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Taking Stock
A Progress Report on Fiscal Adjustment

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PREFACE

The projections included in this issue of the *Fiscal Monitor* are based on the same database used for the October 2012 *World Economic Outlook* and *Global Financial Stability Report* (and are referred to as "IMF staff projections"). Fiscal projections refer to the general government unless otherwise indicated. Short-term projections are based on officially announced budgets, adjusted for differences between the national authorities and the IMF staff regarding macroeconomic assumptions. The medium-term fiscal projections incorporate policy measures that are judged by the IMF staff as likely to be implemented. For countries supported by an IMF arrangement, the medium-term projections are those under the arrangement. In cases in which the IMF staff has insufficient information to assess the authorities' budget intentions and prospects for policy implementation, an unchanged cyclically adjusted primary balance is assumed, unless indicated otherwise. Country-specific assumptions are detailed in the Methodological and Statistical Appendix, which precedes the Statistical Tables.

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EXECUTIVE SUMMARY

With growth weakening in many parts of the world and downside risks on the rise, fiscal consolidation remains challenging. However, considerable progress has been made over the last two years in strengthening the fiscal accounts following their sharp deterioration in 2008–09, and more is planned. This issue of the *Fiscal Monitor* takes stock of this progress, focusing on its size, composition, and implications for employment and social equity. Several conclusions emerge:

- Most countries have made significant headway in rolling back fiscal deficits. In about half of the countries covered in this *Monitor*, deficits are expected to be at or lower than their precrisis levels next year. The improvement in fiscal balances is most pronounced in advanced economies, where the fiscal shock was larger, followed by emerging market economies and to a lesser extent by low-income countries.
- Efforts at controlling debt stocks are taking longer to yield results. Debt ratios peaked early in emerging market economies but are not expected to stabilize before 2014–15 in many advanced economies. The slower progress in advanced economies is due to the magnitude of the shock and the sluggishness of the recovery thereafter, but in some cases also to high interest rates, which are negatively affected by policy uncertainties and banking fragilities. In many advanced economies, consolidation efforts will need to persist for many years if debt ratios are to be restored to precrisis levels.
- Countries with sizable fiscal consolidation needs have typically relied on a mix of revenue and expenditure policies. However, advanced economies have in general relied more than emerging markets and low-income countries on spending retrenchment. Most countries have tried to focus on measures that would have the smallest negative impact on growth, such as entitlement reforms and increases in less distortionary taxes, for instance, property levies. Overall, the composition of fiscal adjustment as envisaged should result in public finances that are more growth friendly and efficient after the consolidation phase, though some countries—especially those with large fiscal adjustment plans—have needed to include measures like investment cuts and broader tax increases that may weigh on long-term growth.
- Both spending and revenue measures have important implications for employment and social equity, which need to be taken into account if the large consolidation efforts underway are to be sustainable. An appropriate degree of progressivity in taxation and access to social benefits is imperative for limiting the negative social effects of adjustment packages. Better-designed tax and social benefit policies, accompanied by active labor market programs, can help boost labor supply and demand. However, structural reforms remain the key to better growth and employment prospects.

Despite substantial progress in restoring the sustainability of public finances, fiscal vulnerabilities remain elevated. Public debt rollover requirements are still very high and expose countries to the vagaries of financial markets. Partly because of the ample liquidity provided by central banks in support of economic activity, markets have in most cases taken large increases in public debt in stride, with solvency concerns remaining elevated only for a subset of euro area countries. But these benign market responses are premised on continued fiscal adjustment and a favorable growth environment.

With downside risks to the global economy mounting, policymakers must once again tread the narrow path that will permit them to continue strengthening the public finances while avoiding an excessive withdrawal of fiscal support for a still-fragile economic recovery. Whereas most emerging markets and low-income countries can afford to pause their adjustment efforts to await a

more hospitable growth outlook, many advanced economies do not have that luxury. To the extent that financing conditions allow, adjustment should proceed at a pace that is consistent with the state of the economy. To take cyclical considerations better into account, policymakers should focus on structural or cyclically adjusted targets. Should growth disappoint, the first line of defense should be monetary policy and the free play of automatic fiscal stabilizers. If growth should fall significantly below current *World Economic Outlook* projections, countries with room for maneuver should slow their pace of planned adjustment over 2013 and beyond. But short-term caution should not be an excuse to slow or delay efforts to put public finances on a sounder footing over the medium term, as this remains a key requirement for growth. And even countries with relatively comfortable fiscal positions should maintain appropriate buffers to be able to confront future shocks.

1. The Fiscal Outlook

Weakening growth and policy uncertainties cast a shadow over the fiscal outlook, even as budget deficits narrow and recent announcements by monetary authorities provide some respite on the financial front. Countries with stronger fiscal positions and lower public debt, including several emerging market economies, can afford to pause fiscal consolidation efforts, but in others adjustment must proceed at a pace that reflects medium-term adjustment needs, the state of the economy, and financing constraints. Where financing permits, flexibility should be allowed for automatic stabilizers to play in response to moderate growth shortfalls. Should growth fall well short of current expectations, countries with space should smooth their adjustment paths over 2013 and beyond. The United States and Japan must promptly define and enact clear and credible plans to return to fiscal sustainability over the medium term and buttress investor confidence.

Fiscal adjustment is proceeding in most advanced economies, but challenges remain

Deficits are set to narrow in nearly all advanced economies in 2012 and 2013 notwithstanding weak growth (Table 1). The average annual decline in both headline and cyclically adjusted deficits for the period is expected to be about 1 percent of GDP, a rate broadly in line with earlier forecasts (Figure 1). However, this average masks significant differences across countries, with those facing greater market pressure generally implementing larger reductions in deficits.

In the two largest advanced economies, the main issue remains the absence of clear fiscal policies to tackle the large public imbalances at an appropriately sustained pace.

- In the *United States*, the deficit would decline by more than 4 percent of GDP if the Bush tax cuts were left to expire and programmed automatic spending cuts were allowed to take hold. An even larger adjustment would be needed if the federal debt ceiling were not raised in a timely fashion. The forecast in Table 1 assumes that a political compromise will be found to avoid this "fiscal cliff" and that the headline deficit will shrink at an annual pace of 1½ percent of GDP (slightly less in cyclically adjusted terms) this year and next.
- In *Japan*, the fiscal deficit is expected to narrow by about 1 percentage point of GDP in 2013 (about ½ percent of GDP in cyclically adjusted terms) as earthquake-related spending declines. Political gridlock could, however, lead to early tightening by delaying approval of this year's budget funding, although this risk remains low. A phased increase in the consumption tax rate to 10 percent was fully approved by the Diet in August, and the first increase, to 8 percent, is expected in April 2014. This will not be sufficient, however, to put Japan's record-high debt ratio on a downward path.

Gradual progress is expected in other large advanced economies, some of which also continue to benefit from extraordinarily accommodative financing conditions.

- In *Canada*, the fiscal position is projected to improve on the basis of stronger-than-expected revenue and relatively resilient growth, in addition to spending restrictions.
- Fiscal adjustment is expected to slow to a more modest pace in *Germany* in the coming years. Overperformance in 2011 is allowing the fiscal balance to remain on track to comply with the structural deficit ceiling mandated by the constitutional "debt brake" rule.

In contrast, sizable adjustment is in the cards this year and next in another group of large advanced economies, against the backdrop of an already weakening economic outlook.

- In *France*, the authorities are committed to lowering the headline deficit by more than 2 percentage points of GDP over two years. Although they have not yet identified specific measures, they intend to

Table 1. Fiscal Balances, 2008–13

					Projections		Difference from April 2012 *Fiscal Monitor*		
	2008	2009	2010	2011	2012	2013	2011	2012	2013
Overall balance *(Percent of GDP)*									
World	–2.2	–7.4	–6.0	–4.6	–4.2	–3.5	–0.1	–0.3	–0.3
Advanced economies	–3.5	–8.9	–7.8	–6.6	–5.9	–4.9	–0.1	–0.3	–0.4
United States	–6.7	–13.3	–11.2	–10.1	–8.7	–7.3	–0.5	–0.6	–1.0
Euro area	–2.1	–6.4	–6.2	–4.1	–3.3	–2.6	0.0	–0.1	0.1
France	–3.3	–7.6	–7.1	–5.2	–4.7	–3.5	0.1	–0.1	0.4
Germany	–0.1	–3.2	–4.1	–0.8	–0.4	–0.4	0.3	0.4	0.1
Greece	–9.9	–15.6	–10.5	–9.1	–7.5	–4.7	0.1	–0.3	–0.1
Ireland	–7.3	–13.9	–30.9	–12.8	–8.3	–7.5	–2.9	0.2	–0.2
Italy	–2.7	–5.4	–4.5	–3.8	–2.7	–1.8	0.1	–0.3	–0.3
Portugal	–3.7	–10.2	–9.8	–4.2	–5.0	–4.5	–0.2	–0.5	–1.5
Spain	–4.2	–11.2	–9.4	–8.9	–7.0	–5.7	–0.5	–1.0	0.0
Japan	–4.1	–10.4	–9.4	–9.8	–10.0	–9.1	0.3	0.0	–0.3
United Kingdom	–5.1	–10.4	–9.9	–8.5	–8.2	–7.3	0.1	–0.3	–0.7
Canada	–0.4	–4.9	–5.6	–4.4	–3.8	–3.0	0.2	–0.1	–0.1
Others	2.6	–0.8	–0.1	0.4	0.5	1.3	0.1	–0.1	–0.2
Emerging markets	0.0	–4.5	–3.2	–1.8	–1.9	–1.8	0.0	–0.2	0.0
Asia	–2.3	–4.2	–3.0	–2.7	–2.9	–2.6	0.0	–0.2	–0.2
China	–0.7	–3.1	–1.5	–1.2	–1.3	–1.0	0.0	0.0	0.0
India	–8.7	–10.0	–9.4	–9.0	–9.5	–9.1	–0.3	–1.2	–0.9
Europe	0.6	–6.2	–4.3	–0.3	–0.9	–1.1	0.0	–0.1	0.2
Russian Federation	4.9	–6.3	–3.5	1.6	0.5	0.2	0.0	–0.1	0.6
Turkey	–2.4	–5.6	–2.7	–0.2	–1.7	–1.9	0.1	0.0	0.1
Latin America	–0.7	–3.5	–2.8	–2.4	–2.1	–1.6	0.1	0.0	0.4
Brazil	–1.3	–3.0	–2.7	–2.6	–2.1	–1.6	0.0	0.2	0.8
Mexico	–1.1	–4.7	–4.3	–3.4	–2.4	–2.1	0.0	0.0	0.0
Middle East and North Africa	–4.9	–5.4	–6.7	–8.9	–9.5	–8.3	–0.1	–1.0	–1.4
South Africa	–0.5	–5.3	–4.8	–4.6	–5.0	–4.7	0.0	–0.7	–1.0
Low-income countries	–0.3	–3.9	–2.0	–1.9	–3.4	–3.1	0.2	–0.7	–0.9
Oil producers	7.4	–2.4	–0.2	3.4	2.9	2.3	0.1	–0.8	–0.4
Cyclically adjusted balance *(Percent of potential GDP)*									
Advanced economies	–3.8	–6.2	–6.3	–5.5	–4.8	–3.8	–0.3	–0.4	–0.4
United States[1]	–5.5	–8.4	–8.7	–7.9	–6.8	–5.5	–0.7	–0.9	–1.1
Euro area	–3.0	–4.5	–4.7	–3.3	–2.0	–1.1	0.0	0.0	0.4
France	–3.1	–5.1	–5.1	–3.9	–3.2	–2.0	0.2	0.0	0.7
Germany	–1.3	–1.3	–3.5	–1.1	–0.5	–0.3	0.1	0.1	0.2
Greece	–13.9	–18.6	–12.1	–8.3	–4.5	–1.1	–1.5	0.1	1.7
Ireland[1]	–11.9	–11.0	–9.3	–7.7	–6.1	–5.4	0.4	0.0	0.0
Italy	–3.3	–3.0	–3.1	–2.7	–0.5	0.7	0.0	–0.2	0.1
Portugal	–4.2	–9.3	–9.7	–3.4	–3.1	–2.3	–0.8	–1.1	–1.4
Spain	–5.3	–9.7	–7.6	–7.3	–4.6	–3.2	–0.4	–0.7	0.4
Japan	–3.5	–7.4	–7.9	–8.3	–9.1	–8.6	–0.1	–0.4	–0.7
United Kingdom	–7.2	–9.7	–8.5	–6.6	–5.4	–4.0	–0.4	–0.3	–0.2
Canada	–0.5	–3.2	–4.5	–3.7	–3.1	–2.4	–0.1	–0.3	–0.2
Others	0.1	–1.9	–1.4	–1.4	–1.1	–0.4	0.0	0.0	–0.2
Emerging markets	–1.7	–3.6	–2.9	–1.9	–1.8	–1.6	0.0	–0.1	0.1
Asia	–2.4	–3.9	–2.6	–2.0	–2.0	–1.8	0.0	–0.3	–0.2
China	–0.4	–2.4	–0.7	0.0	0.0	0.2	0.0	0.0	0.0
India	–10.6	–10.7	–10.2	–9.9	–10.2	–9.6	–0.8	–1.4	–0.9
Europe	–0.4	–3.9	–3.1	–0.5	–0.9	–1.1	0.3	0.2	0.4
Russian Federation	3.9	–3.2	–1.8	2.0	0.4	–0.1	0.4	0.3	0.6
Turkey	–2.8	–3.1	–2.2	–0.9	–2.0	–1.9	0.9	0.8	0.9
Latin America	–1.6	–2.6	–3.1	–2.8	–1.9	–1.5	–0.2	0.1	0.5
Brazil	–2.1	–2.2	–3.3	–2.9	–1.7	–1.3	–0.2	0.4	1.0
Mexico	–1.3	–3.8	–3.9	–3.2	–2.3	–2.1	0.0	–0.1	0.0
South Africa	–2.3	–5.1	–4.5	–4.2	–4.4	–4.0	0.0	–0.7	–0.8
Memorandum items:									
World growth (percent)	*2.8*	*–0.6*	*5.1*	*3.8*	*3.3*	*3.6*	*0.0*	*–0.3*	*–0.5*

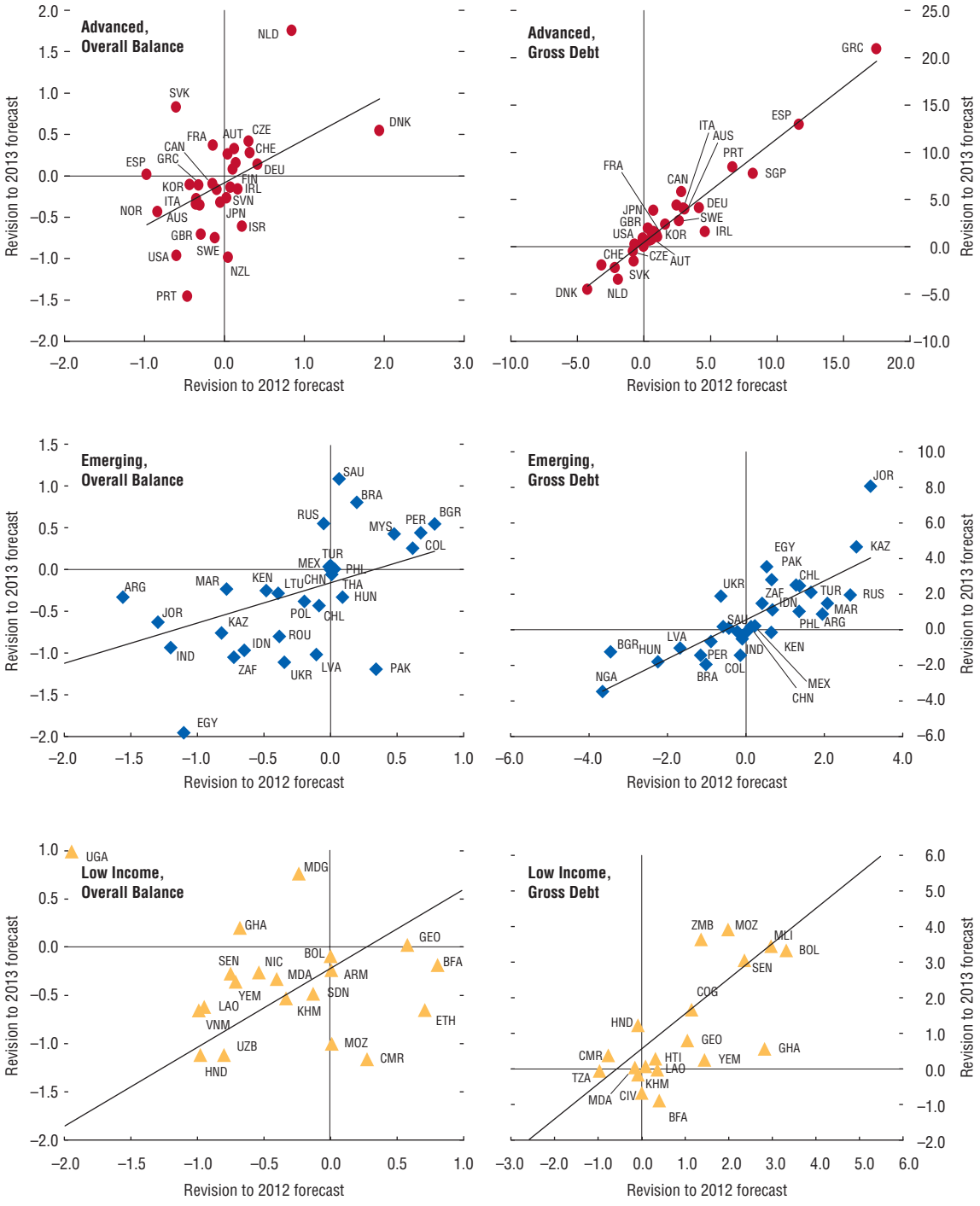
Sources: IMF staff estimates and projections.

Note: All fiscal data country averages are weighted by nominal GDP converted to U.S. dollars at average market exchange rates in the years indicated and based on data availability. Projections are based on IMF staff assessment of current policies.

[1] Excluding financial sector support.

Figure 1. Revisions to Overall Balance and Debt-to-GDP Forecasts since the Last *Fiscal Monitor*

(Percent of GDP)



Sources: IMF staff estimates and projections.
Note: Revision to the forecast refers to the difference between the fiscal projection in the October 2012 *Fiscal Monitor* and that in the April 2012 *Fiscal Monitor*.

rely first on revenue increases in the hope of limiting negative short-term demand effects, and then to shift to more spending containment starting in 2014 to support potential growth over the medium term.

- The cyclically adjusted deficit is expected to decline by about 1¼ and 1½ percent of GDP this year and next, respectively, in the *United Kingdom*, slightly less than initially projected because of weaker potential growth estimates.
- Strong front-loaded fiscal adjustment is planned by the outgoing caretaker government in *the Netherlands*, where the deficit is expected to fall to 3.2 percent of GDP in 2013 under a 2½ percent of GDP consolidation package. The 2013 target implies a fiscal withdrawal of about 3 percent of GDP over 2012–13 in cyclically adjusted terms.

European countries under market pressure are implementing further significant fiscal consolidation.

- In *Spain*, consolidation efforts aim at an adjustment of about 4 percent of GDP over 2012 and 2013, through a combination of increased indirect taxes (including the value-added tax [VAT]) and cuts in public wages and unemployment benefits. The authorities have established a special fund to help local governments service their debt, and financing from the European Financial Stability Facility (EFSF) is supporting bank recapitalization. However, preliminary data for the first half of 2012 show little progress in fiscal consolidation. Although significant fiscal measures will start taking effect in the second half of the year, the risk of missing the full-year deficit target of 6.3 percent of GDP has increased.
- Fiscal adjustment in *Italy* is expected to top a cumulative 3.4 percent of GDP in cyclically adjusted terms over the course of 2012–13, with a large share taking place this year. The authorities have concluded a review to identify spending cuts that would allow them to shift the composition of adjustment away from tax measures. They have adopted measures to advance their growth agenda and to sell some public assets at both the national and subnational levels, with the proceeds to be used to retire public debt.
- In *Greece*, a deeper-than-expected recession and slippages in the implementation of fiscal measures will once again complicate attainment of the ambitious deficit reduction targets. Nevertheless, the cyclically adjusted deficit will continue to post large declines.
- In *Ireland*, continued substantial fiscal consolidation in line with the targets under IMF-supported programs has helped restore access to international capital markets. In July—six months earlier than expected—the country raised €4.2 billion in new funds by issuing its first long-term bonds since end-2010.

A small number of advanced economies are expected to take advantage of already-low debt and deficits to adopt broadly neutral fiscal positions in 2012.

- In *Korea*, spending is being front loaded to deliver some support to growth in the first half of the year, complemented in the second half by a stimulus package of about 0.3 percent of GDP (largely through government-managed funds in some selected areas and state-owned and public-private partnerships). Fiscal consolidation is expected to resume in 2013 as growth recovers.
- In *Sweden*, a small fiscal deficit (0.2 percent of GDP) is expected this year, as a result of the deceleration of growth and the implementation of discretionary measures to support employment (including a lowering of the VAT rate for restaurant and catering services, extra funding for infrastructure investment, and a package of active labor market measures). The budget is expected to remain in a small deficit next year as significant increases are made in investment in infrastructure and research and development.

Consolidation is on hold in most emerging market economies

With relatively stronger fiscal positions, many emerging market economies have opted to put fiscal consolidation on hold in the face of weakening demand and increased financial uncertainty, with upward revisions in deficit projections for both 2012 and 2013 with respect to the April *Fiscal Monitor* (Figure 1). However, policy margins vary widely across countries.

- In *Brazil*, tax revenue shortfalls from the slowdown in economic activity and the impact of

fiscal incentives have been offset in part by one-off revenues (including higher dividends from state-owned enterprises). The authorities' primary surplus objective is expected to be achieved this year owing to the use of capital-expenditure-based adjusters.[1] Going forward, the authorities continue to focus on a 3.1 percent of GDP primary surplus target.

- In *China*, the fiscal position is expected to be largely neutral this year. With activity expected to gain momentum in the second half of the year on the back of policy efforts to accelerate projects, the overall fiscal balance for the year is likely to be in line with the current projection. Modest consolidation would resume in 2013 as growth recovers.
- In *India*, the authorities aim to bring down the deficit of nearly 9 percent of GDP this year despite underperforming tax revenues and increased demands for social spending stemming from the poor start to this year's monsoon. Price increases for diesel fuel, as well as new announcements on divestment and limits to certain other fuel subsidies, are significant and will help lower untargeted subsidies, but achieving the downward deficit path laid out in the 2012/13 medium-term budget will require further measures, including sustainable subsidy reform.
- In *Chile*, the authorities remain committed to their structural deficit target of 1 percent of GDP, though the budget is expected to move into a headline deficit in 2012, largely because of lower copper and noncopper revenue and higher social spending. The government's tax reform package, as submitted to Congress, would make permanent the increase in corporate taxes introduced after the 2010 earthquake, but would offset some of the associated revenue with reductions in personal income taxes.
- In *South Africa,* in response to the global slowdown, the 2012 budget slowed the pace of fiscal adjustment envisaged the previous year: the cyclically adjusted deficit is expected to narrow gradually by 1¼ percentage points to 3 percent of GDP by 2015.
- Fiscal policy is forecast to be strongly procyclical in the *Russian Federation*, with rapid spending growth pushing the federal non-oil deficit up by about 1 percent of GDP to more than 10 percent of GDP in 2012 and 2013.

[1]The 2012 budget targets a primary surplus corresponding to 3.1 percent of GDP, but allows for a lower outturn of up to 0.6 percent of GDP as long as spending of that amount is undertaken on specific public investment projects.

Deficits are likely to rise in most low-income countries

Deficits are expected to rise in most low-income countries because of a combination of slowing external demand and the growing weight of food and fuel subsidies. In a few countries, upcoming elections are generating additional pressures on spending.

- In *Ghana*, the higher wage bill, the reemergence of fuel subsidies, and carryover commitments from 2011 will increase the 2012 cash deficit in spite of higher revenue. Mixed fiscal performance at end-2011 has raised concerns about potential slippages ahead of the December 2012 elections.
- In *Zambia*, revenue shortfalls—due in part to lower copper prices—along with higher public wages and delays in subsidy reforms will push up the 2012 deficit.
- In *Burundi*, spending cuts are planned this year to offset the decline in revenues of about 1 percent of GDP—due to a temporary elimination of taxes on some imported food products and a reduction in fuel excise collection associated with the partial pass-through of rising international prices—and an expected shortfall in international aid.
- In contrast, *Togo*'s fiscal indicators point toward a slow rebuilding of fiscal buffers in 2012, as the government implements policy adjustments and higher-than-expected growth boosts revenue.

Adjustment should proceed to restore fiscal space, although the circumstances are demanding

Weakening growth and continued global uncertainty can make fiscal adjustment economically and politically difficult to sustain. However, in many countries debt ratios and deficits are still far too high to allow a pause in consolidation. The size and intensity of the challenges differ, but in most cases call for perseverance and flexibility. A gradual

but steady pace of adjustment is needed to rebuild confidence, ideally defined in structural or cyclically adjusted terms and backed by credible medium-term commitments to let countries navigate short-term fluctuations by allowing automatic stabilizers to play. However, progress with other policies—most notably, repairing banks' balance sheets—is also urgently needed to break the adverse feedback loops between sovereigns and banks, dispel the associated cloud over public finances, and improve prospects for sustained growth. In the euro area, recent policy announcements—including the European Central Bank (ECB) Outright Monetary Transactions and the decision to allow bank recapitalization directly through the European Stability Mechanism (ESM)—have provided some financial respite, but swift implementation of other European-level commitments (including ESM activation, harmonized banking oversight, and implementation of the Fiscal Compact) remains key to rebuilding lasting trust in the future of the common currency.

Large advanced economies should take the lead in clearing policy uncertainties. The United States should promptly define a reasonable consolidation path to avoid the "fiscal cliff." Even a somewhat smaller adjustment than that now projected for 2013 (Table 1) would be adequate to signal commitment to fiscal rectitude in the context of a clear medium-term consolidation plan. Medium-term consolidation will need to include a reform of entitlements, the key driver of long-term spending, but must also raise revenue, given the size of the deficit and the relatively low tax ratio. Japan needs to proceed with a decisive debt reduction plan including both further revenue reform and entitlement reform. Although the recently enacted consumption tax hike will slow debt accumulation, it will not arrest it; it is estimated that an additional adjustment of 5 percentage points of GDP will be needed over the next decade to ensure a decline in the debt ratio. In the euro area, determined steps to strengthen the common fiscal framework remain of the essence. Progress toward better fiscal integration will require further progress on numerous fronts, including in particular on a robust governance framework that limits moral hazard and on a road map toward greater ex ante fiscal risk sharing.

In most advanced economies, the near-term fiscal stance has to walk the fine line between continued adjustment and supporting the recovery. Countries facing market pressure, particularly in Europe, have little choice but to press ahead with planned reforms. Countries that have more room to maneuver should let automatic stabilizers operate around the path currently envisaged in cyclically adjusted terms. Should growth disappoint, the first line of defense should be monetary policy and the free play of automatic stabilizers. If growth should fall significantly below current *World Economic Outlook* (WEO) projections, countries with room for maneuver should smooth their planned adjustment over 2013 and beyond. This includes projected front-loaders such as France, the Netherlands, and the United Kingdom.

In light of their lower levels of deficits and debt, the decision of many emerging market economies and low-income countries to put their consolidation efforts on hold until the global outlook has improved is appropriate. Some, however, need continued but gradual consolidation to restore the fiscal margins they used in response to the 2009 slowdown or to address more immediate risks. To reduce vulnerability to external shocks, medium-term targets should be more ambitious in the Russian Federation (given exposure to oil price volatility) and Turkey (facing large external current account deficits). In China, medium-term fiscal targets need to be more clearly specified, including through the annual publication of well-defined quantitative commitments extending beyond the current one-year horizon. In East Africa, continued gradual fiscal consolidation will support disinflation and rebuild buffers in anticipation of possible future shocks. In other countries (for example, Egypt, India, Jordan, and Pakistan), cuts in key subsidies and revenue enhancement are needed to contain the deficit. A cautious approach to debt accumulation is warranted in countries, particularly those in Africa, where debt-to-GDP ratios are approaching the levels prevailing prior to the debt restructuring episodes of 2005–06. Even countries with fiscal space should take care to control spending growth and rebuild fiscal buffers over the medium term to strengthen their resilience to shocks.

2. Taking Stock: A Progress Report on Fiscal Adjustment

Consolidation efforts are yielding fruit, at least for deficits. In 2013, cyclically adjusted deficits are expected to fall below their precrisis levels in about half of the countries included in the Fiscal Monitor database.[2] *The evolution of debt ratios is more varied: they have declined in most emerging market economies, but not in most of the advanced economies, reflecting in many cases higher interest rate–growth differentials in the latter group. Consolidation packages have typically attempted to focus on measures that are supportive of potential growth, but countries with large adjustment requirements have had to use a broader brush, in many cases cutting public investment and raising income taxes. Institutional reforms have also been introduced to strengthen governance and credibility, including—but not only—in the euro area.*

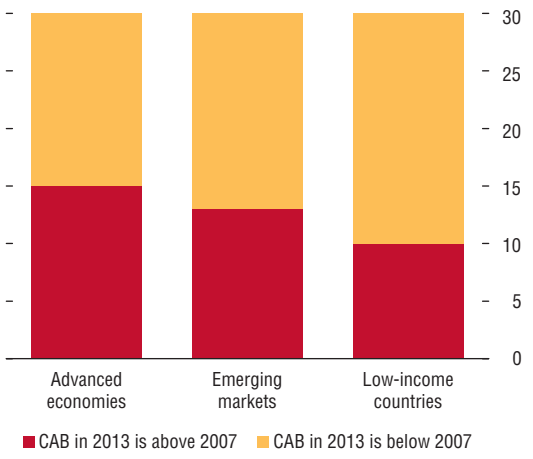
Where are we now with deficits?

Overall, most advanced economies have made significant headway in rolling back fiscal deficits after sharp increases at the outset of the global economic and financial crisis. Cyclically adjusted balances in advanced economies have fallen steadily since their peaks in 2009, indicating that adjustment is well underway (Box 1). In 2013, half of advanced economies will post cyclically adjusted deficits that are below their precrisis levels (Figure 2).

Similarly, cyclically adjusted balances are expected to recover to precrisis levels or better in just over 40 percent of emerging market economies. As deficit increases during the crisis were typically smaller than in advanced economies, however, achieving this milestone required less adjustment in emerging market economies than in advanced ones. In low-income countries, the pace of adjustment has been more subdued: cyclically adjusted deficits are expected to be lower in 2013 than in 2007 in one-third of the countries, even though their fiscal accounts did not deteriorate much during 2008–10.

[2]Unless otherwise indicated, this section looks at fiscal adjustment measures and observed and projected fiscal outcomes in the four years following the onset of the crisis, 2010 to 2013.

Figure 2. Number of Countries with 2013 Cyclically Adjusted Balance above/below the 2007 Level



Sources: IMF staff estimates and projections.
Note: CAB: cyclically adjusted balance.

How far are we from the goal?

Several benchmarks can be used to measure progress toward deficit and debt-to-GDP levels that help reduce vulnerabilities to shocks and minimize undesirable effects on potential growth (Table 2). In general, these measures suggest that most advanced economies have made good progress toward meeting their international commitments and stabilizing fiscal vital signs, but many have far to go to restore their public finances to robust good health.

- For European Union countries, fiscal progress can be assessed in terms of the adjustment needed to achieve the so-called medium-term objectives (MTOs) to which they have committed under their Stability and Growth Programs. Many are making headway toward their MTOs, which are typically defined as structural balance targets. Denmark, Finland, Germany, Italy, and Sweden either have already achieved their MTOs or will do so by 2013, and Austria, the Czech Republic, France, Portugal, the Slovak Republic, and Slovenia stand close to doing so. However, this prognosis assumes full implementation of near-term adjustment plans, which may be particularly challenging in high-adjustment countries.
- For advanced economy members of the Group of Twenty (G-20), progress can also be assessed with

Table 2. Progress in Fiscal Consolidation through 2013

(Percent of GDP, except where otherwise indicated)

	Benchmark 1: Adjustment to Achieve MTOs[1]				Benchmark 2: Adjustment to Stabilize Debt[2]				Benchmark 3: Adjustment to Reduce Debt[3]			
	SB target[4]	Change in SB, 2009–13[4]	Further adjustment needed[4]	Progress through 2013	CAPB needed to stabilize debt[2]	CAPB change, 2009–13[5]	Further adjustment needed	Progress through 2013	CAPB needed to reduce debt[3]	CAPB change, 2009–13[5]	Further adjustment needed	Progress through 2013
Advanced economies												
Australia	. . .	3.0	. . .		0.4	3.5	0.4	◕	0.4	3.5	0.4	◕
Austria	–0.5	1.7	0.8	◕	1.4	1.7	0.0	●	2.1	1.7	0.7	◕
Belgium	0.5	2.6	2.1	◑	3.1	1.7	2.1	◑	5.0	1.7	4.0	◔
Canada	. . .	0.4	. . .		1.1	0.4	0.1	◕	1.1	0.4	0.1	◕
Czech Republic	–1.0	2.7	0.9	◕	1.0	3.1	1.3	◕	1.0	3.1	1.3	◕
Denmark	0.0	0.5	–0.8	●	0.8	–0.1	–0.2	●	0.8	–0.1	–0.2	●
Finland	0.5	–0.3	–0.6	●	0.9	–0.4	–1.5	●	0.9	–0.4	–1.5	●
France	0.0	3.3	1.4	◕	3.1	3.4	2.6	◑	4.5	3.4	4.0	◑
Germany	–0.5	0.9	–0.2	●	1.4	0.8	–0.6	●	2.6	0.8	0.5	◑
Greece	0.0	17.5	1.1	◕	2.0	15.8	–1.5	●	9.0	15.8	5.5	◕
Iceland	. . .	5.7	. . .		1.5	8.5	–2.3	●	3.5	8.5	–0.3	●
Ireland	–0.5	5.6	4.9	◑	4.5	9.2	4.6	◕	6.8	9.2	6.9	◑
Israel	. . .	1.8	. . .		1.5	1.2	0.7	◕	2.3	1.2	1.5	◑
Italy	0.0	4.2	–0.6	●	4.8	5.0	–1.6	●	7.6	5.0	1.2	◕
Japan	. . .	–1.2	. . .		10.7	–0.6	17.3	○	12.6	–0.6	19.1	○
Korea	. . .	2.0	. . .		–0.4	2.1	–4.4	●	–0.4	2.1	–4.4	●
Netherlands	–0.5	2.9	0.9	◕	1.8	2.8	1.3	◕	2.1	2.8	1.6	◕
New Zealand	. . .	–0.7	. . .		1.0	–2.1	3.4	○	1.0	–2.1	3.4	○
Portugal	–0.5	7.0	1.8	◕	4.1	8.9	1.8	◕	6.6	8.9	4.3	◕
Slovak Republic	–0.5	4.1	2.0	◕	1.0	4.7	1.7	◕	1.0	4.7	1.7	◕
Slovenia	0.0	4.3	0.7	◕	1.4	5.5	0.0	●	1.4	5.5	0.0	●
Spain	0.0	5.5	3.5	◕	5.1	8.8	4.5	◕	5.5	8.8	5.0	◕
Sweden	–1.0	0.1	–0.4	●	0.3	0.0	–0.2	●	0.3	0.0	–0.2	●
Switzerland	. . .	–0.2	. . .		0.0	–0.4	–1.5	●	0.0	–0.4	–1.5	●
United Kingdom	. . .	5.7	. . .		4.6	6.4	5.8	◑	5.7	6.4	6.9	◑
United States	. . .	2.9	. . .		5.4	3.5	8.2	◔	7.5	3.5	10.3	◔
Emerging markets												
Argentina	. . .	0.0	. . .		0.4	–1.7	0.6	○	0.7	–1.7	1.0	○
Brazil	. . .	1.2	. . .		–0.5	–0.1	–4.4	●	1.1	–0.1	–2.7	●
Bulgaria	–0.5	–0.8	–0.1	●	0.1	–0.4	–0.6	●	0.1	–0.4	–0.6	●
Chile	. . .	2.9	. . .		0.1	3.3	0.5	●	0.1	3.3	0.5	●
China	. . .	2.6	. . .		–0.3	2.8	–1.1	●	–0.3	2.8	–1.1	●
Colombia	. . .	–0.6	. . .		–0.3	–0.4	–2.0	●	–0.3	–0.4	–2.0	●
Hungary	–1.5	0.5	0.8	◔	0.2	–0.1	–1.4	●	2.9	–0.1	1.3	○
India	. . .	1.2	. . .		1.8	0.7	6.9	○	3.6	0.7	8.7	○
Indonesia	. . .	–0.3	. . .		0.2	–0.6	0.8	○	0.2	–0.6	0.8	○
Lithuania	0.5	4.4	2.6	◕	0.6	4.9	0.9	◕	0.5	4.9	0.8	◕
Malaysia	. . .	1.8	. . .		1.2	2.1	3.0	◑	2.1	2.1	3.8	◔
Mexico	. . .	. . .	. . .		0.2	1.8	–0.3	●	0.5	1.8	0.0	●
Peru	. . .	2.0	. . .		–0.5	1.7	–2.6	●	–0.5	1.7	–2.6	●
Philippines	. . .	1.4	. . .		–0.2	0.8	–0.8	●	–0.2	0.8	–0.8	●
Poland	–1.0	4.2	1.7	◕	0.5	4.4	0.4	◕	1.6	4.4	1.5	◕
Russian Federation	. . .	3.0	. . .		–0.2	3.5	–1.0	●	–0.2	3.5	–1.0	●
South Africa	. . .	1.1	. . .		1.0	1.3	2.3	◔	0.9	1.3	2.2	◔
Thailand	. . .	–1.6	. . .		1.4	–1.7	4.2	○	1.5	–1.7	4.3	○
Turkey	. . .	–0.7	. . .		–0.2	–0.8	–1.8	●	–0.2	–0.8	–1.8	●
Ukraine	. . .	–0.5	. . .		0.4	1.0	1.0	◑	0.4	1.0	1.0	◑

Sources: European Commission (2012b); and IMF staff estimates and projections.

Note: The calculation of further adjustment needed assumes that, during 2012 and 2013, measures are implemented to fully achieve the 2013 fiscal forecast. Progress is visually portrayed as share of total adjustment; an empty circle means that no substantial progress is projected to materialize until end-2013, and a completely darkened circle means that the target is projected to be met by 2013, with gradations in between signaled by circles that are one-quarter, one-half, and three-quarters darkened.

[1]For members of the European Union, the medium-term budgetary objective (MTO) is the country-specific structural balance (SB) target established in stability programs and convergence programs, in the context of the reformed Stability and Growth Pact. SB is reported in percent of potential GDP.

[2]The cyclically adjusted primary balance (CAPB) needed to stabilize debt is the CAPB required in 2020 to allow the debt-to-GDP ratio to return to 2011 levels by 2030, based on the methodology and interest rate–growth differential assumptions used in Statistical Tables 13a and 13b.

[3]The CAPB needed to reduce debt is the CAPB required in 2020 to reduce the debt-to-GDP ratio to appropriate levels, as defined in Statistical Tables 13a and 13b (with the corresponding interest rate–growth differential assumptions).

[4]Percent of potential GDP.

[5]Consistent with Statistical Tables 13a and 13b, CAPB is defined as cyclically adjusted balance plus gross interest expenditure (this differs from the definition in Statistical Tables 2 and 6) and is reported in percent of nominal GDP (in contrast to the conventional definition in percent of potential GDP).

respect to their commitment at the 2010 Toronto G-20 meeting to at least halve their 2010 deficits by 2013. Australia, Canada, France, Germany, Italy, and the euro area as a whole are expected to achieve the targets. Spain, the United Kingdom, and the United States are expected to miss their targets, but by a margin that is relatively small compared with the results achieved. The shortfall in these cases is explained in part by the short-term Cannes commitment to let automatic stabilizers work, take discretionary fiscal measures to support near-term growth, or both. For most countries, deviations from the 2013 deficit targets do not threaten the achievement of the longer-term Toronto targets of stabilizing debt by 2015 (see IMF, 2012f).

- More globally, the adjustment achieved can be compared to that needed to reach a cyclically adjusted primary balance (CAPB) that stabilizes debt-to-GDP ratios at their 2011 levels. Using this metric, the largest advanced economies, Japan and the United States, still have far to go. Several advanced economies (including Austria, Denmark, Germany, Finland, Italy, Sweden, and Switzerland) are expected to achieve the required CAPB to stabilize debt by 2013.[3] Most others are expected to make substantial progress toward doing so (including France, Spain, and the United Kingdom). Given the generally better fiscal position in emerging market economies, their adjustment needs on this measure tend to be smaller. In most cases, CAPBs in these economies already exceed those needed to stabilize debt ratios, though several countries have yet to embark on fiscal adjustment (including Argentina, India, and Thailand).
- Progress is more limited in terms of reaching the CAPB needed to reduce debt to prudent levels over the next two decades, as assessed by the standard *Fiscal Monitor* illustrative long-term adjustment needs scenario (Statistical Tables 13a and 13b).[4] Among advanced economies, only a handful are expected to achieve the benchmark CAPB target (including Finland, Iceland, Korea, and Slovenia) by 2013. However, in a number of cases (including Germany, Italy, Portugal, and the Slovak Republic), more than half the needed adjustment has been implemented. In Japan and the United States, substantially greater medium-term efforts will be needed to reduce deficit ratios to targeted levels. Most emerging market economies exceed or are close to the required CAPB to achieve the illustrative debt target. However, greater adjustment is needed in India, Malaysia, and Thailand.

How fast have deficits declined?

