations applying to the more limited operations undertaken in the nonfinancial sector), some other important criteria relating to balance sheet operations will have to be taken into account in the years ahead:

- Proper management and disposal of the financial assets acquired during the crisis can give a non-trivial contribution to the reduction in government debt (perhaps of the order of 1½–2 percentage points of GDP for advanced economies, against an initial investment of 3 percentage points of GDP).[9]

- In the meantime, it will be important to adhere to appropriate valuation and risk assessment methods and reporting, clarifying institutional responsibilities, and flexibility to manage and respond to realized losses. Using accepted accounting standards that require "fair value" asset valuation will foster transparency.

- Governments will have to offset quasi-fiscal intervention costs incurred by central banks, or other agencies, as a result of their intervention.[10] Deposit insurance funds may need to

[9] In some countries the financial sector is already paying back some of the investment initially made by governments.

[10] The unwinding of interventions undertaken by central banks will have implications for the government accounts. Central bank interventions in the financial sector and its purchases of government securities financed by an expansion of base money have led to higher central bank profits (e.g., from operations undertaken in 2009, the Fed could make annualized profits of up to ¼ percent of GDP). As liquidity is mopped up and central bank balance sheets are restructured, central bank profits and its transfers to the government can be expected to decline.

be reviewed in the context of comprehensive deposit insurance reform, including appropriate funding arrangements.

- Privatization of assets held by governments before the crisis should be considered as a way to lower gross government debt. For instance, in spite of earlier sizable privatization during the 1990s, the value of state-owned enterprises in OECD countries still averages some 17½ percentage points of GDP.[11]

- Careful debt management of the maturity structure of debt to limit vulnerabilities will be important in light of increased stocks and increasing interest rate risks when the economy recovers.

IV. Exiting from Monetary Policies

The crisis compelled central banks to employ a wide range of crisis-intervention measures, in many cases unprecedented. Unwinding should be tractable but poses some challenges. In particular:

- *Central banks have the tools available to unwind crisis-intervention measures, although the methods will vary considerably with their specific circumstances.*

- *Raising policy interest rates does not require the prior unwinding of unconventional crisis measures.*

- *Central bank independence needs to be maintained as crisis measures are unwound to support price stability in the long run.*

24. **Central banks across the major advanced economies have cut policy rates to close to the zero interest floor, while those in major emerging economies have sharply reduced rate**s (Appendix I and background paper "Exiting from Monetary Crisis Intervention Measures"). Moreover, some advanced economy central banks have signaled that interest rates are likely to remain low for an extended period, while others have indicated that monetary policy would only be tightened once the macroeconomic environment improves and the outlook for inflation picks up. Emerging economy central banks also eased interest rates, but almost none reduced rates to near the zero lower bound. More recently, in response to the uptick in economic activity, one advanced G-20 economy central bank (the Reserve Bank of Australia) has increased its policy rate. Several key emerging economies are facing pressures to tighten monetary policy; in January of this year, the People's Bank of China started guiding market rates upward and raised required reserve ratios.

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[11] Based on a sample of 17 countries covered in "Corporate Governance of State-Owned Enterprises: A Survey of OECD Countries" (OECD, 2005). In most cases the data refer to enterprises owned by the central government.

25. **Central banks have used also a wide range of instruments to inject liquidity, support financial intermediation and encourage credit**.[12] Most undertook some form of "balance sheet policy," especially those constrained by the policy interest rate floor. These balance sheet policies evolved and grew as the economic situation worsened.[13] The main such policies are:

- *Systemic liquidity easing measures*—The size of liquidity providing operations greatly expanded to meet the extraordinary surge in demand for bank reserves, reduce stress in key funding markets, and improve overall confidence. Central banks also lengthened maturities and accepted a broader range of collateral and counterparties. These measures increased bank reserves held at the central bank. Short-term liquidity operations are now being unwound, but in some cases bank reserves remain very high.

- *Purchase of long-term public sector securities*—As real activity slumped, the Fed and the Bank of England purchased large amounts of long-term public sector securities. The purchases were principally intended to lower longer-term interest rates. These purchases increased as systemic liquidity easing operations were winding down, thus keeping bank reserves at high levels. Today, the Fed and the Bank of England are continuing to purchase public securities.

- *Purchase of private sector securities*—To support an adequate flow of credit to the economy, several central banks purchased private sector securities. These purchases also contributed to the expansion of bank reserves. The Fed's purchases are by far the largest; purchases by the Bank of England, ECB, and Bank of Japan have been more limited. These purchases have now slowed or ceased.

- *Foreign exchange liquidity provision*—Many advanced and emerging economy central banks established new swap facilities, mainly to alleviate severe foreign exchange liquidity shortages. The provision of foreign exchange liquidity seems to have ended, although many of the facilities remain in place.

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[12] See "Unconventional Choices for Unconventional Times Credit and Quantitative Easing in Advanced Economies" (Vladimir Klyuev, Phil De Imus, and Krishna Srinivasan, 2009, IMF Staff Position Note No. 2009/27); "Panacea, Curse, or Nonevent? Unconventional Monetary Policy in the United Kingdom" (André Meier, IMF Working Paper No. 09/163), and "Unconventional Central Bank Measures for Emerging Economies" (Kotaro Ishi, Mark R. Stone, and Etienne B. Yehoue, IMF Working Paper No. 09/226).

[13] Pre-crisis, most central banks implemented policy using a single short-term interest rate, and changes in the policy interest had a very limited impact on the balance sheet. During the crisis, central banks altered the size, composition and duration of their balance sheet for policy objectives; these measures are referred to here as balance sheet policies. They are also often referred to as "unconventional measures," examples of which include quantitative easing and credit easing. However, these terms have been subject to varying uses and interpretations, complicating cross-country comparisons.

26. **At some stage, monetary stimulus will need to be withdrawn.** Central banks have the tools needed to tighten policy, but the timing and extent of tightening will be difficult to determine. Monetary policy, as discussed earlier, is generally more nimble than fiscal policy, and thus could be adjusted faster as part of an appropriate overall macroeconomic policy mix.

27. **The key objective will be to maintain price stability.** However, where financial stability remains fragile, or key markets are not yet functioning, central banks may need to maintain crisis-intervention measures or possibly introduce new ones, even within the context of an overall tightening of the monetary policy stance. Such measures are themselves not without cost: supplanting financial markets by central bank balance sheet policies can generate lasting distortions, such as the loss of specially developed private sector market expertise. These measures should thus be unwound as soon as conditions permit.

28. **Monetary tightening will proceed at a different pace across countries.** The rolling back of liquidity providing measures is already underway. The Fed announced that it would let some of its special liquidity facilities expire early in 2010, and the ECB and Bank of Canada recently announced that they would shorten the maturity of liquidity providing operations. Nevertheless, liquidity levels remain very high in a few countries owing to central bank purchases of long-term securities. Central banks in major advanced economies can currently afford to maintain low interest rates for an extended period as underlying inflation is expected to remain low. Monetary tightening in some advanced economies, and in many emerging market economies, will probably need to begin sooner. Effective recapitalization of banks and reform of financial supervision and regulation can help ensure a more effective and reliable change in the stance of monetary policy.

Raising policy interest rates need not await the unwinding of balance sheet policies

29. **As noted, the sequence of monetary unwinding will depend not just on inflationary pressures, but also on financial sector and market conditions**. Several scenarios may be envisaged:

- *Restored financial markets*—This is the most benign scenario. In this case, central banks could absorb liquidity by first running down existing facilities and then using standard market-based operations.