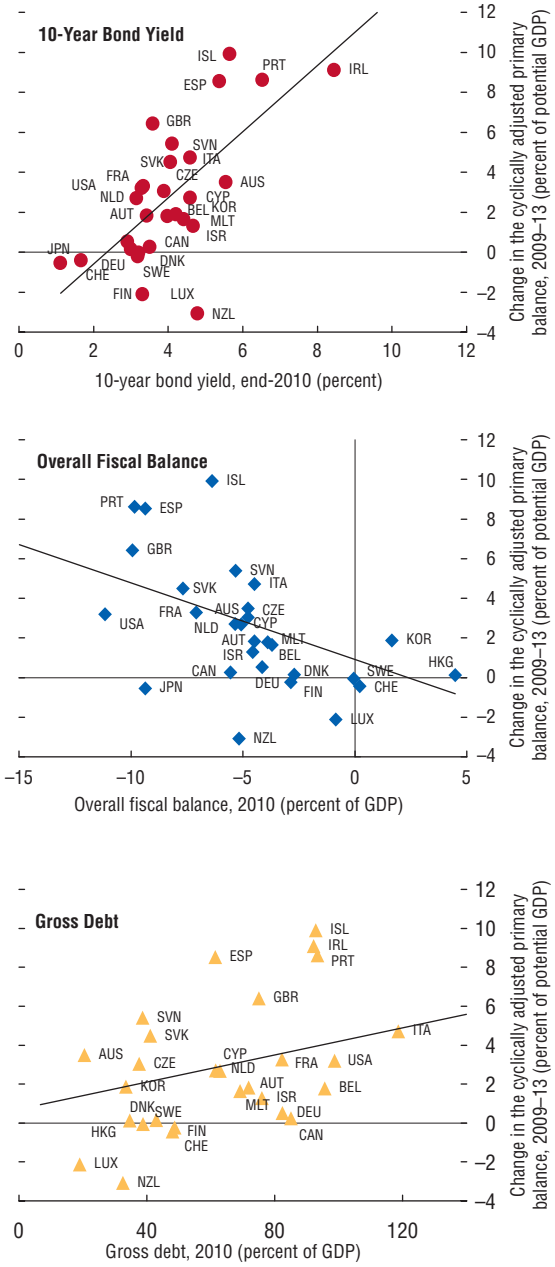
In advanced economies, fiscal adjustment has typically been largest and most front loaded in countries under market pressure (Figure 3).[5] Between 2009 and 2013, the improvement in cyclically adjusted primary balances in countries that were supported by EU/IMF programs (Greece, Iceland, Ireland, and Portugal) will average 11 percent of GDP, with more than half of this adjustment having been implemented in the first two years (Figure 4). The adjustment in other countries experiencing market pressure will be somewhat slower, though still sizable, with Spain adjusting by 8.5 percent and Italy by 4.7 percent over the same period. Adjustment will also be fairly front loaded in the United Kingdom, where interest rates are low in part because of strong central bank intervention (Bank of England purchases of government bonds in 2009 exceeded the deficit). Meanwhile, some countries that have so far been shielded from market pressures, including Canada, Denmark, Germany, and the United States, are adjusting at an appropriately much slower pace. In Japan, low financing costs have allowed the authorities to accommodate postearthquake reconstruction costs.

[3]The CAPB for Portugal does not include a one-off transfer of private pension funds executed in 2011, equivalent to 3.2 percent of GDP.

[4]As explained in Appendix Tables 13a and 13b and previous issues of the *Fiscal Monitor,* the calculation of the CAPB required to reduce debt follows a standardized methodology; policy recommendations for individual countries would require a case-by-case assessment.

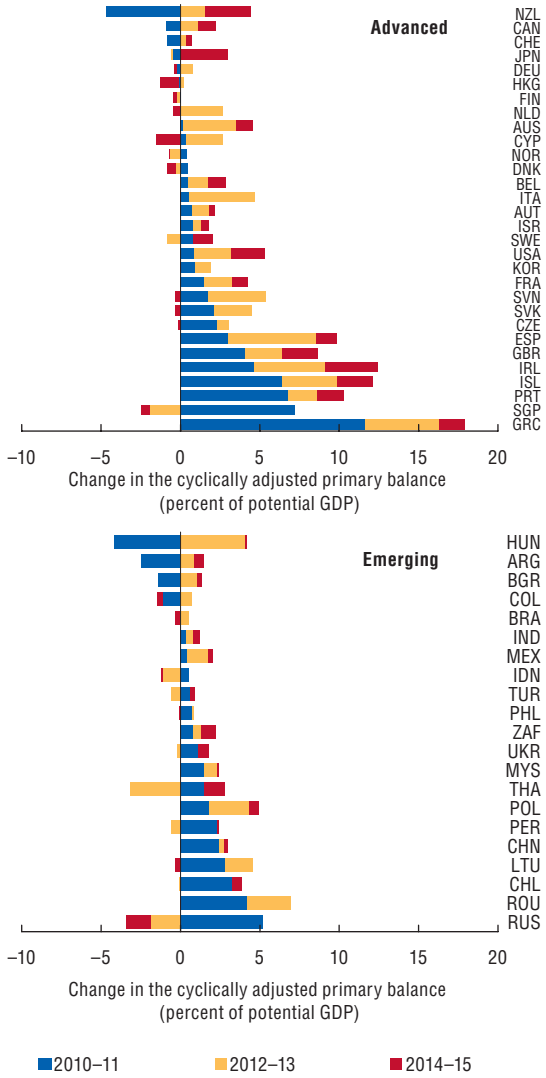
[5]The relationship between the change in cyclically adjusted primary balances and the 10-year bond yield portrayed in Figure 3 holds statistically at the 1 percent level of significance.

Figure 3. Advanced Economies: Fiscal Adjustment, Market Conditions, and Fiscal Positions



Sources: Bloomberg L.P.; and IMF staff estimates and projections.
Note: The relationships between the change in the cyclically adjusted primary balance and 10-year bond yield, overall fiscal balance, and gross debt are statistically significant at the 95 percent confidence level.

Figure 4. Phasing of Fiscal Adjustment



Sources: IMF staff estimates and projections.
Note: Fiscal adjustment in 2010–11 refers to the change in the cyclically adjusted primary balance (CAPB) in 2011 compared to 2009; 2012–13 refers to the change in the CAPB in 2013 compared to 2011; and 2014–15 refers to the change in the CAPB in 2015 compared to 2013.

In emerging market economies and low-income countries, the state of the economy has been the main factor behind adjustment dynamics. Most postcrisis adjustment took place in 2010–11, as growth rebounded quickly, supporting the recovery in revenue. Significantly less adjustment is in store for the coming years, with a large number of countries (many of them low income) intending to maintain or even increase their fiscal deficits this

year and next in the face of weakening global or domestic demand.

But what about debt?

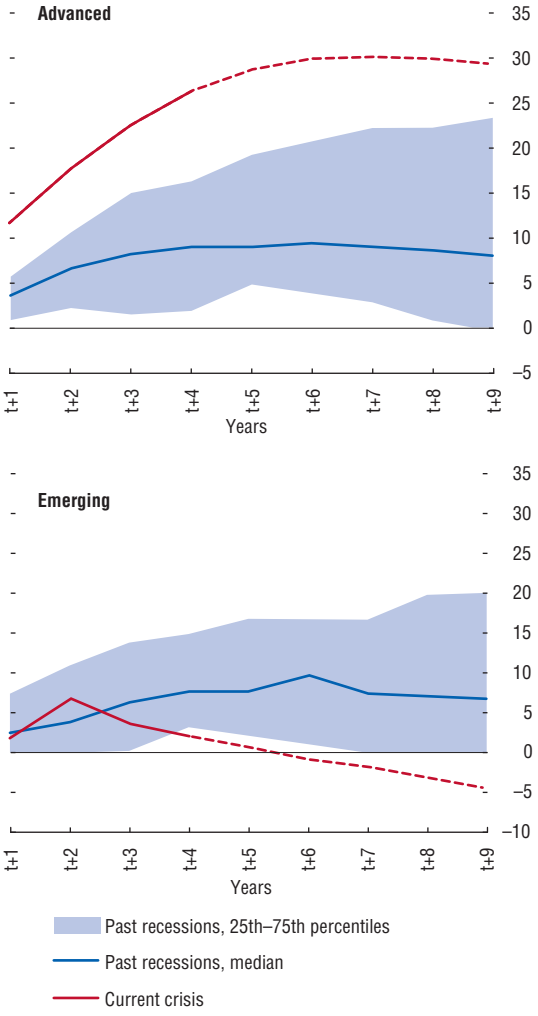
Deficit reductions have not yet led to a substantial decline in debt ratios in most advanced economies, as headline deficits in many cases remain very high. Indeed, the pace of debt reduction in advanced economies has been substantially slower than that observed following previous recessions. For recessions since the 1960s, debt ratios in advanced economies have typically peaked four years after the initial output decline (Figure 5), or two years earlier than projected in the current crisis. This reflects the magnitude of the 2008–09 output shock, as well as the sluggishness of the economic recovery thereafter, and underscores the sensitivity of fiscal fundamentals to continued economic recovery.

Debt ratios will continue growing, and from already comparatively high levels, in several large advanced economies—including France, Japan, the United Kingdom, and the United States (Figure 6).[6] But some progress has been made: debt-to-GDP ratios declined in about 20 percent of advanced economies in 2011 and should do so in about one-third of them by 2013 (Figure 7). Indeed, in some advanced economies, debt ratios are already below precrisis levels (see Box 2).

Debt-to-GDP ratios peaked earlier in emerging market economies: they fell in almost 60 percent of these countries last year, a much faster rate of progress than after previous recessions, when on average it took six years for debt ratios to stabilize. The average debt ratio in emerging market economies is expected to fall below its precrisis level just five years after the start of the current crisis, twice as fast as after previous recessions. The situation is more varied among low-income countries, where ambitious investment plans often contribute to rising debt ratios.

[6]The share of the United States and Japan in world debt is projected to grow from 50 percent in 2008 to 55 percent in 2015.

Figure 5. Cumulative Change in Gross Debt to GDP since the Start of Recessions
(Percent of GDP)



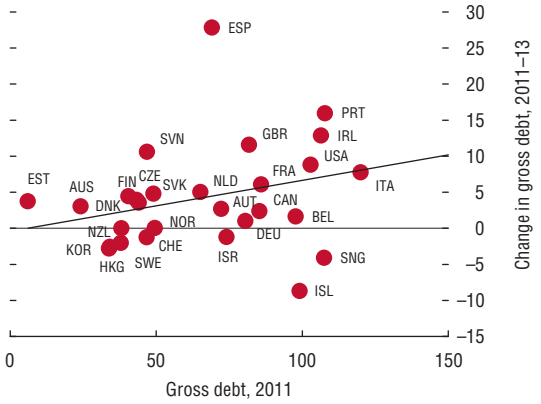
Sources: Kinda, Poplawski-Ribeiro, and Woo (2012); and IMF staff estimates and projections.
Note: Solid line corresponds to 2009–12, and dashed line to 2013–17.

Interest rate–growth differentials vary widely across countries

The difference between the real interest rate on public debt and the real GDP growth rate ($r - g$) is an important driver of debt dynamics, underscoring the importance of maintaining or restoring market confidence and growth.[7] A very wide gap between

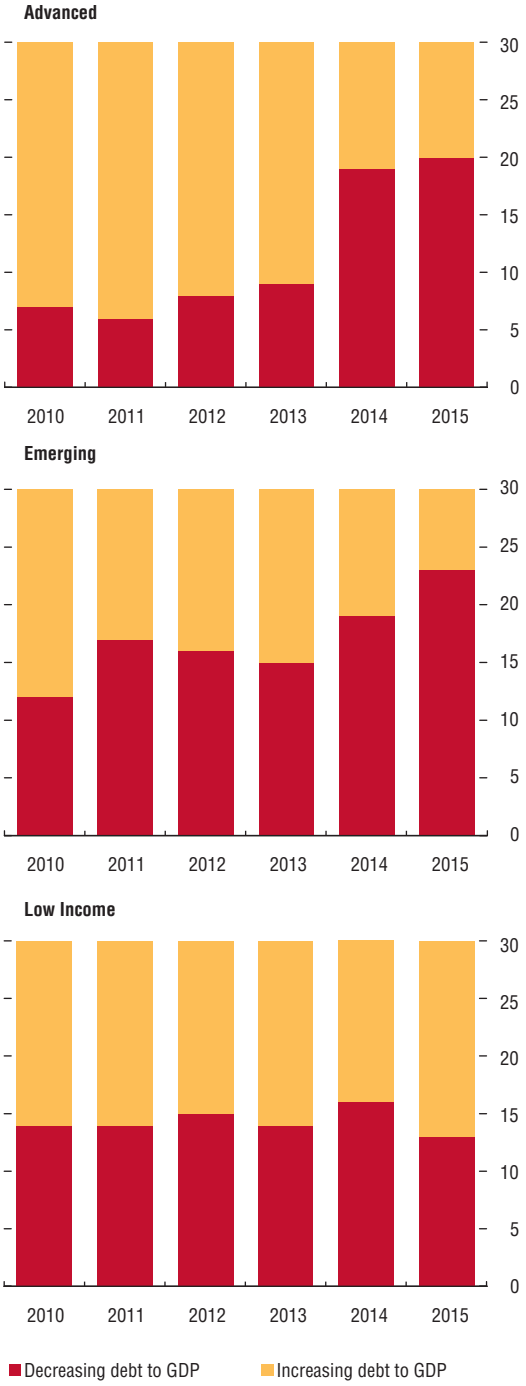
[7]Chapter 3 of the October 2012 WEO also looks at the factors affecting debt dynamics. Unlike in the historical case studies analyzed in the WEO, inflation is not a significant factor in explain-

Figure 6. Advanced Economies: Gross Debt to GDP, Level and Change
(Percent of GDP)



Sources: IMF staff estimates and projections.

Figure 7. Number of Countries with Increasing/Decreasing Gross Debt to GDP



Sources: IMF staff estimates and projections.

r and *g*, as now exists in some advanced economies, makes debt reduction more challenging (Figure 8). Such a high differential continues to push up debt in Greece (despite its debt restructuring), Italy, and Portugal (despite the emergence of primary surpluses) (Figure 9).[8] By contrast, a number of countries enjoy a negative differential (in which the rate of real GDP growth is higher than the real effective interest rate). Among those are countries benefiting from safe-haven flows (including Japan and the United States) and most emerging market economies and low-income countries (with the exception of many emerging European market economies with weak output growth). This negative differential is helping prevent bigger debt increases in countries with high primary deficits (Japan and the United States); it also is allowing other countries with primary deficits to keep debt ratios stable (including India, Malaysia, and Ukraine) or on a downward path (including Argentina, Indonesia, and Kenya).

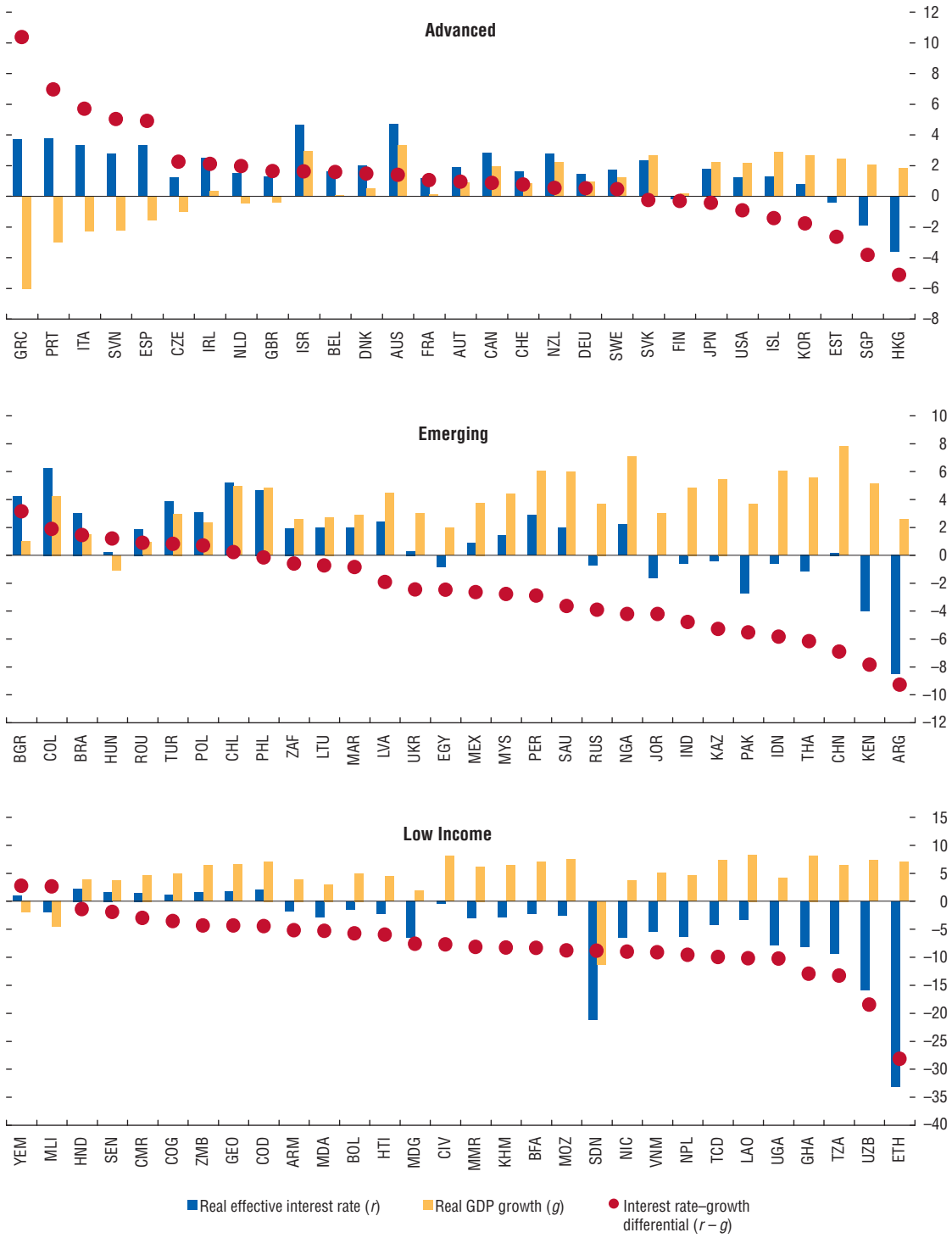
Although fiscal consolidation and growth-enhancing structural reforms are an important part of the recipe to improve debt dynamics, other short-run uncertainties need to be addressed to restore market confidence. Differences in interest rate–growth differentials across advanced economies are attributable in good part to varying financial market conditions.

ing debt dynamics between 2011 and 2013, reflecting both low current inflation and the shorter horizon considered here.

[8]For details on the Greek debt restructuring, see IMF (2012d).

Figure 8. Interest Rate–Growth Differential, 2012

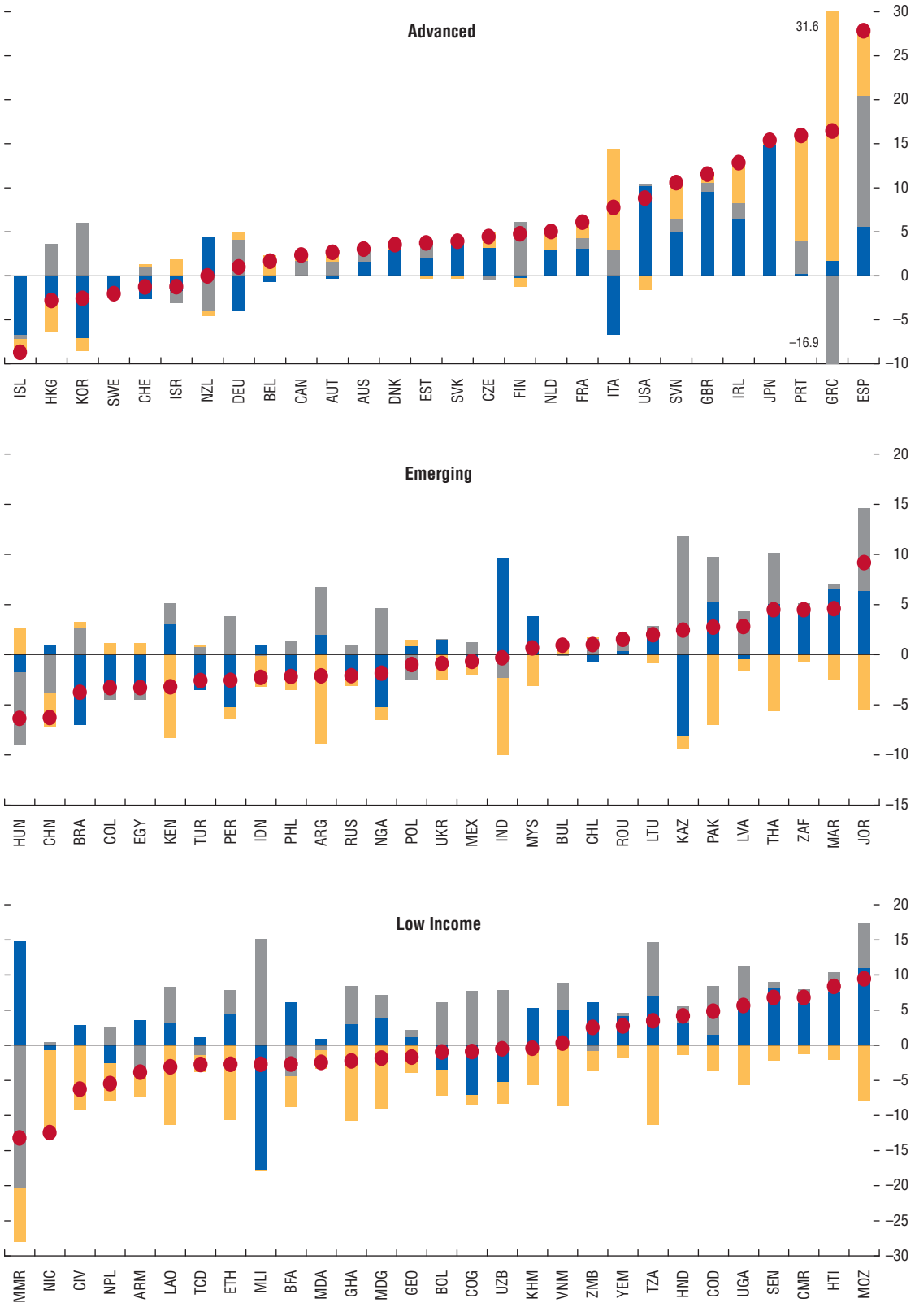
(Percent)



Sources: IMF staff estimates and projections.
Note: For definition of interest rate–growth differential ($r - g$), see Glossary.

Figure 9. Decomposition of Gross Debt Accumulation, 2011–13

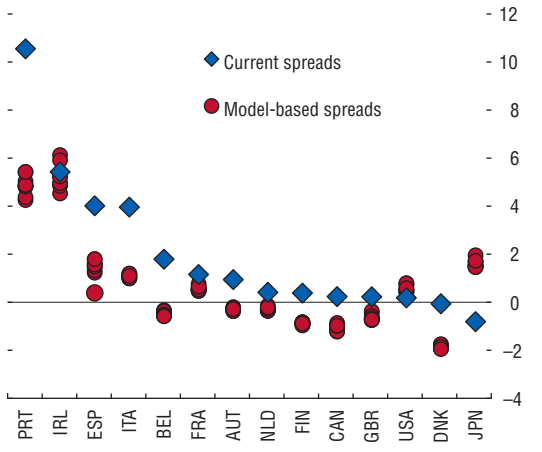
(Percent of GDP)



Sources: IMF estimates and projections.
Note: For definition of interest rate–growth differential ($r - g$), see Glossary.

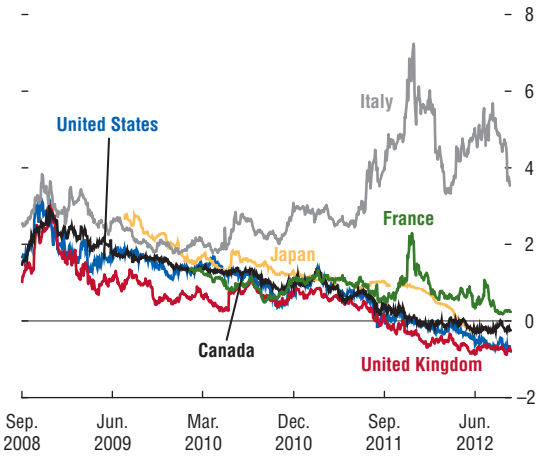
Often, these market indicators cannot be explained fully by underlying fiscal variables. The dichotomy between countries under severe market pressure and those benefiting from safe-haven flows reveals a disconnection of markets' risk perceptions from long-term macroeconomic fundamentals, partially driven by short-run factors such as pervasive policy uncertainty and the rise in contingent liabilities stemming from feedback effects between banks and sovereigns that are difficult to measure (see Box 3). Italy and Spain, for example, are paying interest rates that are higher than can be explained by typical fundamentals, including government debt and deficits, growth, and inflation (Figure 10). In contrast, bond yields in Japan and the United States are well below what would be expected given these countries' debt levels and deficit-to-GDP ratios. In fact, yields have remained very low, or even negative in real terms, for a significant period in several advanced economies (Figure 11), allowing them to finance surges in public debt at relatively low cost. Remarkably, interest payments as a percentage of GDP in Canada, France, Germany, the Netherlands, and the United States will be lower in 2012 than they were before the crisis, despite the large increases in their debt (Figure 12).

Figure 10. Selected Advanced Economies: Actual and Model-Based Sovereign Bond Yield Spreads
(Percent)



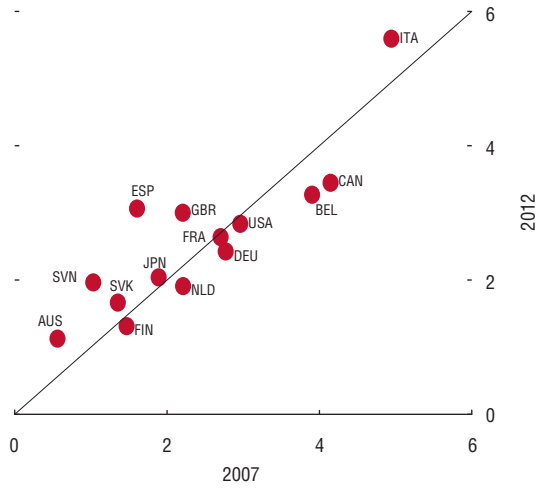
Sources: Bloomberg L.P.; Poghosyan (2012); and IMF staff estimates.
Note: Average for first half of 2012, with respect to Germany. Model-based spreads refer to the fitted values of alternative specifications of the model described in Box 3.

Figure 11. Selected Advanced Economies: Real Sovereign Bond Yields
(Percent)



Source: Bloomberg L.P.
Note: Yield on inflation-indexed bonds, 7-year maturity for Japan, 10-year for the rest.

Figure 12. Advanced Economies: Interest Expenditure
(Percent of GDP)



Sources: IMF staff estimates and projections.

Other factors have also pushed up debt

Stock-flow adjustments have contributed to changes in debt ratios beyond the impact of primary deficits or interest rate–growth differentials. These adjustments can be substantial in countries that have large obligations denominated in foreign currency, which makes the debt ratio sensitive to the exchange rate. But they can also occur for a number of other causes.

- Among euro area countries, the bilateral loans to Greece, the pooling of resources through the EFSF and contributions to the paid-in capital of the ESM have contributed to debt accumulation since 2010.[9]
- In a number of European economies, most notably Spain, stock-flow adjustments reflect financial sector support measures that have driven gross debt upward without a corresponding increase in the deficit (see Box 4).
- In Hungary, a negative stock-flow adjustment linked to the nationalization of private pensions (which resulted in both one-time revenues and a retiring of government debt held by these pension funds) outweighed the effect of a positive interest rate–growth differential on debt.
- In the case of the Republic of Congo, large surpluses derived from strong commodity revenues have not resulted in a significant decline in gross debt, as the authorities have instead increased their accumulation of assets, resulting in a positive stock-flow adjustment.

Also, since the start of the crisis, changes in the ratio of gross debt to GDP have not always coincided with changes in the ratio for net debt (gross debt minus financial assets). In 2009–10, at the onset of the crisis, gross debt increased faster than net debt in many countries, including Germany, Ireland, and the United States, where financial sector support measures involved the transfer of assets/liabilities to the public sector balance sheet (Table 3). This has reversed in subsequent years because of valuation changes in government and pension fund assets (Finland, Sweden) and the unwinding of financial sector support operations. In some emerging market economies, differences between gross and net debt are explained by accumulation of assets, including in accounts in the central bank or in sovereign wealth funds (Kazakhstan, Nigeria, Saudi Arabia).

[9]For discussion of the effects of EU firewalls on gross public debt ratios, see the July 2012 *Fiscal Monitor Update*.

Fiscal adjustment has typically been broad based

Countries with sizable fiscal adjustment needs, mainly advanced economies and emerging Europe, have taken action on multiple fronts (Table 4). Most have made inroads both by containing spending (including for entitlements) and enhancing revenues.[10] In advanced economies, about 60 percent of the adjustment has come from the spending side (Figure 13). This is not surprising, given the high levels of taxation of assets in these economies,[11] and therefore limited scope to raise taxes further, and the reliance on temporary spending increases in 2009–10 in support of economic activity (see the November 2010 *Fiscal Monitor*). In emerging market economies, spending containment accounted for only one-third of the adjustment, reflecting ambitious investment plans and, with high oil prices, the growing weight of fuel subsidies in the budget. A few countries—specifically, in emerging Europe—have also implemented tax hikes. Overall, the fiscal adjustment envisaged should result in public finances that are more growth friendly and efficient after the consolidation phase, though in some countries—especially those with large fiscal adjustment plans—it has been necessary to include measures that may weigh on long-term growth.

A number of advanced economies have sought to rebalance the composition of their consolidation packages over time to avoid unduly eroding their longer-term growth potential. The shift also reflects the broadening of their adjustment efforts, and in some cases, the public backlash against initial measures and resultant concerns about their sustainability. For example, fiscal adjustment plans in France, Greece, and Portugal have come to incorporate more spending measures in later years, after a stronger initial reliance on revenue measures that could be implemented quickly. In Italy, the authorities have identified new spending cuts that will avert, or at

[10]See IMF (2010a) for a more detailed analysis of revenue and expenditure policy tools to support fiscal consolidation.

[11]Among these economies, Japan and the United States have relatively low tax ratios.

Table 3. General Government Debt, 2008–13

(Percent of GDP)

					Projections		Difference from April 2012 *Fiscal Monitor*		
	2008	2009	2010	2011	2012	2013	2011	2012	2013
Gross debt									
World	66.0	76.2	79.7	79.9	81.3	81.5	–0.1	1.3	1.8
Advanced economies	81.5	95.2	101.4	105.5	110.7	113.6	–0.1	1.6	2.7
United States	76.1	89.7	98.6	102.9	107.2	111.7	0.0	0.6	1.6
Euro area	70.2	80.0	85.4	88.0	93.6	94.9	–0.1	3.7	3.9
France	68.2	79.2	82.3	86.0	90.0	92.1	–0.3	0.9	1.3
Germany	66.9	74.7	82.4	80.6	83.0	81.5	–1.0	4.2	4.1
Greece	112.6	129.0	144.5	165.4	170.7	181.8	4.6	17.5	20.9
Ireland	44.5	64.9	92.2	106.5	117.7	119.3	1.5	4.6	1.6
Italy	105.7	116.0	118.6	120.1	126.3	127.8	0.0	3.0	4.0
Portugal	71.6	83.1	93.3	107.8	119.1	123.7	1.0	6.7	8.4
Spain[1]	40.2	53.9	61.3	69.1	90.7	96.9	0.6	11.7	12.9
Japan	191.8	210.2	215.3	229.6	236.6	245.0	–0.2	0.7	3.8
United Kingdom	52.2	68.0	75.0	81.8	88.7	93.3	–0.7	0.3	2.0
Canada	71.3	83.3	85.1	85.4	87.5	87.8	0.5	2.8	5.8
Emerging markets	33.6	36.1	40.5	37.0	34.8	33.1	–0.1	0.3	0.3
Asia	31.5	31.3	40.7	34.7	32.1	30.0	–0.2	0.2	0.2
China[2]	17.0	17.7	33.5	25.8	22.2	19.6	0.0	0.1	0.2
India	74.1	74.2	68.0	67.0	67.6	66.7	–1.1	0.0	–0.1
Europe	24.2	30.5	30.5	28.9	26.9	25.9	1.2	1.5	1.5
Russian Federation	7.9	11.3	11.8	12.0	11.0	9.9	2.4	2.7	1.9
Turkey	40.0	46.1	42.4	39.3	37.7	36.7	–0.2	1.7	2.1
Latin America	50.5	53.5	51.9	51.6	50.2	48.2	–0.5	–0.3	–0.8
Brazil	63.5	66.9	65.2	64.9	64.1	61.2	–1.2	–1.0	–1.9
Mexico	43.0	44.5	42.9	43.8	43.1	43.2	0.0	0.2	0.2
Middle East and North Africa	62.3	64.8	66.7	69.9	73.9	75.4	0.0	1.1	3.4
South Africa	27.4	31.5	35.3	38.8	41.2	43.3	0.1	1.3	2.5
Low-income countries	41.1	44.1	42.8	41.1	42.5	41.8	3.2	2.9	3.7
Oil producers	22.4	25.6	25.0	23.5	22.8	22.3	0.7	1.2	1.3
Net debt									
World	36.1	43.3	44.9	46.6	48.2	48.9	–0.1	0.6	1.0
Advanced economies	51.1	61.4	66.0	70.9	76.0	79.1	0.0	1.3	2.1
United States	53.8	65.8	73.2	80.3	83.8	87.7	0.0	0.1	0.9
Euro area	54.1	62.4	65.5	68.0	73.4	74.8	–0.4	3.1	3.3
France	62.3	72.0	76.1	78.8	83.7	85.9	–1.7	0.5	0.9
Germany	50.2	57.0	56.2	55.3	58.4	57.5	–0.7	4.3	4.1
Ireland	24.6	42.0	74.7	94.9	103.0	107.6	–1.0	0.1	0.7
Italy	88.8	97.2	99.1	99.6	103.1	103.9	0.1	0.8	1.3
Portugal	67.4	79.0	88.9	97.3	113.2	119.5	–3.1	2.3	5.6
Spain[1]	30.8	42.5	49.8	57.5	78.6	84.4	0.5	11.6	12.7
Japan	95.3	106.2	112.8	126.4	135.4	144.7	–0.2	0.2	2.0
United Kingdom	45.8	60.6	71.0	76.6	83.7	88.2	–1.7	–0.5	1.0
Canada	22.4	28.3	30.4	33.1	35.8	37.5	–0.2	0.4	0.6
Emerging markets	24.2	28.6	28.8	27.3	24.7	22.9	–0.1	–0.5	–0.6
Asia	55.6	57.7	58.1	56.9	59.1	59.7	0.1	0.6	2.7
Europe	25.1	30.9	32.6	32.6	31.5	30.2	–0.2	–0.1	–0.6
Latin America	32.9	35.5	34.6	32.9	31.2	29.6	–0.2	–1.0	–1.5

Sources: IMF staff estimates and projections.

Note: All fiscal data country averages are weighted by nominal GDP converted to U.S. dollars at average market exchange rates in the years indicated and based on data availability. Projections are based on IMF staff assessment of current policies.

[1]While the Eurogroup's commitment of up to €100 billion (9.4 percent of GDP) includes an additional safety margin, the IMF staff, to be prudent, and pending further details on implementation, assumes disbursement of this full amount for its 2012 debt projections.

[2]For China, data revisions from the authorities indicate that debt at end-2010 was much larger than previously reported, but no revised historical series is yet available for previous years.

Table 4. Revenue and Expenditure Measures since 2009

	Expenditure Measures							Revenue Measures							
	Public wage freeze/ reduction	Control of the size of civil service	Savings from pension-related spending	Savings from health care–related spending	Reduction in social benefits[1]	Reduction in public investment	Other expenditure measures	Increase in personal income tax	Increase in corporate income tax	Increase in capital gains tax	Increase in social security contribution rates	Increase in value-added or sales tax	Increase in excises	Increase in property tax	Improvement in tax compliance
Advanced economies															
Australia		✓	✓	✓		✓	✓[2]	✓[3]	✓[4]				✓		✓
Canada	✓	✓	✓			✓	✓[2]	✓			✓		✓		
France		✓	✓	✓			✓	✓	✓		✓	✓	✓		
Germany					✓				✓						
Greece	✓	✓	✓	✓	✓	✓	✓[2]	✓			✓	✓	✓	✓	✓
Ireland	✓	✓	✓	✓	✓	✓		✓		✓		✓	✓	✓	✓
Italy	✓	✓	✓	✓	✓	✓	✓[2]	✓	✓	✓	✓	✓	✓	✓	✓
Japan	✓	✓				✓	✓	✓			✓		✓		✓
Korea															✓
Portugal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Spain	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
United Kingdom	✓	✓	✓	✓	✓	✓	✓[2]	✓		✓	✓	✓	✓		✓
United States[5]	✓			✓			✓[6]			✓	✓		✓		
Emerging markets															
Argentina							✓[7]					✓		✓	
Brazil			✓									✓			
China													✓	✓	✓
Hungary	✓	✓	✓	✓	✓		✓				✓	✓	✓		✓
India							✓[8]						✓		
Indonesia															✓
Latvia	✓	✓		✓	✓	✓	✓[7]	✓		✓	✓	✓	✓	✓	✓
Lithuania	✓	✓	✓	✓	✓	✓	✓[7,9]					✓	✓	✓	✓
Mexico	✓	✓				✓	✓[7]	✓	✓			✓	✓		✓
Poland	✓	✓	✓		✓			✓		✓	✓	✓	✓		
Romania	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓		✓
Russian Federation	✓	✓				✓	✓				✓		✓		✓
Saudi Arabia															
South Africa															✓
Turkey	✓			✓									✓		

Sources: European Commission Working Papers; IMF Staff Reports; and IMF staff estimates.

[1] Excluding pension and health care benefits.

[2] Savings from spending efficiencies.

[3] Includes flood levy, reduction in the private health insurance rebate, and changes to fringe benefits tax on cars.

[4] Includes Minerals Resource Rent Tax and Carbon Tax.

[5] All adjustments refer to the federal government only. Social Security contributions refer to "payroll tax."

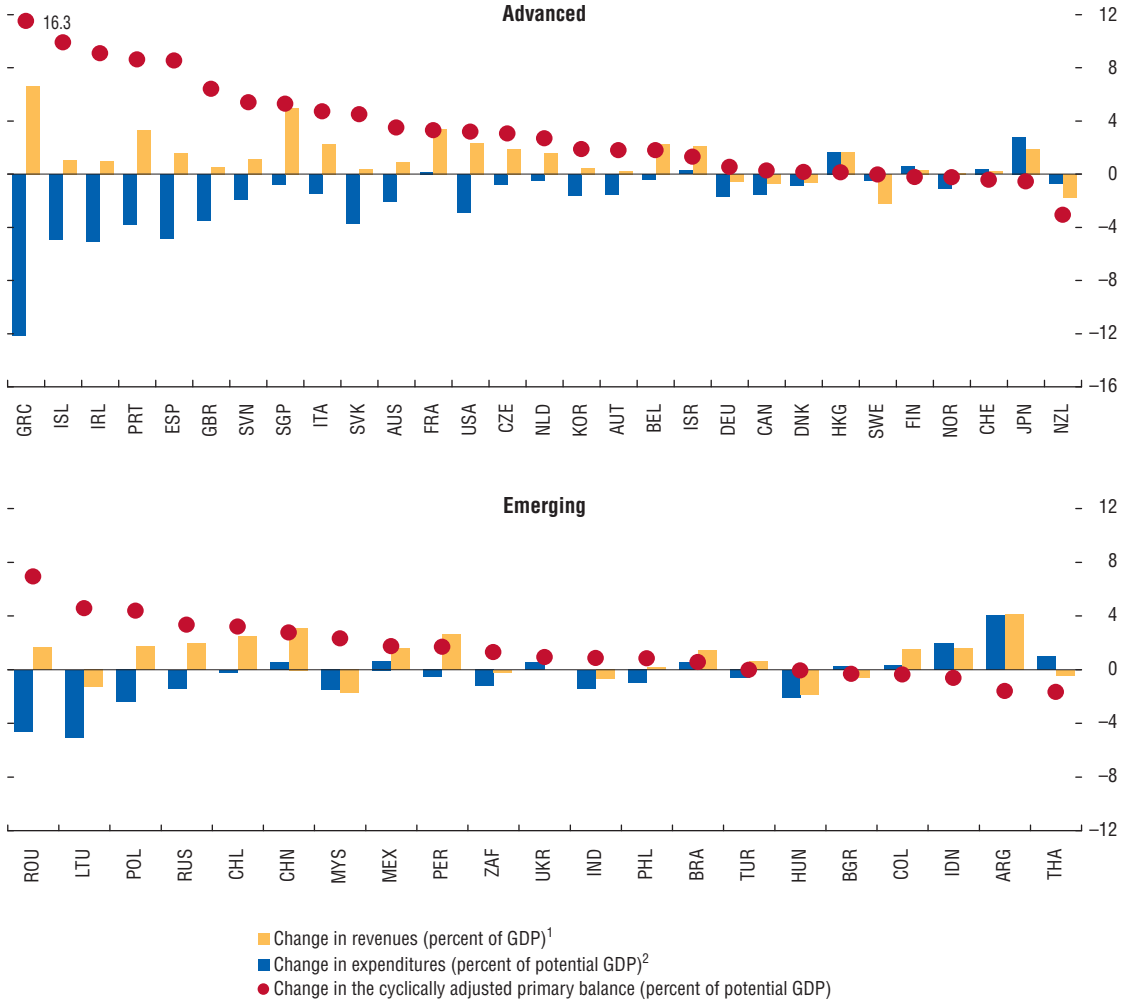
[6] Discretionary spending caps and automatic cuts.

[7] Subsidies.

[8] Gasoline prices liberalized in 2010/11.

[9] Reduction in local government transfers.

Figure 13. Advanced Economies and Emerging Markets: Change in Revenue, Expenditure, and the Cyclically Adjusted Primary Balance, 2009–13



Sources: IMF staff estimates and projections.
Note: Estimates do not exclude the effect of asset/commodity prices or one-off measures such as financial sector support on revenue and expenditure.
[1]Changes in revenue are estimated in percentage points of GDP, which implicitly assumes an elasticity of revenue to GDP of one.
[2]Changes in expenditure are estimated in percentage points of potential GDP, which implicitly assumes an elasticity of expenditure to GDP of zero.

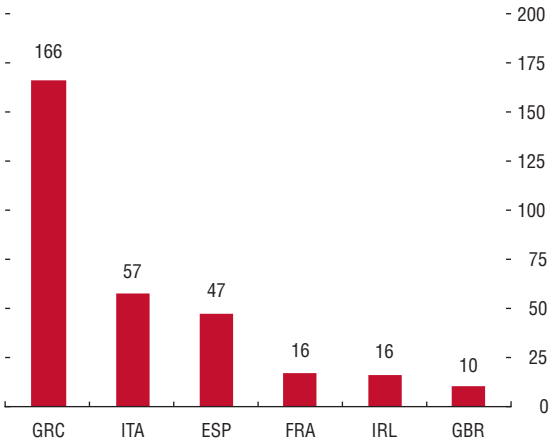
least postpone, the need for an increase in the VAT. On the other hand, Spain has proposed additional revenue measures that can be implemented relatively quickly, as earlier packages placed greater emphasis on expenditure measures.

Among commodity exporters, the cyclical rebound in revenues contributed significantly to the narrowing of deficits. However, some countries have used the fiscal space provided by rising commodity revenues to boost recurrent spending rather than to rebuild buffers (Algeria, Argentina, Venezuela). In low-income countries, increases in revenues are nearly being matched by increases in primary expenditure, which suggests that little effort is being made to rebuild the fiscal buffers drawn down during the crisis.

Spending reforms

Reforms of age-related spending programs have been widespread. As noted in previous issues of the *Fiscal Monitor*, pension reforms in particular have

Figure 14. Selected Advanced Economies: Present Discounted Value of Projected Pension Spending Reductions from Pension Reforms, 2010–50
(Percent of GDP)



Sources: European Commission Directorate-General for Economic and Financial Affairs (2009, 2012a); and IMF (2011a).

been an important component of consolidation efforts in many advanced economies, particularly in Europe. Reforms have generally focused on raising retirement ages, in some cases by accelerating previously scheduled increases (France, Greece, Ireland, Italy, Spain, the United Kingdom). These reforms should support growth by increasing the labor force over the medium term. Reforms have also tightened eligibility for early retirement (Greece, Italy, Spain), increased the taxation of high pensions (Greece, Ireland, Italy), reduced the indexation of pensions (Greece, Italy), and increased the base period over which wages are averaged for the calculation of the pension base (Greece, Spain). These reforms have substantially improved the medium-term finances of pension systems (Figure 14). In particular, the 2010 pension reform in Greece is projected to have reduced the present discounted value of pension spending over 2010–50 by more than 160 percent of 2010 GDP.

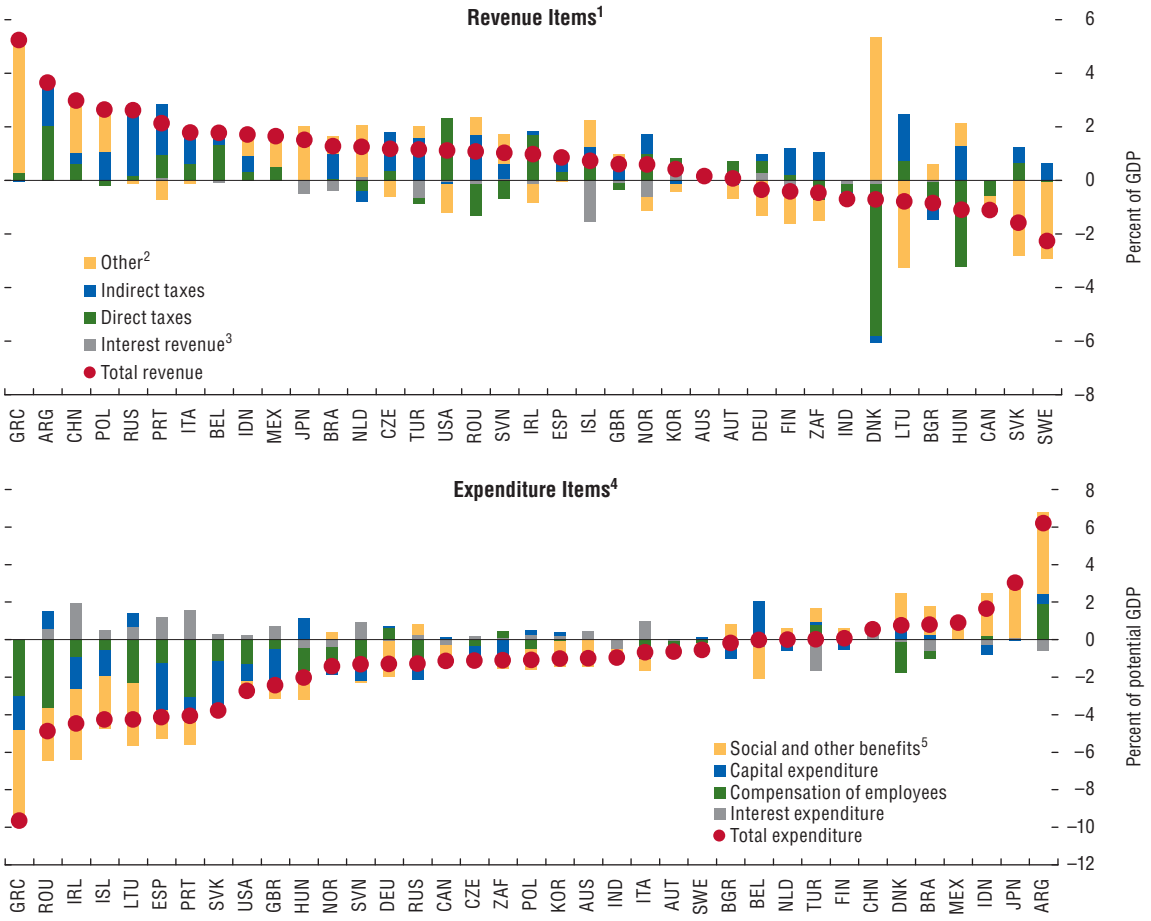
Several advanced economies have introduced reforms of their health care systems, although in most cases these are unlikely to have dramatic impacts on long-term spending trends. In the United States, a sweeping reform expanded coverage, introduced cost-cutting measures, and increased payroll and excise taxes for health care. The expected savings, however, are small because the cost of expanding coverage would largely offset the increase in revenues. In addition, expenditure measures are highly uncertain because past efforts to curtail health spending increases have often been overridden by Congress before taking effect. In advanced Europe, reforms have aimed at containing pharmaceutical spending (France, Germany, Greece, Ireland, Italy, Spain, United Kingdom), which constitutes only about 15 percent of public health spending. Reforms have also increased cost sharing (Greece, Italy, Portugal, Spain). Reductions in general government employment and compensation as part of fiscal consolidation efforts could also affect health spending in the near term, but their long-term impact is uncertain. Altogether, health care spending reform remains the key long-term public finance challenge in these economies, with projected spending increases that are larger than those for pension outlays (Appendix Table 12a).

Most governments, especially those in countries with the largest adjustment needs, have implemented measures to contain their wage bills, a step that has been a key component of successful fiscal consolidations in the past (Figure 15).[12] Most European economies, except France and Germany, have recently announced such measures. Most have also announced measures to control the size of the civil service. On average, the public wage bill has been reduced by just over ½ percent of potential GDP in advanced economies between 2010 and 2012, and well over twice that in Estonia, Portugal, and the United States. Many European economies have reduced expenditure on social benefits and attempted to preserve social equity through better targeting.

Regrettably, public investment has also experienced large cuts in most advanced economies, in many cases (Italy, Slovak Republic, Spain, United Kingdom) falling more than any other item in percent of potential GDP. In contrast, in many emerging markets, the bump in capital spending earlier in the crisis has not yet been rolled back (Figure 16). A protracted and disproportionate decline in capital spending could prove costly in the medium term

[12]For example, Denmark (1986), Canada (1999), Sweden (2000), Finland (2000), and Austria (2001). For more details, see IMF (2010b).

Figure 15. Selected G-20 and EU Economies: Change in Revenue and Expenditure Items, 2009–12



Sources: European Commission, annual macroeconomic database (AMECO); and IMF staff estimates and projections.
Note: Estimates do not exclude the effect of asset/commodity prices or one-off measures such as financial sector support on revenue and expenditure items.
[1]Change in revenue items is estimated in percentage points of GDP, which implicitly assumes an elasticity of revenue to GDP of one.
[2]Corresponds to revenue excluding direct taxes and interest revenue for Canada and Japan, to revenue excluding interest revenue for Australia, and to revenue excluding direct taxes for Mexico.
[3]Interest revenue is treated as zero when data are unavailable.
[4]Change in expenditure items is estimated in percentage points of potential GDP, which implicitly assumes an elasticity of expenditure to GDP of zero.
[5]Corresponds to current spending for Canada and Japan and to noninterest expenditure for Australia, China, India, and Mexico.

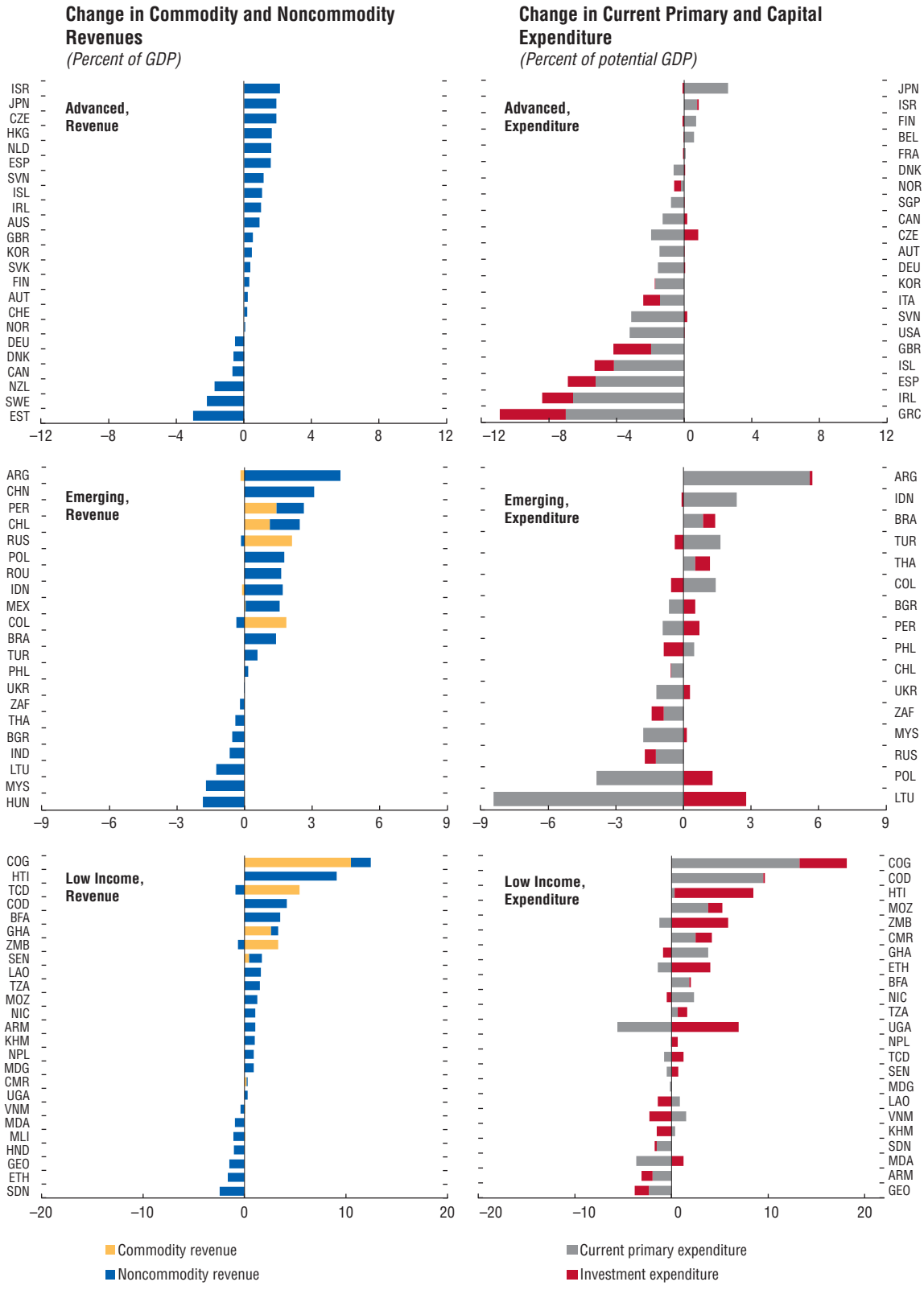
because of its impact on potential growth, though inefficient capital spending should not be exempt from cuts. For all countries, some room for priority capital outlays can be preserved by increasing the efficiency of other government spending, such as through replacing blanket subsidies with targeted income assistance and social transfers.[13]

[13]Improving spending efficiency is part of adjustment plans in several countries (for example, Australia, Canada, Italy, and the United Kingdom).

Revenue reforms

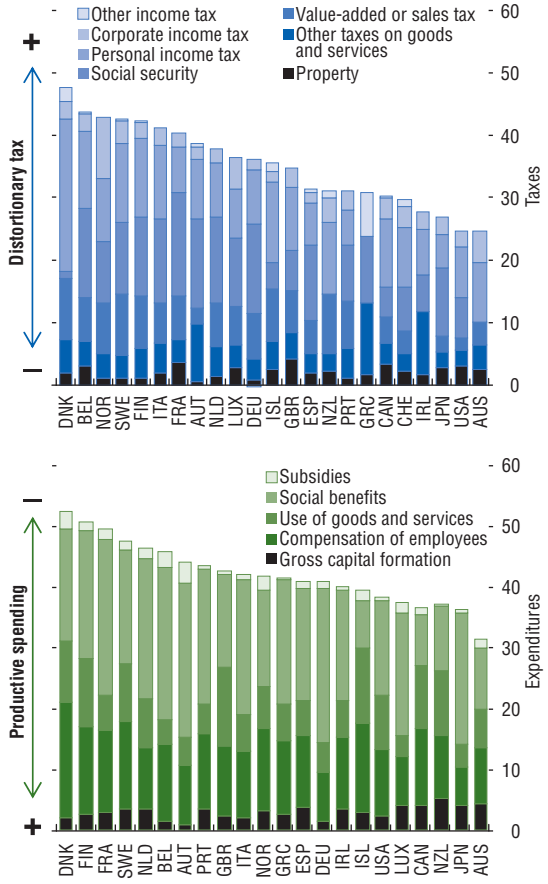
On the revenue side, advanced economies have attempted to focus on less distortionary levies such as indirect taxes and property taxes (Figure 17). A large majority of emerging market and advanced economies have raised excise taxes and taken steps to improve compliance (which typically improves the degree of progressivity in taxation). In Europe, many have also increased revenues from other consumption taxes—either by raising VAT rates (France, Ireland, Latvia,

Figure 16. Changes in Revenue and Expenditure, 2009–13



Sources: IMF staff estimates and projections.

Figure 17. Advanced Economies: Revenue and Expenditure Components Ranked According to Their Expected Long-Term Impact on Output
(Percent of GDP)



Sources: Abbas and others (2012); Arnold (2008); European Commission Directorate-General for Economic and Financial Affairs (2010); Organisation for Economic Co-operation and Development; IMF, *Government Finance Statistics*; and IMF staff estimates.

Note: Data are for 2010 or latest available. Darker shades of blue (green) represent taxes with less distortionary effects (more productive spending). The discussion here is illustrative, and there is no definitive consensus in the economic literature as to the long-term effects of revenue and expenditure components on output.

Lithuania, Poland, Romania, Spain, United Kingdom) or by broadening the tax base (Greece, Ireland, Portugal).[14] Many countries have also raised property taxes (Greece, Ireland,[15] Italy, Latvia, Lithuania, Portugal), which is expected to have a relatively limited impact on growth.

Nonetheless, several countries, particularly those with large adjustment needs, had to adopt broader revenue-enhancing measures and raised taxes on labor and capital. Increases in personal income taxes have taken the form of broadening the tax bases (Greece, Latvia, Portugal) and raising marginal rates (Spain, United Kingdom). Several countries have also raised corporate income taxes (France, Italy,[16] Mexico, Portugal) and capital gains taxes (Ireland, Italy, Portugal, United Kingdom), which could affect private investment.

In many countries, there is scope to further broaden the tax base by cutting tax expenditures and by curbing tax evasion. For example, more uniform VAT rates, fewer exemptions, and improved compliance can raise revenue and improve efficiency. Business tax incentives are widespread but typically inefficient and can cause significant revenue losses; rationalizing them could bring important benefits. As part of these measures, countries could review the often-favorable tax treatment of pension income (Box 5). In most low-income countries, efforts are needed to increase fiscal revenues over the medium term, for example, by establishing effective customs and tax administrations, eliminating exemptions, implementing a broad-based VAT with a fairly high threshold, and establishing a broad-based corporate income tax at internationally competitive rates (IMF, 2011b).

Commodity exporters (including Algeria, Saudi Arabia, and Venezuela) could strengthen nonresource revenues to enhance their longer-term fiscal prospects, including through improved administration and broader tax bases. A growing number of resource-rich emerging market economies and low-income countries should aim to strengthen their fiscal institutions to help make scaled-up investment more productive. Good fiscal frameworks can play a part in alleviating the "resource curse" by helping to manage short-term volatility and ensuring long-term fiscal sustainability (see IMF, 2012e).

Institutional reforms

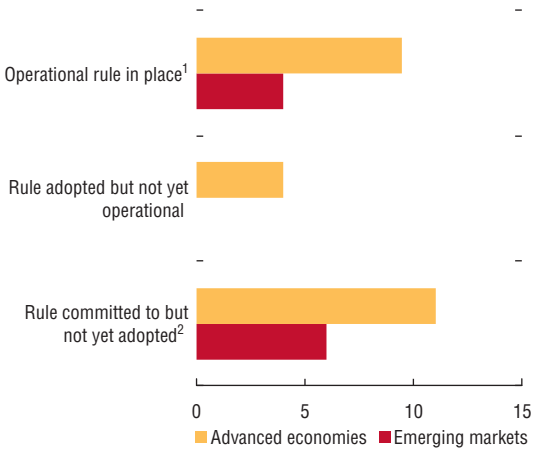
To enhance their financial credibility, many countries have embarked on strengthening fiscal governance and related institutional arrangements. In the European Union, the European Semester was created to facilitate the coordination of macroeconomic poli-

[14]Japan's VAT increase is scheduled to take effect in 2014.

[15]Ireland introduced a flat household charge in 2012 as a forerunner to a value-based property tax.

[16]Italy introduced a surtax in the energy sector in 2012.

Figure 18. Number of Countries with Budget Balance Rules Accounting for the Cycle



Sources: National authorities; and IMF staff assessments.
[1]Includes countries with a clearly specified transition path.
[2]Includes EU member states that have signed the Fiscal Compact but have not yet adopted a rule that accounts for the cycle.

cies.[17] In a number of euro area economies (Austria, Germany, Ireland, Italy, Portugal, Spain), legislation, often at the constitutional level, now requires maintaining roughly balanced structural fiscal positions over the medium term. The new rules typically include transition arrangements before taking full effect (for example, in Austria until 2017, in Portugal until 2015, and in Spain until 2020), and operational details still need to be legislated (for example, in Italy by February 2013). By formulating new fiscal rules in structural terms, the countries adopting them avoid the pitfalls of having to make procyclical adjustments to their fiscal stances. Rules that provide some flexibility to deal with economic shocks are clearly on the rise outside the European Union as well, for example, in Colombia and Serbia (Figure 18).[18]

Many countries are reforming institutional arrangements to further strengthen budget implementation and monitoring processes (Table 5). For example, a new commitment control law is beginning to take effect in Portugal. Greece, Ireland, and Portugal are moving toward setting up medium-term budget frameworks; Greece has adopted a medium-term fiscal strategy, Ireland has established three-year expenditure ceilings for each ministry, and Portugal's Stability Program now includes indicative ceilings on program-level expenditures. Moreover, many countries are setting up independent bodies with mandates that include monitoring of fiscal policies or the implementation of fiscal rules, and raising public awareness of fiscal issues. Examples include the United Kingdom's Office for Budget Responsibility, established in 2010, and the fiscal councils set up in Ireland and Portugal in 2011. In Europe, the proposed "two-pack" regulations would require euro area economies to base their budgets on independent macroeconomic forecasts and monitor the implementation of fiscal policy and rules through independent bodies (see Box 6).

3. Moving Forward

Notwithstanding the progress mentioned in the preceding section, large financing requirements remain a source of near-term fiscal vulnerability in several advanced economies, while prospective increases in age-related spending loom large over the long-term horizon for many of them. Moreover, fiscal risks around the baseline projections are on the rise across country groups, given the uncertain growth outlook and large contingent liabilities, particularly from the financial sector.[19] *If history is a lesson, the path to restoring fiscal sustainability will be long and arduous for most advanced economies. Maintaining adjustment efforts over the long term will require packages that mesh flexibility and credibility (through the use of structural or cyclically adjusted targets), limit adverse social effects, and boost employment and labor supply through appropriate tax and other spending policies, backed by strong fiscal institutions.*

[17]In the context of the excessive imbalance procedure, warnings and even sanctions can be imposed.

[18]The new Fiscal Rules Dataset (http://www.imf.org/external/datamapper/FiscalRules/map/map.htm) prepared by the IMF staff covers national and supranational fiscal rules for 81 countries since 1985. For an analysis of fiscal rules adopted in response to the crisis, see Schaechter and others (2012).

[19]Fiscal vulnerabilities refer to weaknesses that are incorporated in the baseline fiscal forecast—for example, large borrowing need or a sharp projected increase in pension spending. Fiscal risks refer to the exposure to negative shocks that could compromise the outcome expected under the baseline forecast—for example, an unexpected increase in interest rates or a banking crisis.

Table 5. Fiscal Institutions

	National Fiscal Rules[1]						
			Budget balance rule[2]				
	Expenditure rule	Revenue rule	Cyclically adjusted or adjusted over the cycle	Non–cyclically adjusted	Debt rule	Independent Fiscal Council	Medium-Term Budget Framework
Advanced economies							
Australia	✓	✓	✓		✓	✓[5]	Binding
Canada						✓[5]	Indicative
France	✓	✓	✓				Binding
Germany	✓		✓				Indicative
Greece			✓			✓[5]	Indicative
Ireland			✓[3]			✓	Indicative
Italy			✓[3]			✓[3]	Indicative
Japan	✓			✓			Indicative
Korea						✓	Indicative
Portugal			✓[3]			✓	Indicative
Spain	✓		✓[3]		✓		Indicative
United Kingdom			✓		✓	✓	Binding
United States	✓					✓[5]	Indicative
Emerging markets							
Argentina							None
Brazil	✓				✓		Indicative
China							None
Hungary			✓		✓[4]	✓[6]	Indicative
India							Indicative
Indonesia				✓	✓		Indicative
Latvia			✓				Indicative
Lithuania	✓	✓	✓		✓		Indicative
Mexico				✓			Indicative
Poland	✓		✓		✓		Indicative
Romania	✓		✓			✓	Indicative
Russian Federation							Indicative
Saudi Arabia							None
South Africa							Indicative
Turkey							Indicative

Sources: European Commission Working Papers; IMF, Fiscal Rules Dataset, 1985–2012; IMF Staff Reports; and IMF staff estimates.

[1]Does not include supranational or subnational fiscal rules.

[2]For the EU member states, check marks refer to adoption of some form of structural budget balance rule. This includes the EU member states that have signed the Fiscal Compact but have not yet adopted a structural budget balance rule. Prospective euro area members have committed to adopting such a rule only at the time of joining the euro area. Pay-as-you-go rules adopted in Japan and the United States are not included as they limit only additional deficit-raising measures but do not cap the overall deficit.

[3]Adopted but has not yet taken effect.

[4]The debt rule will take effect from 2016.

[5]Refers to the Congressional Budget Office in the United States, and Parliamentary Budget Office for the rest.

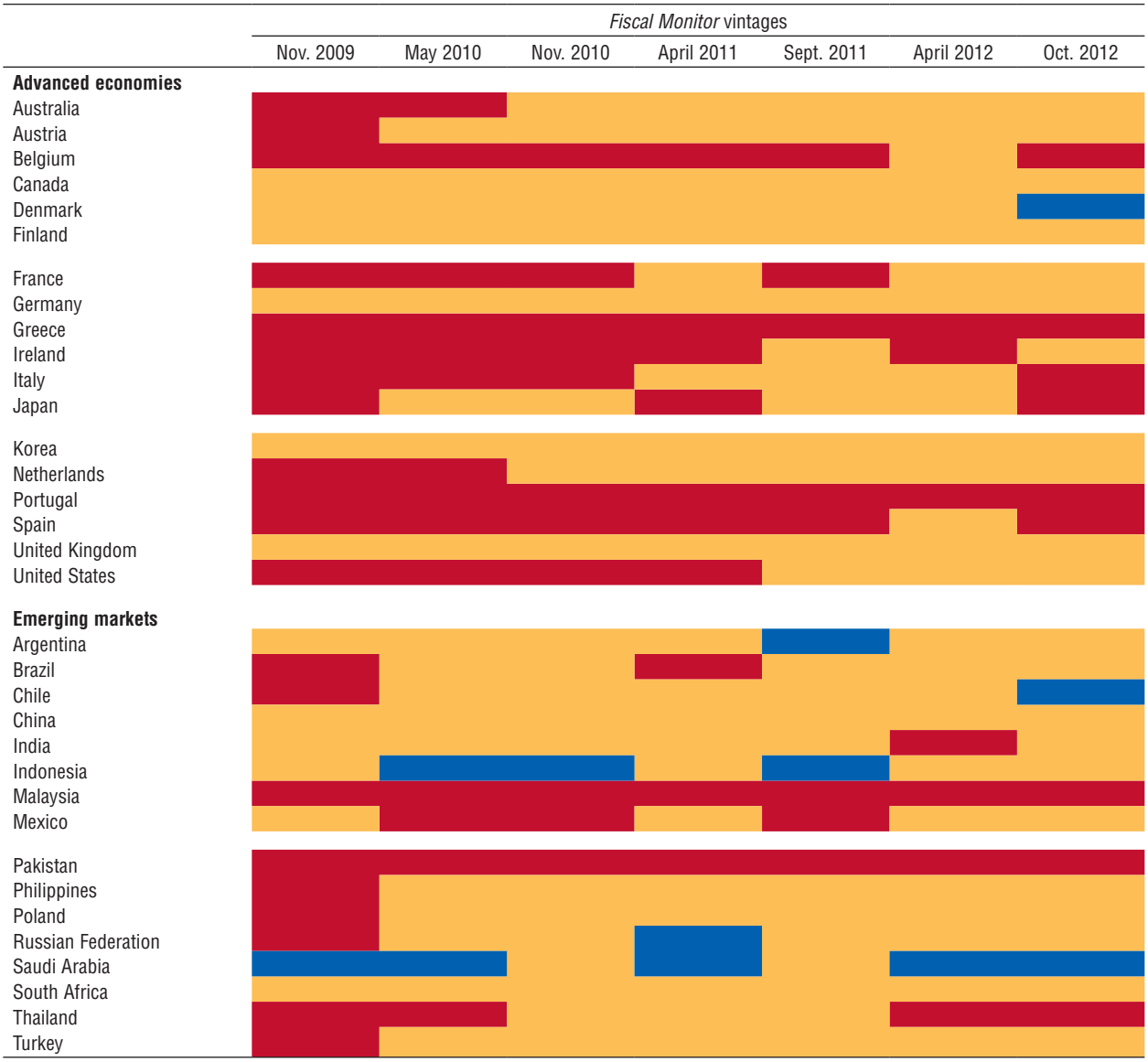
[6]The fiscal council was significantly weakened following the 2011 reorganization, which reduced its budget and eliminated its dedicated staff.

Deficits decline, but the fiscal outlook remains fragile

Despite the substantial progress reported in Section 2, fiscal vulnerabilities remain elevated (Table 6). In advanced economies, persistently high debt levels, coupled with unaddressed medium-term challenges, have tended to expose budgets to market shocks. For emerging market economies, smaller debt burdens translate into more moderate vulnerability levels, although rising deficits and looming medium-term entitlements remain important weaknesses. In advanced Europe, fiscal vulnerabilities continue to rise, while in emerging Europe they remain above those in other regions (Figure 19).[20]

[20]See Baldacci and others (2011) for the technical description of the estimation of the fiscal indicators index used here.

Table 6. Assessment of Fiscal Vulnerabilities over Time



Sources: Bloomberg L.P; Consensus Economics; Thomson Reuters Datastream; and IMF staff estimates and projections.

Note: To allow for cross-country comparability, a uniform methodology is used to assess vulnerability. In-depth assessment of individual countries would require case-by-case analysis using a broader set of tools. Based on fiscal vulnerability indicators presented in Table 7, red (yellow, blue) implies high (medium, moderate) levels of fiscal vulnerability.

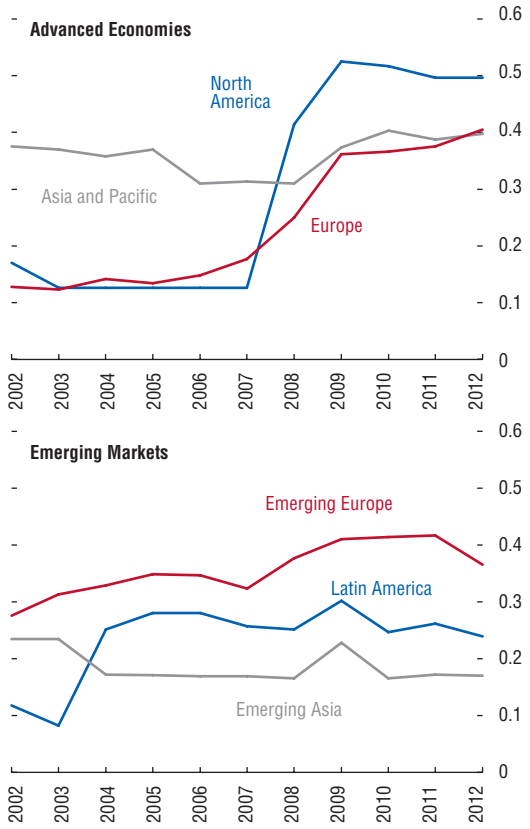
Furthermore, in some cases, vulnerabilities stemming from uncertainties about growth and potential contingent liabilities continue to cloud fiscal developments, especially in advanced economies (Table 7).[21]

Large gross financing requirements make most advanced economies highly vulnerable to shifts in market sentiment (Table 8).[22] Among the advanced economies, Japan and the United States face the biggest gross financing requirements in the coming years because of their large debt stocks and sizable

[21]Table 7 uses a uniform methodology for each vulnerability indicator to allow for cross-country comparability. In-depth assessment of individual countries would require case-by-case analysis using a broader set of tools.

[22]Financing requirements will remain at peak levels in 2012–13 (close to 25 percent of GDP on average), despite the decline in deficits, because of continuingly high rollover needs.

Figure 19. Fiscal Indicators Index by Region, 2002–12
(Scale, 0–1)



Sources: Baldacci and others (2011); and IMF staff calculations.
Note: 2009 GDP weights at purchasing power parity used to calculate weighted averages. Larger values of the index suggest higher levels of fiscal vulnerability.

deficits as well as the still-relatively-short maturities of their debt.[23] High sovereign spreads have pushed Italy and Spain to shorten the maturity of new issuances in order to reduce financing costs (Figure 20), but these countries' rollover needs are expected to decline as a share of GDP. Financing needs in emerging market economies are also projected to continue to trend down on average, owing to the cumulative impact of falling deficits (Table 9). Exceptions include Hungary and Pakistan, where maturing debt is rising. Though declining, financing requirements in Brazil remain on the high side, reflecting the relatively short maturity structure of the largely domestic public debt.

Age-related spending remains a growing burden in both advanced and emerging market economies, notwithstanding reforms discussed above. Without further measures, pension and health care spending is expected to rise by more than 4 percent of GDP by 2030 in advanced economies and by more than 3 percent of GDP in emerging market economies (see Statistical Tables 12a and 12b). In advanced economies, the biggest challenge is rising health care costs, which are in part due to technological change. Only a few countries, including Denmark and Italy, have managed to minimize the expected impact of age-related spending on future deficits. In emerging market economies, the biggest challenge is pension-related spending. Chile and Poland are among the few emerging market economies in which entitlement spending is expected to remain at bay.

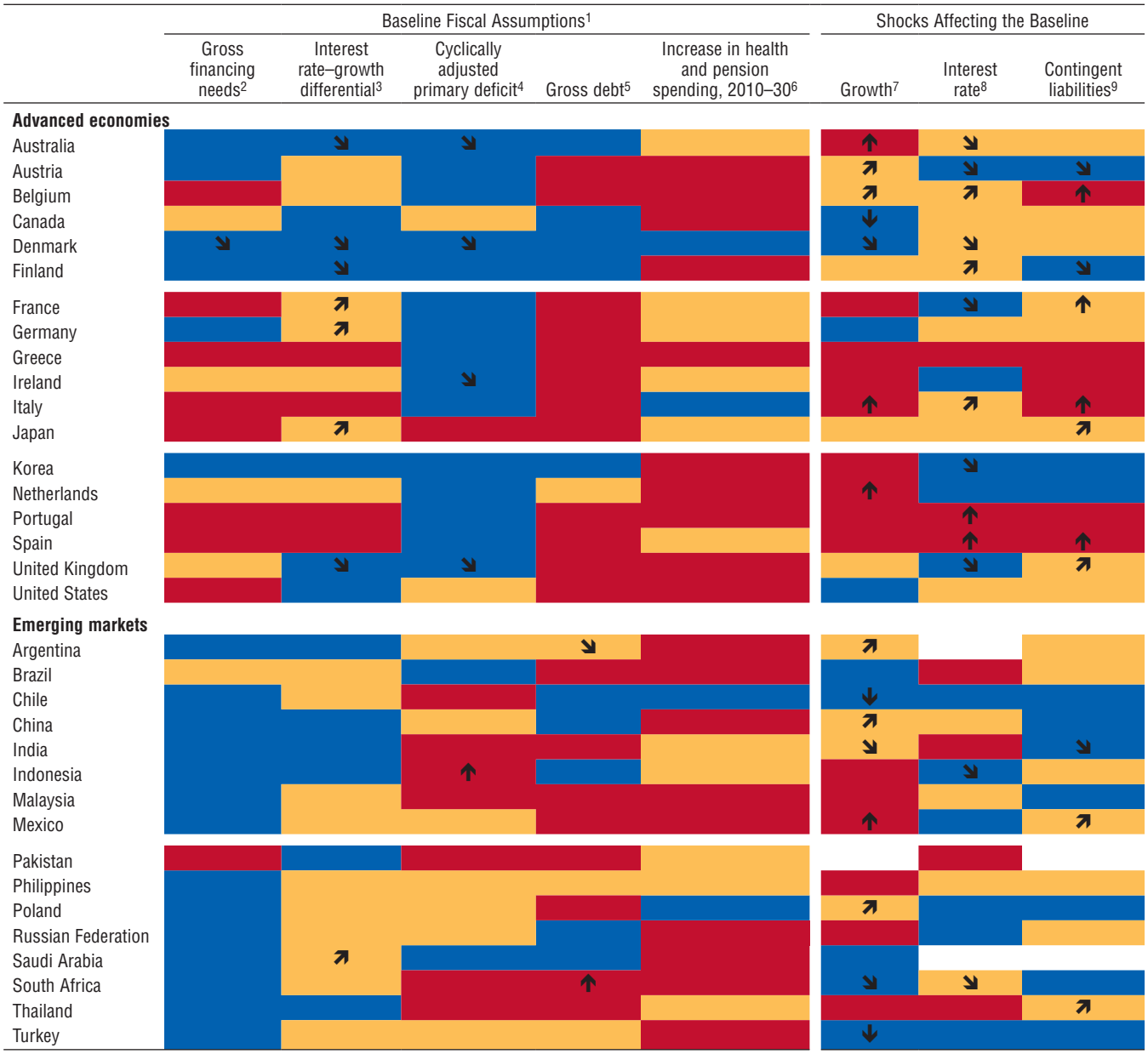
Downside risks to debt dynamics are worsening. First, market analysts increasingly expect lower growth in advanced as well as emerging market economies (see the October 2012 WEO [IMF, 2012g]). This would weaken budget positions and in many cases further complicate debt dynamics. Second, the risks emanating from market volatility continue to plague some euro area countries, and only the few of them benefiting from safe-haven flows have seen this risk recede. As interest rate–growth differentials have trended upward, the effort required to stabilize debt has increased: if this differential had remained at 2010 levels, the primary balance needed to stabilize public debt in Greece, Portugal, and Italy would be, respectively, 6.5 percentage points, 6.2 percentage points, and 4.4 percentage points lower than at present.

Emerging market economies are also vulnerable to adverse debt dynamics. Interest rates have remained broadly stable in these economies in recent months, but in several cases fiscal projections presume a decline in rates. The fiscal outcome could thus be weaker than expected should lower rates not materialize.[24] In addition, interest rate–growth differentials

[23]In cases in which net debt-to-GDP ratios are considerably lower than gross ratios, the focus on headline debt ratios may overstate the degree of short-term financial pressure faced by some governments. See the April 2012 *Fiscal Monitor*.

[24]Historically, the interest rate–growth differential has been subject to higher volatility in emerging market economies, in part

Table 7. Assessment of Fiscal Vulnerabilities, October 2012



Sources: Bloomberg L.P.; Consensus Economics; Thomson Reuters Datastream; and IMF staff estimates and projections.

Note: To allow for cross-country comparability, a uniform methodology is used for each vulnerability indicator. In-depth assessment of individual countries would require case-by-case analysis using a broader set of tools. Fiscal data correspond to IMF staff forecasts for 2013 for the general government. Market data used for the *Growth, Interest rate,* and *Contingent liabilities* indicators are as of August 2012. A blank cell indicates that data are not available. Directional arrows indicate that, compared to the previous *Fiscal Monitor*, vulnerability signaled by each indicator is higher (↑), moderately higher (↗), moderately lower (↘), or lower (↓). No arrow indicates no change compared to the previous *Fiscal Monitor.*

[1] Red (yellow, blue) implies that the indicator is above (less than one standard deviation below, more than one standard deviation below) the corresponding threshold. Thresholds are from Baldacci, McHugh, and Petrova (2011) for all indicators except the increase in health and pension spending, which is benchmarked against the corresponding country group average.

[2] For advanced economies, gross financing needs above 17.2 percent of GDP are shown in red, those between 12.9 and 17.2 percent of GDP are shown in yellow, and those below 12.9 percent of GDP are shown in blue. For emerging markets, gross financing needs above 20.6 percent of GDP are shown in red, those between 16.3 and 20.6 percent of GDP are shown in yellow, and those below 16.3 percent of GDP are shown in blue.

[3] For advanced economies, an interest rate–growth differential above 3.6 percent is shown in red, one between 0.3 and 3.6 percent is shown in yellow, and one below 0.3 percent is shown in blue. For emerging markets, an interest rate–growth differential above 1.1 percent of GDP is shown in red, one between –4.4 and 1.1 percent of GDP is shown in yellow, and one below –4.4 percent of GDP is shown in blue.

[4] For advanced economies, cyclically adjusted deficits above 4.2 percent of potential GDP are shown in red, those between 1.8 and 4.2 percent of potential GDP are shown in yellow, and those below 1.8 percent of potential GDP are shown in blue. For emerging markets, cyclically adjusted deficits above 0.5 percent of potential GDP are shown in red, those between –1.3 and 0.5 percent of potential GDP are shown in yellow, and those below –1.3 percent of potential GDP are shown in blue.

[5] For advanced economies, gross debt above 72.2 percent of GDP is shown in red, that between 56.9 and 72.2 percent of GDP is shown in yellow, and that below 56.9 percent of GDP is shown in blue. For emerging markets, gross debt above 42.8 percent of GDP is shown in red, that between 29.4 and 42.8 percent of GDP is shown in yellow, and that below 29.4 percent of GDP is shown in blue.

[6] For advanced economies, an increase in spending above 3 percent of GDP is shown in red, one between 0.6 and 3 percent of GDP is shown in yellow, and one below 0.6 percent of GDP is shown in blue. For emerging markets, an increase in health and pension spending above 2 percent of GDP is shown in red, one between 0.3 and 2 percent of GDP is shown in yellow, and one below 0.3 percent of GDP is shown in blue.

[7] Risk to real GDP growth is measured as the ratio of the downside risk to the upside risk to growth, based on one-year-ahead real GDP growth forecasts by market analysts included in the Consensus Forecast. It is calculated as the standard deviation of market analysts' growth forecasts below the Consensus Forecast mean (downside risk, or DR), divided by the standard deviation of market analysts' growth forecasts above the Consensus Forecast mean (upside risk, or UR). This ratio is then averaged over the most recent three months. Cells are shown in red if downside risk is 25 percent or more higher than upside risk (DR/UR > 1.25), in yellow if downside risk is less than 25 percent higher than upside risk ($1 < DR/UR \leq 1.25$), and in blue if downside risk is lower than or equal to upside risk ($DR/UR \leq 1$).

[8] Risks to the financing cost underpinning the fiscal projection are measured as the difference between the current 10-year sovereign bond yield and the long-term bond yield (LTBY) assumption included in the *Fiscal Monitor* projections. Cells are shown in red if the current bond yield is above or equal to the LTBY, in yellow if the current bond yield is 100 basis points or less below the LTBY, and in blue if the current bond yield is more than 100 basis points below the LTBY.

[9] Fiscal contingent liabilities are proxied by banking sector uncertainty, measured as the conditional volatility of monthly bank stock returns, using an exponential generalized autoregressive conditional heteroskedastic (EGARCH) model which allows asymmetric volatility changes to positive versus negative shocks in stock returns. The rationale is as follows: bank stock returns capture market expectations of banks' future profitability and therefore—indirectly—banks' ability to maintain required capital. Higher volatility of bank returns can create uncertainty with respect to banks' ability to safeguard capital (see Sankaran, Saxena, and Erickson, 2011), increasing the probability that banks will need to be recapitalized, thereby resulting in contingent liabilities for the sovereign. Cells are shown in red if current volatility is more than two standard deviations above the historical average for January 2000–December 2007, in yellow if it is above the historical average by up to two standard deviations, and in blue if it is below or equal to the historical average.