- *Impaired financial markets*—Individual financial institutions may remain stressed and some financial markets much less active than before the crisis, even as economic recovery puts upward pressure on inflation. In this setting, it would be appropriate for central banks to continue to keep in place measures targeted at impaired markets and institutions, while raising interest rates. Further, some central banks might need to adjust their monetary operations framework together with raising the policy interest rate to limit money market volatility. Financial institutions that could be stressed by tighter monetary conditions will require targeted supervisory intervention, and might in some cases need to be restructured or resolved.

- *Overheating financial markets*—There are already signs in some countries that excess liquidity may be generating new asset price bubbles, while not significantly boosting domestic demand. Using interest rate policy to stem asset price bubbles is highly uncertain, and can stimulate destabilizing capital inflows. Here, there is a need for macroprudential measures aimed at limiting asset price increases and their consequences.

The salient point is that the financial and macroeconomic outlook remains highly uncertain. Thus, central bank policymaking must be as flexible and innovative during the exit as during the initial crisis response.

The unwinding of liquidity support should not pose major challenges

30. **Some liquidity facilities are unwinding on their own, and the central bank can further tighten the parameters of existing facilities, or introduce new liquidity-absorbing instruments**.[14] Access to existing facilities can be scaled back gradually. In doing so, it needs to be recognized that central bank dominance of money markets may be distorting price signals. The spread between LIBOR and overnight index swaps (OIS), which is the most commonly cited gauge of money market stress, may thus be misleading. Other indicators of money market stress, such as the willingness of banks to trade among themselves as access to central bank liquidity is tightened, will also need to be used.[15]

Unwinding public sector security purchases involves flow and stock decisions

31. **Ending purchases of public sector securities—the flow decision—might be taken as a signal that a robust economic recovery is under way**. This step should therefore be taken with some caution, and communications might emphasize flexibility in the face of changing market conditions. The sizable central bank purchases of public sector securities appear to have had mixed results, at best, in attaining a lasting reduction of longer-term rates. Since purchases of public securities are aimed at influencing overall credit conditions, the decision to slow or stop them must be based not just on market information on the securities themselves, but also on broader indicators such as lending surveys and the growth of credit to the non-financial private sector.

32. **Management of central banks' increased holdings of public securities—the stock decision—will be a long-run issue.** Large-scale sales could raise the yield curve and widen

[14] Central banks will want to restore much of the pre-crisis monetary operations framework, including using a single short-term interest rate. Some of the crisis measures may be worth retaining—such as the widening of counterparties—because they addressed structural, pre-crisis inefficiencies and are unlikely to exacerbate vulnerabilities in the future.

[15] The use of indicators for gauging the withdrawal of crisis-intervention measures is the subject of the background paper "The Role of Indicators in Guiding the Exit from Monetary and Financial Crisis Intervention Measures" (IMF, February 2010).

market spreads. Potential disruptions could be minimized by selling excess holdings on a regular pre-announced basis. Therefore, selling these securities can be expected to take place over the long-term. If sales risk disrupting the market and the central bank wants to absorb liquidity, these securities could be used as collateral for short-term liquidity absorbing instruments.

Private securities should normally be removed from central bank balance sheets

33. **Rolling back new purchases—the flow decision—can be based primarily on market indicators.** Credit spreads for the targeted markets, use of the facilities, and overall issuance volume (excluding central bank purchases) could be used to help guide when and how to stop purchases. The "flow" considerations are similar to those for public sector securities.

34. **Private securities purchases to boost credit activity should be taken off central bank balance sheets because this is a quasi-fiscal operation**. These securities expose the central bank to credit risks, and transfer resources to specific economic sectors or even individual counterparties. They are not liquidity management operations and can complicate ongoing monetary operations. In all events, the risks posed by central bank purchases of private securities should be borne by the government.

35. **Selling private securities will also need to take account of the state of the market. Again, if the central bank dominates the market, sales could be disruptive.** Market indicators to guide the selling strategy include price, volatility, and turnover.

Careful and consistent communication is essential

36. **During the unwinding, there will be an unusually high premium on effective and innovative policy communication.** The potential for confusion will be great. For example, reducing liquidity support for specific markets may give the erroneous impression that monetary policy is being tightened. Conversely, raising policy interest rates could lead to a questioning of the commitment to maintaining support for stressed markets. Central banks will need to lay out a general strategy to remove crisis measures and carefully explain the significance of different actions. They might also aim at a more internationally comparable terminology, while still taking account of national differences in policies and their implementation.

37. **In light of the high degree of uncertainty, it may be prudent to avoid excessive precision in spelling out in advance the detailed steps to be taken**. Indeed, there are tradeoffs between the benefits of discussing specifics and the costs of having to depart from commitments in the face of unforeseen events. Consistency of messages across different government entities, as well as across countries, will help guide markets and the public.

Ensuring that unwinding does not compromise central bank independence

38. **Governments should design the unwinding strategy so as to assure the independence of central banks**. The large and protracted increase in public debt in many countries might eventually lead to pressure on some central banks to relax their commitment to price stability.

Governments may also be tempted to pressure central banks to maintain or expand market support measures taken during the crisis. To avoid a return to damaging high inflation and preserve policy credibility, all the key dimensions of central bank independence—institutional, operational, and financial—need to be respected and reinforced where necessary. Government support of central bank independence and price stability through the appropriate statements and actions will also be important, including the restructuring of central bank balance sheets, when necessary.

V. Exiting from Financial Sector Intervention

Unwinding the vast web of domestic and international support should be done gradually and cautiously:

- *Exiting from financial crisis intervention measures will require flexibility and judgment, depending on the financial strength of each country, and thus may lag the rolling back of other measures.*
- *Unwinding can be facilitated by incentives that make facilities less attractive as conditions improve and by the judicious use of termination dates.*
- *A new financial regulatory framework and more capital will be needed to reduce the risks ensuing from the unwinding of crisis financial policies.*
- *International consistency is especially important for the unwinding of financial measures, especially among economies with strong financial linkages.*

39. **The wide range of financial sector crisis intervention measures were aimed at the dual objectives of restoring creditor confidence and restructuring the banking system**.[16] Crisis-containment measures were immediately announced and were largely successful. These encompassed depositor protection, capital support, debt and asset guarantee programs, and programs to purchase impaired assets. Bank restructuring, liquid asset guarantees and impaired asset purchases were slower to take shape and were mostly not in place until mid-2009.

40. **The pace of introduction of new measures has slowed, exit strategies are starting to emerge, and some programs are being wound down** (Appendix). In general, deposit insurance schemes have not undergone any significant modifications since their expansion at the beginning of the crisis and many are slated to expire over the next three years. The number of new bank capital support plans is diminishing and the size of support programs has stabilized. The announcement of wholesale guarantees peaked at the end of 2008 and early 2009 and, in many countries, they are expected to expire in 2009 and 2010 (Table 2).

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[16] These measures are described in *Updated Stocktaking of the G-20 Responses to the Global Crisis: A Review of Publicly Announced Programs for the Banking System,* prepared by MCM for the September 3-4, 2009 G-20 Meeting for Ministers and Deputies (http://www.financialstabilityboard.org/publications/r_091107b.pdf).

The overall strategy

41. **Effective unwinding of the vast web of financial support measures will require flexibility and judgment to preserve market confidence**. For example, unwinding from support policies, including lowering coverage on deposit insurance, could take place over the long term and should only be done when financial stability is secured.

42. **The design of preannounced timetables for withdrawal requires special care.** The lifting or removal of the support mechanism should be designed to maintain gains already achieved and should be viewed as a non-event. In particular, debt guarantees should be phased out using a hierarchy approach. Removing guarantees for sophisticated creditors first would be sensible and when that produces successful results, the removal of guarantees on the next level of creditor can follow.