Table 8. Selected Advanced Economies: Gross Financing Needs, 2012–14
(Percent of GDP)

	2012			2013			2014		
	Maturing debt	Budget deficit	Total financing need	Maturing debt[1]	Budget deficit	Total financing need	Maturing debt[1]	Budget deficit	Total financing need
Japan	49.3	10.0	59.4	51.3	9.1	60.4	50.7	7.2	57.9
Italy	27.4	2.7	30.1	23.5	1.8	25.3	23.8	1.6	25.4
Greece[2]	21.4	7.5	28.9	12.9	4.7	17.6	14.0	3.4	17.4
Portugal[3]	22.4	5.0	27.4	17.3	4.5	21.7	19.7	2.5	22.2
United States	17.6	8.7	26.3	20.0	7.3	27.3	20.6	5.6	26.1
Spain	15.6	7.0	22.6	15.6	5.7	21.3	15.5	4.6	20.1
Belgium	16.4	3.0	19.4	17.5	2.3	19.8	17.2	1.5	18.7
France	13.8	4.7	18.5	15.9	3.5	19.4	15.4	2.8	18.2
Canada	12.7	3.8	16.5	15.1	3.0	18.2	16.0	2.2	18.2
Ireland[4]	4.3	11.6	15.9	5.7	8.7	14.4	6.5	6.0	12.5
United Kingdom	6.9	8.2	15.1	7.4	7.3	14.7	9.4	5.8	15.1
Netherlands	10.4	3.7	14.1	11.3	3.2	14.5	11.8	3.6	15.4
Slovak Republic	7.5	4.8	12.3	10.0	2.9	12.9	9.7	2.9	12.6
Czech Republic	9.0	3.2	12.3	9.3	3.0	12.3	10.1	2.8	12.8
Denmark	7.8	3.9	11.7	8.5	2.0	10.5	7.8	1.9	9.7
Iceland	7.4	2.8	10.2	7.9	1.6	9.5	5.0	0.5	5.5
New Zealand	4.7	4.3	9.0	10.2	2.7	13.0	5.9	1.0	6.9
Finland	7.2	1.4	8.6	7.2	0.9	8.1	7.5	0.3	7.8
Austria	5.6	2.9	8.5	6.3	2.1	8.4	8.8	1.8	10.6
Germany	8.1	0.4	8.5	7.9	0.4	8.3	5.4	0.3	5.7
Slovenia	3.3	4.6	7.9	3.3	4.4	7.7	5.8	2.8	8.6
Australia	2.4	2.8	5.3	3.0	1.0	4.0	3.2	0.3	3.6
Sweden	4.4	0.2	4.7	2.5	0.2	2.7	5.2	–0.2	5.1
Switzerland	3.3	–0.5	2.8	3.0	–0.5	2.5	2.8	–0.8	2.0
Korea	3.3	–2.0	1.3	3.3	–2.7	0.6	3.8	–2.8	1.0
Norway	4.0	–13.4	–9.3	6.0	–12.5	–6.5	3.8	–11.3	–7.5
Average	18.7	6.1	24.7	19.8	5.0	24.8	19.9	3.9	23.8

Sources: Bloomberg L.P.; and IMF staff estimates and projections.

Note: For most countries, data on maturing debt refer to central government securities. For some countries, general government deficits are reported on an accrual basis (see Table SA.1).

[1] Assumes that short-term debt outstanding in 2012 and 2013 will be refinanced with new short-term debt that will mature in 2013 and 2014, respectively. Countries that are projected to have budget deficits in 2012 or 2013 are assumed to issue new debt based on the maturity structure of debt outstanding at the end of 2011.

[2] Greece's maturing debt assumes 90 percent participation in the Private Sector Involvement (PSI) debt exchange program.

[3] Maturing debt expressed on a nonconsolidated basis.

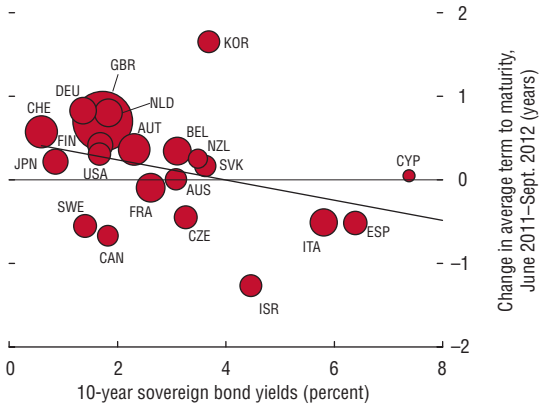
[4] Ireland's cash deficit includes exchequer deficit, other government cash needs, and bank/credit union recapitalization.

in emerging market economies could be pushed to higher-than-projected levels over the medium term if potential GDP is overestimated (lower *g*), or if greater financial integration brings real rates more in line with those in international markets (higher *r*), as discussed in Escolano, Shabunina, and Woo (2011).

Debt risks have also increased for low-income countries, which have limited access to capital markets and rely heavily on concessional financing. Although significant additional official financing was made available during the crisis (including from the IMF and front-loaded disbursements from donors), such financing is expected to decline in the near term, reflecting in part rising constraints on donor budgets (Figure 21). Moreover, the profile of external financing is projected to shift from budget support loans to concessional project loans, which could result in significant disbursement delays if implementation capacity is poor. Greater access to nonconcessional financing would require better institutions (including public financial management systems and investment project procurement and evaluation). Although the interest rate–growth differ-

because of their greater share of foreign-currency-denominated debt and the resulting higher exchange rate risk.

Figure 20. Advanced Economies: Sovereign Bond Yields and Average Bond Maturity



Sources: Bloomberg L.P.; and IMF staff estimates.
Note: As of mid-September 2012. Bubble size denotes average term to maturity in years.

ential is projected to remain negative in the medium term, higher effective interest rates caused by the change in financing composition will gradually increase it. Combined with historically high growth rate volatility in low-income countries, this calls for a more cautious approach to debt accumulation in some of these countries.

Contingent liabilities, particularly those arising from the financial sector, continue to pose a risk to budgets (see the October 2012 *Global Financial Stability Report*), especially in Europe. Compared to the direct cost of financial sector support in previous crises, the cost of the current crisis has been relatively small so far: the average net fiscal outlay is below 5 percent of GDP, and one-third of the support has already been repaid (see Box 4). However, the cost has been much higher in some countries (Greece, Ireland).

Moreover, the explicit contingent liabilities in guarantee schemes are, in some cases, much larger than the direct support itself (Figure 22). The use of government guarantees has been particularly pronounced in some euro area countries where banks had to turn to the European Central Bank and use these guarantees as collateral to replace lost funding. Implicit contingent liabilities could also rise if the economic outlook deteriorates further, weakening private sector balance sheets, and the availability of collateral to access central bank liquidity continues to dwindle in the euro area (partly reflecting changes in asset eligibility), pushing national central banks to provide emergency liquidity assistance (Figure 23). To lower the risks from such linkages between sovereigns and banks, it is important to proceed swiftly with a coherent strategy to restore banking sector viability in Europe. From that perspective, the measures recently announced are steps in the right direction, but they will have to be complemented with further action toward a full-fledged banking union and deeper fiscal integration. Though banking sector contingent liabilities are less pronounced in emerging economies, this could change if growth falters. In addition, contingent liabilities could rise from the growing use of public-private partnerships and other vehicles designed to scale up infrastructure spending without compromising near-term deficit targets.

Adjustment momentum must be calibrated for the long haul

Debt ratios in many advanced economies are at unprecedented levels, and the fiscal effort required to address them will in many cases also be without precedent. In particular, many advanced economies need to achieve primary balances that are well above what would be expected, based on how they have responded to previous fiscal challenges (Figure 24). So fiscal consolidation would need to be more ambitious than in the past and maintained over a long period in order to bring debt down.

Case studies of historical experiences with high debt (see Chapter 3 of the October 2012 WEO [IMF, 2012g]) show that successful fiscal consolidation takes time and that ultimate success is built on sustained efforts over many years. In addition, if fiscal consolidation is to reduce debt, it must be accompanied by a supportive monetary policy stance. In some cases, inflation has helped lower public debt, although the process has often been assisted by (implicit or explicit) financial repression. In the absence of financial repression (that is, assuming that nominal interest rates are allowed to respond fully to higher inflation expectations), only a very large surprise inflation could bring down

Table 9. Selected Emerging Markets: Gross Financing Needs, 2012–13
(Percent of GDP)

	2012			2013		
	Maturing debt	Budget deficit	Total financing need	Maturing debt	Budget deficit	Total financing need
Pakistan	23.9	6.4	30.2	23.8	7.2	31.0
Brazil	15.8	2.1	17.9	15.4	1.6	17.0
Hungary	13.8	2.9	16.7	15.2	3.7	18.9
India	4.4	9.5	13.9	2.1	9.1	11.3
Morocco[1]	4.9	6.7	11.6	7.0	6.5	13.5
Poland	8.1	3.4	11.5	8.4	3.1	11.6
Mexico	8.8	2.4	11.2	8.3	2.1	10.4
Romania	8.7	2.2	10.9	8.8	1.8	10.6
Ukraine	7.2	3.1	10.4	11.2	3.1	14.3
Philippines	8.1	1.9	9.9	8.6	1.2	9.9
Turkey	7.6	1.7	9.4	8.3	1.9	10.3
Thailand	6.3	3.0	9.3	5.4	3.8	9.1
Lithuania	5.7	3.3	9.0	5.6	2.9	8.4
China[2]	6.9	1.3	8.2	4.6	1.0	5.6
Argentina[2]	3.5	4.6	8.1	4.3	2.5	6.8
Malaysia	3.4	3.8	7.3	1.9	4.3	6.3
Jordan	0.7	6.5	7.2	0.1	5.5	5.6
South Africa	1.4	5.0	6.4	1.7	4.7	6.5
Latvia	4.3	1.3	5.6	4.2	1.5	5.7
Colombia	4.6	0.8	5.4	5.3	1.2	6.4
Indonesia	1.2	1.6	2.9	1.4	2.0	3.4
Bulgaria	1.6	1.1	2.7	2.6	1.1	3.7
Chile	0.9	0.3	1.2	1.2	0.6	1.8
Russian Federation	1.2	–0.5	0.7	1.1	–0.2	0.9
Peru	0.9	–1.8	–0.9	1.0	–1.4	–0.4
Kazakhstan	1.3	–3.6	–2.3	1.6	–3.7	–2.1
Average	6.8	2.3	9.2	5.7	2.1	7.8

Sources: IMF staff estimates and projections.

Note: Refers to general government. For some countries, general government deficits are reported on an accrual basis (see Table SA.2).

[1]Budget deficit on a cash basis, not accrual as in Statistical Table 5.

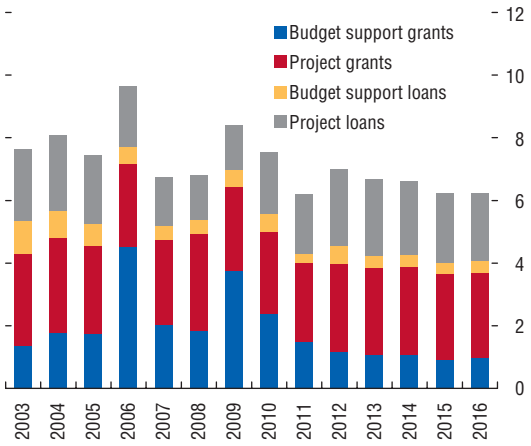
[2]For details, see "Data and Conventions" in the Methodological and Statistical Appendix.

public debt ratios significantly.[25] In today's context of greater financial globalization, a captive domestic investor base may be more difficult to maintain than in the past. The privatization of nonfinancial assets could be explored as an option for bringing down debt, but the value of these assets is hard to quantify, and their sale may be difficult under volatile market conditions (Box 7).

[25]Simple calculations suggest that an increase in inflation by 3 percentage points consistently during 2013–17, compared to the WEO baseline, would reduce debt on average in advanced G-20 economies by only 9.6 percent of GDP by 2017. To lower debt more significantly, for example, to 60 percent of GDP in the United States, would require that inflation reach 30 percent for 2013–15 and remain at 8 percent thereafter.

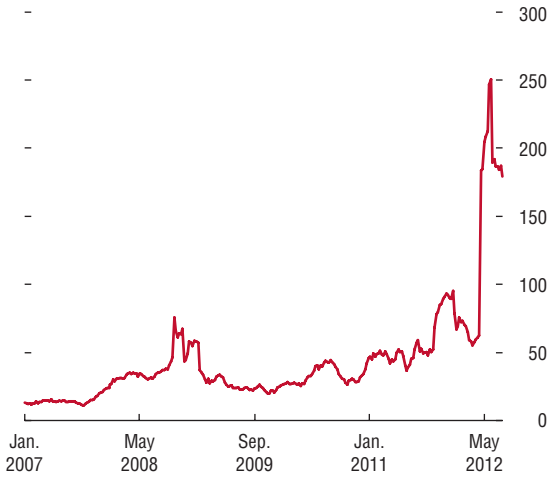
Importantly, restructuring is not a low-cost option to reduce sovereign debt. Debt restructuring tends to lead to higher government borrowing rates over the medium term, which is then transmitted to domestic lending rates, bringing about a significant contraction in credit, investment, and consumption. If, in addition, a large portion of public debt is held domestically, as in most advanced economies, domestic bondholders will have to absorb the capital losses. If debt is held by neighboring countries (as in the euro area), spillover effects can be very large. Figure 25 illustrates how the cost of debt restructuring in terms of consumption and output losses increases with the share of public debt held by domestic investors. Nonetheless, in some cases debt

Figure 21. Low-Income Countries: Concessional Financing
(Percent of GDP)



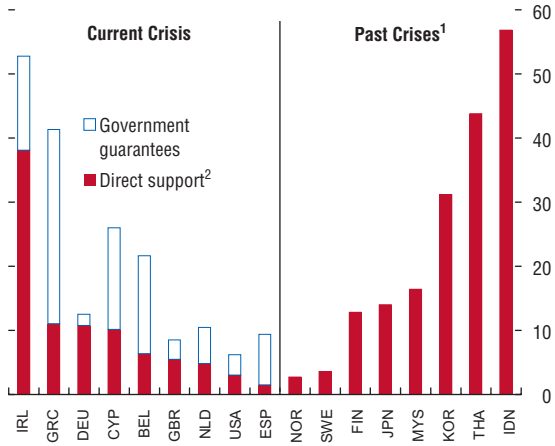
Sources: Guerguil, Poplawski-Ribeiro, and Shabunina (2012); and IMF staff estimates and projections.
Note: Average for low-income countries and fragile states in Africa, with oil producers excluded.

Figure 23. Eurosystem: Other Claims on Banks
(Billions of euros)



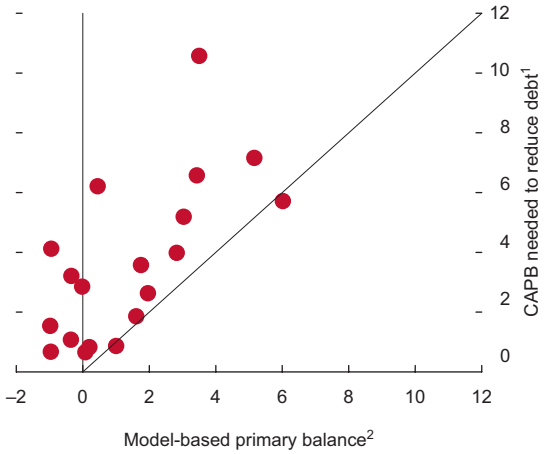
Source: European Central Bank.
Note: Includes Emergency Liquidity Assistance.

Figure 22. Selected Countries: Financial Sector Support Measures
(Percent of GDP)



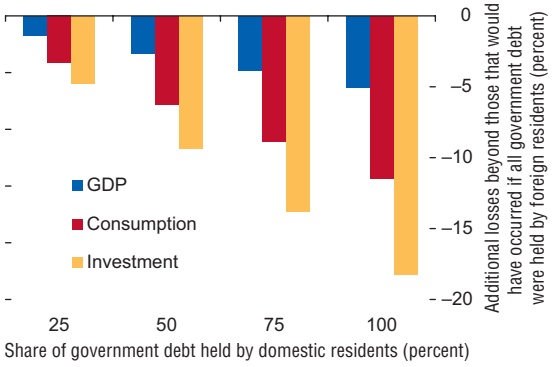
Sources: Dealogic; European Commission; Laeven and Valencia (2012); national authorities; and IMF staff estimates.
Note: Government guarantees correspond to bonds issued by private and public banks and financial institutions and carrying state guarantees. Short-term debt is not included.
[1]Dates of crises are as follows: Sweden (1991–95), Norway (1991–93), Finland (1991–95), Japan (1997–2001), Malaysia (1997–99), Korea (1997–98), Thailand (1997–2000), and Indonesia (1997–2001).
[2]For past crises, direct support refers to the component of gross fiscal outlays associated with bank recapitalizations but excludes asset purchases and direct liquidity assistance from the treasury.

Figure 24. Advanced Economies: Model-Based Primary Balance and CAPB Needed to Reduce Debt
(Percent of GDP)



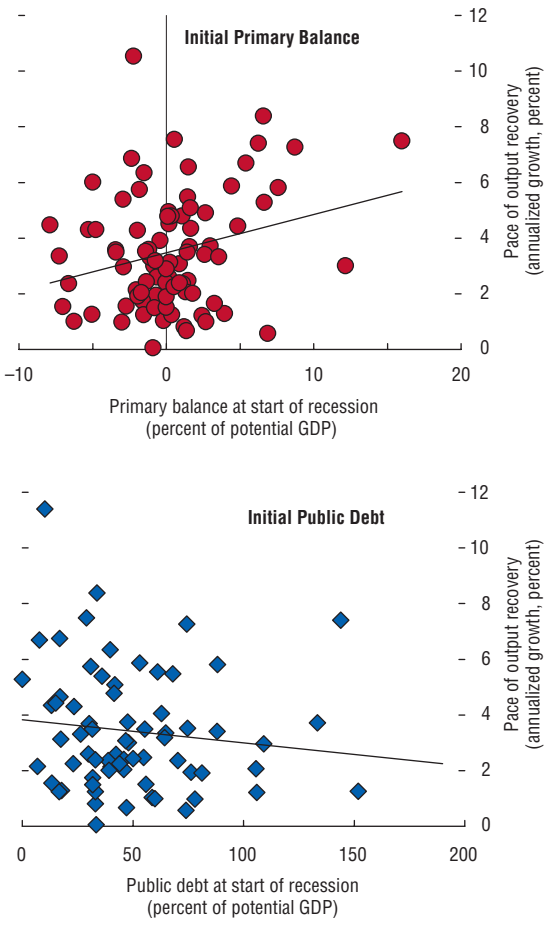
Sources: Zeng (2012); and IMF staff estimates and projections.
[1]Cyclically adjusted primary balance (CAPB) needed to reduce debt is based on methodology described in Statistical Table 13a.
[2]Model-based primary balance illustrates the primary balance that would be expected if historical relationships with macroeconomic conditions continue to hold true, based on Zeng (2012). It is calculated as the fitted values of an econometric model, estimated from a panel of 61 countries over 1990–2007, that includes determinants such as real GDP growth, interest rate–growth differential, initial debt stock, private savings, inflation, and a political risk index.

Figure 25. Postrestructuring Losses and Domestic Investors



Source: Forni and Pisani (2012).
Note: Figure shows average additional losses, in the two years after sovereign restructuring, beyond those that would have occurred if all debt were held by foreign residents. Simulations were performed using a general equilibrium model of one country within the euro area and assuming a 40 percent haircut. Results are illustrative and should be interpreted with care, as they depend on a number of assumptions.

Figure 26. Initial Fiscal Position and Output Recovery Rate



Source: Kinda, Poplawski-Ribeiro, and Woo (2012).

restructuring has proven unavoidable for ensuring the sustainability of the public finances.[26]

Countries with relatively comfortable debt ratios do not need to lower them at an aggressive pace. They should, however, aim at maintaining reasonable fiscal buffers to improve their capacity to confront future shocks. A stronger fiscal position—as measured by a low public debt ratio or relatively large primary surplus at the start of recession—is associated with a faster recovery (Figures 26 and 27). For example, a primary balance higher by 1 percent of GDP at the start of recession is associated with a 10 percent increase in the likelihood of exiting the recession (Kinda, Poplawski-Ribeiro, and Woo, 2012).[27]

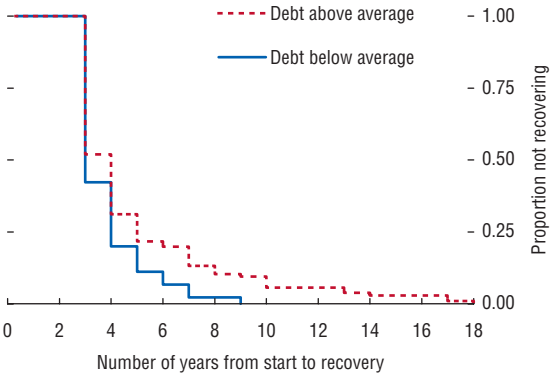
The use of structural or cyclically adjusted targets can enhance the credibility and viability of medium-term adjustment plans. Such targets, when set in the context of fully specified multiyear plans, provide sufficient flexibility to respond to moderate fluctuations in economic activity without bringing underlying fiscal progress into question. In Europe, several countries have explicitly adopted structural balance targets (Germany, Italy, United Kingdom), and the European Commission is increasingly formulating its recommendations in structural terms for nonprogram countries. Once a credible plan has been defined, the pace of underlying consolidation should be adjusted only in response to large shocks to growth, in the context of a reassessment of the overall macroeconomic policy mix, and only as long as there is sufficient fiscal space to do so.

To further buttress the durability of reforms, consolidation needs to be accompanied by measures that enhance growth in both the short and long run.

[26]For examples of debt restructurings, see Panizza, Sturzenegger, and Zettelmeyer (2009).

[27]A faster recovery is indicated both by the strength of real GDP growth once the recovery starts and by the number of years before GDP returns to precrisis levels. The calculation controls for other variables such as recession depth, initial trade openness, initial oil price, and inflation at the start of recession.

Figure 27. Time to Recovery and Initial Conditions



Source: Kinda, Poplawski-Ribeiro, and Woo (2012).
Note: Average debt, based on a sample of 151 recession/recovery episodes of 54 advanced and emerging market economies during the period 1960–2009, is 50 percent of GDP.

In many advanced economies, including most in the euro area, reviving long-term growth will require tackling long-standing structural rigidities to boost competitiveness. However, structural reforms will take time to generate growth, and therefore measures are needed to support aggregated demand and the orderly working of financial markets until reforms begin to bear fruit.

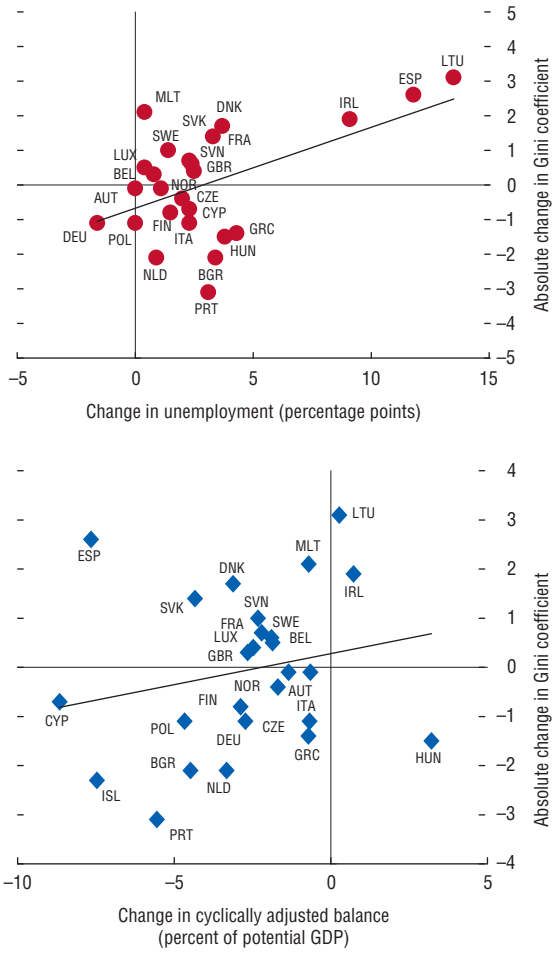
Fiscal adjustment should be better tailored to support social equity and long-term employment

Large and protracted fiscal consolidation is likely to impose a social toll, raising the additional challenge of how to prevent adjustment from exacerbating the increase in income inequality accompanying the downturn in growth.[28] Studies confirm the intuition that income inequality tends to rise during periods of fiscal adjustment, especially when the adjustment is based on a retrenchment in spending (Appendix 1), although the distributional impact of failing to adjust could be even worse.[29] Although experience suggests that the distributional effects of

[28]Bastagli, Coady, and Gupta (2012) clarify the various channels through which income distribution has been affected by fiscal consolidation.

[29]This would be the case if delayed consolidation results in an eventual debt crisis that forces a sudden, even greater fiscal adjustment, accompanied by a severe recession.

Figure 28. Selected European Countries: Change in Unemployment, Cyclically Adjusted Balance, and the Gini Coefficient, 2007–10



Sources: European Union, Statistics on Income and Living Conditions (EU-SILC); and IMF staff estimates.

a crisis can take many years to work through the system, some patterns already seem to be surfacing.

- Inequality has tended to rise most in those countries with the sharpest increases in unemployment (Ireland, Lithuania, Spain) and to a lesser extent in those that provided less discretionary fiscal support during the crisis (Figure 28).
- In Ireland, inequality declined early in the crisis because of a relatively large fall in top incomes (especially capital incomes), tax increases, and an expansion of redistributive social transfers. However, as the crisis deepened and fiscal consolidation intensified, income inequality started to widen (Box 8).

Table 10. Fiscal Policy Measures to Increase Employment

	Expenditure policy	Tax policy
Short term	• Hiring and wage subsidies • Employment support schemes • Public work programs	• Reducing labor taxes (fiscal devaluation: shifting from labor to consumption taxes) • Lowering business taxes
Medium term	• Expanding effective active labor market programs • Strict eligibility criteria and job search requirements for social benefits • Reducing the duration and level of social benefits when too high • Child care subsidies • Increasing effective retirement age • Strengthening rules for disability pensions	Lowering labor tax wedge, targeted to: • Women/secondary earners (moving from family taxation to individual taxation) • Older workers (earnings tax credits) • Low-skilled workers (tax relief to employers and in-work tax credit)

Source: IMF (2012b).

- In Italy, where employment has not fallen so sharply, the Gini coefficient increased initially by 1 percentage point (as the transfer system compensated only partially for income losses) but eventually decreased as the crisis evolved.

Adjustment packages need to be carefully designed to limit negative social effects and at the same time improve their sustainability: fiscal adjustments that are seen as unfair are unlikely to be sustainable. This implies an appropriate degree of progressivity in taxation and access to social benefits. For example, transfer cuts should be accompanied by an enhancement of social safety nets, supported by means testing and efficient monitoring.[30] Equity can also be improved by combating tax evasion, because large companies and wealthy individuals have stronger incentives to avoid taxes than do low-wage earners, and they may also receive a high share of their incomes in forms that are easier to shield from the scrutiny of tax authorities. In low-income countries (and some emerging market economies), reforms of fuel and food subsidies are crucial to improving the equity impact of fiscal policy. It has been shown that the rich often benefit the most from the current across-the-board subsidy systems.[31] Public expenditure reviews conducted by the World Bank in many low-income countries show that poverty reduction targets could be achieved with fewer public resources.

Better-designed tax and social benefits policies can help reduce unemployment and boost labor supply (Appendix 2 and Table 10). In the short term, a "fiscal devaluation" that reduces labor costs through lower labor-related taxes on employers, financed through higher consumption taxes, could help support the demand for labor.[32] Targeting is generally required to limit budget costs as well as reduce undesirable effects on long-term employment and social equity. Tailored in-work tax credits or wage subsidies can help the young and low skilled enter the labor force; family benefit and pension systems can be retuned to encourage higher labor participation of women and the elderly; and a greater emphasis on active labor market programs (ALMPs) and conditional unemployment benefits can help reduce the hysteresis associated with long unemployment. A number of countries have already taken steps in that direction, including through expanded ALMPs (Ireland, Italy, Spain, United Kingdom), increases in the retirement age (France, Italy, Spain, United Kingdom), and measures to discourage early retirement (Denmark, Italy). Most of these reforms will be more effective if they are complemented by nonfiscal measures such as worker retraining, job search assistance, and in some cases broader labor market reforms that remove impediments to hiring and foster wage flexibility. Many of these reforms also require solid

[30]Means testing covers less than 10 percent of public social spending in member countries of the Organisation for Economic Co-operation and Development.

[31]See Coady and others (2010) and Arze del Granado, Coady, and Gillingham (2010).

[32]For an in-depth discussion of fiscal devaluations, see the September 2011 *Fiscal Monitor*.

administrative capacities to implement and monitor. Hence, the scope for fiscal policies to foster employment is more limited in emerging market economies and low-income countries, not only because of the administrative challenge, but also because of their large informal sectors and the limited reach of their social benefit programs. In such economies, the priority should be on the development of well-targeted and well-designed social safety nets, backed by resilient funding sources and appropriate institutional and administrative capacity building.

Box 1. Commonly Used Definitions of the Fiscal Balance

The fiscal balance is of central importance for macroeconomic analysis because it offers a comprehensive picture of a government's overall fiscal stance over a given period and its resulting impact on the economy. However, there is no single best measure of the fiscal balance. Depending on the purposes of the analysis, alternative concepts of the balance, based on different analytical criteria, can be usefully employed.

The *overall balance* is perhaps the most widely cited measure of a country's fiscal situation. It is the difference between all government revenue and spending transactions during a given period. It thus reflects (if negative) the amount of additional financing the government must mobilize for its fiscal operations (the overall financing requirement will also reflect the impact of maturing debt and any financial asset transactions).

Another common deficit measure is the *primary fiscal balance*, defined as the difference between the overall balance and net interest payments. By excluding net interest payments, this measure focuses on an aggregate that is more directly under the control of the fiscal authorities and that is critical for assessing a government's ability to service its net debt, even though net interest payments may still have important effects on the economy.[1]

The fiscal balance is influenced by three main sets of factors: (1) discretionary fiscal policy actions, (2) automatic stabilizers driven by the output cycle, and (3) one-off operations and cyclical effects that go beyond the output cycle. Hence, two additional balance measures are commonly employed to separate the impact of discretionary policy actions from that of nondiscretionary factors.

- The *cyclically adjusted balance (CAB)* is defined as the difference between the overall balance and the automatic stabilizers. The latter are typically defined on the basis of a measure of cyclical fluctuations, proxied by the output gap. Equivalently, the CAB is an estimate of the fiscal balance that would apply under current policies if the output gap were equal to zero.
- The *structural balance (SB)* is the difference between the CAB and two measures of other nonrecurrent effects that go beyond the output cycle:[2] one-time operations, that is, discretionary measures that are not expected to be repeated in the future (such as asset sales); and beyond-the-output-cycle effects, or cyclical fluctuations that do not coincide with the output cycle (e.g., changes in commodity prices or asset prices). Such effects are often especially important for commodity exporters and financial centers.

The SB provides the more precise measure of the underlying position of the fiscal accounts, and a growing number of countries (particularly in the European Union) are setting their fiscal targets in structural terms. The comparability of SBs is limited, however, by the lack of a uniform definition of one-time or beyond-the-cycle measures, which leaves a significant degree of subjective judgment in the decision of which items to remove from the CAB.

It should be noted that, as fiscal policy affects the economy through both discretionary actions and automatic stabilizers, the CAB and SB are both partial indicators of the effect of fiscal policy on aggregate demand, particularly in countries where the automatic stabilizers are relatively large (and thus need less discretionary actions in response to a demand shock). In addition, practical implementation of both measures involves complexities associated with the proper measurement of potential output, which may be especially challenging in the presence of large economic shocks and structural change.

Table 1.1 shows the magnitude of one-off measures and beyond-the-cycle effects in advanced economies, as computed by IMF staff, for 2008–13.

The IMF's recent technical note (Bornhorst and others, 2011) and website (IMF, 2012a) provide additional information on the material discussed in this box.

[1]As documented in the Methodological and Statistical Appendix (Tables SA.1, SA.2, and SA.3), measures of the fiscal balance may also differ in coverage, from the narrowest (central government) to the broadest (consolidated public sector), and in accounting treatment (cash or accrual).

[2]The *World Economic Outlook* defines the structural balance as the general government cyclically adjusted balance modified for nonstructural elements beyond the economic cycle. The latter include temporary financial sector and asset price movements as well as one-time, or temporary, revenue and expenditure items.

Box 1 *(concluded)*

Table 1.1. Difference between Structural Balance and Cyclically Adjusted Balance

(Percent of potential GDP)

	2008	2009	2010	2011	2012	2013
Australia	0.0	0.0	0.0	0.0	0.0	0.0
Austria	0.2	0.0	0.6	0.2	0.7	0.0
Canada	–0.1	0.6	0.4	0.3	0.3	0.2
Denmark	0.2	1.0	0.3	1.6	3.3	1.2
Finland	0.0	0.0	0.0	0.0	0.0	0.0
France	0.1	0.4	0.4	0.4	0.5	0.6
Germany	0.4	0.1	1.2	0.1	0.0	0.0
Greece	0.0	0.0	0.0	0.0	0.0	0.0
Hong Kong SAR	–0.3	–4.7	–5.9	–6.1	–3.6	–4.3
Iceland	13.3	2.3	3.8	1.3	0.9	0.0
Ireland	0.0	0.0	0.0	0.0	0.0	0.0
Italy	–0.2	–0.6	–0.2	–0.7	–0.2	–0.1
Japan	0.0	0.0	0.0	0.0	0.0	0.0
Korea	0.0	0.0	0.0	0.0	0.0	0.0
Netherlands	0.0	0.0	0.0	0.0	0.0	0.0
New Zealand	–1.8	–0.7	–1.0	1.6	0.7	1.3
Portugal	–1.1	0.0	0.7	–3.2	–1.0	0.0
Singapore	0.0	–0.1	0.2	0.1	–0.1	0.1
Slovak Republic	0.0	0.0	0.0	0.0	0.0	0.0
Slovenia	0.0	0.0	0.0	0.0	0.0	0.0
Spain	0.3	0.7	0.3	–0.2	–0.8	–0.3
Switzerland	0.2	0.0	0.0	0.0	0.0	0.0
United Kingdom	0.0	0.0	0.0	0.0	0.0	0.0
United States	0.8	2.3	0.2	0.2	0.1	0.0
Average	0.3	0.9	0.2	0.0	0.0	0.0

Sources: IMF staff estimates and projections.

They are very small in most cases, although they were much larger at the onset of the crisis (especially in 2009). The types of one-off measures differ widely from country to country; they include, for example, additional savings due to an EU ruling against illegal taxation of foreign investment funds (France), adjustments for land revenue and investment income (Hong Kong), "substitute taxes" that allow taxpayers to advance the payment of certain taxes in exchange for lower payments in the future (Italy), earthquake relief funding measures (also Italy), and recapitalization of the central bank (Iceland). Also, in the aftermath of the crisis, several EU countries (including Hungary, Lithuania, and Portugal) transferred some pension fund assets from the banking or private sectors to the public sector to increase their budget balances, in some cases temporarily. Among emerging market economies, commodity exporters, including Chile, Colombia, and Peru, exclude the effects of cyclical fluctuations in commodity prices from their structural balances.

Because of their broader coverage and more uniform definition, and to facilitate comparability across countries, the *Fiscal Monitor* primarily relies on the overall and cyclically adjusted balances. In some cases, however, structural balances are cited, particularly for countries where they are actively used by the fiscal authorities.

Box 2. Lessons from Sweden

At a time of record public debt-to-GDP ratios among advanced economies, Sweden is noteworthy for its strong public finances. At the trough of the recession in 2009, Sweden had a fiscal deficit of only 1 percent of GDP; the deficit narrowed soon after, and by 2011 its debt-to-GDP ratio was below precrisis levels. What lessons can be drawn from Sweden's experience during the global financial crisis? Four stand out.

1. The building up of fiscal buffers during good times, together with credible fiscal institutions, provides room to maneuver during bad times.

On the eve of the crisis, Sweden enjoyed a fiscal surplus of 3.5 percent of GDP, compared with an average deficit of 1.1 percent of GDP among advanced economies. Indeed, the debt-to-GDP ratio in Sweden had fallen from 70 percent in 1998 to 40 percent in 2007. The strength of the fiscal accounts was built on more than a decade of reform through spending rationalization to trim social benefits and improvements in the tax system to generate revenue.

When the recession hit (with real GDP contracting by 5 percent in 2009, compared to an average decline of 3.5 percent across advanced economies), the government had enough fiscal space to allow automatic stabilizers to operate fully and to implement stimulus measures without jeopardizing fiscal sustainability. The fiscal balance went from a surplus of 3.5 percent of GDP in 2007 to a relatively small deficit of 1 percent of GDP in 2009, most of which corresponded to the implementation of discretionary measures (including policies in immediate response to the crisis as well as the implementation of tax cuts adopted during earlier reforms).

The authorities' expansionary policy was not called into question by markets because of the low level of the deficit and the credibility of Sweden's comprehensive fiscal policy framework—including a top-down budget process, a fiscal surplus target of 1 percent of GDP over the output cycle, a ceiling for central government expenditure set three years in advance, a balanced-budget requirement for local governments, and an independent fiscal council.

2. Central bank credibility allows monetary policy to be used aggressively.

During the crisis, the Riksbank lowered its target short-term interest rate nearly to zero and implemented sweeping liquidity measures, including long-term repurchase agreement operations and the provision of dollar liquidity. It had the flexibility to move aggressively in large part because of strong performance under its inflation-targeting regime.

3. A flexible exchange rate can help absorb the shock.

During the crisis, the krona fell in value against both the dollar and the euro as investors flocked to reserve currencies. It depreciated by 15 percent in real effective terms from mid-2008 to early 2009, supporting net exports and helping prop up economic activity.

4. Decisive action to ensure financial sector soundness is crucial.

Swedish banks were badly hurt by the financial crisis, despite their negligible exposure to U.S. subprime assets. Bank profitability fell sharply in 2008–09, and two of the largest banks—both increasingly funded on wholesale markets and exposed to the Baltics—saw their loan losses spike and their share prices and ratings decline accordingly. The authorities took fast action to calm depositors and interbank markets, including a doubling and extension of the deposit guarantee and introduction of new bank recapitalization and debt guarantee schemes.

Box 3. Long-Run and Short-Run Determinants of Sovereign Bond Yields in Advanced Economies

What factors affect the interest rate that governments pay to borrow in the long run? The economics literature suggests that borrowing costs depend on the fundamental conditions in the economy, and especially the fiscal accounts. For example, as government debt rises, sovereign bond yields should go up in recognition of the higher risk (default, monetization-driven depreciation and inflation) carried by investors holding government securities.

The long-run relationship between sovereign bond yields and their macroeconomic fundamentals can break down in the short run, especially during periods of financial stress. For example, despite the piling up of general government debt in the United States in the aftermath of the global financial crisis, U.S. bond yields have been trending downward. Conversely, despite a relatively lower initial level of general government debt, sovereign borrowing costs in some euro area countries such as Spain have persistently exceeded those of more highly indebted countries such as the United Kingdom.

This behavior suggests the need to distinguish between long-run and short-run determinants of borrowing costs. Against this backdrop, a panel cointegration model was used to separate long-run from short-run determinants of bond yields in 22 advanced economies over the period 1980–2010 (Poghosyan, 2012). In contrast with the specifications used in most existing studies, this approach allows long-term real (that is, inflation-adjusted) bond yields (r) to deviate temporarily from their long-run equilibrium levels; thus it can help assess the speed of adjustment (γ) to the long-run equilibrium when such a deviation occurs.

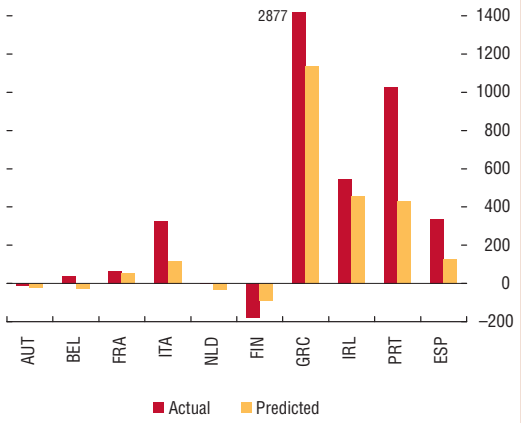
The estimated equation takes the form

$$\Delta r_{it} = \gamma_i (r_{it-1} - \alpha - \beta_1' LR_{it-1} - \beta_2' LR_{it-1} {}^{*} D_{EA}) + \lambda_i' \Delta SR_{it} + \varepsilon_{it},$$

where i and t denote country and time and ε is an independent and identically distributed error term. The model includes only two long-run determinants (LR) of real bond yields: potential growth and the debt-to-GDP ratio. As detailed for example in Laubach (2009), the standard representative household model with utility maximization suggests that the equilibrium interest rate should be higher in countries where the steady-state rate of growth is faster.[1] Similarly, higher debt puts upward pressure on the interest rate (assuming no Ricardian equivalence) through its crowding-out effect on private investment (Engen and Hubbard, 2004) and through the higher country risk premium (Manasse, Roubini, and Schimmelpfennig, 2003). To account for interest rate convergence within the euro area following the introduction of the common currency, a dummy variable (D_{EA}, which takes the value of 1 during the period 1999–2010 for euro area countries) is interacted with long-run determinants.

Up to five short-term determinants (ΔSR) are also included: changes in the debt ratio, changes in the real money market interest rate (monetary policy effect), changes in inflation (nominal shocks), changes in the primary balance ratio (short-term fiscal policy), and changes in the growth rate (cyclical fluctuations in the real economy). This set of short-run factors is not exhaustive. Other short-run factors, such as feedback effects between banks and sovereigns, contingent liabilities of the public sector, market expectations about the economic and fiscal

Figure 3.1. Selected Euro Area Economies: Predicted and Actual Long-Run Real Sovereign Bond Yield Spreads
(Basis points)



Sources: Bloomberg L.P.; Poghosyan (2012); and IMF staff estimates and projections.
Note: Average for first half of 2012, with respect to Germany. Ten-year bond yields are deflated using each country's 2012 GDP deflator.

[1]Outside of the steady state, the equilibrium interest would vary according to the source of higher growth.