Table 2. Expiration of Financial Crisis Programs for Banks 1/

	Expired	Expected to Expire				
	2009	2010	2011	2012	2013	2014
Overall	**23**	**31**	**6**	**1**	**2**	**…**
Debt Guarantee Programs	13	21	6	1	2	…
Deposit Insurance	2	4	6	1	2	…
Debt/Interbank Lending	11	17	…	…	…	…
Recapitalization	8	7	…	…	…	…
Asset Management/Guarantee	2	3	…	1	…	1

Source: Monetary and Capital Markets Department.
1/ Based on data for 60 countries, 29 of which have measures reported in the table; most of these countries have more than one measure in place. Measures that have been extended but for which there is no announced expiration date are excluded.

43. **More work needs to be done to ensure a safer financial system ahead of the full exiting from crisis financial measures and allow a shift from system-wide to institution-specific measures**. This would require substantial progress in the ongoing efforts to update and improve financial regulatory and supervisory frameworks. In the meantime, supervision needs to prevent a resumption of the risky activities of the kind that led to the crisis, and to counter increased moral hazard arising from crisis policies. Banks and other financial institutions need to hold sufficient capital buffers to help entrench financial stability. Even with progress in these areas, measures targeted at the weakest institutions may be necessary to prevent them from causing wider stress if they are impacted by the unwinding of system-wide financial measures.

44. **A consistent international approach to unwinding will be essential to contain the risk of destabilizing spillover effects.** For economies with closely linked financial markets, the uncoordinated withdrawal of financial guarantees or tightening of regulations could trigger sharp movements in international financial flows with the potential to disrupt recovery and undermine credibility. These risks are especially important for those countries that are unwinding ahead of their neighbors. Early movers should seek to ensure that their systems are sufficiently robust to withstand possible outflows arising from the lifting of support policies.

Flexible timing is especially important in winding down depositor protection

45. **Early on in the crisis, most countries increased deposit coverage while others introduced full depositor guarantees**.[17] Countries differed in the form of the protection and range of deposits included in enhanced coverage.

46. **Countries with preannounced termination dates will need to monitor carefully progress in the wide range of restructuring policies and stand ready to alter the dates**. Most deposit protection enhancements are permanent. Expiration dates have been announced by all but six of the 26 countries that adopted either temporary depositor guarantees or temporary increases in deposit insurance coverage levels. Should delays or unexpected developments undermine depositor confidence, the authorities should stand ready to halt plans for rolling back such protection or, if warranted, return to high levels of depositor protection policies beyond the initial termination dates.

Built-in incentives facilitate the unwinding of wholesale debt guarantees

47. **Debt guarantees represented the largest portion of stabilization programs of the G-20 countries.** Such guarantees reduced concerns about counterparty risk and thus restored access to market financing. The largest use of such programs was made by financial institutions in France, Germany, the Netherlands, the United Kingdom, and the United States. As a result, institutions were able to maintain stable liquidity positions.

48. **The design of wholesale debt guarantees should include incentives for institutions to gradually shift back to market funding**. This can be done by gradually reducing the level of coverage. Alternatively, the fee structure can increase the cost of relying on the guarantee over time. The restoration of bank access to funding markets (without guarantees) is an important criterion for determining the unwinding timetable for wholesale debt guarantees.

49. **The rolling back of wholesale guarantees should be done in a manner consistent with central bank liquidity support.** Weaker banks may require support for a longer time, and possibly require a more extensive intervention plan, possibly including liquidation or sale of parts of the bank. Resolving these weaker banks would then allow termination of the system-wide guarantee scheme.

Divestment of financial institutions must weigh financial stability and restoring market forces

50. **The timing of government divestment must balance holding on long enough to ensure the stability of the institution against selling early to restore markets.** The viability of the intervened financial institutions must be deemed robust enough such that divestment would not undermine financial stability. This requires operational restructuring of the institution, which

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[17] See Report to the Financial Stability Board on *"Unwinding Temporary Deposit Insurance Arrangements,"* September 2009 prepared by MCM and the International Association of Deposit Insurers (http://www.financialstabilityboard.org/publications/r_091107b.pdf).

can take time to complete. In the meantime, state-owned financial institutions may be relatively inefficient, and government ownership of them may limit competition or crowd out financial markets.

51. **Pre-announced deadlines should be avoided**. They tilt negotiation leverage to the favor of private investors who can benefit from knowing the date by which the government is committed to sell the institution. Nevertheless, the divestment strategy could include an indicative timetable for divestment, or, if more appropriate, specify triggers for beginning the divestment process.

Exiting from asset management arrangements may lag that of other measures

52. **In many cases, the modalities of crisis intervention asset management have yet to be settled.** Proper management of intervened assets prevents asset stripping and reduce losses. While many jurisdictions have guaranteed distressed assets, only a few have programs to actively manage them. The Public-Private Investment Program of the United States was redesigned to separate receivership assets (legacy loan program) from impaired securities (legacy securities program). A similar program in Korea has been established, but has not yet been made operational. Some assets, particularly complex structured products, may be difficult to resolve and may remain on the banks' books for a considerable period, undermining bank profitability.

53. **Asset management modalities should be decided upon and operationalized as soon as possible.** Distressed assets may be: managed directly by banks; sold to a specialized subsidiary (so-called bad bank); or sold to an asset management company (AMC).

54. **The timing of asset sales depends not just on the performance of the intervened assets but also on market conditions**. Specific programs for managing distressed assets should be removed as their usefulness is reduced. The timing of unwinding should be based not only on the return to profitability of banks, but should also take into account market conditions. Even if bank restructuring is successful, the market may still not be able to absorb the reprivatized assets. Governments will have to decide when the marginal cost of maintaining an AMC rises above the marginal revenues from remaining asset sales.

55. **Some elements of crisis asset management frameworks may warrant retention.** Enhanced bank resolution techniques such as bridge banks and or authorizations for AMCs should remain as part of the legal framework for problem bank resolution. Such tools may not be used in all cases but could prove efficient under given circumstances.

VI. International Linkages and the Role of the Fund

- *The credibility and international consistency of unwinding would benefit from the exchange of information, consultation, and transparency.*

- *Synchronization of unwinding across countries may be feasible and desirable for a few—but not for all—policies. Specific financial and monetary measures have important cross-border spillovers and asynchronous withdrawal could give rise to inconsistencies.*

- *The Fund will monitor and facilitate the exiting process through its surveillance mechanisms and additional comparison and analysis of policies.*

56. **Considerable difference in domestic economic conditions and prospects imply that countries will need to be on different unwinding paths**. Policy responses to the emerging crisis were often synchronous, which greatly contributed to diminishing uncertainty and calming markets. By now, however, clear differences have emerged in the pace of economic recovery and thus in policy responses. Longer-term considerations also differ, especially with respect to fiscal positions. Policymakers will need to unwind policies as best suits the states of their economies, which for closely-linked economies could mean some degree of coordination. However, a simultaneous unwinding of macroeconomic stimulus by countries accounting for a large share of the world economy could reduce external demand and slow global recovery, with adverse effects beyond the countries directly impacted by the crisis.

57. **Although domestic considerations are likely to be the main determinant of exit policy choices, these also generate important international spillovers.** Transmission channels include the effects on external demand and financial stability, and arbitrage-driven capital flows and asset price developments. Changes in the monetary and fiscal stance have an impact on demand not only at home, but also for trading partners. Failure to ensure fiscal sustainability, particularly in the largest economies, could have adverse implications for global interest rates and inflation expectations.

58. **The potential for spillovers from exit policy choices highlights the importance of international consistency—though not necessarily synchronicity—in this regard.** While the timing of exit should not be the same for all countries, but should rather be determined by country-specific circumstances, there is a case for a set of broad principles underlying exit policy choices, which would foster international consistency and help reduce the risk of adverse international spillovers.