Box 3 *(concluded)*

outlook, and external capital flows, may also play an important role, especially in periods of financial stress, but are not included in the present analysis due to data limitations (see the October 2012 *Global Financial Stability Report* [IMF, 2012c] for the analysis of some of these short-term factors in a smaller sample). To ensure robust results, the model is estimated for subsamples of countries and time periods.

As expected, long-run real bond yields are found to be positively associated with potential growth and the debt-to-GDP ratio. A 1 percentage point increase in potential growth leads to a long-run increase of 30–50 basis points in real bond yields. Similarly, a 1 percentage point increase in the debt-to-GDP ratio leads to a 2–3 basis point increase in real bond yields, which is the lower end of the range of estimates found in previous country-specific and panel data studies (Baldacci and Kumar, 2010). Statistical tests provide support for the hypothesis of poolability of long-run coefficient estimates (α, β_1, and β_2), suggesting that the estimated long-run association between bond yields, potential growth, and the debt ratio is common to all advanced economies in the sample. The results also suggest that in the short run, changes in real bond yields deviate from their long-run equilibrium in response to changes in the debt ratio (positive effect), real money market rates (positive effect), and inflation (negative effect). Changes in the growth rate (negative effect) and the primary balance ratio (negative effect) have weaker impacts. On average, 30–40 percent of the deviation from the long-run equilibrium is corrected within one year.

When applied to the current period, the model suggests that in many countries in the euro periphery, bond yield spreads (relative to Germany) in the first half of 2012 exceeded the equilibrium value associated with long-run and short-run fundamentals. The opposite picture emerges in the case of several core euro area countries (for example, Finland), where safe-haven effects result in spreads undershooting their equilibrium value. All in all, the model suggests that, in many members of the euro area, current sovereign borrowing costs deviate from the equilibrium level defined by macroeconomic fundamentals, in some cases substantially so.

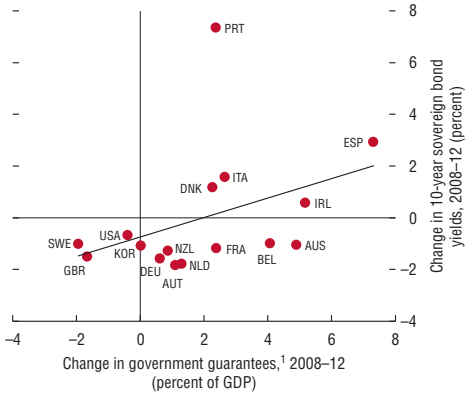
When interpreting these results, one should keep in mind that the analysis does not account for some factors that likely contributed to the temporary deviation of sovereign borrowing costs from their long-run equilibrium level in the aftermath of the crisis. These include, for example, uncertainties related to the feedback effects between banks and sovereigns and the contingent liabilities of the public sector. In addition, market overreaction should not be interpreted as evidence against the effectiveness of fiscal adjustment to reduce borrowing costs. A steady pace of fiscal adjustment remains imperative for anchoring lower borrowing costs in the long run, while short-run departures of borrowing cost from the long-run equilibrium should be addressed through complementary policies aimed at reducing financial stress and market uncertainty.

Box 4. Financial Sector Support

Sovereign stress in the euro area has grown in recent months along with rising concerns about the health of banking systems, particularly those in Spain and Cyprus. As investors perceived a transfer of credit risk from the banking sector to the government, they pushed up sovereign yields accordingly (Figure 4.1). Although new measures have been limited since the April 2012 *Fiscal Monitor* (Table 4.1), further fiscal outlays are expected; the main backstops will be the European Financial Stability Facility (EFSF) and its successor, the European stabilization mechanism (ESM). Recent developments related to the interaction of bank and sovereign stress in Cyprus, Greece, Ireland, and Spain are as follows:

- *Cyprus.* Cyprus Popular Bank received a capital injection amounting to 10 percent of GDP in June, partly to cover losses from the write-down on its holdings of Greek sovereign bonds. Bank of Cyprus has requested government support equal to 2¾ percent of GDP.
- *Greece*. Total bank recapitalization and resolution costs, including the capital needs arising from the write-down of the country's sovereign debt, are estimated at 25 percent of GDP (IMF, 2012d). So far, the national support fund for Greek banks (the Hellenic Financial Stability Fund) has paid a capital advance to banks amounting to 9 percent of GDP via EFSF bonds.

Figure 4.1. Sovereign-Financial Linkages



Sources: Bloomberg L.P.; Dealogic; national authorities; and IMF staff estimates.

[1]Outstanding guaranteed bonds corresponding to bonds issued by private and public banks and financial institutions and carrying state guarantees. Short-term debt is not included.

Table 4.1. Selected Advanced Economies: Financial Sector Support

(Percent of 2011 GDP, except where otherwise indicated)[1]

	Impact on gross public debt and other support	Recovery	Impact on gross public debt and other support after recovery
Belgium	7.0	0.6	6.3
Cyprus	10.1	0.0	10.1
Germany[2]	12.2	1.5	10.7
Greece	14.8	3.9	11.0
Ireland[3]	41.6	3.5	38.0
Netherlands	14.1	9.3	4.8
Spain[4]	4.1	2.7	1.4
United Kingdom	6.8	1.4	5.4
United States	5.3	2.3	3.0
Average	7.2	2.4	4.9
In $US billions	1,758	580	1,178

Sources: National authorities; and IMF staff estimates.

Note: Fiscal outlays of the central government, except in the cases of Germany and Belgium, for which financial sector support by subnational governments is also included.

[1] Cumulative since the beginning of the crisis—latest available data, ranging between end-December 2011 and February 2012.

[2] Support includes here the estimated impact on public debt of liabilities transferred to newly created government sector entities (10¼ percent of GDP), taking into account operations from the central and subnational governments. As public debt is a gross concept, this neglects the simultaneous increase in government assets. With this effect taken into account, the net debt effect amounted to just 1.6 percent of GDP, which was recorded as deficit. The European Commission has assessed the aid element of these transfers at about 0.8 percent of GDP.

[3] The impact of the direct support measures is mainly on net debt as significant recapitalization expenses were met from public assets. Direct support does not include asset purchases by the National Asset Management Agency (NAMA), as these are not financed directly through the general government but with government-guaranteed bonds.

[4] Direct support includes total capital injections by the Fondo de Reestructuración Ordenada Bancaria (FROB) and liquidity support.

- *Ireland.* The government completed the capitalization of the Permanent TSB bank through the purchase of Irish Life Group for 0.8 percent of GDP (€1.3 billion).
- *Spain.* New disbursements have been limited, but fiscal costs are expected to rise in the context of the restructuring of the banking system. For example, the Spanish Deposit Guarantee Fund (Fondo de Garantía de Depósitos de Entídades de Crédito, or FGD) and Fund for Orderly Bank Restructuring (Fondo de Reestructuración Ordenada Bancaria, or FROB) granted various support measures (including capital injection) amounting to 2½ percent of GDP to facilitate the purchase of Banco Caja

Box 4 *(concluded)*

de Ahorros del Mediterraneo (CAM) by Banco Sabadell. In addition, Bankia/Banco Financiero y de Ahorros (BFA) announced that it will request 1¾ percent of GDP from the FROB for the recapitalization of the group, of which 0.4 percent of GDP has already been disbursed.

The final capital support provided to Bankìa/BFA will depend on stress test results. To cope with the financing needs that may result from the ongoing restructuring, the FROB will be able to borrow up to 9 percent of GDP from the EFSF.

Box 5. Do Pensioners Get Special Treatment on Taxes?

On average, taxing income from public pensions generates revenues amounting to about 1 percent of GDP in advanced and 0.2 percent of GDP in emerging market economies (Statistical Tables 15a and 15b).[1] With income taxes netted out, spending on public pensions declines from 9.1 to 8.0 percent of GDP in advanced economies and from 6.3 percent to 6.1 percent of GDP in emerging markets, though the ranking of countries is similar whether one looks at gross or net spending.

In most countries, income from public pensions receives favorable tax treatment.[2] Typically, public pension income benefits from concessions, often in addition to the exemptions and deductions available for other forms of income (for example, pension income of less than 30 percent of the average wage is exempt in Belgium and Norway). Some countries have special deductions based on age for all sources of income (for example, in Slovenia, Spain, and the United Kingdom, for those older than age 65). In all, only nine advanced and emerging market economies (Austria, China, Chile, Denmark, France, Iceland, New Zealand, Poland, and Sweden) treat public pension income like any other form of income, and some (notably, several emerging market economies) fully exempt public pension income from taxation.

When considering public pension reforms, countries can review special provisions for pension income. First, reducing these concessions could increase horizontal equity: currently, in many countries pensioners pay lower income taxes than workers with identical gross incomes. Second, taxing public pensions could have a favorable effect on income distribution, particularly in emerging market economies where public pensions are usually received by a small share of households with relatively high lifetime incomes. For example, Moller (2012) shows that treating pensions like other forms of income in Colombia would reduce the Gini coefficient by 0.20 percentage points. Third, by favoring public pensions, pension income concessions might introduce disincentives for private retirement savings. Finally, taxing public pension income like other forms of income could generate fiscal savings in a more progressive way than would across-the-board pension cuts. Taxing public pensions, however, could reduce incentives to contribute and affect intertemporal efficiency by changing the balance between current and future consumption.

[1]Based on the European Commission's *2012 Ageing Report* (European Commission Directorate-General for Economic and Financial Affairs, 2012a) (which reports gross and net spending for several European economies) and the Organisation for Economic Co-operation and Development's *Pension at a Glance 2011* (OECD, 2011) (which reports the tax rate for a pensioner who receives the pension of an average earner).

[2]In addition, in most countries, mandatory contributions to public pensions are income tax deductible.

Box 6. The "Two-Pack": Further Reforms to Fiscal Governance in the Euro Area

The European Parliament and the European Council have begun discussing two new regulations—the "two-pack"—proposed by the European Commission and expected to be legislated by year end. The proposed reforms aim at tackling remaining weaknesses in budget surveillance and, in combination with the "six-pack" and the Fiscal Compact, improving fiscal discipline at the national level (see European Commission Directorate-General for Economic and Financial Affairs, 2012b).[1] The objectives of the Commission proposal are twofold: (1) improving coordination and setting common fiscal principles among euro area states and (2) strengthening the surveillance of EU member states facing heightened financial stability risks. The main proposals to meet these objectives are as follows:

Improving coordination and setting common fiscal principles in the euro area:

- Set a common timeline for the preparation of budgets in euro area states. National medium-term fiscal frameworks are to be prepared by April 15 of each year, draft budgets by October 15, and budget laws by December 31. The common deadlines are to facilitate a coordinated assessment of budgetary policies across the area. In case of serious noncompliance with the obligations of the Stability and Growth Pact, the European Commission would be able to request a revision of a draft budget.
- Require that budgeting use independent macroeconomic forecasts and that independent national fiscal bodies monitor compliance with national fiscal rules. Monitoring would address the temptation to adopt overoptimistic budgets and would raise the reputational costs for noncompliance with national rules.
- Enhance reporting requirements for countries subject to the excessive deficit procedure. Require progress data during the budget year on execution and fiscal risks, including contingent liabilities.

Strengthening surveillance of EU member states facing heightened financial stability risks:

- Tighten monitoring rules for EU member states that are exposed to financial instability or that receive financial assistance. The supervision would extend beyond fiscal data to encompass the financial sector; for example, the Commission could request stress tests for the banking sector.

The European Parliament sees the two-pack as an opportunity to increase fiscal integration (European Parliament, 2012). In line with that goal, the Parliament itself had suggested coordinating debt issuance by pooling some debt of euro area states (debt that exceeds 60 percent of national GDP) in a European debt redemption fund. It had also proposed legal protection for countries on the verge of default. However, these proposals are currently not widely supported in the Council, and it remains to be seen if and how they will be reflected in regulations.

[1]Earlier reforms introduced, for example, requirements for new numerical rules and stronger enforcement procedures (see Box 5 in the April 2012 *Fiscal Monitor*).

Box 7. General Government Nonfinancial Assets: What Do We Know?

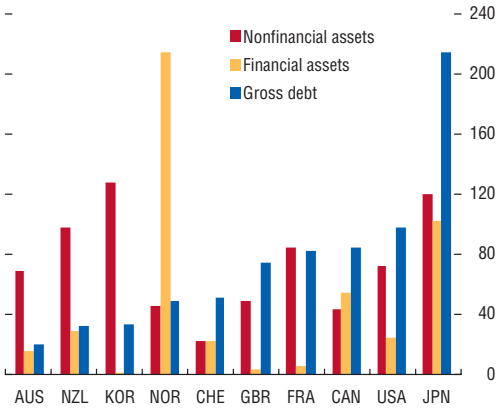
Recognizing that gross public debt ratios may overstate risks to fiscal sustainability, many countries report data on net debt, which subtracts from government gross debt the value of any *financial* assets that could be liquidated, at least in principle, to reduce gross debt, or whose yield could be used to service gross debt (see Statistical Tables 4 and 8 in the April 2012 *Fiscal Monitor*). Privatization of financial assets has indeed yielded substantial proceeds in many countries (see the September 2011 *Fiscal Monitor*). However, governments can draw on other types of assets as well, and expanding balance sheet coverage to include nonfinancial assets would provide an even more complete view of the potential room to reduce gross debt via asset sales.

Nonfinancial assets are stores of value that are used in the production of goods and services or that provide property income (European Commission, IMF, OECD, UN, and World Bank, 2009). They are generally divided into produced assets (mostly inventories, valuables, and fixed assets such as buildings) and nonproduced tangible (such as land and subsoil resources) and nontangible (such as leases and licenses) assets.[1] Where the two main subcategories of nonfinancial assets are measured, produced assets—mostly buildings and structures—account for more than 70 percent of nonfinancial assets, and nonproduced assets consist almost entirely of land.

However, there are a number of factors that complicate the inclusion of nonfinancial assets in the calculation of net debt ratios. As these assets are not frequently traded, they may be difficult to value accurately and to dispose of. Also, the sale of such assets may entail future revenue losses (if the assets are a source of income) or higher spending (for example, if government buildings are sold and alternative space must be leased). Finally, nonfinancial assets held by governments are not well documented. Available data cover about 35 countries and encompass only a few categories, usually fixed assets (see Statistical Table 14). Cross-country comparisons are hampered by variations in definitions and valuation methods.

Where data are available, they show that nonfinancial assets are relatively large and have grown over time, with potentially important implications for thinking about sovereign creditworthiness. In most countries, nonfinancial assets on the general government balance sheet exceed financial assets on average by a ratio of 1.4 to 1 (Figure 7.1). If nonfinancial

Figure 7.1. Key Indicators of the General Government Balance Sheet, 2010
(Percent of GDP)



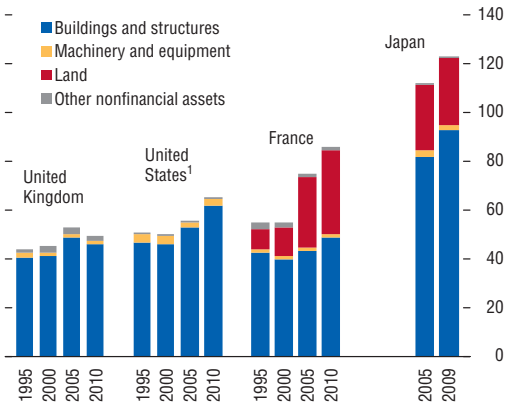
Sources: Eurostat; Organisation for Economic Co-operation and Development; IMF, *Government Finance Statistics*; and IMF staff estimates and projections.
Note: Data for Korea and Switzerland are for 2009.

[1]Tangible assets are also defined as naturally occurring, and nontangible assets as constructs of society (*Government Finance Statistics Manual 2001*).

Box 7 *(concluded)*

assets were included on the balance sheet, the net worth of these countries would be positive, ranging from 7.5 percent of GDP in Japan to 205 percent in Norway (accounting only for general government debt and not considering guarantees or contingent liabilities). Over time, nonfinancial assets held by the general government have increased relative to GDP in France, Japan, the United Kingdom, and the United States (the countries with the longest time series). In France, they rose from about 55 percent of GDP in 1995 to 86 percent in 2010, mostly because of a tripling in the value of land over that period to 34 percent of GDP (Figure 7.2). In Japan and in the United States, the worth of fixed assets (mostly buildings and structures) has also been on the rise. In the United Kingdom, the increase in the stock of buildings and structures during the early 2000s has reversed in the aftermath of the crisis.

Figure 7.2. Nonfinancial Assets, 1995–2010
(Percent of GDP)



Sources: Organisation for Economic Co-operation and Development; and IMF staff estimates and projections.
[1]Data for the United States include fixed assets only.

Box 8. Ireland: The Impact of Crisis and Fiscal Policies on Inequality

The magnitude of the economic slowdown in Ireland during the crisis inevitably worsened the country's poverty and inequality, if only slightly. The ratio of net disposable income in the top quintile to that in the bottom quintile rose from 4.4 to 5.3 between 2008 and 2010 (a little above the 2010 EU average of 5.0). In the early stage of the financial crisis, inequality in Ireland fell as upper income groups suffered major income losses. However, the impact quickly spilled over to the middle income group, with its large share of construction workers who lost their jobs.

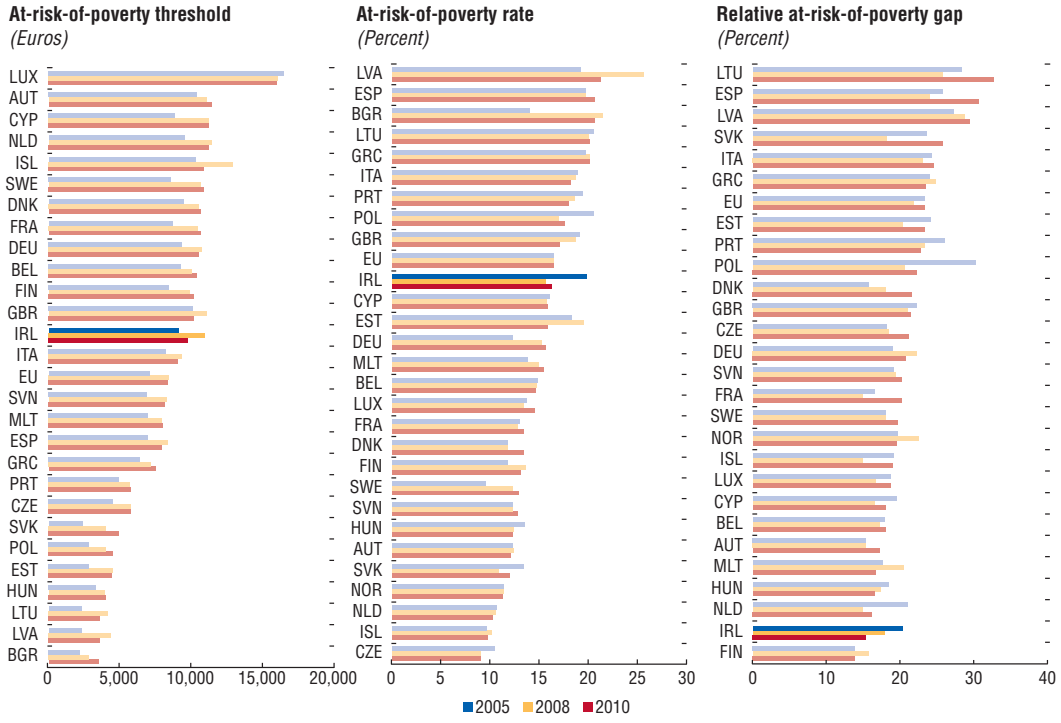
Ireland's strong social support system has cushioned the impact of the crisis on its at-risk-of-poverty indicators compared to the rest of Europe. Ireland's at-risk-of-poverty threshold was above the EU average (Figure 8.1, left panel) in both 2005 and 2010;[1] the share of the population below this threshold has fallen and is now less than the EU average (center panel). Moreover, Ireland's 2010 at-risk-of-poverty gap[2] is the second lowest in Europe (right panel).

Although some recent data have raised concerns about rising inequality in Ireland, budget consolida-

[1]The at-risk-of-poverty threshold is defined as 60 percent of median equivalized household disposable income. Equivalized household disposable income is the income of a household available for consumption expenditures or saving (that is, income after taxes and other deductions), divided by the number of equivalent household members; household members are made equivalent by weighting each according to his or her age using the Organisation for Economic Co-operation and Development's modified equivalence scale.

[2]The gap is defined as the difference (in percent) between the at-risk-of-poverty threshold and the median income of those below it.

Figure 8.1. Selected Indicators in Ireland and the European Union, 2005, 2008, 2010



Source: Eurostat.

Box 8 *(concluded)*

tion has had an overall progressive impact to date. The recent increase in income inequality indicators is in part related to sampling variations, and its policy implications are unclear. Studies have indicated that the cumulative budgetary consolidation over 2009–12 has been progressive, with the sole exception of the 2012 standard value-added tax rate increase (although the impact on income inequality of this measure is not clear cut either, as many essential items remained zero rated).

In any event, future budgetary measures will be crucial for the advancement of equity given the central role of tax and welfare policies for poverty outcomes. In assessing the equity implications of the budget, it is important to look at the overall impact of budget policy; for example, revenues raised in a modestly regressive manner can be used to finance expenditure that is highly progressive, resulting in a net positive impact on low-income households.

Appendix 1. Distributional Consequences of Alternative Fiscal Consolidation Measures: Readings from the Data

The Great Recession of 2007–09 led to an unprecedented increase in public debt and raised serious, ongoing concerns about fiscal sustainability.[33] Against this backdrop, many governments have been making substantial fiscal adjustments to reduce their ratios of debt to GDP. It is generally recognized that consolidation is bad for growth in the short run. But do different forms of fiscal consolidation affect income inequality as opposed to income levels?[34] Surprisingly, there has been little systematic analysis of this question.[35] This appendix analyzes the effects of fiscal policies on income inequality in a panel of advanced and emerging market economies over the past three decades. Preventing a significant worsening of the income distribution during the adjustment phase is critical to the sustainability of deficit reduction efforts, as a consolidation that is perceived as being fundamentally unfair will be difficult to maintain.

During the two years following the Great Recession, there was little change in disposable income distribution in most advanced economies as a result of government support via tax and benefits, with real income levels declining throughout the income distribution.[36] However, looking forward, the results—based on econometric analysis and case studies—suggest that shifts in income distribution will likely materialize. Declines in employment associated with the recession will be the major driver of these shifts, but the composition of fiscal adjustment also matters: progressive taxation and targeted social benefits and subsidies introduced in the context of a broader decline in spending can help offset some of the negative distributional impact of deficit reduction. In addition, fiscal policy can address inequality and growth by promoting education and training among low- and middle-income workers.

Trends in income distribution and fiscal policy

Income inequality has increased since the 1980s in most advanced and emerging market economies, a trend reflecting an array of factors including skill-biased technological progress, technology diffusion, market reforms, and globalization. Inequality in disposable income (income after taxes and transfers) exhibits a similar upward trend, but there are wide differences across countries and regions, largely due to variations in income tax systems and spending policies (Figure A1.1).[37]

In advanced economies, redistributive fiscal policy has historically played a significant role in reducing inequality in market incomes. However, reforms since the 1980s have typically contributed to increased income inequality by lessening the generosity of social benefits and the progressivity of income tax systems (Figure A1.2). In emerging markets, the redistributive impact of fiscal policy has historically been limited by weak taxation (large parts of the economy are outside the income tax system, and the efficiency of tax collection is relatively low) and poorly targeted social transfers. Social benefits and subsidies have increased in emerging market economies and low-income countries since the 1980s, but these economies also exhibit a declining ratio of direct to indirect taxes, a measure that provides a crude indication of declining tax progressivity. Overall, the data point to a strong negative association between social spending and income inequality and to a negative, albeit less clear cut, relationship between the ratio of direct to indirect taxes and inequality.

Fiscal consolidation, fiscal policy, and inequality

Based on annual panel data covering 48 advanced and emerging market economies during 1980–2010,

[33]This appendix is based on Bova and others (2012).

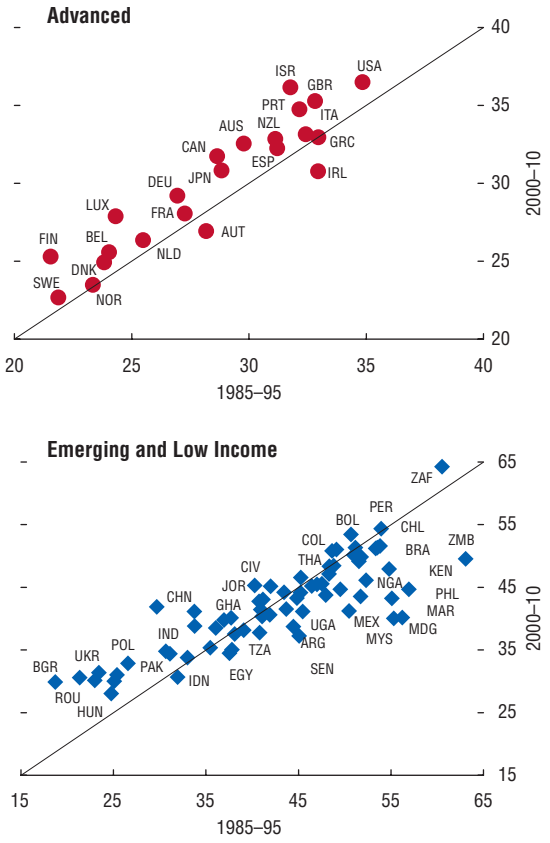
[34]The distributional impact of failing to adjust is beyond the scope of this analysis. However, the impact of a delay in fiscal consolidation could be even worse if it results in an eventual debt crisis that forces a sudden, even greater fiscal adjustment, accompanied by a severe recession.

[35]Notable exceptions are Agnello and Sousa (2012) for 18 OECD countries in 1978–2009 and Mulas-Granados (2005) for 15 EU countries in 1960–2000.

[36]See Jenkins and others (2011).

[37]For a review of trends in income inequality and the evolution of fiscal policies, see Bastagli, Coady, and Gupta (2012) and Chu, Davoodi, and Gupta (2004).

Figure A1.1. Trends in Disposable Income Inequality: Gini Coefficient, 1985–2010
(Scale, 0–100)



Sources: Bova and others (2012); Eurostat; PovcalNet; World Income Inequality Database (WIID); and national sources.
Note: A higher number indicates greater inequality.

the analysis builds on the empirical literature on income inequality.[38] That literature finds that the main determinants of cross-country variations in inequality are national per capita income, education, trade openness, and technological change (for example, De Gregorio and Lee, 2002; IMF, 2007; and Barro, 2008). With standard explanatory variables controlled for, fiscal consolidation and fiscal variables (tax structure, specific taxes, and expenditures) are assessed for their effects on inequality in disposable income.

[38]The analysis focuses on within-country income inequality; it does not consider other dimensions of inequality, such as inequalities of opportunities and poverty, or inequality among countries.

The following panel regression specification is used:

$$G_{it} = \mathbf{X}_{it-1}'\beta + \gamma \mathbf{Z}_{it-1} + \nu_i + \eta_t + \varepsilon_{it},$$

where G_{it} denotes the log of the Gini coefficient for disposable income (a measure of income distribution) for country i and year t; ν_i is the country-specific fixed effect; η_t is the time-fixed effect (to control for global factors); ε_{it} is an error term; $\mathbf{X}_{it-1}$ is a vector of economic control variables; and $\mathbf{Z}_{it-1}$ is the measure of fiscal consolidation or fiscal variables.[39]

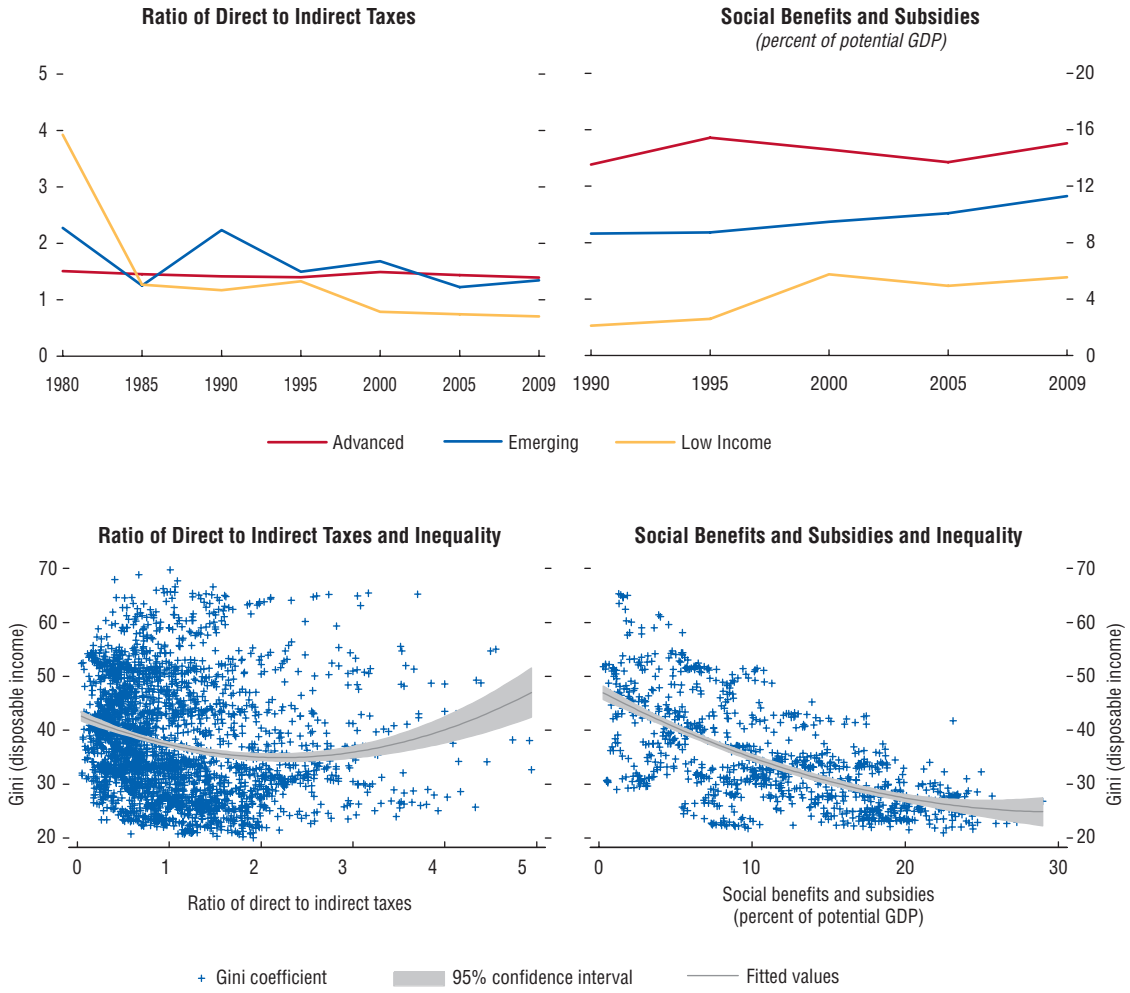
$\mathbf{X}_{it-1}$ includes the following:

- *Income per capita*: (1) log of income per capita and (2) square of log of income per capita to consider the Kuznets relationship (Barro, 2008; De Gregorio and Lee, 2002).[40]
- *Educational attainment*, as measured by the average number of years of secondary schooling of the population aged 15 and older. The literature emphasizes education as one of the major factors affecting income inequality, and policymakers consider spending on education to be a highly effective tool for reducing income inequality (see De Gregorio and Lee, 2002, and references therein). However, the relationship remains ambiguous because of two possible conflicting effects (Knight and Sabot, 1983): (1) the "composition" effect, which increases the relative size of the group with more education (it tends initially to raise income inequality but eventually lowers it), and (2) the "wage compression" effect, which decreases the premium on education as the relative supply of educated workers increases, thereby decreasing income inequality.

[39]Two econometric methods are employed to estimate the panel regression: (1) seemingly unrelated regression (SUR) estimates and (2) panel-corrected standard error (PCSE) estimates (Beck and Katz, 1995). The results from other estimation methods, including ordinary least squares and fixed-effects panel regressions, are broadly similar. Some of the results (e.g., the causal relationship between consolidation and inequality) may be subject to endogeneity and should be interpreted with caution.

[40]The Kuznets curve implies that inequality exhibits an inverted U-curve as the economy develops: economic development (including shifts from agriculture to industry and services, and adoption of new technologies) initially benefits a small segment of the population, which causes inequality to rise. Subsequently, inequality declines as the majority of people find employment in the high-income sector. However, the empirical evidence in support of Kuznets' hypothesis is not robust (see Kanbur, 2000, and references therein).

Figure A1.2. Ratio of Direct to Indirect Taxes and Social Benefits Spending, 1980–2009



Sources: Bova and others (2012); Eurostat; IMF, *Government Finance Statistics*; IMF, *International Financial Statistics*; PovcalNet; World Income Inequality Database (WIID); national sources; and IMF staff estimates.

- *Information technology (IT) capital as a share of the total capital stock* as a proxy for skill-biased technological progress (data from Jorgenson and Vu, 2007, with a 2011 update). Skill-biased technological progress is found to have made the biggest contribution to rising income inequality over recent decades (Autor, Katz, and Krueger, 1998; Acemoglu, 2003; IMF, 2007).
- *Trade openness* to control for the impact on inequality of trade globalization. The standard theory of international trade suggests that trade openness will affect income distribution differently according to countries' relative factor endowments: advanced economies should experience a rise in the relative return to capital and greater income inequality, since they are relatively abundant in capital (and scarce in labor). The opposite should happen in emerging markets and low-income countries, since they are relatively abundant in labor. However, the effects of trade openness on income distribution have been found to be quite varied, making it difficult to predict their direction.[41] Whereas IMF (2007) finds that trade openness is associated with a reduction in

[41]For example, trade openness tends to exert downward pressure on the wages of low-skilled workers, worsening inequality. On the other hand, if openness has a positive effect on investment and growth, so that the real incomes of the poorer groups in soci-

inequality, others find the opposite.[42] Yet the evidence is not conclusive (Krugman, 2008; Meschi and Vivarelli, 2007; Asian Development Bank, 2007).

- *Unemployment rate*: Not surprisingly, a greater portion of unemployed (and inactive) workers are found to be in the bottom income quintile in the member countries of the Organisation for Economic Co-operation and Development (OECD) (Martinez, Ayals, and Ruiz-Huerta, 2001). Thus, higher unemployment may be associated with greater inequality.
- *Inflation*: Inflation tends to hurt the poor more than other income groups and worsen inequality (Easterly and Fischer, 2001; Bulir, 1998). This may be due in part to differences in wealth composition and transaction patterns (the fraction of household wealth held in liquid assets, such as currency, decreases with income and wealth) and differences in ability to protect earnings streams against inflation.[43]

$\mathbf{Z}_{it-1}$ includes the measure of fiscal consolidation or fiscal variables, as follows:

- *Fiscal consolidation* (spending and tax measures, as a percentage of GDP) from the action-based fiscal consolidation data for 17 OECD countries (Devries and others, 2011).[44]
- *Ratio of direct to indirect tax*, a measure of the tax structure (from the IMF/Fiscal Affairs Department database), with a higher value indicating potentially greater progressivity of the tax system.
- *Cyclically adjusted individual and corporate income taxes and cyclically adjusted indirect tax* (all as percentages of potential GDP), to account for different country-specific and tax-specific elasticities.[45]
- *Wage bills, social benefits spending, subsidies, and capital spending* (all as percentages of potential GDP).

How do different fiscal consolidation measures affect income inequality?

The analysis shows that income inequality tends to rise during periods of fiscal adjustment, especially when the adjustment is based on a retrenchment in spending.[46] Based on the results for 17 OECD countries, a consolidation amounting to 1 percentage point of GDP is associated with an increase of about 0.6 percent in inequality of disposable income (as measured by the Gini coefficient) in the following year (Table A1.1, column 1).[47] An alternative dynamic panel regression specification confirms the increase in income inequality following consolidations, with the cumulative effect peaking after five to six years and fading by the tenth year (Box A1.1). Large consolidations (greater than about 1.5 percent of GDP) significantly elevate inequality,

ety also rise, it may enable these groups to invest in human capital and entrepreneurial activities and improve income equality.

[42]Foreign direct investment (FDI) is found to be associated with an increase in inequality (IMF, 2007). FDI inflows in emerging markets and low-income countries tend to increase the demand, and thus the wage premium, for skilled labor, whereas outward FDI in advanced economies tends to reduce the demand, and hence the wages, for lower-skilled labor. A related consideration is that trade openness may facilitate technology diffusion from advanced economies to emerging markets and low-income countries through FDI as well as imports of capital equipment (such as for information technology) and the international production network. In the receiving emerging markets and low-income countries, the new technologies tend to be more skill intensive than those in use before the liberalization of trade and FDI, which increases the demand for skilled labor and thus worsens income inequality. The fact that the earnings of highly skilled and highly educated workers have increased at the fastest rate in so many countries is also consistent with the view that higher international integration has introduced skill-biased technologies to developing countries.

[43]In addition to the components included in $\mathbf{X}_{it-1}$, banking crises can also worsen inequality, because the poor have few resources to protect themselves against adverse shocks and have very limited access to credit and insurance (Atkinson and Morelli, 2011; Glaeser, 2010). The indicator of banking crises was thus also used, but the outcome was insignificant and did not alter the main results.

[44]Data on consolidations from Alesina and Ardagna (2010) and the IMF's structural balance data are also used (Box A1.1).

[45]The cyclically adjusted components have been calculated from actual tax revenues adjusted according to the ratio of potential output to actual output and the tax-specific elasticities for each OECD country. For non-OECD countries, the new EU average elasticities were used (from Girouard and André, 2005).

[46]This is with respect to a baseline in which fiscal adjustment is not implemented and deficits continue to be financed without major disruptions. If the absence of fiscal adjustment leads to a fiscal crisis, with disruptive consequences for economic activity, income inequality could deteriorate even more.

[47]To put this in perspective, note that the average Gini coefficient for disposable income in the 17 OECD countries increased by about 2 percent between 1995 and 2005.

Table A1.1. Impact of Fiscal Consolidation on Disposable Income Gini Coefficient: OECD Countries, 1978–2009

Explanatory variables	(1) SUR[1]	(2) SUR	(3) SUR	(4) SUR	(5) PCSE	(6) PCSE
Real GDP per capita (log), $t-1$	2.270***	2.316***	2.129***	2.387***	2.288***	2.394***
	(3.05)	(3.11)	(2.86)	(3.25)	(3.73)	(3.91)
Real GDP per capita (log) squared, $t-1$	–0.116***	–0.118***	–0.108***	–0.119***	–0.117***	–0.119***
	(–3.06)	(–3.12)	(–2.86)	(–3.18)	(–3.82)	(–4.01)
Years of schooling (log), $t-1$	0.041*	0.042*	0.041*	0.044**	0.041**	0.044**
	(–1.85)	(–1.85)	(–1.83)	(–1.98)	(–2.58)	(–2.44)
Trade openness, $t-1$	0.001***	0.001***	0.001***	0.002***	0.001***	0.002***
	(–3.72)	(–3.69)	(–3.85)	(–4.64)	(–5.08)	(–4.92)
Ratio of direct tax to indirect tax, $t-1$				0.034***		0.029***
				(–4.25)		(–3.89)
Consolidation (percent of GDP), $t-1$	0.006*				0.004	
	(1.79)				(0.96)	
Consolidation (percent of GDP)*Dum_Large,[2] $t-1$		0.007**				
		(1.99)				
Consolidation (percent of GDP)*(1 – Dum_Large), $t-1$		0.000				
		(0.01)				
Tax consolidation measure (percent of GDP), $t-1$			0.007	0.004		0.005
			(–1.16)	(–0.82)		(–0.77)
Spending consolidation measure (percent of GDP), $t-1$			0.016***	0.010**		0.013*
			(3.11)	(2.50)		(1.80)
Number of observations	524	524	524	510	524	510
Number of countries	17	17	17	17	17	17
Time fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Source: IMF staff estimates.

Note: Dependent variable is log of disposable income Gini coefficient, taken from the Standardized World Income Inequality Database (SWIID). Heteroskedasticity and country-specific autocorrelation-consistent *z*-statistics are shown in parentheses. Country fixed effects and time fixed effects are included in each regression but are not reported. OECD: Organisation for Economic Co-operation and Development; PCSE: panel-corrected standard error.

[1]Panel regression system that is estimated using seemingly unrelated regression (SUR) consists of two equations: one in which disposable-income-based Gini is the dependent variable, and another in which market-income-based Gini is the dependent variable. Regression results on the latter equation are not reported.

[2]The size of large consolidation is defined to be greater than 1.5 percent of GDP.

***Statistically significant at the 1 percent level, **at the 5 percent level, *at the 10 percent level.

whereas small consolidations do not (Table A1.1, column 2).[48] Spending-based consolidations significantly worsen inequality, but tax-based consolidations do not (columns 3, 4, 6). The coefficients on measures of spending-based consolidations suggest that a spending cut of 1 percent of GDP is associated with an increase of 1–1.6 percent in the Gini coefficient. Also, the progressivity of taxation, as measured by the ratio of direct to indirect taxes, is significantly negatively associated with inequality.

The results for the sample consisting of 48 advanced and emerging market economies during 1980–2010 show that greater progressivity in taxation and higher social spending reduce inequality (Table A1.2). The progressivity of taxation (the ratio of direct to indirect taxes) is significantly and negatively associated with inequality in disposable income, so that a 1 percent increase in the ratio is associated with a reduction of about 1.5 percent in inequality (Table A1.2, columns 1 and 3) as captured by the Gini coefficient.

On the expenditure side, social benefits (including medical services, social security pensions, and

[48]This seems to reflect the fact that large consolidations tend to be longer in duration and largely based on spending retrenchment. Spending-based fiscal adjustment has been found to have more pronounced effects on inequality than tax-based adjustment. This is confirmed in the case studies presented later in this appendix.

Table A1.2. Determinants of Income Inequality, 1980–2010

	Sample: Advanced economies and emerging markets						Sample: OECD countries	
Explanatory variables	(1) SUR[1]	(2) SUR	(3) PCSE	(4) SUR	(5) SUR	(6) PCSE	(7) SUR	(8) PCSE
Real GDP per capita (log), $t-1$	0.178***	0.203***	0.138***	0.178***	0.211***	0.152***	0.103**	0.066
	(5.91)	(6.62)	(3.69)	(5.79)	(6.94)	(4.03)	(2.50)	(1.42)
Years of schooling (log), $t-1$	–0.134***	–0.151***	–0.114***	–0.143***	–0.169***	–0.142***	–0.115***	–0.110**
	(–4.02)	(–4.57)	(–3.01)	(–4.26)	(–5.18)	(–3.74)	(–3.06)	(–2.47)
Trade openness, $t-1$	0.001***	0.001***	0.000*	0.001***	0.001***	0.001**	0.001***	0.001**
	(–3.44)	(–3.79)	(–1.69)	(–3.38)	(–4.00)	(–1.98)	(–2.60)	(–2.32)
Ratio of direct tax to indirect tax, $t-1$	0.015***	0.008	0.016*					
	(–2.87)	(–0.97)	(–1.76)					
Cyclically adjusted individual income tax (percent of potential GDP), $t-1$				0.000	0.002	0.004**	0.006***	0.008***
				(–0.26)	(1.31)	(2.14)	(3.33)	(3.37)
Cyclically adjusted corporate income tax (percent of potential GDP), $t-1$				0.002	0.001	0.003	0.001	0.002
				(–1.36)	(–0.42)	(–1.48)	(0.26)	(–0.73)
Cyclically adjusted indirect tax (percent of potential GDP), $t-1$				0.004***	0.005***	0.004**	0.003	0.004
				(3.24)	(3.85)	(2.40)	(0.98)	(1.16)
Wage bill (percent of potential GDP), $t-1$	0.002	0.002	0.001	0.002	0.002	0.002	0.004*	0.002
	(–1.13)	(–0.96)	(–0.85)	(–1.32)	(–1.31)	(–1.24)	(–1.76)	(–0.82)
Social benefits (percent of potential GDP), $t-1$	0.001	0.002*	0.001	0.002	0.003***	0.002*	0.005***	0.004**
	(–0.76)	(–1.78)	(–1.12)	(–1.57)	(–2.85)	(–1.80)	(–3.39)	(–2.18)
Unemployment rate, $t-1$	0.003***	0.004***	0.002**	0.003***	0.004***	0.003**	0.007***	0.005***
	(2.91)	(3.53)	(2.09)	(2.63)	(3.41)	(2.44)	(5.40)	(3.76)
Information technology capital share, $t-1$	0.009**	0.008*	0.004	0.008**	0.006	0.004	0.016***	0.008*
	(2.28)	(1.89)	(1.34)	(1.99)	(1.46)	(1.23)	(2.96)	(1.68)
Subsidies (percent of potential GDP), $t-1$		0.005**	0.001		0.006***	0.001	0.011**	0.003
		(–2.53)	(0.42)		(–2.76)	(0.30)	(–2.56)	(–0.56)
Capital spending (percent of potential GDP), $t-1$		0.002	0.002		0.000	0.003*	0.002	0.003
		(1.16)	(–1.27)		(–0.20)	(–1.81)	(–0.55)	(–1.23)
Consumer price index inflation, $t-1$							0.004***	0.002***
							(5.16)	(2.70)
Number of observations	663	635	635	639	620	620	471	471
Number of countries	48	48	48	46	46	46	31	31
Time fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Source: IMF staff estimates.

Note: Dependent variable is log of disposable-income Gini coefficient, taken from Standardized World Income Inequality Database (SWIID). Heteroskedasticity and country-specific autocorrelation-consistent z-statistics are shown in parentheses. Country fixed effects and time fixed effects are included in each regression but are not reported. OECD: Organisation for Economic Co-operation and Development; PCSE: panel-corrected standard error.

[1]Panel regression system that is estimated using seemingly unrelated regression (SUR) consists of two equations: one in which disposable-income-based Gini is the dependent variable, and another in which market-income-based Gini is the dependent variable. Regression results on the latter equation are not reported.

***Statistically significant at the 1 percent level, **at the 5 percent level, *at the 10 percent level.

unemployment compensation) reduce inequality, especially in advanced economies. The implied magnitude of the impact that social benefits spending has on inequality suggests that increasing such spending by 1 percent of potential GDP is associated with a 0.2–0.5 percent reduction in inequality.

The government wage bill, subsidies, and public capital spending also tend to be negatively associated with inequality, although the regression results are fragile. The negative coefficients of wage bills suggest that increases in government employee pay are associated with lower inequality, which seems to imply that government employees occupy a below-average position in the income distribution of the population. In contrast, the opposite sign is obtained for the coefficient of wage bills in low-income countries (higher government wages widen inequality), which suggests that government employees may be better compensated than the average employee in those countries. Subsidies—including transfers to compensate public corporations for losses on the transportation, electricity, and other services they provide—tend to have a greater impact in reducing inequality. Although the statistical significance

of subsidies is sensitive to estimation methods, the seemingly unrelated regression estimates suggest that an increase in subsidies of 1 percent of potential GDP is associated with a 0.5–1.1 percent reduction in inequality. Of course, a policy to reduce inequality that targets these subsidies to low-income consumers would be even more effective and also less costly.

Impact of selected nonfiscal factors on income inequality

Consistent with the literature, education and trade openness are found to lower inequality. Evidence of an inverse U-shaped relationship between income per capita and inequality is also found, with inequality starting to decrease when per capita income exceeds about $17,700 in 2005 international dollars.[49]

Unemployment is found to be a significant determinant of income inequality. A 1 percentage point rise in the unemployment rate is associated with a 0.2–0.4 percent increase in inequality (0.5–0.7 percent for advanced economies). To gauge the impact of consolidation on inequality via unemployment, the model described in Box A1.1 to derive the dynamic impact of consolidation on unemployment is used. Consolidation seems to start affecting unemployment almost immediately: a consolidation of 1 percent of GDP leads to a 0.19 percentage point increase in the unemployment rate in the first year and a 1.7 percentage point increase cumulatively over five years.[50] A 1 percentage point increase in the unemployment rate is associated with an increase in inequality of about 0.2–0.3 percent, which suggests that about 15–20 percent of the increase in inequality due to fiscal consolidation might be occurring via unemployment (Table A1.2). Of course, in many cases a failure to consolidate fiscal accounts could lead to an economic crisis and an even larger rise in unemployment.

Skill-biased technological progress is also found to contribute significantly to rising income inequality: a 1 percentage point gain in the IT share of total capital is associated with a 0.8–1.6 percent increase in inequality.[51] To put this in perspective, take the cases of Korea and the United States. In 2007, the IT capital share was 3.5 percent in Korea and 8.2 percent in the United States, and in 2008 the respective Gini coefficients for disposable income were 31.4 and 36.0, a gap of 4.6 Gini points. The difference in the IT capital share can account for more than 25 percent of this gap.

Case study of fiscal consolidation episodes

Upon examination of twelve large fiscal consolidation episodes (six spending based and six tax based),[52] the impact on income distribution is found to vary with the composition of the consolidation package, a country's position in the business cycle, and labor market conditions.[53]

Spending-based consolidations (as in Iceland, 1993–99, and Spain, 1992–98), or tax-based consolidations with a significant portion of expenditure measures (as in the United Kingdom, 1994–98), tend to be larger and longer in duration, with more-pronounced effects on inequality, than tax-based consolidations (Figure A1.3). Regarding the composition of austerity measures, cuts in social benefits tend to worsen inequality more than other spending reductions (as in Germany, 1992–99, and Norway, 1993–97); tax-based consolidations that rely more on indirect taxes or are mixed with expenditure cuts tend to worsen inequality (e.g., that in Iceland, 2004–06). In some of the episodes that ended with lower inequality (for example, those in Australia, 1994–96; Belgium, 1996–98; and France, 1994–97), indirect tax increases were combined with

[49]An international dollar is based on purchasing power parity exchange rates and has the same purchasing power as the U.S. dollar. Consumer price index inflation was also tried, but the resulting coefficients were nonsignificant.

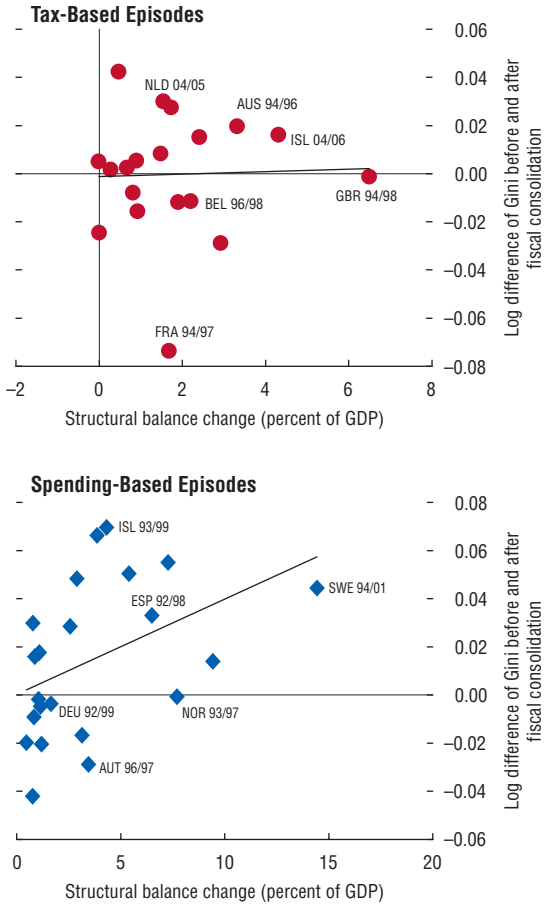
[50]See Bova and others (2012) for details.

[51]The results are robust to using alternative dynamic panel regression specification and alternative data sets using World Income Inequality Data, the Luxembourg Income Study, and the World Bank's PovcalNet or alternative measures of inequality (ratios of top-to-bottom quintiles and labor income share).

[52]The spending-based consolidation episodes were Australia, 1994–96; Belgium, 1996–98; France, 1994–97; Iceland, 1993–99; the Netherlands, 2004–05; and the United Kingdom, 1994–98. The tax-based consolidation episodes were Austria, 1996–97; Germany, 1992–99; Iceland, 2004–06; Norway, 1993–97; Spain, 1992–98; and Sweden, 1994–2001 (see Figure A1.3).

[53]See Bastagli, Coady, and Gupta (2012) and IMF (2010a) for more discussion on inequality and fiscal policy.

Figure A1.3. Changes in Income Inequality: Spending-Based versus Tax-Based Consolidation Episodes



Sources: Bova and others (2012); Eurostat; PovcalNet; national sources; World Income Inequality Database (WIID); and IMF staff estimates.

Note: Episodes drawn from World Economic Outlook action-based consolidation database, and size of fiscal consolidation calculated as the change in structural balances. Episodes absent from the database but with large structural changes (annual increase > 0.5 percent of GDP) are also included.

offsetting measures such as direct measures targeted at poor households.

Unemployment appears to be an important factor behind the increases in inequality, and hence, fiscal consolidations undertaken during recessions could have a greater impact on inequality. Social benefit cuts and tax increases amid rising unemployment (as, for example, in Spain, 1992–98, and Sweden, 1994–2001) seem to have led to higher inequality than those undertaken during nonrecession periods (such as those in Austria, 1996–97, and Belgium, 1996–98).

Concluding remarks

In many countries, large fiscal adjustments are expected to be required for a long time in order to reduce debt-to-GDP ratios. Fiscal consolidation will inevitably have a negative impact on incomes in the short run, but it is an open question how the cost of consolidation will be distributed. For reasons of equity and also of political economy—fiscal adjustments that are seen as being unfair are unlikely to be sustainable—it is critical that the costs associated with fiscal consolidations and weaker growth be shared equitably throughout the economy. To the greatest extent possible, therefore, adjustment packages should be carefully designed to ensure that the burden of adjustment does not fall disproportionately on the poor. For example, progressive taxation and targeted social benefits and subsidies introduced in the context of a broader decline in spending can help offset some of the distributional impact of consolidation. More generally, fiscal policy can address both inequality and growth by promoting education and training among low- and middle-income workers.

Box A1.1. The Dynamic Effects of Fiscal Consolidation on Inequality of Disposable Income

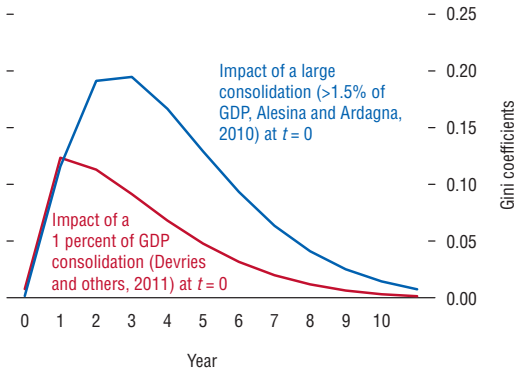
To examine the dynamic impact of fiscal consolidation on inequality, a univariate autoregressive model is extended to include the current and lagged impacts of the shock in an unbalanced annual panel for 1978–2009:[1]

$$g_{it} = \alpha + \Sigma_{j=1}^{2} \beta_j g_{i,t-j} + \Sigma_{k=0}^{2} \delta_k F_{i,t-k} + \nu_i + \mu_t + e_{it},$$

where i is a country; t is a year; g_{it} denotes the Gini coefficient for disposable income; ν_i are country-specific fixed effects; μ_t are time-fixed effects; and F_{it} is a measure of fiscal consolidation (as a percentage of GDP) for 17 member countries of the Organisation for Economic Co-operation and Development (OECD) (from Devries and others, 2011). The number of lags has been restricted to two, but the presence of additional lags is rejected by the data.[2]

Overall, the Gini coefficient for disposable income tends to start rising about one year after the consolidation. A consolidation of 1 percent of GDP raises the Gini coefficient by 0.13 in the first two years and by 0.52 cumulatively over five to six years (subsequently the impact gets smaller, and disappears by the tenth year, as shown in Figure A1.1.1).[3] On average, the 0.13 and 0.52 increases in the Gini are equivalent to increases in inequality of 0.4 percent and 1.8 percent, respectively (the OECD average of the Gini coefficient for disposable income is 30.02). The order of magnitude of the impact (a 0.4 percent rise in the first two years) is comparable to a 0.5–0.6 percent increase suggested by the baseline regression (Table A1.1). Also, an alternative measure of fiscal consolidation from Alesina and Ardagna (2010) is used.[4] The result is qualitatively similar, suggesting that a consolidation raises the Gini coefficient by 0.12 in the first two years and by 1.0 cumulatively over five to six years.

Figure A1.1.1. Dynamic Effects of Fiscal Consolidation on Inequality



Source: Bova and others (2012).

[1]The methodology closely follows Cerra and Saxena (2008) and IMF (2010c). Country fixed effects are correlated with the lagged dependent variables in the autoregressive model, causing a dynamic panel bias. However, the order of bias is $1/T$ (Nickell, 1981), so the bias is small in this data set, with $T = 32$ and $N = 17$ (see Judson and Owen, 1999). As robustness checks, a system generalized method of moments as well as a bias-corrected least-squares dummy variable estimator (Bruno, 2005) is tried. The results are very similar.

[2]Coefficients of the two lagged terms of the fiscal consolidation are jointly significant at the conventional level.

[3]Results are closely similar when the Gini coefficient or its log is used in the dynamic panel regression. The Gini coefficient is employed here to facilitate interpretation of the chart.

[4]The measure is a dummy variable taking a value of 1 in the year of a large consolidation and 0 otherwise, where a large fiscal consolidation is defined by Alesina and Ardagna (2010) to be larger than 1.5 percent of GDP. Thus, the result is not directly comparable to that based on the consolidation measure from Devries and others (2011).

Appendix 2. Fiscal Policies to Address Weak Employment

The global financial crisis has driven up unemployment in much of the world since 2007. But in many advanced and emerging market economies, the employment situation was weak even before the crisis hit, reflecting underlying structural weaknesses. In 2007, for example, unemployment in advanced and emerging economies averaged 6½ percent, compared to 8½ percent in 2011. This suggests that unemployment will remain a challenge as the global economy recovers and cyclical conditions improve. This appendix discusses tax and expenditure measures that could boost employment, focusing on incentives to increase labor demand and supply, rather than on the impact of fiscal policy on employment through aggregate demand effects.[54]

The links between fiscal policy and employment

Low employment rates—low proportions of the working-age population with jobs—can be the result of high unemployment, low participation in the labor force, or both. Involuntary unemployment creates an unambiguous social loss, both in direct human terms and by reducing output (Dao and Loungani, 2010). Low participation in the labor force is also suboptimal to the extent that it reflects a high share of "discouraged workers"—those who withdraw from the labor market because of weak job prospects—or indicates strong disincentives to work because of taxes and social benefits. Raising participation in the labor force over the medium term can help spur economic growth as well as contribute to fiscal consolidation by expanding the tax base and offsetting some of the effects of population aging.

Empirical studies confirm that taxes on labor (personal income and social security taxes) matter significantly for employment. First, these taxes reduce labor demand by driving up labor costs. Cross-country panel studies indeed find that in OECD countries, an increase of 10 percentage points in the labor tax wedge raises structural unemployment by 2.8 percentage points (Bassanini and Duval, 2006).[55] Likewise, the labor tax wedge depresses labor supply by lowering employees' net compensation. For example, with an elasticity of labor supply of 0.5 (as in Chetty and others, 2011), a reduction of 10 percentage points in the labor tax wedge would raise total labor supply by 8 percent.

Social benefits affect labor markets in much the same way as taxes, by weakening the link between labor supply and incomes. Microeconometric studies find that high levels of unemployment benefits and long duration periods increase spells of unemployment and reduce rates of reemployment. Cross-country evidence suggests that an increase of 10 percentage points in the benefit replacement rate (unemployment benefits as a share of the worker's net wage) raises the structural unemployment rate by 1 percentage point (Bassanini and Duval, 2006).

Some government programs can help reduce unemployment by improving the matching of workers seeking jobs and job vacancies. Some ALMPs, such as job search assistance and training programs, are effective in reducing unemployment (Card, Kluve, and Weber, 2010). Public sector employment programs, however, are ineffective in boosting jobs over the longer term.

Fiscal policy reforms to boost employment

There are large differences across economies with respect to both unemployment and labor force participation rates (Figure A2.1). Behind these aggregates are more specific labor market weaknesses (Table A2.1), both for unemployment (total, for youth, for the unskilled, and long term) and labor force participation (total, by gender, and by age group). Given the wide divergence in labor market challenges, country-specific strategies are likely to be the most effective.

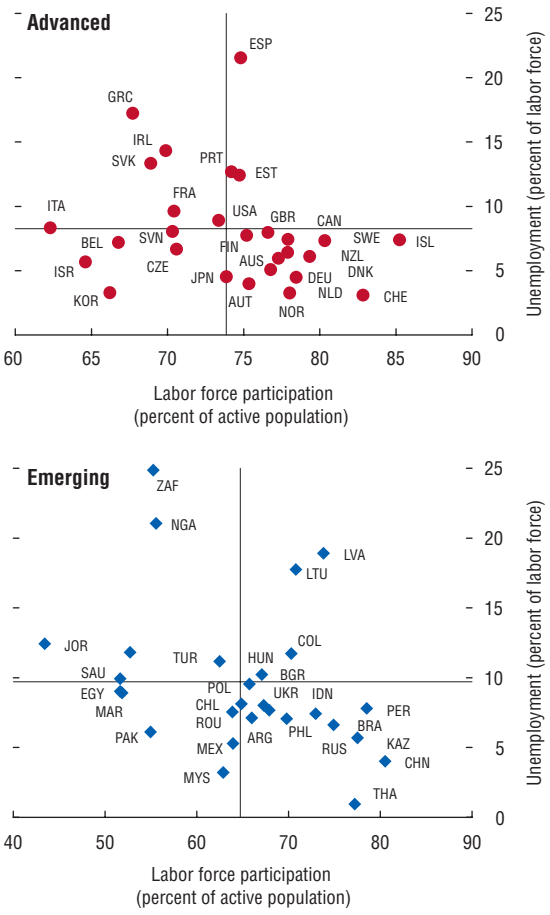
The following criteria and constraints should be taken into account in designing country strategies:

- *Short- and medium-term objectives.* For economies in which unemployment has risen sharply

[54]This appendix is based on IMF (2012b).

[55]The labor tax wedge is defined as the difference between the labor costs paid by employers and the net compensation received by workers owing to income taxes and social insurance contributions.

Figure A2.1. Advanced Economies and Emerging Markets: Unemployment and Labor Force Participation Rates



Sources: International Labour Organization, Key Indicators of the Labour Market (KILM); Eurostat, EU Labor Force Surveys; Organisation for Economic Co-operation and Development; and IMF staff estimates and projections.

Note: Data for advanced economies refer to 2011, those for emerging markets to 2010.

in the wake of the crisis, an immediate priority is to restore labor demand. This puts a particular premium on implementing fiscal consolidation in the most growth-friendly manner possible. Beginning or strengthening ALMPs that help match supply and demand are also an immediate priority to reduce high rates of natural unemployment. Measures to promote labor force participation will likely have little impact on employment in the short run and may even increase recorded unemployment. This has important implications for the timing of these measures.

- *Financing constraints.* Economies with tight financing constraints should prioritize reform options that are budget neutral or can provide budgetary savings. Countries may also need to seek financial support from external sources, such as the Structural Funds of the European Union or multilateral development banks.
- *Cost-effectiveness*. This will vary across economies in light of the differing nature of employment problems, labor market institutions, and the scale of reforms. For example, some programs (such as hiring subsidies) can lose effectiveness as they expand beyond target groups with high rates of long-term unemployment. A country's administrative capacity is an important consideration for determining its ability to implement employment-enhancing measures, such as ALMPs, in an efficient manner.
- *Scope for complementary labor market reforms.* Measures to increase the supply of labor will lead to more employment only when the extra supply gets absorbed by rising labor demand. The effectiveness of fiscal policies can therefore be enhanced by labor market reforms that increase wage flexibility and by reforms in product and capital markets to encourage job growth.
- *Equity goals.* Reforms should help mitigate trade-offs between employment and equity, including through greater use of ALMPs and in-work tax credits and benefits.

Cutting unemployment

Reductions in employer social security contribution rates can boost labor demand in the short term by lowering nonwage labor costs. If fiscal constraints do not permit lower revenues, the lower contributions could be accompanied by higher consumption taxes (or higher property taxes) as part of a revenue-neutral reform. The effects of such tax shifts have been subject to extensive analysis for closed economies, but they have recently received more attention in open economies with a fixed exchange rate, where they might induce a "fiscal devaluation." Indeed, fiscal devaluations could speed up convergence to the long-run equilibrium by reducing real labor costs and improving competitiveness, thus raising employment above that in the initial situation (see

Table A2.1. Key Labor Market Challenges for Different Country Groups

(Percent)

	Advanced Europe				Other Advanced		Emerging				
	South	East	North	Other	US-CAN	Other	Europe	MENA	Latin America	Asia	Africa
Unemployment rate											
Total	15	10	6	7	8	5	11	11	7	5	24
Youth	31	25	17	16	17	12	21	26	17	11	. . .
Long-term	47	44	17	38	20	17	39	. . .	. . .	. . .	. . .
Low-skilled	12	23	8	11	14	7	16	. . .	5	. . .	. . .
Labor force participation rate											
Total	70	71	80	75	76	72	67	50	70	68	59
Males, age 25–54	92	93	92	93	90	91	88	93	95	97	83
Males, age 55–64	58	58	76	71	69	78	54	60	79	79	75
Females, age 25–54	75	83	85	81	78	72	74	27	64	62	65
Females, age 55–64	37	40	70	47	58	56	35	11	41	42	56

Sources: International Labour Organization, Key Indicators of the Labour Market (KILM); Eurostat, EU Labor Force Surveys; Organisation for Economic Co-operation and Development; and IMF staff estimates and projections.

Note: Data for unemployment rates and labor force participation rates for advanced economies are for 2011; other data are for 2010. Grey signifies good performance with limited room for improvement (unemployment: total < 5, youth < 15, long-term < 20, low-skilled < 10; participation: total > 75, males age 25 to 54 > 90, males age 55 to 64 > 70, females age 25 to 54 > 75, females age 55 to 64 > 55). Yellow signifies intermediate-level performance with some room for improvement. Red signifies relatively weak performance with substantial room for improvement (unemployment: total > 10, youth > 20, long-term > 40, low-skilled > 20; participation: total < 55, males age 25 to 54 < 80, males age 55 to 64 < 60, females age 25 to 54 < 60, females age 55 to 64 < 40). Country groups: Advanced Europe: South = Greece, Italy, Portugal, Spain; East = Czech Republic, Estonia, Slovak Republic, Slovenia; North = Denmark, Finland, Iceland, Norway, Sweden; Other = Austria, Belgium, France, Germany, Ireland, Netherlands, Switzerland, United Kingdom. Other advanced: US-CAN = United States and Canada; Other = Australia, Israel, Japan, Korea, New Zealand. Emerging: Europe = Bulgaria, Hungary, Latvia, Lithuania, Poland, Romania, Russian Federation, Turkey, Ukraine; Middle East and North Africa (MENA) = Egypt, Jordan, Morocco, Saudi Arabia; Latin America = Argentina, Brazil, Chile, Colombia, Mexico, Peru; Asia = China, India, Indonesia, Kazakhstan, Malaysia, Pakistan, Philippines, Thailand; Africa = Kenya, Nigeria, South Africa.

the September 2011 *Fiscal Monitor*; and De Mooij and Keen, 2012).

The long-term employment effects of tax shifts depend on the extent to which the tax burden is moving from labor income toward other incomes. Price adjustments will eventually drive up wage costs for employers. Therefore, the impact of a tax shift on employment is expected to gradually disappear, thereby leaving the long-run equilibrium under full wage flexibility undisturbed. The adjustment, however, can take quite some time (De Mooij and Keen, 2012). Moreover, there may be more subtle effects that render the long-term effects of a tax shift positive for growth and employment. For instance, consumption taxes, which affect all incomes that support consumption, including income from economic rents and social transfers, have a broader base than social contributions.

Temporary measures can help mitigate large increases in unemployment during downturns and avoid structural increases due to hysteresis effects. For instance, employment support schemes—which allow employers to reduce hours worked while the government compensates workers for the resulting loss of income—can reduce job layoffs (Cahuc and Carcillo, 2011). The scope and duration of these measures should be limited to avoid adverse long-term economic effects. Public works programs—which create temporary jobs in the public sector—can be effective in increasing employment in the short run. But they should be phased out as economic activity recovers and should not lead to permanent increases in the size of the public sector. Indeed, under permanent public works schemes, private employment tends to get crowded out, the government incurs large costs, and public sector employees gain skills that are often not transferable to the private sector (Kluve, 2010).

A strengthening of ALMPs can also help tackle unemployment. To be most effective, hiring subsidies and job training should be targeted to specific groups—in particular, young workers, the unskilled,

and the long-term unemployed (Box A.2.1). These programs should focus on providing on-the-job training and intensive contact with employers to facilitate the transition to paid employment.

Boosting labor force participation

Many economies could benefit from revenue-neutral tax reforms that mitigate the labor supply distortions of the labor tax wedge. For instance, policies to broaden the tax base while reducing rates may improve labor supply incentives, and they may have only modest distributional implications if the tax deductions that are eliminated or reduced primarily affect higher-income groups. Moreover, progressive income tax schedules—that is, those that increase the tax burden (in percent of income) as income rises—can reduce labor tax wedges in the market for low-skilled workers, where distortions are the largest.

Empirical studies point to significant differences in labor supply elasticities among groups. Tax and spending reforms should thus be targeted to groups that are most responsive to financial incentives:

- *Low-skilled workers.* The withdrawal of social benefits as labor market earnings rise operates like a tax on earned income and can generate very large disincentives for low-wage earners to seek paid employment. To mitigate this effect and encourage low-skilled employment, more than half of advanced economies have introduced "in-work" tax credits targeted to low labor incomes. Evaluation studies consistently report beneficial net employment effects from these policies (Immervoll and Pearson, 2009).
- *Women and secondary earners.* The scope for increasing female labor force participation is significant, as female labor participation rates remain on average almost 20 percentage points below those of men. The supply of female workers is found to be more responsive to taxes than that of males. Thus, tax relief targeted to women would likely elicit a positive net supply response, even when financed by higher taxes on men. In countries that currently apply family taxation, such as France, Portugal, and the United States, moving to individual taxation would help reduce high marginal tax rates for the secondary earner in couples. Family benefit systems could also be reformed to increase female labor force participation rates. Publicly financed parental leave schemes, with a guarantee for young mothers to return to the jobs they held prior to taking leave, can help keep such mothers connected to the labor market. Still, very long durations for paid leave provide incentives for mothers to take lengthy spells out of the labor market, which can result in a deterioration of their work skills and damage their future employment opportunities. High child allowances also reduce incentives for women to enter the labor market, especially those with low earning capacity. Reducing benefit levels for older school-aged children and linking benefits to labor force participation can increase incentives to rejoin the labor market. Since child care generally needs to be available to support the labor force participation of parents, child care subsidies may also be effective. Indeed, Gong, Breunig, and King (2010) and Kalb (2009) review a total of 31 studies in 10 countries and find that the elasticity of female labor supply with respect to the price of child care is usually between 0.13 and –0.20. Hence, if subsidies reduce the price of child care by 50 percent, labor supply of young mothers will rise by 6.5–10 percent.
- *Older workers.* In many countries, it is often financially beneficial to retire as early as possible, which puts the actual retirement age well below the statutory retirement age. Making pensions actuarially neutral can reduce distortions and result in a significant increase in employment rates among older age groups (Gruber and Wise, 2004).

Details matter

Designing appropriate fiscal policies to boost employment does not always require cutting benefits and tax rates. Reforms in program design (for example, changes in the incentive structure and better targeting) can often mitigate the adverse impact on employment that comes from high unemployment benefits and high tax wedges. For example, Scandinavian countries have achieved high employment ratios in spite of high social benefits by imposing strict eligibility requirements, rigorous job

search requirements, and mandatory participation in ALMPs. Moreover, despite high tax wedges, labor force participation rates are high in Scandinavia because of extensive child care support for working parents and because benefits are closely tied to work (in-work benefits and actuarially fair pensions). This illustrates that interactions between policies matter and that details of policy design are important.

Conclusions

Better tax and expenditure policies can significantly boost employment. The appropriate reform mix will differ across countries and needs to be adapted to each country's employment challenges, labor market institutions, and fiscal constraints. To reduce unemployment, countries could examine the scope for reducing labor taxes and expanding temporary employment support schemes, although the latter should be phased out as economic activity recovers. ALMPs that focus on the long-term unemployed and groups with chronically high unemployment rates, such as the young, can also help reduce unemployment. Over the medium term, a promising approach to raising labor supply is to target groups that are most responsive to employment-enhancing policy initiatives: low-skilled workers, women, and older workers.

Box A2.1. Options for Addressing Specific Unemployment Problems

Youth unemployment

Tackling high youth unemployment calls for comprehensive policy packages that improve both training and job matching. Nonfiscal measures may be necessary to address skill mismatches; to facilitate access to on-the-job training; and, for youth, to tackle stringent regulations controlling hiring and firing and high minimum wages. Fiscal policies can complement these efforts through effective job search assistance, targeted study-and-work programs, and well-tailored wage subsidies, such as those for apprenticeship contracts targeted at those who have difficulty entering or staying attached to the labor market. Benefits for unemployed youth should be conditional on participation in these programs.

Low-skilled unemployment

Empirical evidence suggests that the demand for low-skilled labor is relatively elastic and therefore reacts more strongly to policy measures (Hammermesh, 1996). Such measures could include targeted reductions in nonwage costs, such as establishing a threshold below which social contributions are reduced or eliminated, or hiring subsidies focused on low-skilled workers.

Long-term unemployment

To mitigate the disincentives to choose employment over "passive" benefits such as unemployment and disability benefits, many countries have strengthened the "activation requirements" attached to the receipt of these benefits. These include mandatory job search and training programs. The monitoring and enforcement of these conditions, however, make benefit schemes more complex and administratively demanding.

METHODOLOGICAL AND STATISTICAL APPENDIX

This appendix comprises six sections. "What's New" presents a brief description of the methodological changes to the database and statistical tables since the April 2012 issue of the *Fiscal Monitor*. "Data and Conventions" provides a general description of the data and of the conventions used for calculating economy group composites. "Fiscal Policy Assumptions" summarizes the country-specific assumptions underlying the estimates and projections for 2012–17. Details on the coverage and accounting practices underlying each country's *Fiscal Monitor* data are provided in "Definition and Coverage of Fiscal Data." The classification of countries in the various groups presented in the *Fiscal Monitor* is summarized in "Economy Groupings." "Statistical Tables" on key fiscal variables complete the appendix. Data in these tables have been compiled on the basis of information available through October 2012.

What's new

- Egypt has been included in the group of emerging market economies.
- The sample of low-income countries has been modified. See "Economy Groupings" for more details.
- The aggregation method used to provide average fiscal data for different country groups has been modified. In this issue, data are weighted by nominal GDP converted to U.S. dollars at average market exchange rates as a share of the group GDP.
- The methodology used to estimate the illustrative adjustment needs for advanced economies in Statistical Table 13a has been modified to take into account the endogenous (dynamic) impact of debt levels on the interest rate–growth differential ($r - g$). Initial country-specific interest rate–growth differentials (based on *Fiscal Monitor* projections) converge over time to model-based country-specific levels, with the speed of adjustment derived from empirical estimates of the effect of public debt on the interest rate (see Box 3) and potential growth rates based on *Fiscal Monitor* projections for 2017. The assumption on the interest rate–growth differential for countries with IMF/EU-supported programs (Greece, Ireland, Portugal) is drawn from their debt sustainability analyses. In the cases of Ireland and Portugal, this differential is assumed to follow the endogenous adjustment path determined by debt levels from 2016 onward. For further details, see Statistical Table 13a.

Data and conventions

Country-specific data and projections for key fiscal variables are based on the October 2012 WEO database, unless indicated otherwise. The data appearing in the *Fiscal Monitor* are compiled by the IMF staff. The historical data and projections are based on the information gathered by the IMF country desk officers in the context of their missions to IMF member countries and through their ongoing analysis of the evolving situation in each country. Historical data are updated on a continual basis as more information becomes available, and structural breaks in data are often adjusted to produce smooth series with the use of splicing and other techniques. IMF staff estimates continue to serve as proxies for historical series when complete information is unavailable. As a result, *Fiscal Monitor* data can differ from other sources with official data, including the IMF's *International Financial Statistics*.

Where the *Fiscal Monitor* includes additional fiscal data and projections not covered by the WEO, data sources are listed in the respective tables and figures.

All fiscal data refer to the general government where available and to calendar years, with the exceptions of those for Egypt, Hong Kong SAR, Pakistan, Singapore, and Thailand, for which data refer to the fiscal year.

Composite data for country groups are weighted averages of individual-country data, unless otherwise specified. Data are weighted by nominal GDP converted to U.S. dollars at average market exchange

rates as a share of the group GDP. Annual weights are assumed for all years.

For the purpose of data reporting in the *Fiscal Monitor*, the G-20 member aggregate refers to the 19 country members and does not include the European Union aggregate.

For most countries, fiscal data follow the IMF's *Government Finance Statistics Manual* (*GFSM*) *2001*. The concept of overall fiscal balance refers to net lending (+)/borrowing (–) of the general government. In some cases, however, the overall balance refers to total revenue and grants minus total expenditure and net lending.

Data on the financial sector support measures are based on the database on public interventions in the financial system compiled by the IMF's Fiscal Affairs and Monetary and Capital Markets Departments, revised following a survey of the G-20 economies. Survey questionnaires were sent to all G-20 members in early December 2009 to review and update IMF staff estimates of financial sector support. This information was later completed using national sources and data provided by national authorities. For each type of support, data were compiled for the amounts actually utilized and recovered to date. The period covered is June 2007 to the latest available.

The following symbols have been used throughout the *Monitor*:

. . . to indicate that data are not available;

— to indicate that the figure is zero or less than half the final digit shown, or that the item does not exist;

– between years or months (for example, 2008–09 or January–June) to indicate the years or months covered, including the beginning and ending years or months;

/ between years (for example, 2008/09) to indicate a fiscal or financial year;

"Billion" means a thousand million; "trillion" means a thousand billion.

"Basis points" refer to hundredths of 1 percentage point (for example, 25 basis points are equivalent to ¼ of 1 percentage point).

"n.a." means "not applicable."

Minor discrepancies between sums of constituent figures and totals are due to rounding.

As used in the *Monitor*, the term "country" does not in all cases refer to a territorial entity that is a state as understood by international law and practice. As used here, the term also covers some territorial entities that are not states but for which statistical data are maintained on a separate and independent basis.

Additional country information follows, including for cases in which reported fiscal aggregates in the *Monitor* differ from those reported in the WEO:

Argentina. Total expenditure and the overall balance account for cash interest and the IMF staff's estimate of accrued interest payments. Accrued interest corresponds to adjustment on the stock of consumer-price-indexed debt using official inflation, interest capitalization, and interest arrears on defaulted debt. Calculations use Argentina's official GDP and consumer price index (the Consumer Price Index for Greater Buenos Aires, or CPI-GBA) data. The IMF has called on Argentina to adopt remedial measures to address the quality of the official GDP and CPI-GBA data. The IMF staff is also using alternative measures of GDP growth and inflation for macroeconomic surveillance, including data produced by private analysts, which have shown significantly lower real GDP growth than the official data since 2008, and data produced by provincial statistical offices and private analysts, which have shown considerably higher inflation figures than the official data since 2007.

Chile. Cyclically adjusted balances reflect additional adjustments for commodity price developments.

China. Fiscal data exclude allocation to the stabilization fund. Debt data cover only the central government until 2009 and the general government from 2010 onward. Public debt projections assume that about 60 percent of the stock of local governments' debt will be amortized over 2011–13, 16 percent over 2014–15, and 24 percent beyond 2016, consistent with the authorities' plans.

Colombia. Combined public sector including Ecopetrol and excluding Banco de la República's outstanding external debt reported for gross public debt.

Greece. Revised general government gross debt includes short-term debt and loans of state-owned enterprises in the calculation of overall total debt.

Hong Kong Special Administrative Region. Data are on a fiscal year rather than calendar year basis. Cyclically adjusted balances reflect additional adjustments for land revenue and investment income.

Hungary. The cyclically adjusted and cyclically adjusted primary balances for 2011 exclude one-off revenues as per asset transfer to the general government due to changes to the pension system.

Ireland. The general government balances for 2009 and 2010 reflect the impact of banking support measures. The fiscal balance estimates excluding these measures are –11.5 percent of GDP for 2009 and –10.8 percent of GDP for 2010. Cyclically adjusted balances exclude financial sector support.

Jordan. The general government balances and general government revenues include grants.

Latvia. The fiscal deficit includes bank-restructuring costs and thus is higher than the deficit in official statistics.

Mexico. The general government data reported in the tables cover central government, social security, public enterprises, development banks, the national insurance corporation, and the National Infrastructure Fund but exclude subnational governments.

New Zealand. Overall balance includes balance of state-owned enterprises, excluding privatization receipts.

Norway. Cyclically adjusted balances correspond to the cyclically adjusted non-oil overall or primary balance. Ratios for these variables are in percent of non-oil potential GDP.

Pakistan. Data are on a fiscal year rather than calendar year basis.

Peru. Cyclically adjusted balances reflect additional adjustments for commodity price developments.

Singapore. Data are on a fiscal year rather than calendar year basis. The historical fiscal data have been revised to reflect the migration to *GFSM 2001*, which entailed some classification changes.

Sudan. Data for 2011 exclude South Sudan after July 9. Data for 2012 and onward pertain to the current Sudan.

Sweden. Cyclically adjusted balances take into account the output and employment gaps.

Switzerland. Data submissions at the cantonal and commune level are received with a long and variable lag and are subject to sizable revisions. Cyclically adjusted balances reflect additional adjustments for extraordinary operations related to the banking sector.

Thailand. Data are on a fiscal year rather than calendar year basis.

Turkey. Information on general government balance, primary balance, and cyclically adjusted primary balance differ from those published in the authorities' official statistics or country reports, which still include net lending. An additional difference from the authorities' official statistics is the exclusion of privatization receipts in staff projections.

United States. Cyclically adjusted balances exclude financial sector support.

Fiscal policy assumptions

The historical data and projections of key fiscal aggregates are in line with those of the October 2012 WEO, unless highlighted. For underlying assumptions, other than on fiscal policy, see the October 2012 WEO.

The short-term fiscal policy assumptions are based on officially announced budgets, adjusted for differences between the national authorities and the IMF staff regarding macroeconomic assumptions and projected fiscal outturns. The medium-term fiscal projections incorporate policy measures that are judged likely to be implemented. In cases in which the IMF staff has insufficient information to assess the authorities' budget intentions and prospects for policy implementation, an unchanged structural primary balance is assumed, unless indicated otherwise. The specific assumptions relating to selected economies follow.

Argentina. The 2012 forecasts are based on the 2011 outturn and IMF staff assumptions. For the outer years, the assumed improvement in the fiscal balance is predicated on an assumed growth of revenues in the context of a pickup in economic activity combined with a decline in the growth of expenditures.

Australia. Fiscal projections are based on IMF staff projections and the 2012–13 budget, as well as the Australian Bureau of Statistics.

Austria. Projections take into account the federal financial framework for 2013–16 as well as associated further implementation needs and risks.

Belgium. IMF staff projections for 2012 and beyond are based on unchanged policies, as some reform measures remain under discussion.

Brazil. The 2012 forecast is based on the budget, subsequent updates announced by the authorities, and fiscal outturn up to July 2012. In outer years, the IMF staff assumes adherence to the announced primary surplus target and further increase in public investment in line with the authorities' intentions.

Burkina Faso. Based on discussion with the authorities, past trends, and impact of ongoing structural reforms.

Cambodia. Historical data are from the Cambodian authorities. Projections are based on the IMF staff's assumptions given discussion with the authorities.

Canada. Projections use the baseline forecasts in the *Economic Action Plan 2012: Jobs, Growth, and Long-Term Prosperity,* March 29, 2012 (the fiscal year 2012/13 budget). The IMF staff makes some adjustments to this forecast for differences in macroeconomic projections. The IMF staff forecast also incorporates the most recent data releases from Statistics Canada's Canadian System of National Economic Accounts, including federal, provincial, and territorial budgetary outturns through the end of the second quarter of 2012.

China. For 2012, the government is assumed to slow the pace of fiscal consolidation; the fiscal impulse is assumed to be neutral.