59. **In this light, there are clear benefits from transparency, disclosure, and consultation in the area of exit strategies and implementation.** International spillovers can be addressed in a variety of ways, beginning with transparency and the exchange of information and ending with the formal coordination of policies, and anything in between. A process of regular exchange of information about national unwinding plans, and steps to raise awareness of potential spillovers, would greatly enhance the credibility and international consistency of unwinding.

60. **There are also benefits to ensuring consistency in the withdrawal of specific financial and monetary and other measures.** In particular, an uncoordinated withdrawal of deposit protection, other bank guarantees, and special liquidity facilities could have unintended consequences, especially for closely linked economies with open capital accounts. Similarly,

international coordination of changes in financial regulations is necessary to maintain open markets and a level playing field, and to avoid regulatory and other types of arbitrage. In the area of taxation, tax increases will be more effective if designed in cooperation with other countries.

61. **The accommodative monetary stance of advanced countries can generate unwanted levels of capital flows into economies with higher yields**. Depending on the problems at hand and local circumstances, such inflows may be addressed through a mix of the following policies:[18]

- Allowing for more flexible exchange rates could play a valuable role. Stronger currencies in economies with large surpluses could facilitate the needed shift in productive resources from tradable to nontradable sectors, while depreciations in deficit economies would assist the adjustment away from overstretched domestic demand. However, very rapid exchange rate appreciation can stress the tradable sector, both in the short-run by altering the terms of trade, and in the long through adverse hysteresis effects.

- Sterilized interventions may limit exchange rate appreciations temporarily, but they bring potentially large quasi-fiscal costs, and, moreover, may actually promote inflows by raising expectations of large future appreciations.

- Implementing new or tightening existing prudential measures could help address financial system stress resulting from capital flows.

- Finally, applying direct controls over capital flows (whether inflows or outflows) may reduce gains to carry-type trades. Effectiveness, however, may be temporary.

62. **In view of the potential for cross-border spillovers during the exit from exceptional policy measures, the Fund will closely monitor the unwinding process as part of its surveillance mandate**. Bilateral surveillance in the context of regular Article IV consultations will be a cornerstone of these monitoring efforts, and existing multilateral surveillance vehicles such as the World Economic Outlook and the Global Financial Stability Report will provide an additional analytical perspective. Cross-country fiscal developments will be closely followed also through the recently introduced Cross-Country Fiscal Monitor. The focus will be not only on the conjunctural aspects of policy unwinding, but also on the progress towards implementing medium-term adjustment strategies, particularly in the fiscal area. This will complement other ongoing work on the medium-term consistency of policies among the largest economies. To support these activities, staff are maintaining cross-country data collections on the unwinding of policy measures, which will also support the identification of possible spillovers and inconsistencies among policies.

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[18] IMF Staff Position Note SPN/10/04 "Capital Inflows: The Role of Controls", by J. D. Ostry, A. R. Ghosh, K. Habermeier, M. Chamon, M.S. Qureshi, and D.B.S. Reinhardt, February 2010.

VII. Summary of Exit Principles

63. **A set of broad principles based on the analysis of this paper has been put forward to help inform policymakers (Table 3).** The principles are also intended to help guide staff analysis and advice relating to unwinding strategies in the context of both bilateral and multilateral surveillance.

64. **In the fiscal area, in addition to underscoring the need to design and communicate now an appropriate fiscal adjustment strategy, the principles indicate key elements of that strategy and of its implementation tools**. Of particular importance, and in line with the earlier discussion, is the need for: (i) clarity on the fact that the objective of the strategy should be, for most countries, the reduction of government debt ratios below pre-crisis levels, not just their stabilization at the post-crisis level; (ii) focusing on comprehensive fiscal aggregates; (iii) strengthening fiscal institutions; (iv) spending and revenue reforms that go well beyond containing the rise in health and pension spending: entitlement reform is a necessary condition but not a sufficient one; (v) proper asset/liability management, including by exploiting all room for privatization; (vi) adequate social safety nets; and (vii) implementing now measures that are unlikely to have a negative impact on demand, such as strengthening of fiscal institutions and entitlement reforms with long term fiscal effects.

65. **Exiting from the wide range of, in many cases, unprecedented monetary measures should be tractable but poses some challenges.** Central banks have available the tools to unwind the crisis-intervention measures, including balance sheet policies. However, the crisis-intervention measures have varied considerably across countries and their unwinding can be expected to differ as well. Raising policy interest rates does not require the unwinding of crisis measures as a precondition, but in some cases tightening should be complemented by parallel supporting policies. Central bank independence needs to be carefully maintained as crisis measures are unwound to support price stability in the long run.

66. **Unwinding the vast web of domestic and international crisis financial measures should be done gradually and cautiously and may take a considerable period of time**. Flexibility and judgment, including on the financial strength of each country, will be required. Unwinding can be facilitated by incentives that make facilities less attractive as conditions improve and by the judicious use of termination dates. A new financial regulatory framework and more capital will be needed to reduce the risks ensuing from the unwinding of crisis financial policies.

Exiting from crisis intervention measures could have important spillover effects across countries. Policy coordination—in particular, cross-country consultation on macroeconomic policies and harmonization of some types of financial and monetary support—can lead to better outcomes. For economies with strong financial linkages, a consistent approach to unwinding will be essential to contain the potential for destabilizing spillover effects. The Fund can play a key role in avoiding inconsistencies and reducing uncertainty through its surveillance mechanisms and additional monitoring of the unwinding process.

Table 3. Principles for Exiting from Crisis-Response Measures

1. The appropriate time for exiting crisis-related stimulus measures will depend on country-specific macroeconomic and financial system conditions. Strategies should be flexible enough to respond to changing conditions. Communicating strategies and their contingencies will help anchor market expectations, and help coordination across policy areas.	
1.1 Unwinding—and, more generally, adjustment—in the fiscal, monetary, and financial areas will occur in response to different indicators, but policymakers should take into account developments in the various policy areas.	The large size of fiscal adjustment needed in most countries suggests that measures to restore fiscal sustainability are a key priority. The stance of monetary policy, which is more nimble and can respond more flexibly to evolving macroeconomic conditions, should be tightened when inflationary pressures emerge. The unwinding of financial measures should, in most cases, be gradual and measured.
2. The design and communication of a comprehensive, credible, and transparent strategy for fiscal adjustment is an immediate priority. It will build public awareness and reassure markets, thus reducing the likelihood of increased interest costs and associated snowballing effects. Strengthening fiscal frameworks should begin immediately.	
2.1 Design fiscal adjustment with the goal of reducing the gross government debt-to-GDP ratio to prudent levels within a pre-defined timeframe, and taking into account longer -term spending pressures.	Stabilizing debt ratios at their post-crisis levels would, in many cases, impede fiscal flexibility, raise interest rates, and hurt potential growth. For advanced economies, targeting debt ratios below pre-crisis levels is desirable. Emerging economies should aim at lower debt ratios, given lesser market tolerance for high debt.
2.2. Focus on comprehensive fiscal aggregates.	At a minimum, the general government should be targeted: deficits and debts of subnational government levels have the same macroeconomic effects as those of central governments. Targets need to take into account the government's full asset and liability position, including holdings of financial assets, off-balance sheet operations, and contingent liabilities.
2.3 Strengthen fiscal frameworks and institutions to support the adjustment.	This could include reforms in budgetary processes; more frequent and comprehensive reporting requirements; medium-term fiscal frameworks, centered, as needed, on formal fiscal rules.