Czech Republic. Projections are based on the authorities' budget forecast for 2012–13 with adjustments for macroeconomic projections of the IMF staff. Projections for 2014 onward are based on unchanged policies.

Denmark. Projections for 2012–13 are aligned with the latest official budget estimates and the underlying economic projections, adjusted where appropriate for the IMF staff's macroeconomic assumptions. For 2014–17, the projections incorporate key features of the medium-term fiscal plan as embodied in the authorities' 2012 Convergence Program submitted to the European Union.

Egypt. The estimates for 2012 are preliminary outturns from the Ministry of Finance. The projections for 2013 and beyond reflect an illustrative staff scenario, since the authorities are still in the process of formulating their medium-term fiscal plan.

Estonia. The forecast, which is cash-based and not accrual-based, incorporates the authorities' 2012 budget, adjusted for newly available information and for the IMF staff's macroeconomic scenario.

Finland. Based on announced policies by the authorities, adjusted for the IMF staff's macroeconomic scenario.

France. Estimates for the general government in 2011 reflect the actual outturn. Projections for 2012 and beyond reflect the authorities' 2011–14 multiyear budget, adjusted for fiscal packages and differences in assumptions on macroeconomic and financial variables and revenue projections.

Germany. The estimates for 2011 are preliminary estimates from the Federal Statistical Office. The IMF staff's projections for 2012 and beyond reflect the authorities' adopted core federal government budget plan, adjusted for the differences in the IMF staff's macroeconomic framework and IMF staff assumptions about fiscal developments in state and local governments, the social insurance system, and special funds. The projections also incorporate the authorities' plans for a 2013–14 tax reduction. The estimate of gross debt includes portfolios of impaired assets and noncore business transferred to institutions that are winding up as well as other financial sector and EU support operations.

Greece. Macroeconomic, monetary, and fiscal projections for 2012 and the medium term are broadly consistent with the policies agreed to between the IMF staff and the authorities in the context of the Extended Fund Facility.

Hong Kong Special Administrative Region. Projections are based on the authorities' medium-term fiscal projections.

Hungary. Fiscal projections include IMF staff projections of the macroeconomic framework and of the impact of existing legislated measures, as well as fiscal policy plans as announced at end-July 2012.

India. Historical data are based on budgetary execution data. Projections are based on available

information on the authorities' fiscal plans, with adjustments for IMF staff assumptions. Subnational data are incorporated with a lag of up to two years; general government data are thus finalized well after central government data. IMF and Indian presentations differ, particularly regarding divestment and license auction proceeds, net versus gross recording of revenues in certain minor categories, and some public sector lending.

Indonesia. The 2011 central government deficit was lower than expected (1.1 percent of GDP), reflecting underspending, particularly on public investment. The 2012 central government deficit is estimated at 2.0 percent of GDP, lower than the revised budget estimate of 2.2 percent of GDP. It is assumed that subsidized fuel prices will not be adjusted in 2012. The low projected budget deficit also reflects ongoing budget execution problems. Fiscal projections for 2013–17 are built around key policy reforms needed to support economic growth—namely, enhancing budget implementation to ensure fiscal policy effectiveness, reducing energy subsidies through gradual administrative price increases, and continuous revenue mobilization efforts to create room for infrastructure development.

Ireland. Fiscal projections are based on the 2012 budget and the €12.4 billion consolidation effort over 2012–15 committed to in the Medium-Term Fiscal Statement (published November 2011). The fiscal projections are adjusted for differences between the IMF staff's macroeconomic projections and those of the Irish authorities.

Israel. Historical data are based on Government Finance Statistics submitted by the Ministry of Finance. The historical data, together with the fiscal consolidation plan announced by the authorities, form the basis for the IMF staff's medium-term fiscal projections.

Italy. Fiscal projections incorporate the impact of the government's announced fiscal adjustment package, as outlined in its April 2012 Documento di Economia e Finanza, modified for the recent announcement on the government's spending review. The estimates for the 2011 outturn are preliminary. The IMF staff projections are based on the authorities' estimates of the policy scenario and adjusted mainly for differences in macroeconomic assumptions. After 2015, a zero overall fiscal balance in cyclically adjusted terms is projected, in line with the authorities' fiscal rule.

Japan. The projections include fiscal measures already announced by the government, including consumption tax increases and earthquake reconstruction spending. The medium-term projections assume that expenditure and revenue of the general government develop in line with current underlying demographic and economic trends.

Kazakhstan. Fiscal projections are made based on budget numbers, discussions with the authorities, and IMF staff projections.

Korea. Fiscal projections assume that fiscal policies will be implemented in 2012 as announced by the government. Projections of expenditure for 2012 are in line with the budget. Revenue projections reflect the IMF staff's macroeconomic assumptions, adjusted for discretionary revenue-raising measures already announced by the government. The medium-term projections assume that the government will continue with its fiscal consolidation plans and balance the budget (excluding social security funds) by 2013, consistent with the government's medium-term goal.

Lithuania. Fiscal projections for 2012 are based on the authorities' 2012 budget after adjusting for differences in macroeconomic assumptions and performance so far.

Malaysia. Fiscal year 2011 data are based on preliminary outcomes. For fiscal year 2012, projections are IMF staff estimates taking into account the original and supplemental budget numbers. For the remainder of the projection period, the IMF staff assumes unchanged policies.

Mali. IMF staff projections for current and outer years, after consultations with the authorities.

Mexico. Fiscal projections for 2012 are broadly in line with the approved budget, and projections for 2013 onward assume compliance with the balanced-budget rule.

Moldova. Fiscal projections are based on the IMF staff's forecast for various bases and growth rates for GDP, consumption, import, wages, energy prices, and demographic changes.

Mozambique. Fiscal projections assume a moderate increase in revenue in percent of GDP and a

commensurate increase in domestic primary spending and account for a lower aid flow, with grants contribution declining. The projections were discussed with the authorities during the recent Policy Support Instrument review missions in March 2012.

Myanmar. Fiscal projections are made based on budget numbers, discussions with the authorities, and IMF staff adjustments.

Netherlands. Fiscal projections for 2012–17 are based on the authorities' Bureau for Economic Policy Analysis budget projections, after differences in macroeconomic assumptions are adjusted for.

New Zealand. Fiscal projections are based on the authorities' 2012 budget and IMF staff estimates. The New Zealand fiscal accounts switched to New Zealand International Financial Reporting Standards in the 2007/08 budget. Backdated data have been released back to 1997.

Nigeria. Historical data series, annual budget, and medium-term expenditure framework at the federal government level and additional data from the authorities.

Norway. Fiscal projections are based on the authorities' 2012 budget announced in October 2011.

Pakistan. Fiscal balances exclude payments for electricity arrears and commodity operations for 2009/10, 2010/11, and 2011/12.

Philippines. Fiscal projections assume that the authorities' fiscal deficit target will be achieved in 2012 and beyond. Revenue projections reflect the IMF staff's macroeconomic assumptions and incorporate anticipated improvements in tax administration. Expenditure projections are based on budgeted figures, institutional arrangements, and fiscal space in each year.

Poland. Data are on an ESA-95 (accrual) basis. Projections are based on the 2011 budget and other fiscal consolidation measures announced as of March 2011, as well as on the planned diversion of contributions from the Pillar II to the Pillar I pension system.

Portugal. Projections reflect the authorities' commitments under the EU/IMF-supported program for 2012–13 and the IMF staff's projections thereafter.

Russian Federation. Projections for 2012–14 are based on the non-oil deficit in percent of GDP implied by the 2012–14 medium-term budget and the 2012 supplemental budget and on the IMF staff's revenue projections. The IMF staff assumes an unchanged non-oil federal government balance in percent of GDP during 2015–17.

Saudi Arabia. The authorities base their budget on a conservative assumption for oil prices, with adjustments to expenditure allocations considered in the event that revenues exceed budgeted amounts. IMF staff projections of oil revenues are based on WEO baseline oil prices. On the expenditure side, wages are assumed to rise at a natural rate of increase in the medium term, with adjustments for recently announced changes in the wage structure. In 2013 and 2016, 13th-month pay is awarded based on the lunar calendar. Capital spending is in line with the priorities established in the authorities' Ninth Development Plan, and recently announced capital spending on housing is assumed to start in 2012 and continue over the medium term.

Senegal. Based on program targets for 2012–13 and mostly debt sustainability analysis considerations thereafter. Fiscal accounts are shown in accordance with the *GFSM 2001* methodology.

Singapore. For fiscal year 2012/13, projections are based on budget numbers. For the remainder of the projection period, the IMF staff assumes unchanged policies.

Slovak Republic. Based on the IMF staff's revenue projections and on expenditures in the 2012–15 budget, including unbudgeted expenditure in 2012. Projections for 2013 are based on the authorities' plans to reduce the overall deficit to 2.9 percent of GDP.

South Africa. Fiscal projections are based on the authorities' 2012 budget and policy intentions stated in the Budget Review, published February 22, 2012.

Spain. For 2012 and beyond, fiscal projections are based on the measures specified in the Stability Program Update 2012–15, the revised fiscal recommendations by the European Council and the subsequent July fiscal package, and the biannual budget plan for 2013–14 announced in August 2012. While the Eurogroup's commitment of up to €100 billion (9.4 percent of GDP) includes an additional safety margin, the IMF staff, to be prudent, and pending further details on implementation, assumes disbursement of this full amount for its 2012 debt projections. Under the unchanged-policies scenario, no additional structural improvement is assumed for the outer years, after the fiscal deficit reaches 3 percent of GDP.

Sweden. Fiscal projections for 2012 are broadly in line with the authorities' projections. The impact of cyclical developments on the fiscal accounts is calculated using the OECD's latest semielasticity.

Switzerland. Projections for 2010–17 are based on IMF staff calculations, which incorporate measures to restore balance in the federal accounts and strengthen social security finances.

Thailand. Fiscal projections are based on IMF staff estimates from the latest Article IV consultation, adjusted for changes in macroeconomic assumptions as well as in classification method.

Turkey. Fiscal projections assume that current expenditures will be in line with the authorities' 2012–14 Medium-Term Program, but that capital expenditures will be exceeded given that projects initiate in 2011.

Ukraine. Projections based on IMF staff estimates.

United Kingdom. Fiscal projections are based on the authorities' 2012 budget announced in March 2012 and the *Economic and Fiscal Outlook* by the Office for Budget Responsibility, published along with the budget. These projections incorporate the announced medium-term consolidation plans from 2012 onward. The projections are adjusted for differences in IMF staff forecasts of macroeconomic and financial variables (such as GDP growth) and the forecasts of these variables assumed in the authorities' fiscal projections. The IMF staff's projections also exclude the temporary effects of financial sector interventions and the effect on public sector net investment in 2012−13 of transferring assets from the Royal Mail Pension Plan to the public sector.

United States. Fiscal projections are based on the March 2012 Congressional Budget Office baseline, adjusted for the IMF staff's policy and macroeconomic assumptions. The key near-term policy assumptions include an extension of all Bush tax cuts and emergency unemployment benefits into 2013 and a replacement of automatic spending cuts ("sequester") with back-loaded consolidation measures. Over the medium term, the IMF staff assumes that Congress will continue to make regular adjustments to the alternative minimum tax parameters and Medicare payments ("DocFix"), that Congress will extend certain traditional programs (such as the research and development tax credit), and that the Bush tax cuts for the middle class will be extended permanently, but the Bush tax cuts for high-income taxpayers will be allowed to expire from 2014 (one year later than planned by the Obama administration). The fiscal projections are adjusted to reflect the IMF staff's forecasts of key macroeconomic and financial variables and different accounting treatment of financial sector support and are converted to a general government basis.

Vietnam. 2010 data are based on the authorities' budget (for expenditure); for projections on revenues and financing, the IMF staff uses the information and measures in the approved budget but the IMF staff's macro framework assumptions.

Definition and coverage of fiscal data

Table SA.1. Advanced Economies: Definition and Coverage of *Fiscal Monitor* Data

	Overall Fiscal Balance[1]			Cyclically Adjusted Balance			Gross Debt		
	Coverage		Accounting practice	Coverage		Accounting practice	Coverage		Accounting practice
Country	Aggregate	Subsectors		Aggregate	Subsectors		Aggregate	Subsectors	
Australia	GG	CG, LG, SG	C	GG	CG, LG, SG	C	GG	CG, LG, SG	C
Austria	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A
Belgium	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A
Canada	GG	CG, SG, LG, SS, NFC	A	GG	CG, SG, LG, SS, NFC	A	GG	CG, SG, LG, SS, NFC	A
Czech Republic	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	A
Denmark	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C
Estonia	GG	CG, LG, SS	C	—	—	—	GG	CG, LG, SS	C
Finland	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	A
France	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	A
Germany	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A
Greece	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	A
Hong Kong SAR	CG	CG	C	CG	CG	C	CG	CG	C
Iceland	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A
Ireland	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	A
Israel	GG	CG, SS	A	GG	CG, SS	A	GG	CG, SS	A
Italy	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	A
Japan	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	A
Korea	CG	CG	C	CG	CG	C	GG	CG, LG	C
Netherlands	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	A
New Zealand[2]	CG	CG	A	CG	CG	A	CG	CG	A
Norway	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A
Portugal	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A
Singapore	CG	CG	C	CG	CG	C	CG	CG	C
Slovak Republic	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	A
Slovenia	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C
Spain	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A
Sweden	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C
Switzerland	GG	CG, SS	A	GG	CG, SS	A	GG	CG, SS	A
United Kingdom	GG	CG, LG	A	GG	CG, LG	A	GG	CG, LG	A
United States	GG	CG, LG, SG	A	GG	CG, LG, SG	A	GG	CG, LG, SG	A

Note: Coverage: BA = budgetary central government, CG = central government, EA = extrabudgetary units, FC = financial public corporations, GG = general government, LG = local governments, NFC = nonfinancial public corporations, NFPS = nonfinancial public sector, PS = public sector, SG = state governments, SS = social security funds. Accounting practice: A = accrual, C = cash.

[1]For most countries, fiscal data follow the IMF's *Government Finance Statistics Manual (GFSM)* 2001. The concept of overall fiscal balance refers to net lending (+) / borrowing (–) of the general government. In some cases, however, the overall balance refers to total revenue and grants minus total expenditure and net lending.

[2]Overall balance includes balance of state-owned enterprises, excluding privatization receipts.

Table SA.2. Emerging Markets: Definition and Coverage of *Fiscal Monitor* Data

Country	Overall Fiscal Balance[1]			Cyclically Adjusted Balance			Gross Debt		
	Coverage		Accounting practice	Coverage		Accounting practice	Coverage		Accounting practice
	Aggregate	Subsectors		Aggregate	Subsectors		Aggregate	Subsectors	
Argentina[2]	GG	CG, SG, LG, SS	C	CG	CG	C	GG	CG, SG, LG, SS	C
Brazil	NFPS	CG, SG, LG, SS, NFC	C	NFPS	CG, SG, LG, SS, NFC	C	NFPS	CG, SG, LG, SS, NFC	C
Bulgaria	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C
Chile	GG	CG, SG, LG, SS	A	CG	CG	A	GG	CG, SG, LG, SS	A
China	GG	CG, SG, LG	C	GG	CG, SG, LG	C	GG	CG, SG, LG	C
Colombia[3]	NFPS	CG, SG, LG, NFC	C/A	NFPS	CG, SG, LG, NFC	C/A	NFPS	CG, SG, LG, NFC	C/A
Egypt	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C
Hungary	NFPS	CG, LG, SS, NFC	A	NFPS	CG, LG, SS, NFC	A	NFPS	CG, LG, SS, NFC	A
India	GG	CG, SG	A	GG	CG, SG	A	GG	CG, SG	A
Indonesia	GG	CG, LG	C	GG	CG, LG	C	GG	CG, LG	C
Jordan	CG	CG	C	—	—	—	PS	CG, LG, FC	C
Kazakhstan	GG	CG, LG	A	—	—	—	GG	CG, LG	A
Kenya	CG	CG	A	—	—	—	CG	CG	A
Latvia	NFPS	CG, LG, SS, NFC	C	—	—	—	NFPS	CG, LG, SS, NFC	C
Lithuania	GG	SG, EA, SS, LG	A	GG	SG, EA, SS, LG	A	GG	SG, EA, SS, LG	A
Malaysia	GG	CG, SG, LG	C	CG	CG	C	GG	CG, SG, LG	C
Mexico	PS	CG, SS, NFC, FC	C	CG	CG	C	PS	CG, SS, NFC, FC	C
Morocco	CG	CG	A	—	—	—	CG	CG	A
Nigeria	CG	CG	C	—	—	—	CG	CG	C
Pakistan	GG	CG, LG, SG	C	—	—	—	GG	CG, LG, SG	C
Peru	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C
Philippines	GG	CG, LG, SS	C	CG	CG	C	GG	CG, LG, SS	C
Poland	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A	GG	CG, SG, LG, SS	A
Romania	NFPS	CG, SS, NFC	C	NFPS	CG, SS, NFC	C	NFPS	CG, SS, NFC	C
Russian Federation	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C
Saudi Arabia	GG	CG, Other	C	—	—	—	GG	CG, Other	C
South Africa	GG	CG, SG, SS	C	GG	CG, SG, SS	C	GG	CG, SG, SS	C
Thailand	GG	CG, LG	A	GG	CG, LG	A	GG	CG, LG	A
Turkey	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C
Ukraine	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C

Note: Coverage: BA = budgetary central government, CG = central government, EA = extrabudgetary units, FC = financial public corporations, GG = general government, LG = local governments, NFC = nonfinancial public corporations, NFPS = nonfinancial public sector, PS = public sector, SG = state governments, SS = social security funds. Accounting practice: A = accrual, C = cash.

[1] For most countries, fiscal data follow the IMF's *Government Finance Statistics Manual (GFSM)* 2001. The concept of overall fiscal balance refers to net lending (+) / borrowing (–) of the general government. In some cases, however, the overall balance refers to total revenue and grants minus total expenditure and net lending.

[2] Total expenditure and the overall balance account for cash interest and the IMF staff's estimate of accrued interest payments.

[3] Revenue is recorded on a cash basis and expenditure on an accrual basis.

Table SA.3. Low-Income Countries: Definition and Coverage of *Fiscal Monitor* Data

	Overall Fiscal Balance[1]			Cyclically Adjusted Balance			Gross Debt		
	Coverage		Accounting practice	Coverage		Accounting practice	Coverage		Accounting practice
Country	Aggregate	Subsectors		Aggregate	Subsectors		Aggregate	Subsectors	
Armenia	CG	CG	C	CG	CG	C	CG	CG	C
Bolivia	NFPS	CG, LG, SS, NFC	C	NFPS	CG, LG, SS, NFC	C	NFPS	CG, LG, SS, NFC	C
Burkina Faso	CG	CG	A	—	—	—	CG	CG	A
Cambodia	GG	CG, LG	C	GG	CG, LG	C	GG	CG, LG	C
Cameroon	NFPS	CG, NFC	C	—	—	—	NFPS	CG, NFC	C
Chad	NFPS	CG, NFC	C	—	—	—	NFPS	CG, NFC	C
Congo, Dem. Rep. of the	CG	CG	C	—	—	—	CG	CG	C
Congo, Rep. of	CG	CG	C	—	—	—	CG	CG	C
Côte d'Ivoire	CG	CG	A	—	—	—	CG	CG	A
Ethiopia	CG	CG	C	—	—	—	CG	CG	C
Georgia	GG	CG, LG	C	GG	CG, LG	C	GG	CG, LG	C
Ghana	CG	CG	C	—	—	—	CG	CG	C
Haiti	CG	CG	C	CG	CG	C	CG	CG	C
Honduras	NFPS	CG, LG, SS, NFC	A	NFPS	CG, LG, SS, NFC	A	NFPS	CG, LG, SS, NFC	A
Lao P.D.R.[2]	CG	CG	C	CG	CG	C	CG	CG	C
Madagascar	CG	CG	C	—	—	—	CG	CG	C
Mali	CG	CG	C/A	—	—	—	CG	CG	C/A
Moldova	GG	CG, LG	C	GG	CG, LG	C	GG	CG, LG	C
Mozambique	CG	CG	C	CG	CG	C	CG	CG	C
Myanmar	CG	CG	C	—	—	—	CG	CG	C
Nepal	CG	CG	C	CG	CG	C	CG	CG	C
Nicaragua	NFPS	CG, SG, LG, SS, NFC	A	NFPS	CG, SG, LG, SS, NFC	A	NFPS	CG, SG, LG, SS, NFC	A
Senegal	CG	CG	C	—	—	—	CG	CG	C
Sudan	CG	CG	A	—	—	—	CG	CG	A
Tanzania	CG	CG	C	—	—	—	CG	CG	C
Uganda	CG	CG	C	—	—	—	CG	CG	C
Uzbekistan[3]	GG	CG, SG, LG, SS, FC	C	GG	CG, SG, LG, SS, FC	C	GG	CG, SG, LG, SS, FC	C
Vietnam	GG	CG, SG, LG, FC	C	GG	CG, SG, LG, FC	C	GG	CG, SG, LG, FC	C
Yemen	GG	CG, LG	C	GG	CG, LG	C	GG	CG, LG	C
Zambia	CG	CG	C	—	—	—	CG	CG	C

Note: Coverage: BA = budgetary central government, CG = central government, EA = extrabudgetary units, FC = financial public corporations, GG = general government, LG = local governments, NFC = nonfinancial public corporations, NFPS = nonfinancial public sector, PS = public sector, SG = state governments, SS = social security funds. Accounting practice: A = accrual, C = cash.

[1] For most countries, fiscal data follow the IMF's *Government Finance Statistics Manual (GFSM)* 2001. The concept of overall fiscal balance refers to net lending (+) / borrowing (–) of the general government. In some cases, however, the overall balance refers to total revenue and grants minus total expenditure and net lending.

[2] Lao P.D.R.'s fiscal spending includes capital spending by local government financed by loans provided by the central bank.

[3] Includes the Fund for Reconstruction and Development.

Economy groupings

The following groupings of economies are used in the *Fiscal Monitor*.

Advanced economies	Emerging market economies	Low-income countries	G-7	G-20[1]	Advanced G-20[1]	Emerging G-20
Australia	Argentina	Armenia	Canada	Argentina	Australia	Argentina
Austria	Brazil	Bolivia	France	Australia	Canada	Brazil
Belgium	Bulgaria	Burkina Faso	Germany	Brazil	France	China
Canada	Chile	Cambodia	Italy	Canada	Germany	India
Czech Republic	China	Cameroon	Japan	China	Italy	Indonesia
Denmark	Colombia	Chad	United Kingdom	France	Japan	Mexico
Estonia	Egypt	Congo, Dem. Rep. of the	United States	Germany	Korea	Russian Federation
Finland	Hungary	Congo, Rep. of		India	United Kingdom	Saudi Arabia
France	India	Côte d'Ivoire		Indonesia	United States	South Africa
Germany	Indonesia	Ethiopia		Italy		Turkey
Greece	Jordan	Georgia		Japan		
Hong Kong SAR	Kazakhstan	Ghana		Korea		
Iceland	Kenya	Haiti		Mexico		
Ireland	Latvia	Honduras		Russian Federation		
Israel	Lithuania	Lao P.D.R.		Saudi Arabia		
Italy	Malaysia	Madagascar		South Africa		
Japan	Mexico	Mali		Turkey		
Korea	Morocco	Moldova		United Kingdom		
Netherlands	Nigeria	Mozambique		United States		
New Zealand	Pakistan	Myanmar				
Norway	Peru	Nepal				
Portugal	Philippines	Nicaragua				
Singapore	Poland	Senegal				
Slovak Republic	Romania	Sudan				
Slovenia	Russian Federation	Tanzania				
Spain	Saudi Arabia	Uganda				
Sweden	South Africa	Uzbekistan				
Switzerland	Thailand	Vietnam				
United Kingdom	Turkey	Yemen				
United States	Ukraine	Zambia				

[1]Does not include European Union aggregate.

Economy groupings *(continued)*

Euro area	Emerging Asia	Emerging Europe	Emerging Latin America	Emerging Middle East and North Africa	Low-income Asia	Low-income Latin America
Austria	China	Bulgaria	Argentina	Egypt	Cambodia	Bolivia
Belgium	India	Hungary	Brazil	Jordan	Lao P.D.R.	Haiti
Cyprus	Indonesia	Latvia	Chile	Morocco	Myanmar	Honduras
Estonia	Malaysia	Lithuania	Colombia		Nepal	Nicaragua
Finland	Pakistan	Poland	Mexico		Vietnam	
France	Philippines	Romania	Peru			
Germany	Thailand	Russian Federation				
Greece		Turkey				
Ireland		Ukraine				
Italy						
Luxembourg						
Malta						
Netherlands						
Portugal						
Slovak Republic						
Slovenia						
Spain						

Low-income Sub-Saharan Africa	Low-income others	Low-income oil producers	Oil producers
Burkina Faso	Armenia	Cameroon	Algeria
Cameroon	Georgia	Chad	Angola
Chad	Moldova	Congo, Rep. of	Azerbaijan
Congo, Dem. Rep. of the	Sudan	Vietnam	Bahrain
Congo, Rep. of	Uzbekistan	Yemen	Brunei Darussalam
Côte d'Ivoire	Yemen		Cameroon
Ethiopia			Chad
Ghana			Congo, Rep. of
Madagascar			Ecuador
Mali			Equatorial Guinea
Mozambique			Gabon
Senegal			Indonesia
Tanzania			Iran
Uganda			Kazakhstan
Zambia			Kuwait
			Libya
			Mexico
			Nigeria
			Norway
			Oman
			Qatar
			Saudi Arabia
			Syria
			Timor-Leste
			Trinidad and Tobago
			United Arab Emirates
			Venezuela
			Vietnam
			Yemen

Statistical Table 1. Advanced Economies: General Government Overall Balance and Primary Balance

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Overall Balance												
Australia	1.8	1.3	–0.8	–4.1	–4.8	–4.4	–2.8	–1.0	–0.3	0.1	0.3	0.4
Austria	–1.7	–1.0	–1.0	–4.1	–4.5	–2.6	–2.9	–2.1	–1.8	–1.1	–0.8	–0.8
Belgium	0.3	–0.1	–1.1	–5.6	–3.9	–3.9	–3.0	–2.3	–1.5	–0.5	0.0	0.3
Canada	1.6	1.4	–0.4	–4.9	–5.6	–4.4	–3.8	–3.0	–2.2	–1.4	–1.0	–0.7
Czech Republic	–2.4	–0.7	–2.2	–5.8	–4.8	–3.1	–3.2	–3.0	–2.8	–2.5	–2.4	–2.3
Denmark	4.9	4.6	3.2	–2.7	–2.7	–1.9	–3.9	–2.0	–1.9	–1.9	–1.1	–0.1
Estonia	3.2	2.8	–2.3	–2.1	0.4	1.0	–2.0	–0.4	–0.4	0.2	0.6	0.6
Finland	4.0	5.3	4.2	–2.7	–2.9	–0.8	–1.4	–0.9	–0.3	0.0	0.3	0.7
France	–2.4	–2.8	–3.3	–7.6	–7.1	–5.2	–4.7	–3.5	–2.8	–2.1	–1.1	0.0
Germany	–1.6	0.2	–0.1	–3.2	–4.1	–0.8	–0.4	–0.4	–0.3	–0.1	0.0	0.0
Greece	–6.0	–6.8	–9.9	–15.6	–10.5	–9.1	–7.5	–4.7	–3.4	–2.5	–1.4	–1.4
Hong Kong SAR	4.3	8.2	0.1	1.6	4.5	4.1	0.7	2.1	3.0	1.7	4.7	4.9
Iceland	6.3	5.4	–0.5	–8.6	–6.4	–4.7	–2.8	–1.6	–0.5	0.6	1.0	1.2
Ireland	2.9	0.1	–7.3	–13.9	–30.9	–12.8	–8.3	–7.5	–5.0	–3.0	–2.2	–1.8
Israel	–2.4	–1.3	–3.4	–6.0	–4.6	–4.0	–3.5	–3.3	–3.0	–2.6	–2.2	–2.1
Italy	–3.4	–1.6	–2.7	–5.4	–4.5	–3.8	–2.7	–1.8	–1.6	–1.4	–1.2	–0.7
Japan	–3.7	–2.1	–4.1	–10.4	–9.4	–9.8	–10.0	–9.1	–7.2	–6.3	–5.7	–5.8
Korea	1.1	2.3	1.6	0.0	1.7	1.8	2.0	2.7	2.8	2.9	2.9	2.9
Netherlands	0.5	0.2	0.5	–5.4	–5.1	–4.7	–3.7	–3.2	–3.6	–3.1	–3.4	–3.5
New Zealand[1]	4.0	2.9	0.6	–3.0	–5.2	–5.4	–4.3	–2.7	–1.0	–0.1	0.6	0.8
Norway	18.3	17.3	18.8	10.6	11.2	13.7	13.4	12.5	11.3	10.1	9.0	8.0
Portugal	–3.8	–3.2	–3.7	–10.2	–9.8	–4.2	–5.0	–4.5	–2.5	–1.9	–1.9	–1.8
Singapore	7.1	12.0	6.5	–0.7	7.3	7.3	5.2	5.1	4.8	4.5	4.2	4.1
Slovak Republic	–3.2	–1.8	–2.1	–8.0	–7.7	–4.8	–4.8	–2.9	–2.9	–3.0	–2.9	–3.0
Slovenia	–0.8	0.3	–0.3	–5.5	–5.3	–5.6	–4.6	–4.4	–2.8	–2.4	–2.1	–1.8
Spain	2.0	1.9	–4.2	–11.2	–9.4	–8.9	–7.0	–5.7	–4.6	–3.9	–3.2	–2.8
Sweden	2.2	3.5	2.1	–1.0	–0.1	0.1	–0.2	–0.2	0.2	1.6	2.0	2.4
Switzerland	0.9	1.3	1.8	0.5	0.2	0.4	0.5	0.5	0.8	0.8	0.8	0.8
United Kingdom	–2.7	–2.8	–5.1	–10.4	–9.9	–8.5	–8.2	–7.3	–5.8	–4.3	–2.8	–1.7
United States	–2.0	–2.7	–6.7	–13.3	–11.2	–10.1	–8.7	–7.3	–5.6	–4.6	–4.5	–4.4
Average	–1.4	–1.1	–3.5	–8.9	–7.8	–6.6	–5.9	–4.9	–3.8	–3.0	–2.7	–2.5
Euro area	–1.3	–0.7	–2.1	–6.4	–6.2	–4.1	–3.3	–2.6	–2.1	–1.6	–1.2	–0.8
G-7	–2.3	–2.1	–4.5	–10.1	–9.0	–7.8	–7.2	–6.1	–4.7	–3.9	–3.5	–3.3
G-20 advanced	–2.0	–1.8	–4.2	–9.7	–8.5	–7.4	–6.7	–5.6	–4.3	–3.5	–3.1	–2.9
Primary Balance												
Australia	1.5	1.0	–0.9	–4.1	–4.6	–4.0	–2.4	–0.5	0.1	0.5	0.6	0.7
Austria	0.5	1.0	1.1	–1.9	–2.3	–0.4	–0.7	0.2	0.5	1.1	1.4	1.4
Belgium	4.1	3.6	2.5	–2.2	–0.6	–0.6	0.1	0.2	0.8	1.6	1.8	1.9
Canada	2.3	2.0	–0.3	–4.0	–4.9	–3.9	–3.2	–2.7	–1.9	–1.3	–0.8	–0.4
Czech Republic	–1.7	0.0	–1.5	–4.8	–3.6	–1.9	–2.0	–1.6	–1.3	–1.1	–1.0	–0.9
Denmark	5.5	5.1	3.4	–2.3	–2.3	–1.4	–3.5	–1.6	–1.6	–1.3	–0.6	0.6
Estonia	3.3	2.9	–2.4	–2.2	0.3	0.9	–2.0	–0.4	–0.1	0.4	0.8	0.7
Finland	3.7	4.7	3.3	–3.4	–3.0	–1.0	–1.7	–1.5	–1.0	–0.6	–0.3	0.1
France	0.0	–0.3	–0.7	–5.4	–4.8	–2.7	–2.2	–1.1	–0.5	0.4	1.3	2.5
Germany	0.8	2.7	2.3	–0.9	–2.0	0.9	1.4	1.3	1.3	1.2	1.2	1.2
Greece	–1.3	–2.0	–4.8	–10.4	–4.7	–2.2	–1.7	0.0	1.5	3.0	4.5	4.7
Hong Kong SAR	4.0	7.9	–0.3	1.4	4.3	3.9	0.5	2.0	2.9	1.5	4.5	4.8
Iceland	6.7	5.7	–0.5	–6.5	–2.7	–1.1	1.3	2.3	3.6	4.5	4.7	4.7
Ireland	3.9	1.0	–6.2	–12.1	–27.9	–9.6	–4.4	–2.2	0.5	2.5	3.0	3.5
Israel	3.0	3.7	1.1	–1.8	–0.4	0.1	0.0	0.3	0.5	0.8	1.2	1.2
Italy	1.0	3.1	2.2	–1.0	–0.3	0.8	2.6	3.6	3.9	4.2	4.6	5.0
Japan	–3.7	–2.1	–3.8	–9.9	–8.7	–8.9	–9.0	–7.9	–5.7	–4.6	–3.8	–3.7
Korea	2.5	1.5	1.2	–0.7	0.9	0.9	1.2	1.8	1.9	1.9	1.8	1.9
Netherlands	2.1	1.8	2.1	–3.8	–3.7	–3.1	–2.4	–1.9	–2.3	–1.6	–1.2	–1.3
New Zealand	4.7	3.9	1.4	–2.0	–5.0	–5.2	–4.0	–2.4	–0.8	0.0	0.6	0.9
Norway	16.1	14.4	15.8	8.2	9.0	11.6	11.2	10.2	8.9	7.7	6.6	5.6
Portugal	–1.3	–0.6	–1.0	–7.5	–7.1	–0.6	–0.7	–0.1	2.3	3.0	3.0	3.1
Singapore	5.7	10.6	5.1	–2.2	5.8	5.8	3.7	3.6	3.3	3.0	2.7	2.6
Slovak Republic	–1.9	–0.8	–1.1	–6.7	–6.6	–3.4	–3.3	–1.3	–1.3	–1.3	–1.2	–1.3
Slovenia	0.3	1.2	0.5	–4.6	–4.1	–4.3	–2.8	–2.3	–0.7	–0.3	0.0	0.2
Spain	3.3	3.0	–3.1	–9.9	–7.9	–7.0	–4.5	–2.2	–0.8	0.1	1.1	1.7
Sweden	1.9	3.0	1.3	–1.8	–0.8	–0.8	–1.2	–1.2	–0.8	0.3	0.8	1.0
Switzerland	1.9	2.1	2.4	1.1	0.7	0.8	0.9	0.9	1.2	1.3	1.3	1.4
United Kingdom	–1.2	–1.2	–3.4	–8.6	–7.4	–5.7	–5.6	–4.7	–3.0	–1.5	0.1	1.2
United States	–0.1	–0.7	–4.7	–11.5	–9.1	–7.8	–6.5	–5.1	–3.3	–2.2	–2.0	–1.6
Average	0.3	0.5	–1.8	–7.3	–6.1	–4.8	–4.1	–3.1	–1.9	–1.0	–0.6	–0.2
Euro area	1.2	1.9	0.5	–3.9	–3.7	–1.5	–0.5	0.2	0.7	1.2	1.6	2.1
G-7	–0.5	–0.1	–2.6	–8.3	–7.1	–5.7	–5.1	–4.0	–2.6	–1.7	–1.2	–0.8
G-20 advanced	–0.3	0.0	–2.4	–8.0	–6.7	–5.4	–4.8	–3.7	–2.3	–1.4	–1.0	–0.6

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: Primary balance is defined as the overall balance excluding net interest payments. For country-specific details, see "Data and Conventions" in text and Table SA.1.

[1] Overall balance includes balance of state-owned enterprises, excluding privatization receipts.

Statistical Table 2. Advanced Economies: General Government Cyclically Adjusted Balance and Cyclically Adjusted Primary Balance

(Percent of potential GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Cyclically Adjusted Balance												
Australia	1.8	1.0	–1.0	–4.1	–4.6	–4.2	–2.8	–1.0	–0.4	0.1	0.2	0.4
Austria	–2.6	–2.8	–2.6	–3.0	–3.5	–2.2	–2.2	–1.2	–1.1	–0.8	–0.7	–0.8
Belgium	–0.2	–1.0	–1.7	–4.2	–3.2	–3.6	–2.0	–1.6	–0.8	0.0	0.3	0.5
Canada	1.0	0.7	–0.5	–3.2	–4.5	–3.7	–3.1	–2.4	–1.7	–1.1	–0.8	–0.7
Czech Republic	–2.9	–1.8	–3.2	–4.6	–3.9	–2.4	–2.1	–1.9	–2.0	–2.1	–2.2	–2.3
Denmark	2.6	2.1	1.6	–0.6	–0.9	–0.2	–2.1	–0.4	–0.8	–1.2	–0.9	0.1
Estonia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Finland	3.4	3.2	3.0	1.3	–0.2	0.9	0.9	1.1	1.1	0.9	0.7	0.7
France	–2.4	–3.1	–3.1	–5.1	–5.1	–3.9	–3.2	–2.0	–1.5	–1.1	–0.5	0.3
Germany	–2.2	–1.2	–1.3	–1.3	–3.5	–1.1	–0.5	–0.3	–0.2	–0.1	0.0	0.0
Greece	–8.7	–10.6	–13.9	–18.6	–12.1	–8.3	–4.5	–1.1	–0.3	–0.4	–0.5	–0.5
Hong Kong SAR[1]	0.5	1.7	0.2	–2.2	–1.3	–2.3	–2.8	–2.1	–1.6	–3.3	0.0	0.5
Iceland	4.9	3.2	–17.8	–9.8	–7.4	–4.8	–3.5	–1.8	–0.8	0.4	1.0	1.1
Ireland[1]	–4.5	–8.1	–11.9	–11.0	–9.3	–7.7	–6.1	–5.4	–3.6	–2.3	–2.1	–2.1
Israel	–1.4	–1.9	–4.0	–5.3	–4.7	–4.6	–3.8	–3.5	–3.3	–2.9	–2.5	–2.3
Italy	–4.5	–3.1	–3.3	–3.0	–3.1	–2.7	–0.5	0.7	0.7	0.5	0.1	0.1
Japan	–3.5	–2.2	–3.5	–7.4	–7.9	–8.3	–9.1	–8.6	–6.9	–6.2	–5.7	–5.8
Korea	1.1	2.3	1.8	0.7	1.7	1.8	2.2	2.8	2.8	2.9	2.9	2.9
Netherlands	0.1	–1.2	–1.0	–4.3	–4.3	–4.3	–2.4	–1.4	–2.1	–2.0	–2.8	–3.5
New Zealand	3.2	1.7	2.1	–1.4	–2.7	–5.4	–4.1	–4.1	–1.7	–1.1	–0.3	0.1
Norway[1]	–3.5	–3.3	–3.7	–5.8	–5.8	–5.6	–5.9	–5.9	–5.9	–5.9	–5.9	–5.9
Portugal	–3.8	–4.0	–4.2	–9.3	–9.7	–3.4	–3.1	–2.3	–1.0	–1.2	–1.5	–1.8
Singapore	7.0	11.5	6.2	–0.3	6.9	7.0	5.3	5.0	4.8	4.5	4.2	4.0
Slovak Republic	–3.1	–3.0	–3.1	–6.6	–7.3	–4.6	–4.4	–2.5	–2.6	–2.9	–2.9	–3.0
Slovenia	–2.0	–2.8	–4.1	–5.0	–4.9	–3.7	–1.6	–0.7	–0.9	–1.2	–1.5	–1.8
Spain	0.8	0.3	–5.3	–9.7	–7.6	–7.3	–4.6	–3.2	–2.6	–2.5	–2.3	–2.3
Sweden[1]	2.0	2.2	1.1	–0.7	1.0	0.2	–0.4	–0.6	–0.1	0.8	1.7	2.4
Switzerland[1]	0.7	0.6	1.2	0.8	0.1	0.2	0.5	0.6	0.9	0.9	0.9	0.8
United Kingdom	–4.7	–5.2	–7.2	–9.7	–8.5	–6.6	–5.4	–4.0	–2.8	–2.0	–1.1	–0.5
United States[1]	–2.7	–3.3	–5.5	–8.4	–8.7	–7.9	–6.8	–5.5	–4.2	–3.6	–3.9	–4.2
Average	–2.3	–2.3	–3.8	–6.2	–6.3	–5.5	–4.8	–3.8	–2.9	–2.5	–2.4	–2.5
Euro area	–2.2	–2.1	–3.0	–4.5	–4.7	–3.3	–2.0	–1.1	–0.9	–0.7	–0.7	–0.5
G-7	–2.9	–2.9	–4.3	–6.7	–7.1	–6.3	–5.6	–4.6	–3.6	–3.1	–3.0	–3.1
G-20 advanced	–2.7	–2.6	–4.0	–6.4	–6.8	–5.9	–5.3	–4.2	–3.2	–2.7	–2.7	–2.7
Cyclically Adjusted Primary Balance												
Australia	1.5	0.8	–1.1	–4.1	–4.4	–3.9	–2.4	–0.6	0.0	0.4	0.6	0.7
Austria	–0.4	–0.7	–0.5	–0.8	–1.4	0.0	0.0	1.0	1.1	1.4	1.5	1.4
Belgium	3.7	2.7	2.0	–0.9	0.1	–0.4	1.1	0.9	1.5	2.0	2.1	2.1
Canada	1.6	1.3	–0.4	–2.3	–3.9	–3.2	–2.6	–2.0	–1.4	–1.0	–0.6	–0.4
Czech Republic	–2.2	–1.1	–2.4	–3.5	–2.8	–1.2	–0.8	–0.5	–0.6	–0.7	–0.8	–0.9
Denmark	3.3	2.6	1.8	–0.2	–0.6	0.2	–1.7	–0.1	–0.5	–0.6	–0.3	0.7
Estonia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Finland	3.0	2.6	2.1	0.7	–0.3	0.7	0.5	0.5	0.4	0.3	0.1	0.1
France	0.0	–0.6	–0.4	–3.0	–2.9	–1.4	–0.8	0.3	0.8	1.3	1.9	2.7
Germany	0.2	1.3	1.1	0.9	–1.4	0.7	1.3	1.5	1.3	1.3	1.2	1.2
Greece	–3.7	–5.4	–8.3	–13.1	–6.1	–1.5	0.9	3.2	4.3	4.8	5.2	5.6
Hong Kong SAR[1]	0.1	1.4	–0.2	–2.4	–1.5	–2.5	–2.9	–2.2	–1.7	–3.4	–0.2	0.4
Iceland	5.3	3.6	–17.8	–7.7	–3.9	–1.3	0.5	2.2	3.4	4.4	4.7	4.6
Ireland[1]	–3.5	–7.0	–10.7	–9.2	–6.3	–4.6	–2.3	–0.2	1.8	3.2	3.1	3.2
Israel	4.0	3.1	0.5	–1.2	–0.5	–0.4	–0.3	0.1	0.2	0.6	0.9	1.0
Italy	0.0	1.7	1.7	1.2	1.0	1.8	4.7	5.9	6.0	5.9	5.7	5.8
Japan	–3.6	–2.2	–3.2	–7.0	–7.3	–7.4	–8.1	–7.5	–5.5	–4.5	–3.8	–3.7
Korea	2.5	1.5	1.4	0.0	1.0	0.9	1.4	1.9	1.9	1.9	1.8	1.9
Netherlands	1.7	0.4	0.6	–2.8	–2.9	–2.7	–1.1	–0.1	–0.8	–0.5	–0.7	–1.3
New Zealand	4.7	3.1	3.4	–0.2	–2.4	–4.9	–3.3	–3.3	–1.0	–0.4	0.4	0.8
Norway[1]	–6.4	–7.2	–7.9	–8.8	–8.6	–8.4	–8.8	–9.1	–9.1	–9.1	–9.1	–9.1
Portugal	–1.3	–1.4	–1.5	–6.7	–6.9	0.1	1.0	1.9	3.6	3.6	3.3	3.1
Singapore	5.5	10.0	4.7	–1.7	5.4	5.5	3.8	3.5	3.3	3.0	2.8	2.5
Slovak Republic	–1.8	–1.9	–2.1	–5.4	–6.2	–3.2	–2.9	–0.9	–1.0	–1.2	–1.2	–1.3
Slovenia	–0.8	–1.8	–3.3	–4.2	–3.7	–2.4	0.1	1.3	1.1	0.9	0.5	0.2
Spain	2.1	1.4	–4.2	–8.5	–6.2	–5.4	–2.2	0.1	1.0	1.4	1.8	2.2
Sweden[1]	1.7	1.6	0.3	–1.5	0.3	–0.7	–1.3	–1.6	–1.1	–0.4	0.5	1.0
Switzerland[1]	1.6	1.3	1.8	1.5	0.6	0.6	0.9	1.0	1.4	1.3	1.3	1.4
United Kingdom	–3.1	–3.6	–5.6	–7.9	–6.1	–3.9	–2.8	–1.5	–0.2	0.7	1.7	2.4
United States[1]	–0.7	–1.2	–3.5	–6.6	–6.8	–5.7	–4.7	–3.4	–2.0	–1.3	–1.5	–1.4
Average	–0.6	–0.6	–2.1	–4.7	–4.7	–3.7	–3.1	–2.1	–1.1	–0.6	–0.4	–0.2
Euro area	0.4	0.6	–0.3	–2.1	–2.2	–0.8	0.7	1.6	1.9	2.0	2.2	2.3
G-7	–1.1	–0.9	–2.3	–4.9	–5.3	–4.2	–3.6	–2.6	–1.5	–0.9	–0.7	–0.5
G-20 advanced	–0.9	–0.8	–2.2	–4.8	–5.1	–4.1	–3.4	–2.4	–1.3	–0.7	–0.5	–0.4

Sources: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: Cyclically adjusted primary balance is defined as the cyclically adjusted balance excluding net interest payments.