3. Undertake sustained improvements in fiscal primary balances as the key driving force of adjustment. The size and composition of the adjustment will depend on country specific circumstances, including initial debt levels and the size of the public sector. Measures not likely to affect demand in the short-term, including in the entitlement reform area, should be implemented soon.	
3.1 Ensure that the fiscal stimulus measures provided during the crisis remain temporary.	An early stage of the fiscal adjustment would involve unwinding such measures as the economy recovers. This said, further adjustment will be needed to assure fiscal sustainability.
3.2 Focus fiscal adjustment on medium-term reforms:	
○ *Reforms of pension and health entitlements.*	In aging economies, major action is needed to avoid a rise in entitlements spending as a share of GDP. Measures that do not have an adverse impact on demand (e.g., retirement age increases) should be implemented soon; other measures should be phased in over time.
○ *Containment of other spending.*	A possible goal is to maintain real primary spending constant in per capita terms—through reforms such as better expenditure prioritization and value for money, and elimination of energy subsidies.
○ *Broadening of tax bases, improvements in compliance, and strengthening of tax instruments conducive to sustainable growth.*	Reducing or eliminating special treatments, and combating evasion and avoidance, is less distortionary than raising statutory tax rates. Where tax hikes are necessary, externality-reducing taxation (e.g., carbon taxation) is a priority.
○ *Privatization*	A well-designed program to divest government assets would not only help to reduce the size of the government in the economy, but lower government debt at a faster pace.
3.3 Protect the poor and the unemployed.	An important goal in itself. Also, adjustment is more likely to be sustained if it is mindful of political economy constraints.
4. Central banks can utilize the tools available to unwind crisis-intervention measures, although their methods and challenges will vary considerably.	

4.1 Complete the unwinding of liquidity support.	Central banks can further tighten the parameters of existing facilities, or introduce new liquidity-absorbing instruments.
4.2 Terminate the purchases of long-term public sector securities gradually and selling these holdings over the long run.	Ending purchases of public sector securities could be taken as a signal that the conditions have improved considerably. Selling the stock of public securities will need to be done in a way that minimizes disruptions.
4.3 Wind down the purchases of private securities as market conditions improve and remove the risks that they pose from central bank balance sheets.	Private securities expose the central bank to credit risks and can complicate monetary operations.
5. Policy interest rates can be raised without the full unwinding of balance sheet policies.	
5.1 Implement parallel measures when increasing interest rates in line with market conditions.	If markets remain impaired, make any needed adjustments to the monetary framework, and address any banks that could be stressed by the increase in interest rates. Conversely, if financial markets are overheating, macroprudential measures can be utilized.
6. *Central bank independence needs to be carefully maintained as crisis measures are unwound to support price stability in the long run.*	
6.1 Design the unwinding strategy to ensure that all the key dimensions of central bank independence are respected and reinforced where necessary.	The institutional, operational, and financial aspects of central bank autonomy need to be preserved, and their balance sheets restructured when warranted.
7. Unwinding financial crisis intervention measures should be done gradually and flexibly in a way that maintains confidence.	
7.1 Design measures to be unwound gradually and in line with market incentives.	Use built-in incentives that make facilities less attractive as conditions improve as well as termination dates.
7.2 Communication of the withdrawal of measures should be undertaken carefully and gradually to maintain private confidence.	The removal of support should be viewed as a non-event; announcing timetables prematurely could unsettle private confidence.
8. Establishing a safer financial system will help ensure successful unwinding.	
8.1 Update financial regulation and supervision.	Continue progress toward reform of regulatory and financial systems.

8.2 Ensure sufficient capital and liquidity positions of financial institutions.	Maintain close monitoring and supervision to ensure proper risk management and avoid moral hazard.
9. *Making unwinding policies consistent, together with communication and consideration of spillovers, will improve outcomes for all countries.*	
9.1 There will be clear gains from disclosure and consultation.	This will allow policy inconsistencies to be identified, potential spillover effects to be anticipated, and uncertainty about unwinding strategies reduced.
9.2 Some specific stabilization measures should be harmonized and their unwinding coordinated.	This applies to withdrawal of deposit protection and other bank guarantees. Similarly, international coordination of changes in financial regulation is necessary to maintain a level playing field. In the area of taxation, tax hikes will be more effective if designed in cooperation with other countries.

APPENDIX I. STATUS OF EXITING FROM CRISIS-INTERVENTION MEASURES

67. **The pace and form of exiting from crisis-intervention policies is differing substantially across countries and varies across policy areas**. Substantial fiscal stimulus across major economies was introduced in 2009 (2 percentage points of GDP across G-20 economies) and is expected to be largely maintained (vis-à-vis 2008) in 2010 (Appendix I, Figure 5). Implementation has been more rapid for revenue measures and social transfers, whereas infrastructure investment is being implemented with longer lags. The majority of G20 central banks are maintaining loose monetary policy stances (Appendix I, Figure 6 heat map). Their withdrawal of crisis-intervention measures, especially balance sheet policies, has been uneven, in line with the different paces of economic recovery and financial market impairment. The unwinding of financial sector measures is naturally taking place at a gradual pace (Appendix I, Figure 6 heat map).

A. Fiscal Policy[19]

Advanced economies

68. **For most advanced economies, including the very largest ones, fiscal stimulus vis-à-vis 2008 levels will be broadly maintained in 2010**. Among G-20 advanced economies, only Canada and France are expected to start a significant adjustment—on the order of ½ and 1 percentage point of GDP in 2010, respectively, in terms of their structural balance. Larger reversal of stimulus is expected in Spain, and especially in Iceland and Ireland, but from very high structural deficit levels in 2009.

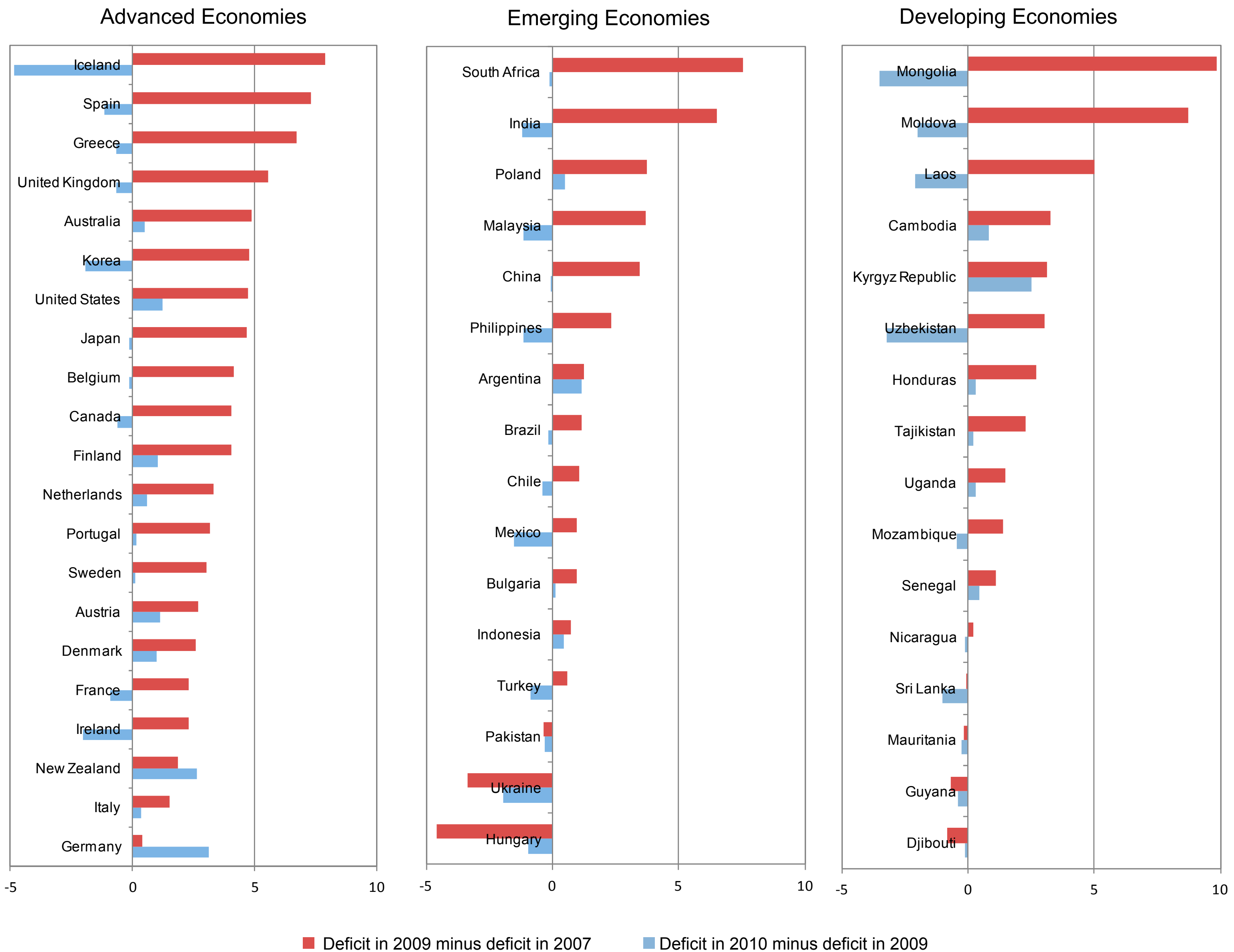
69. **Few G-20 advanced economies have so far developed full-fledged medium-term fiscal adjustment strategies, although some have announced medium-term targets or have extended the horizon of their fiscal projections**. A notable development is the adoption by Germany's parliament, in June 2009, of a new constitutional fiscal rule for both federal and state governments that envisages a gradual move to (close to) structural balance from 2011. The rule requires the federal government's structural deficit not to exceed 0.35 percent of GDP from 2016. States are required to run structurally balanced budgets from 2020.

Emerging Market Economies

70. **Although the stimulus will be maintained in a majority of emerging market economies, several in this group are considering, or have already committed to, reducing their structural deficits in 2010 compared with 2009**. Examples include: India, Mexico, the Philippines, Turkey, and Vietnam. In some instances, this reflects more rapid recovery from the crisis; more often, this reflects efforts to sustain sovereign risk ratings or, in rare cases, to avoid vulnerabilities.

[19] Further detail is provided in "The State of Public Finances: Cross-Country Fiscal Monitor" (IMF Staff Position Note SPN/09/21) and IMF Staff Position Note SPN/09/25.

Appendix Figure 5. Fiscal Impulse, Selected Countries 2007–2010 1/
(In Percent of GDP)

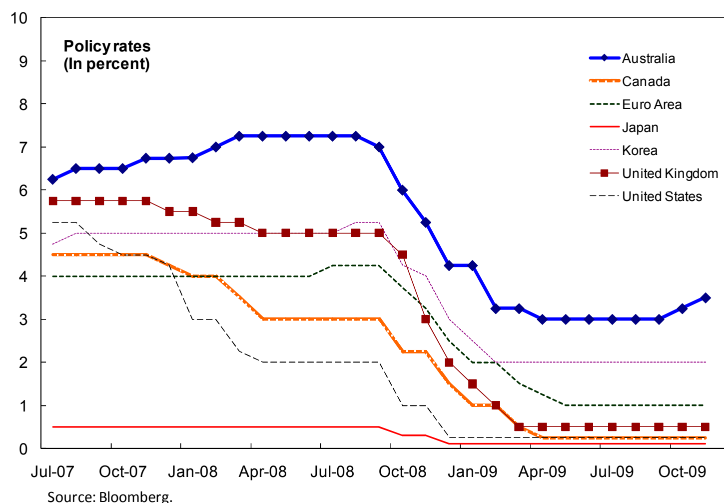


Sources: IMF, World Economic Outlook, January 2010, where available; otherwise October 2009; and Fund staff estimates.
1/ Fiscal impulse (increase in general government structural primary deficit) for advanced economies and emerging market economies. Fiscal expansion (increase in overall general government deficit) for developing economies. Large oil exporters, such as Nigeria, Norway, Russia, and Saudi Arabia, are excluded from this analysis because of large fluctuations in oil revenue. For the United States, the structural primary balance excludes losses from financial sector support. Data for Greece correspond to the October 2009 WEO and therefore do not yet contain any measures included in the authorities' 2010 Stability and Growth Program.

B. Monetary Policy

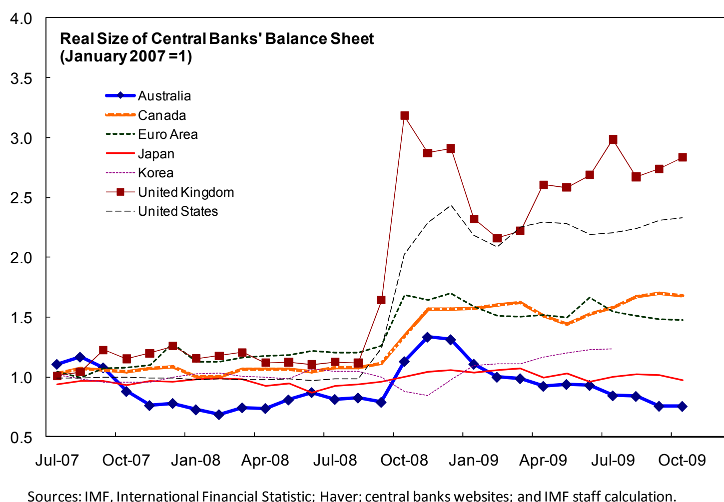
Advanced economies

71. **The majority of advanced economies are maintaining exceptionally loose monetary policy stances.** Australia has thus far been the only G20 economy that exited from loose monetary policy stance. All other advanced-economies have held their policy rates at unusually low levels: in particular, policy rates in Canada, Japan, United Kingdom, and United States have been kept on hold at a near zero bound. On crisis intervention measures, some central banks began to unwind them, albeit slowly and cautiously, while some others terminated existing intervention measures—which were initially introduced to address liquidity stress—but introduced new ones to address new emerging risks (such as deflation).



Source: Bloomberg.

72. **The size of several central banks' balance sheet remains at elevated levels.** In particular, the balance sheets of the Bank of Canada, the Bank of England, the European Central Bank, and the Federal Reserve have expanded sharply and stayed at well-above pre-crisis periods. This reflects their sizable crisis-intervention measures that these central banks continue to operate.



Sources: IMF, International Financial Statistic; Haver; central banks websites; and IMF staff calculation.

73. **Some central bank crisis-intervention facilities have been terminated.** For example, the Bank of Canada has reduced the longest maturity of its term operations from 9 to 6 months and discontinued the use of private sector securities for its term repo facility. The Federal Reserve completed its $300 million treasury securities purchase program in October 2009, while it suspended or abolished some of its credit and liquidity programs as

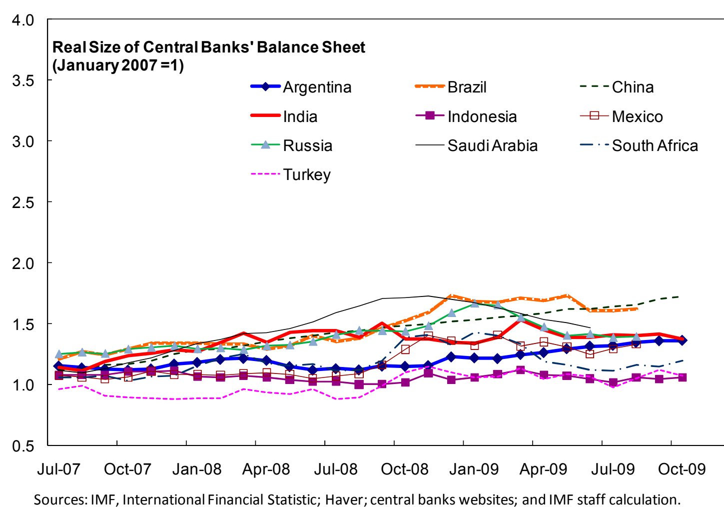
demand for them diminished.[20] Meanwhile, the European Central Bank started to wind down its non-standard operations (e.g., 12-month long-term refinancing operations). The Bank of Japan announced the expiration of special facilities to support corporate financing and private security markets by the end of March 2010 as the risks of liquidity crunch had waned.

74. **A few central banks have announced their explicit commitment to the scheduled withdrawals of intervention-measures.** The Federal Reserve has announced that it would tighten the terms on the standing facility by reducing the maximum maturity of the primary credit facility from 90 days to 28 days effective January 2010 (prior to the crisis, the term was overnight) and let its special liquidity facilities (such as the Primary Dealer Credit Facility) expire on February 1, 2010. The European Central Bank has also announced that it would tighten collateral eligibility criteria for asset-backed securities **by March 2010.**

75. **Meanwhile, a few central banks recently introduced new measures or modified existing ones in response to new developments.** The Bank of Japan introduced a new term facility to lower longer-term money market rates, in response to a fragile economic recovery and foreign exchange market instability. The Bank of England raised the size of its asset purchase program by £25 billion to £200 billion in November 2009 due to persistent resource under-utilization.

Emerging market economies

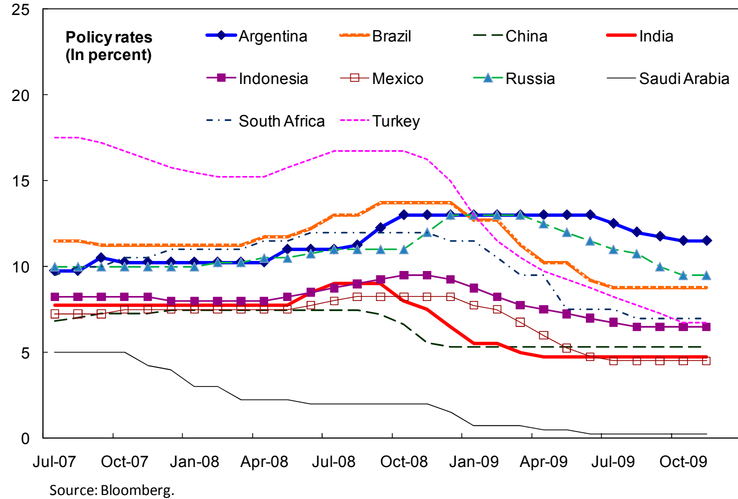
76. **Emerging economies have fewer crisis-intervention measures to unwind and they have faced a shifting set of monetary policy challenges.** They implemented a more limited set of measures compared to the advanced economies, reflecting generally less stressed domestic markets, and largely focused on foreign exchange easing that would unwind naturally as global liquidity conditions improve. As a result, balance sheet expansion has been smaller. In addition, while many emerging economies maintain loose monetary policy stances today, the monetary policy cycle differs, reflecting different paces of economic recovery, and in some cases, a resurgence of capital inflows.



Sources: IMF, International Financial Statistic; Haver; central banks websites; and IMF staff calculation.

[20] Nevertheless, the balance sheet of the Federal Reserve remains large because the impact of the withdrawals of these measures has largely been offset by its increased purchase of agency and mortgage backed securities.

- *The majority of central banks in emerging economies have kept their policy rates on hold at low levels.* However, market analysts expect that the monetary easing cycle may soon end in the Asian region, reflecting the prospects for a strong economic recovery and an acceleration of capital inflows. By contrast, a dollar peg country (e.g., Saudi Arabia) is expected to maintain an exceptionally low interest rate until the United States tightens its policy rate.

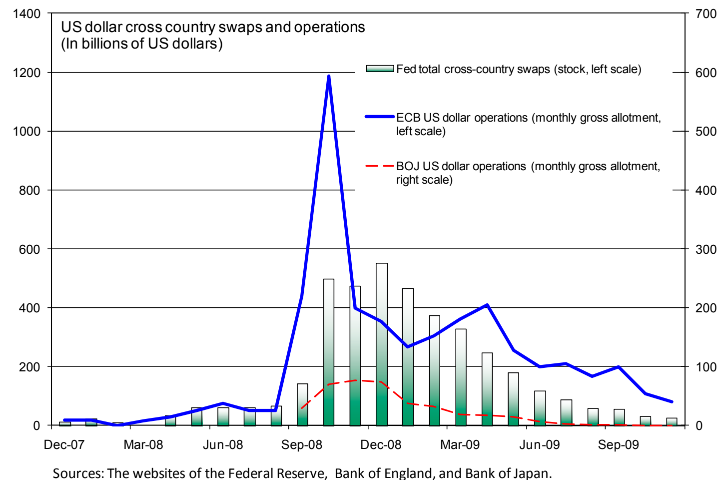


Source: Bloomberg.

- *Most emerging economy central banks are well on their way to unwinding their crisis intervention measures.* For example, increasing capital inflows have tightened dollar liquidity conditions, rendering foreign exchange liquidity easing measures no longer necessary (e.g., Brazil). Strengthening domestic economic conditions have led the Reserve Bank of India and Bank Indonesia to tighten domestic liquidity instruments such as statutory liquidity and reserve requirement ratios.

Cross central bank swap arrangements

77. **Swap arrangements are now largely inactive, and many are scheduled to be terminated.** The outstanding stock of the Fed's cross-central bank dollar swap lines drawn by foreign central banks (but not yet repaid) amounted to $33 billion at the end of October 2009, compared to $582 billion in December 2008 at its peak. The Federal Reserve indicated that these swap lines are scheduled to expire on February 1, 2010.



Sources: The websites of the Federal Reserve, Bank of England, and Bank of Japan.

C. Financial Policies

Advanced economies

78. **Announced support to financial institutions has been extended mostly via explicit guarantees** (Appendix Table 1). Wholesale debt guarantees were introduced in the early phases of the crisis to reduce concerns about counterparty risk and ease access to market financing. The peaks in their usage (monthly issuance of about 0.7 percent of GDP on average) occurred during the first quarter of 2009; financial institutions in some countries (Australia and Ireland) raised guaranteed debts well beyond 1 percent of GDP per month. Use of the guarantees has slowed down as market access has improved, which manifests their effectiveness in reducing risks and reassuring creditors of the government's commitment to support the financial system. Going forward, wholesale guarantee schemes are therefore unlikely to be extended and will be closed down in several countries, although previously guaranteed debt will remain a sovereign contingent liability until maturity.

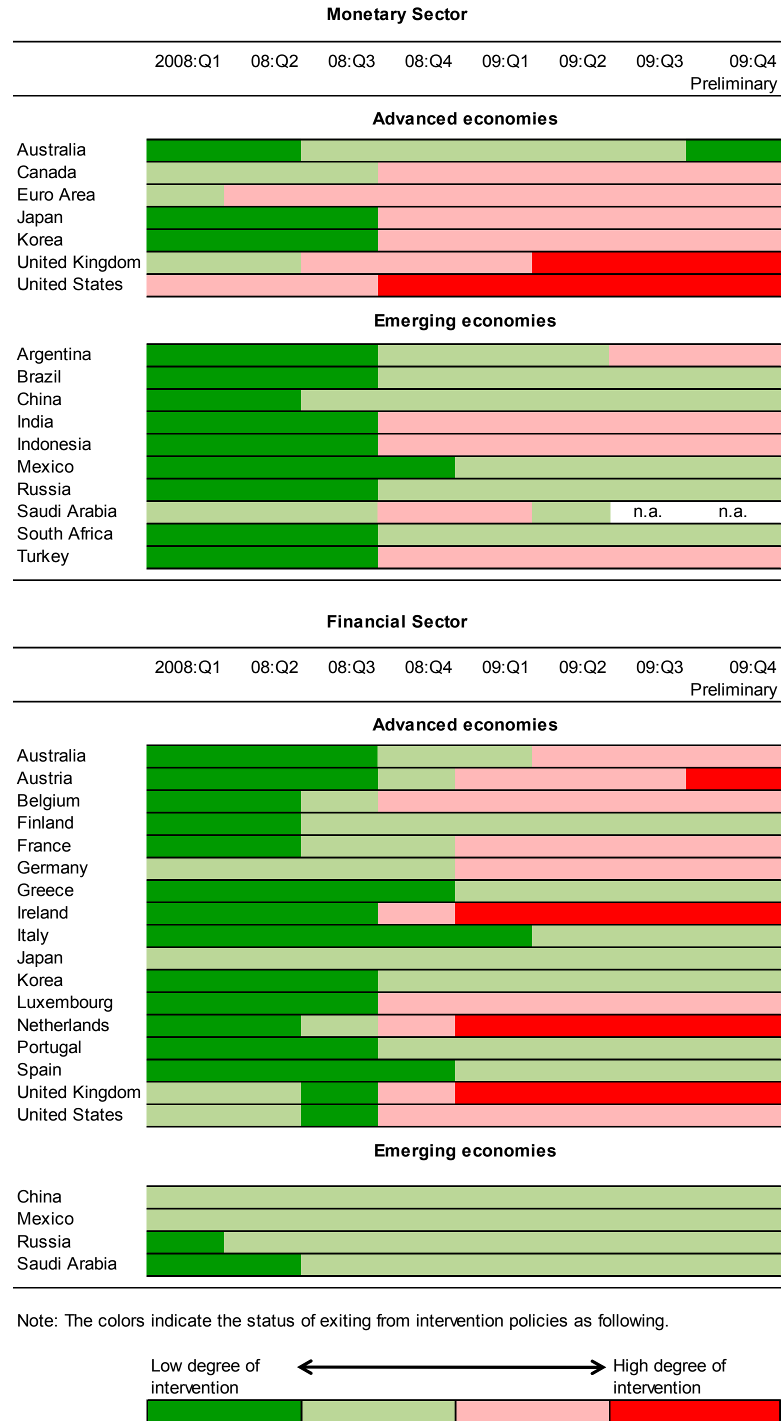
79. **Deposit insurance schemes have not undergone any significant modifications since their expansion at the beginning of the crisis**. The average duration of schemes is about three years. Since June 2009, New Zealand and the United States (for transaction accounts) adopted changes and extensions to their programs, including a rise in participation fees to better reflect market prices and risks.

80. **Capital support has been widespread but smaller in size and has slowed down in recent months**. Actual recapitalizations in G20 economies averaged about 0.6 percent of GDP in April 2009—as high as 5 percent of GDP in some Euro economies—but have since slowed down. This reflects the stabilization of the financial system and divestments in the United States and France, where banks made repurchases. Outlays have thus remained less than half of the pledged amounts for capital injections. Nonetheless, the reduction in outlays may not be sustained, given indications of further write-down and still increasing non-performing loans, which would require greater fund raising needs that may not be absorbed by the market.

Emerging market economies

81. **Financial sector support measures in emerging economies have been few, and the usage remains less than pledged amount**. Debt guarantees remain largely underutilized. However, recapitalization of banks is likely to continue, especially in Russia. In India, recapitalization of state owned banks is expected to increase with the World Bank's approval of a $2 billion loan for recapitalization in September 2009.

Appendix Figure 6. Heat Maps: Status of Exiting From Crisis Intervention Policies[21]



Source: IMF staff estimates.

[21] The heat maps are designed to show the extent of the use of the most important crisis-intervention measures. The maps are constructed based on: (i) for the monetary sector, policy rates, the size of central bank balance sheets, and the number of crisis-intervention measures; and (ii) for the financial sector, the size of recapitalization and the size of the issuance of government-guaranteed debts by financial institutions. The sample is G20 economies. However, for the financial sector heat map, some economies are omitted owing to the absence of recapitalization or debt-guarantee measures, or data availability constraints. Information for the fourth quarter of 2009 is preliminary.

Appendix Table 4. Financial Sector Support: Announcements and Actual Use (As of August 2009)

Country	Recapitalization		Asset Swaps/Purchases		Guarantees	
	Amount announced	Amount used	Amount announced	Amount used	Amount announced	Amount used
			(In percent of 2008 GDP)			
Australia	…	…	0.7	0.5	…	9.0
Austria	5.3	1.8	…	…	26.6	6.9
Belgium	4.8	4.8	…	…	26.4	26.4
Canada	…	…	9.2	4.9	13.5	0.0
Denmark	6.1	…	…	…	34.6	0.0
France	1.4	0.8	…	…	16.4	6.0
Germany	3.8	…	0.4	…	17.0	4.6
Greece	2.1	1.6	…	…	6.2	1.2
Ireland	5.9	5.4	48.5	…	198.1	…
Italy	0.8	0.1	…	…	…	…
Japan	2.4	0.0	11.4	1.2	7.3	2.4
Korea	2.5	0.8	5.5	0.3	0.0	0.0
Netherlands	6.7	6.1	…	…	33.9	33.9
Norway	2.0	0.0	15.8	7.2	…	…
Portugal	2.4	0.0	…	…	12.0	2.4
Spain	…	…	3.9	1.8	10.0	3.9
Sweden	2.1	0.2	…	…	47.5	10.9
Switzerland	1.1	1.1	…	…	…	…
United Kingdom	3.9	3.3	…	…	54.5	7.0
United States	5.2	2.4	2.4	1.3	11.0	2.2
Advanced economies 1/	**2.5**	**1.1**	**5.5**	**1.3**	**16.7**	**4.3**
Brazil	…	…	0.8	0.3	…	…
Hungary	1.1	0.1	…	…	1.1	0.0
India	0.4	0.0	…	…	…	…
Indonesia	…	…	…	…	0.1	0.0
Russia	1.2	0.7	0.5	0.0	…	…
Saudi Arabia	…	…	…	…	…	…
Emerging market economies 1/	**1.1**	**0.1**	**0.6**	**0.2**	**0.6**	**0.0**
			(In percent of the amount announced)			
Australia		…		75.0		…
Austria		33.3		…		25.9
Belgium		100.0		…		100.0
Canada		…		53.7		0.0
Denmark		…		…		
France		58.1		…		36.6
Germany		…		…		
Greece		80.0		…		20.0
Ireland		90.9		…		…
Italy		8.3		…		…
Japan		1.0		10.9		33.5
Korea		31.2		4.8		0.9
Netherlands		91.6		…		100.0
Norway		0.0		45.5		…
Portugal		0.0		…		20.0
Spain		…		44.7		39.5
Sweden		9.2		…		
Switzerland		100.0		…		…
United Kingdom		85.7		…		12.8
United States		46.7		52.3		20.5
Advanced economies 1/		**46.7**		**45.5**		**23.2**
Brazil		…		43.5		…
Hungary		9.3		…		0.0
India		9.5		…		…
Indonesia		…		…		0.0
Russia		60.4		0.0		…
Saudi Arabia		…		…		…
Emerging market economies 1/		**9.5**		**21.7**		**0.0**

Sources: Pledged amounts are based on announcements by official agencies, supplemented by information from financial market sources, including investment and commercial banks, rating agencies, and private consultancies. Used amounts of the support measures are estimated by IMF staff, relying primarily on information from official government sources. Recapitalization includes purchases of shares or hybrid capital instruments that constitute tier I capital. Asset swaps and purchases include government purchases of assets held by financial institutions or exchange for government debt. Guarantees cover asset loss or financial institutions’ debt, such as senior unsecured debt.