[1] Including adjustments beyond the cycle; for details, see "Data and Conventions" in text and Table SA.1.

Statistical Table 3. Advanced Economies: General Government Revenue and Expenditure

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenue												
Australia	36.5	35.5	33.7	33.4	31.8	32.0	33.6	34.3	34.5	34.6	34.8	35.0
Austria	47.5	47.6	48.3	48.5	48.1	48.0	48.6	48.7	48.5	48.5	48.5	48.5
Belgium	48.8	48.1	48.7	48.1	48.6	49.4	49.8	50.3	50.8	50.8	50.9	51.0
Canada	40.9	40.7	39.4	39.3	38.4	38.3	38.2	38.6	39.1	39.5	39.8	39.8
Czech Republic	39.6	40.3	38.9	39.1	39.3	40.3	40.3	41.0	41.2	41.2	41.3	41.4
Denmark	56.6	55.6	54.8	55.0	53.6	54.8	54.3	54.4	52.1	52.1	51.6	52.1
Estonia	37.8	37.7	38.7	45.6	45.1	44.1	43.3	42.6	41.6	41.3	40.9	40.1
Finland	53.3	52.7	53.6	53.4	53.0	53.9	53.0	53.7	54.2	54.3	54.4	54.5
France	50.6	49.9	49.9	49.2	49.5	50.8	51.5	52.6	52.6	52.6	52.6	52.7
Germany	44.0	43.7	44.0	44.9	43.6	44.5	44.5	44.4	44.4	44.3	44.1	44.1
Greece	39.2	40.8	40.7	38.2	39.7	40.9	43.5	44.9	44.4	43.2	42.3	41.4
Hong Kong SAR	20.2	23.7	19.0	19.2	22.5	24.4	21.6	20.8	21.4	22.1	22.4	22.7
Iceland	48.0	47.7	44.1	41.1	41.5	41.7	41.8	42.1	42.2	42.2	42.2	41.7
Ireland	36.4	36.5	35.2	33.6	34.0	34.1	34.5	34.5	34.8	34.7	34.3	34.1
Israel	45.1	44.8	42.1	39.1	40.1	40.3	40.8	41.2	41.2	41.4	41.8	41.9
Italy	45.0	46.0	45.9	46.5	46.0	46.1	48.3	48.8	48.8	48.8	48.9	49.0
Japan	30.8	31.2	31.6	29.6	29.6	30.6	31.1	31.5	32.8	33.6	34.4	34.5
Korea	22.7	24.2	24.0	23.0	22.7	23.4	23.5	23.5	23.6	23.6	23.6	23.6
Netherlands	46.2	45.3	46.5	45.2	45.5	45.3	46.4	46.8	46.2	46.3	46.3	46.4
New Zealand	34.3	33.5	32.7	31.3	29.3	29.1	29.5	29.5	30.0	30.2	30.5	30.0
Norway	58.2	57.5	58.4	57.1	56.4	58.0	57.7	57.2	56.5	55.8	55.3	54.8
Portugal	40.6	41.1	41.1	39.6	41.4	44.7	41.7	42.9	43.1	43.1	42.6	42.2
Singapore	20.1	24.1	24.4	18.0	22.0	24.9	22.8	23.0	23.0	22.9	23.0	24.0
Slovak Republic	33.3	32.4	33.0	33.7	32.4	32.6	32.1	34.1	33.8	33.7	33.7	33.7
Slovenia	41.7	40.5	41.2	40.5	41.5	41.4	41.5	41.7	41.6	41.5	41.4	41.3
Spain	40.4	41.1	37.1	34.9	36.2	35.5	35.7	36.4	36.3	36.3	36.5	36.8
Sweden	52.4	51.9	51.3	51.2	49.8	49.1	48.9	49.0	49.0	49.0	49.1	49.0
Switzerland	35.4	34.7	33.1	33.7	32.8	33.9	33.9	33.9	34.0	34.1	34.1	34.1
United Kingdom	37.7	37.3	37.9	36.6	36.4	36.8	37.2	37.1	37.4	37.3	37.4	37.5
United States	33.8	33.9	32.5	30.9	31.7	31.4	32.0	33.2	34.2	35.0	35.3	35.0
Average	37.7	38.1	37.6	36.2	36.2	36.5	36.7	37.3	37.8	38.2	38.3	38.2
Euro area	45.3	45.3	45.1	44.8	44.7	45.3	46.0	46.5	46.5	46.4	46.4	46.4
G-7	37.1	37.4	37.0	35.6	35.6	36.0	36.2	36.9	37.6	38.1	38.3	38.2
G-20 advanced	36.6	36.9	36.5	35.2	35.1	35.4	35.7	36.3	37.0	37.5	37.7	37.5
Expenditure												
Australia	34.6	34.2	34.5	37.5	36.6	36.4	36.4	35.3	34.8	34.5	34.5	34.6
Austria	49.1	48.6	49.3	52.6	52.6	50.6	51.5	50.9	50.2	49.6	49.2	49.2
Belgium	48.5	48.2	49.8	53.7	52.5	53.3	52.8	52.7	52.3	51.3	50.9	50.7
Canada	39.3	39.2	39.8	44.2	44.0	42.7	42.0	41.7	41.3	40.9	40.8	40.5
Czech Republic	42.0	41.0	41.1	44.9	44.1	43.4	43.5	44.0	43.9	43.7	43.7	43.8
Denmark	51.7	50.9	51.6	57.8	56.3	56.7	58.2	56.3	54.0	54.0	52.7	52.2
Estonia	34.6	34.9	41.0	47.7	44.7	43.1	45.3	43.0	42.0	41.1	40.3	39.5
Finland	49.2	47.4	49.3	56.2	55.8	54.7	54.4	54.7	54.4	54.3	54.1	53.8
France	53.0	52.6	53.3	56.8	56.6	56.0	56.2	56.1	55.5	54.7	53.7	52.7
Germany	45.6	43.5	44.0	48.1	47.7	45.3	44.9	44.8	44.7	44.4	44.2	44.1
Greece	45.2	47.6	50.6	53.8	50.2	50.0	51.0	49.6	47.8	45.7	43.7	42.8
Hong Kong SAR	15.9	15.5	18.9	17.6	18.0	20.3	20.9	18.7	18.4	20.4	17.7	17.8
Iceland	41.6	42.3	44.6	49.7	47.9	46.4	44.6	43.7	42.7	41.6	41.2	40.5
Ireland	33.5	36.4	42.6	47.5	65.0	46.9	42.8	42.1	39.8	37.7	36.4	36.0
Israel	47.5	46.0	45.4	45.1	44.7	44.3	44.3	44.5	44.2	44.0	44.0	43.9
Italy	48.5	47.6	48.6	51.9	50.5	49.9	51.0	50.6	50.4	50.2	50.1	49.7
Japan	34.5	33.3	35.7	40.0	39.0	40.4	41.1	40.6	40.0	40.0	40.2	40.3
Korea	21.5	21.9	22.4	23.0	21.0	21.6	21.5	20.8	20.8	20.7	20.7	20.7
Netherlands	45.7	45.1	46.0	50.6	50.6	50.0	50.1	49.9	49.8	49.4	49.6	49.9
New Zealand	31.1	31.0	32.7	34.6	34.6	34.9	34.2	32.8	31.6	31.0	30.7	29.9
Norway	39.9	40.2	39.6	46.4	45.2	44.2	44.3	44.7	45.2	45.8	46.3	46.8
Portugal	44.3	44.4	44.8	49.8	51.3	48.9	46.7	47.4	45.6	45.0	44.5	44.0
Singapore	12.9	12.1	17.9	18.7	14.7	17.6	17.7	17.9	18.2	18.5	18.8	19.9
Slovak Republic	36.5	34.2	35.0	41.7	40.0	37.4	36.9	37.0	36.7	36.7	36.6	36.7
Slovenia	42.5	40.2	41.5	46.0	46.9	47.0	46.2	46.1	44.4	44.0	43.5	43.1
Spain	38.3	39.2	41.3	46.1	45.5	44.4	42.7	42.1	40.9	40.2	39.7	39.5
Sweden	50.2	48.4	49.1	52.2	49.8	48.9	49.2	49.2	48.8	47.4	47.0	46.6
Switzerland	34.4	33.4	31.3	33.2	32.6	33.4	33.4	33.4	33.3	33.3	33.3	33.3
United Kingdom	40.5	40.2	42.9	47.0	46.4	45.3	45.5	44.4	43.1	41.6	40.3	39.2
United States	35.9	36.7	39.2	44.2	42.9	41.5	40.6	40.5	39.8	39.6	39.7	39.4
Average	39.1	39.2	41.1	45.2	44.0	43.1	42.7	42.2	41.6	41.2	41.0	40.7
Euro area	46.7	46.0	47.2	51.2	50.9	49.4	49.3	49.1	48.6	48.0	47.6	47.2
G-7	39.4	39.5	41.5	45.7	44.6	43.8	43.4	43.0	42.4	42.0	41.9	41.5
G-20 advanced	38.7	38.8	40.8	44.9	43.6	42.8	42.4	41.9	41.3	40.9	40.8	40.5

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).
Note: For country-specific details, see "Data and Conventions" in text and Table SA.1.

Statistical Table 4. Advanced Economies: General Government Gross Debt and Net Debt

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Gross Debt												
Australia	10.0	9.7	11.8	16.9	20.5	24.2	27.1	27.2	26.4	24.7	22.9	21.2
Austria	62.3	60.2	63.8	69.2	71.8	72.3	74.3	74.9	74.4	73.0	71.6	70.0
Belgium	88.0	84.0	89.3	95.7	95.6	97.8	99.0	99.4	98.6	96.5	93.9	91.1
Canada	70.3	66.5	71.3	83.3	85.1	85.4	87.5	87.8	84.6	82.3	80.3	78.1
Czech Republic	28.3	28.0	28.7	34.3	37.6	40.5	43.1	45.0	45.6	45.7	45.7	45.6
Denmark	41.0	34.1	41.9	40.6	42.9	44.1	47.1	47.6	47.8	47.9	47.3	45.6
Estonia	4.4	3.7	4.5	7.2	6.7	6.0	8.2	9.7	9.3	8.7	8.2	7.7
Finland	39.6	35.2	33.9	43.5	48.6	49.1	52.6	53.9	54.1	53.6	52.7	51.5
France	64.1	64.2	68.2	79.2	82.3	86.0	90.0	92.1	92.9	92.3	90.1	86.5
Germany	67.9	65.4	66.9	74.7	82.4	80.6	83.0	81.5	79.6	77.6	75.8	73.7
Greece	107.3	107.4	112.6	129.0	144.5	165.4	170.7	181.8	180.2	174.0	164.1	152.8
Hong Kong SAR	33.0	32.8	30.6	33.2	34.6	33.8	33.1	31.0	30.4	29.7	29.1	28.4
Iceland	30.1	29.1	70.3	88.1	92.8	99.2	94.2	90.5	87.4	84.0	78.6	77.0
Ireland	24.8	25.0	44.5	64.9	92.2	106.5	117.7	119.3	118.4	115.0	111.5	108.4
Israel	84.7	78.1	77.0	79.4	76.0	74.1	73.3	72.9	71.8	70.5	68.9	67.2
Italy	106.1	103.1	105.7	116.0	118.6	120.1	126.3	127.8	127.3	125.6	123.3	120.6
Japan	186.0	183.0	191.8	210.2	215.3	229.6	236.6	245.0	246.2	247.6	248.8	250.3
Korea	31.1	30.7	30.1	33.8	33.4	34.2	33.5	31.6	29.4	27.2	25.2	23.2
Netherlands	47.4	45.3	58.5	60.8	62.9	65.2	68.2	70.2	71.9	72.7	73.8	75.0
New Zealand	19.4	17.3	20.2	26.2	32.5	38.2	38.6	38.1	37.9	36.1	35.7	34.7
Norway	59.0	56.8	54.3	48.9	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6
Portugal	63.7	68.3	71.6	83.1	93.3	107.8	119.1	123.7	123.6	120.8	117.6	115.1
Singapore	86.4	85.8	96.9	103.3	101.2	107.6	106.2	103.4	100.8	97.8	95.1	96.4
Slovak Republic	30.5	29.6	27.9	35.6	41.1	43.3	46.3	47.2	47.6	48.1	48.4	48.7
Slovenia	26.4	23.1	22.0	35.0	38.6	46.9	53.2	57.4	58.7	59.2	59.1	58.7
Spain	39.7	36.3	40.2	53.9	61.3	69.1	90.7	96.9	100.0	101.1	101.4	101.2
Sweden	44.8	39.7	38.4	42.0	38.8	37.9	37.1	35.9	34.1	31.0	27.7	24.1
Switzerland	62.4	55.6	50.5	51.8	48.0	46.8	46.7	45.6	43.6	42.6	42.3	41.9
United Kingdom	43.0	43.7	52.2	68.0	75.0	81.8	88.7	93.3	96.0	96.6	95.8	93.7
United States	66.6	67.2	76.1	89.7	98.6	102.9	107.2	111.7	113.8	114.2	114.2	114.0
Average	77.2	74.5	81.5	95.2	101.4	105.5	110.7	113.6	114.2	113.7	112.8	111.7
Euro area	68.6	66.4	70.2	80.0	85.4	88.0	93.6	94.9	94.7	93.5	91.8	89.5
G-7	85.5	83.5	91.8	107.0	114.7	119.9	125.1	128.8	129.7	129.4	128.7	127.6
G-20 advanced	81.9	79.6	87.6	102.3	108.8	113.3	118.1	121.2	121.9	121.5	120.6	119.3
Net Debt												
Australia	–6.3	–7.3	–5.3	–0.6	4.0	8.2	11.6	12.4	12.3	11.3	10.2	9.2
Austria	43.1	40.9	42.0	49.2	52.5	52.1	54.1	54.7	54.1	52.8	51.4	49.8
Belgium	77.0	73.1	73.4	79.6	79.8	81.4	82.9	83.6	83.1	81.5	79.3	76.9
Canada	26.3	22.9	22.4	28.3	30.4	33.1	35.8	37.5	38.1	37.8	37.1	36.3
Czech Republic	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Denmark	1.9	–3.8	–6.1	–4.5	–1.7	0.2	4.1	6.0	7.6	9.2	10.0	9.7
Estonia	–4.9	–5.7	–3.5	–1.2	–1.8	–0.2	4.3	5.1	5.3	4.8	3.9	3.1
Finland	–69.4	–72.5	–52.3	–62.8	–65.5	–54.1	–51.1	–48.1	–45.7	–43.8	–42.4	–41.4
France	59.6	59.6	62.3	72.0	76.1	78.8	83.7	85.9	86.7	86.1	83.9	80.2
Germany	53.0	50.5	50.2	57.0	56.2	55.3	58.4	57.5	56.2	56.2	56.2	56.2
Greece	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Hong Kong SAR	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Iceland	7.8	10.8	41.8	55.8	62.8	65.9	65.7	64.4	62.4	59.3	55.8	52.1
Ireland	12.1	11.1	24.6	42.0	74.7	94.9	103.0	107.6	108.7	107.2	104.0	101.1
Israel	74.0	67.3	63.6	68.6	68.3	67.5	67.0	67.0	66.3	65.4	64.0	62.6
Italy	89.3	86.9	88.8	97.2	99.1	99.6	103.1	103.9	103.7	102.4	100.8	98.7
Japan	81.0	80.5	95.3	106.2	112.8	126.4	135.4	144.7	148.7	152.4	155.6	158.7
Korea	29.4	28.7	28.8	32.3	32.1	32.9	32.0	30.3	28.1	26.1	24.2	22.2
Netherlands	24.5	21.6	20.6	23.2	27.6	31.7	35.1	37.6	40.2	42.1	44.1	46.2
New Zealand	0.2	–5.7	–4.8	–0.8	3.5	8.3	12.1	13.9	14.5	14.3	14.2	13.9
Norway	–133.7	–138.9	–123.5	–156.7	–165.3	–168.2	–169.3	–173.0	–178.3	–182.1	–184.5	–185.7
Portugal	58.6	63.7	67.4	79.0	88.9	97.3	113.2	119.5	119.4	116.7	113.7	111.3
Singapore	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Slovak Republic	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Slovenia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Spain	30.7	26.7	30.8	42.5	49.8	57.5	78.6	84.4	87.3	88.3	88.5	88.6
Sweden	–13.8	–17.3	–12.4	–19.4	–20.6	–18.2	–17.5	–16.5	–16.0	–16.9	–18.2	–19.8
Switzerland	39.7	32.0	28.0	28.7	25.7	25.9	25.8	25.2	24.1	23.6	23.4	23.2
United Kingdom	37.8	38.0	45.8	60.6	71.0	76.6	83.7	88.2	90.9	91.5	90.7	88.7
United States	48.6	48.2	53.8	65.8	73.2	80.3	83.8	87.7	89.3	89.5	89.6	89.4
Average	47.8	45.9	51.1	61.4	66.0	70.9	76.0	79.1	80.4	80.8	80.7	80.4
Euro area	54.3	52.0	54.1	62.4	65.5	68.0	73.4	74.8	74.8	74.4	73.3	71.9
G-7	55.6	54.6	60.8	72.2	77.9	84.1	89.0	92.8	94.3	94.9	95.0	94.7
G-20 advanced	53.2	51.9	57.9	68.9	73.8	79.4	83.9	87.3	88.6	89.0	88.9	88.5

Sources: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text and Table SA.1.

Statistical Table 5. Emerging Markets: General Government Overall Balance and Primary Balance

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Overall Balance												
Argentina	–0.9	–2.1	–0.8	–3.6	–1.3	–3.0	–4.6	–2.5	–1.8	–2.2	–1.8	–1.5
Brazil	–3.5	–2.6	–1.3	–3.0	–2.7	–2.6	–2.1	–1.6	–2.0	–1.9	–1.8	–1.7
Bulgaria	3.3	3.3	2.9	–0.9	–3.9	–2.0	–1.1	–1.1	–0.5	0.0	0.7	1.4
Chile	7.5	7.9	4.1	–4.1	–0.3	1.4	–0.3	–0.6	–0.2	–0.2	–0.1	–0.2
China	–0.7	0.9	–0.7	–3.1	–1.5	–1.2	–1.3	–1.0	–0.6	–0.1	0.3	0.8
Colombia	–0.8	–1.0	0.0	–2.5	–3.1	–1.8	–0.8	–1.2	–1.0	–1.2	–1.1	–1.2
Egypt	–9.2	–7.5	–8.0	–6.8	–7.8	–9.9	–11.1	–9.8	–7.1	–5.8	–3.3	–1.9
Hungary	–9.4	–5.1	–3.7	–4.5	–4.3	4.2	–2.9	–3.7	–3.8	–3.8	–3.8	–3.8
India	–6.4	–4.8	–8.7	–10.0	–9.4	–9.0	–9.5	–9.1	–8.9	–8.7	–8.5	–8.4
Indonesia	0.2	–1.0	0.0	–1.8	–1.2	–0.8	–1.6	–2.0	–2.0	–2.0	–2.0	–2.0
Jordan	–4.0	–4.7	–4.3	–8.5	–5.6	–6.8	–6.5	–5.5	–4.5	–3.5	–3.0	–3.0
Kazakhstan	7.7	5.2	1.2	–1.2	1.5	5.9	3.6	3.7	3.5	3.5	3.5	3.4
Kenya	–2.5	–3.1	–4.3	–5.2	–5.1	–4.3	–4.5	–3.9	–3.3	–3.1	–3.7	–3.9
Latvia	–0.6	0.6	–7.5	–7.8	–7.3	–3.1	–1.3	–1.5	–1.2	–1.6	–1.2	–0.8
Lithuania	–0.4	–1.0	–3.3	–9.2	–7.1	–5.6	–3.3	–2.9	–2.9	–2.5	–2.6	–2.4
Malaysia	–2.0	–2.5	–3.1	–5.1	–3.6	–6.9	–3.8	–4.3	–4.4	–4.6	–4.7	–4.9
Mexico	–1.0	–1.2	–1.1	–4.7	–4.3	–3.4	–2.4	–2.1	–2.0	–2.0	–2.0	–2.0
Morocco	–2.0	–0.1	0.7	–1.8	–4.4	–6.9	–6.1	–5.3	–4.6	–3.8	–3.2	–2.9
Nigeria	8.9	1.6	6.3	–9.4	–6.7	0.2	–0.4	2.8	1.8	1.3	2.0	2.1
Pakistan	–3.7	–5.5	–7.3	–5.0	–5.9	–6.4	–6.4	–7.2	–5.8	–5.5	–5.3	–5.2
Peru	1.9	3.2	2.2	–2.1	–0.3	2.5	1.8	1.4	1.3	1.3	1.1	0.9
Philippines	0.0	–0.3	0.0	–2.7	–2.2	–0.8	–1.9	–1.2	–1.3	–1.3	–1.2	–1.2
Poland	–3.6	–1.9	–3.7	–7.4	–7.9	–5.1	–3.4	–3.1	–2.6	–2.3	–2.1	–2.1
Romania	–1.4	–3.1	–4.8	–7.3	–6.4	–4.1	–2.2	–1.8	–1.4	–1.4	–1.3	–1.3
Russian Federation	8.3	6.8	4.9	–6.3	–3.5	1.6	0.5	0.2	–0.6	–1.6	–2.6	–3.5
Saudi Arabia	25.8	16.3	34.4	–4.7	3.4	14.0	16.6	11.2	8.9	6.4	3.1	0.6
South Africa	0.8	1.5	–0.5	–5.3	–4.8	–4.6	–5.0	–4.7	–4.2	–3.3	–2.3	–1.3
Thailand	2.2	0.2	0.1	–3.2	–0.8	–1.6	–3.0	–3.8	–4.1	–2.6	–2.4	–2.2
Turkey	0.0	–1.7	–2.4	–5.6	–2.7	–0.2	–1.7	–1.9	–1.7	–1.5	–1.5	–1.3
Ukraine	–1.4	–2.0	–3.2	–6.3	–5.8	–2.7	–3.1	–3.1	–2.9	–2.7	–2.7	–2.5
Average	0.4	0.3	0.0	–4.5	–3.2	–1.8	–1.9	–1.8	–1.7	–1.6	–1.5	–1.4
Asia	–1.7	–0.7	–2.3	–4.2	–3.0	–2.7	–2.9	–2.6	–2.3	–1.9	–1.6	–1.3
Europe	2.5	1.9	0.6	–6.2	–4.3	–0.3	–0.9	–1.1	–1.3	–1.8	–2.3	–2.6
Latin America	–1.4	–1.2	–0.7	–3.5	–2.8	–2.4	–2.1	–1.6	–1.7	–1.7	–1.6	–1.5
Middle East and North Africa	–6.3	–4.8	–4.9	–5.4	–6.7	–8.9	–9.5	–8.3	–6.2	–5.1	–3.3	–2.3
G-20 emerging	0.6	0.6	0.4	–4.4	–2.9	–1.6	–1.7	–1.6	–1.6	–1.6	–1.5	–1.4
Primary Balance												
Argentina	4.2	2.5	2.8	0.2	1.7	–0.1	–1.5	–0.5	0.0	0.2	0.2	0.3
Brazil	3.3	3.5	4.1	2.2	2.5	3.1	2.7	3.2	3.1	3.1	3.1	3.1
Bulgaria	4.3	3.9	2.8	–0.6	–3.7	–1.7	–0.6	–0.3	0.0	0.5	1.3	1.8
Chile	7.6	7.8	3.8	–4.3	–0.3	1.5	–0.3	–0.5	0.0	0.1	0.1	0.1
China	–0.2	1.3	–0.3	–2.6	–1.1	–0.7	–0.6	–0.4	–0.1	0.3	0.7	1.1
Colombia	1.7	1.7	2.2	–0.5	–1.5	–0.3	0.8	0.3	0.3	0.1	0.0	–0.1
Egypt	–3.8	–4.7	–5.3	–4.5	–4.3	–5.8	–6.6	–3.7	0.3	1.1	2.4	2.5
Hungary	–5.7	–1.2	0.0	–0.2	–0.5	7.8	0.8	0.2	0.3	0.5	0.6	0.6
India	–1.5	0.0	–4.0	–5.3	–5.1	–4.8	–5.2	–4.8	–4.5	–4.3	–4.3	–4.2
Indonesia	2.6	1.0	1.8	–0.1	0.1	0.5	–0.2	–0.7	–0.7	–0.7	–0.7	–0.7
Jordan	–1.2	–1.8	–2.0	–6.3	–3.5	–4.7	–4.0	–2.5	–1.5	–0.5	0.0	–0.1
Kazakhstan	7.2	4.3	1.5	–1.3	1.9	5.9	3.8	3.9	3.7	3.6	3.4	3.1
Kenya	–0.2	–0.9	–2.1	–3.0	–2.7	–2.0	–2.2	–1.6	–1.1	–1.0	–1.6	–1.8
Latvia	–0.1	0.9	–7.4	–7.2	–6.5	–2.1	0.1	–0.1	0.3	0.0	0.5	0.8
Lithuania	0.1	–0.5	–2.8	–8.1	–5.4	–3.8	–1.5	–1.2	–1.1	–0.8	–0.8	–0.6
Malaysia	–1.0	–1.8	–1.7	–4.1	–2.2	–5.3	–2.3	–2.8	–2.8	–3.0	–3.1	–3.2
Mexico	1.8	1.5	1.4	–1.9	–1.8	–1.0	0.2	0.5	0.7	0.8	0.9	0.9
Morocco	1.2	3.0	3.3	0.6	–2.1	–4.7	–3.8	–2.9	–2.2	–1.4	–0.8	–0.5
Nigeria	10.0	2.6	7.3	–8.2	–5.6	1.7	1.2	4.1	3.1	2.6	3.2	3.2
Pakistan	–0.6	–1.2	–2.6	0.0	–1.6	–2.5	–2.1	–3.3	–1.4	–0.9	–0.6	–0.7
Peru	3.7	4.9	3.7	–0.9	0.8	3.7	2.8	2.4	2.2	2.1	1.7	1.6
Philippines	4.8	3.4	3.4	0.6	0.8	1.8	1.1	1.4	1.4	1.3	1.3	1.2
Poland	–1.0	0.4	–1.5	–4.7	–5.2	–2.4	–0.5	–0.3	0.2	0.5	0.6	0.7
Romania	–0.7	–2.6	–4.2	–6.2	–5.2	–2.7	–0.4	0.0	0.3	0.3	0.4	0.4
Russian Federation	8.9	6.8	5.1	–6.0	–3.2	1.9	1.1	0.9	0.1	–1.0	–1.9	–2.8
Saudi Arabia	26.7	16.0	33.8	–4.5	3.9	14.1	16.7	11.3	8.9	6.4	3.0	0.5
South Africa	3.7	4.3	2.1	–2.7	–2.4	–2.1	–2.3	–1.9	–1.4	–0.5	0.4	1.3
Thailand	3.5	1.2	1.0	–2.4	0.1	–0.1	–2.6	–3.2	–3.4	–1.8	–1.6	–1.3
Turkey	5.1	3.2	2.0	–1.1	1.0	2.3	1.4	1.1	1.2	1.3	1.3	1.4
Ukraine	–0.7	–1.5	–2.6	–5.1	–4.1	–0.8	–1.0	–0.6	–0.3	0.1	0.0	0.9
Average	2.9	2.5	1.9	–2.5	–1.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2
Asia	0.0	0.9	–0.8	–2.8	–1.7	–1.4	–1.4	–1.3	–1.0	–0.6	–0.3	–0.1
Europe	4.6	3.5	2.1	–4.4	–2.6	1.1	0.7	0.6	0.3	–0.2	–0.6	–1.0
Latin America	3.0	2.9	3.0	0.3	0.9	1.5	1.4	1.7	1.8	1.9	1.9	1.9
Middle East and North Africa	–1.9	–1.9	–2.2	–3.1	–3.6	–5.4	–5.7	–3.4	–0.5	0.3	1.3	1.5
G-20 emerging	3.2	2.9	2.4	–2.3	–0.9	0.3	0.2	0.2	0.2	0.2	0.2	0.2

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: Primary balance is defined as the overall balance excluding net interest payments. For country-specific details, see "Data and Conventions" in text and Table SA.2.

Statistical Table 6. Emerging Markets: General Government Cyclically Adjusted Balance and Cyclically Adjusted Primary Balance

(Percent of potential GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Cyclically Adjusted Balance												
Argentina	–1.3	–2.9	–1.5	–2.4	–1.1	–4.2	–4.9	–2.3	–1.6	–2.0	–1.7	–1.6
Brazil	–3.2	–3.0	–2.1	–2.2	–3.3	–2.9	–1.7	–1.3	–1.9	–1.9	–1.8	–1.7
Bulgaria	2.3	1.8	1.1	0.4	–2.3	–1.0	–0.3	–0.4	–0.2	0.1	0.9	1.5
Chile[1]	0.7	–0.1	–1.1	–4.1	–2.4	–1.1	–1.1	–1.3	–1.0	–0.8	–0.7	–0.7
China	0.1	1.1	–0.4	–2.4	–0.7	0.0	0.0	0.2	0.3	0.5	0.7	0.8
Colombia	–1.0	–1.9	–1.2	–1.2	–2.5	–1.8	–0.7	–1.0	–1.0	–1.2	–1.1	–1.2
Egypt	–9.2	–7.6	–8.3	–6.8	–7.8	–9.7	–10.4	–8.8	–6.3	–5.2	–3.0	–1.7
Hungary[1]	–11.6	–6.8	–5.6	–2.8	–3.3	–6.5	–1.9	–2.6	–2.9	–2.9	–3.1	–3.2
India	–6.3	–6.6	–10.6	–10.7	–10.2	–9.9	–10.2	–9.6	–9.4	–9.2	–9.1	–6.5
Indonesia	0.2	–1.2	–0.2	–1.7	–1.2	–0.8	–1.6	–2.0	–2.0	–2.0	–2.0	–2.0
Jordan	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Kazakhstan	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Kenya	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Latvia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Lithuania	–1.9	–3.9	–6.3	–6.0	–4.7	–3.9	–2.6	–2.1	–2.6	–2.6	–2.8	–2.6
Malaysia	–3.3	–3.6	–5.2	–5.7	–5.3	–4.8	–4.8	–3.9	–3.9	–3.9	–3.9	–3.6
Mexico	–1.4	–1.5	–1.3	–3.8	–3.9	–3.2	–2.3	–2.1	–2.0	–2.0	–2.0	–2.0
Morocco	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Nigeria	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Pakistan	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Peru[1]	0.2	1.5	0.9	–0.8	–1.1	1.6	1.3	1.1	1.2	1.4	1.2	0.9
Philippines	–1.4	–2.1	–1.7	–3.5	–3.4	–2.1	–2.7	–2.1	–2.1	–2.1	–2.0	–2.1
Poland	–4.1	–2.8	–4.7	–6.9	–7.8	–5.2	–3.2	–2.7	–2.4	–2.1	–2.1	–2.0
Romania	–1.8	–4.3	–7.5	–6.8	–4.9	–3.0	–0.9	–0.6	–0.4	–0.6	–0.7	–0.8
Russian Federation	8.2	6.1	3.9	–3.2	–1.8	2.0	0.4	–0.1	–0.8	–1.7	–2.7	–3.5
Saudi Arabia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
South Africa	–0.1	–0.2	–2.3	–5.1	–4.5	–4.2	–4.4	–4.0	–3.7	–3.1	–2.5	–1.7
Thailand	1.8	–0.1	–0.8	–2.1	–0.4	–1.4	–2.7	–3.7	–4.1	–2.6	–2.4	–2.2
Turkey	–1.1	–3.0	–2.8	–3.1	–2.2	–0.9	–2.0	–1.9	–1.6	–1.4	–1.5	–1.5
Ukraine	–2.5	–3.9	–3.5	–2.6	–3.1	–2.3	–3.2	–3.1	–2.9	–2.7	–2.7	–2.5
Average	–0.7	–0.8	–1.7	–3.6	–2.9	–1.9	–1.8	–1.6	–1.7	–1.6	–1.6	–1.4
Asia	–1.2	–0.9	–2.4	–3.9	–2.6	–2.0	–2.0	–1.8	–1.7	–1.5	–1.4	–0.9
Europe	1.9	0.8	–0.4	–3.9	–3.1	–0.5	–0.9	–1.1	–1.3	–1.7	–2.2	–2.7
Latin America	–1.9	–2.1	–1.6	–2.6	–3.1	–2.8	–1.9	–1.5	–1.7	–1.7	–1.6	–1.6
G-20 emerging	–0.4	–0.5	–1.4	–3.5	–2.7	–1.8	–1.8	–1.6	–1.6	–1.6	–1.6	–1.3
Cyclically Adjusted Primary Balance												
Argentina	3.8	1.8	2.1	1.3	1.8	–1.2	–1.8	–0.3	0.3	0.3	0.3	0.2
Brazil	3.5	3.1	3.4	2.8	2.0	2.8	3.1	3.4	3.2	3.1	3.1	3.1
Bulgaria	3.2	2.5	1.0	0.7	–2.0	–0.7	0.2	0.4	0.4	0.7	1.4	2.0
Chile[1]	0.8	–0.3	–1.4	–4.3	–2.4	–1.0	–1.0	–1.1	–0.7	–0.5	–0.4	–0.4
China	0.6	1.5	0.0	–2.0	–0.3	0.5	0.7	0.8	0.8	1.0	1.1	1.1
Colombia	1.6	0.9	1.0	0.8	–0.9	–0.3	0.8	0.4	0.4	0.1	0.0	–0.1
Egypt	–3.8	–4.8	–5.6	–4.5	–4.2	–5.7	–6.1	–3.1	0.8	1.5	2.6	2.6
Hungary[1]	–7.8	–2.8	–1.7	1.3	0.4	–2.9	1.8	1.2	1.2	1.3	1.2	1.2
India	–1.4	–1.7	–5.9	–6.1	–5.9	–5.7	–5.9	–5.2	–5.0	–4.9	–4.8	–2.3
Indonesia	2.6	0.9	1.6	0.0	0.2	0.5	–0.2	–0.6	–0.7	–0.7	–0.7	–0.7
Jordan	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Kazakhstan	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Kenya	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Latvia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Lithuania	–1.3	–3.3	–5.8	–5.0	–3.1	–2.2	–0.8	–0.5	–0.8	–0.8	–0.9	–0.7
Malaysia	–2.3	–2.9	–3.8	–4.7	–3.9	–3.2	–3.3	–2.4	–2.3	–2.3	–2.3	–2.0
Mexico	1.5	1.2	1.3	–1.2	–1.4	–0.8	0.2	0.5	0.7	0.8	0.9	0.9
Morocco	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Nigeria	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Pakistan	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Peru[1]	1.9	3.2	2.5	0.4	0.0	2.7	2.3	2.1	2.1	2.1	1.8	1.6
Philippines	3.4	1.7	1.7	–0.2	–0.4	0.5	0.3	0.6	0.6	0.5	0.5	0.4
Poland	–1.4	–0.4	–2.4	–4.3	–5.1	–2.5	–0.3	0.1	0.4	0.6	0.7	0.7
Romania	–1.1	–3.7	–6.8	–5.8	–3.7	–1.6	0.9	1.1	1.2	1.1	1.0	0.9
Russian Federation	8.7	6.1	4.1	–2.8	–1.5	2.3	1.0	0.5	–0.2	–1.1	–2.0	–2.8
Saudi Arabia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
South Africa	2.9	2.7	0.4	–2.5	–2.1	–1.7	–1.7	–1.3	–0.9	–0.3	0.3	0.9
Thailand	3.1	0.9	0.1	–1.4	0.4	0.1	–2.3	–3.1	–3.4	–1.8	–1.6	–1.3
Turkey	4.2	2.1	1.6	1.1	1.5	1.7	1.2	1.1	1.3	1.4	1.4	1.3
Ukraine	–1.9	–3.4	–3.0	–1.5	–1.6	–0.3	–1.0	–0.6	–0.2	0.1	0.0	0.9
Average	1.9	1.5	0.4	–1.6	–0.9	0.1	0.1	0.2	0.2	0.2	0.2	0.3
Asia	0.4	0.6	–1.0	–2.5	–1.3	–0.7	–0.6	–0.5	–0.4	–0.3	–0.2	0.2
Europe	4.1	2.6	1.2	–2.1	–1.4	0.9	0.8	0.6	0.3	–0.1	–0.6	–1.0
Latin America	2.5	2.1	2.2	1.0	0.7	1.2	1.5	1.8	1.8	1.8	1.8	1.8
G-20 emerging	2.4	2.0	0.8	–1.5	–0.7	0.2	0.2	0.3	0.3	0.3	0.2	0.4

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: Cyclically adjusted primary balance is defined as the cyclically adjusted balance excluding net interest payments.

[1] Including adjustments beyond the cycle; for details, see "Data and Conventions" in the text and Table SA.2.

Statistical Table 7. Emerging Markets: General Government Revenue and Expenditure

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenue												
Argentina	29.9	31.5	33.4	34.3	37.2	37.3	37.9	38.4	38.5	38.6	38.7	38.8
Brazil	34.6	34.3	35.0	33.9	35.4	35.0	35.1	35.3	35.4	35.5	35.5	35.5
Bulgaria	37.0	38.2	38.0	35.3	32.7	32.4	34.4	34.7	35.0	35.4	35.7	35.9
Chile	26.2	27.3	25.9	20.5	23.3	24.7	23.6	23.0	22.6	22.0	22.1	22.0
China	18.2	19.8	19.7	20.2	21.3	22.7	23.2	23.3	23.4	23.6	23.7	23.8
Colombia	27.3	27.2	26.4	26.7	26.2	26.9	28.0	28.2	27.9	27.3	27.0	26.8
Egypt	28.6	27.7	27.8	27.7	25.1	22.0	22.4	23.4	25.8	26.0	26.0	25.8
Hungary	42.8	45.6	45.5	46.9	45.2	52.9	45.8	45.1	45.3	45.4	45.4	45.4
India	20.2	21.8	20.1	19.2	18.7	18.5	18.5	18.5	18.7	18.7	18.8	18.8
Indonesia	20.3	19.3	21.3	16.5	17.0	17.8	18.2	18.1	17.8	17.6	17.5	17.5
Jordan	32.4	32.3	30.1	26.5	24.9	26.4	25.2	25.8	26.6	27.5	27.8	27.6
Kazakhstan	27.5	29.3	27.9	22.1	23.9	27.8	26.3	26.3	25.7	25.3	24.9	24.5
Kenya	22.2	23.1	22.9	22.7	24.6	24.9	26.2	26.2	26.8	25.5	24.9	25.1
Latvia	36.1	36.3	35.6	36.2	36.2	35.9	38.0	35.3	34.1	32.2	31.3	30.8
Lithuania	33.3	33.8	34.0	34.7	35.0	32.9	33.9	33.5	33.6	32.9	32.5	32.1
Malaysia	24.1	24.4	24.6	25.8	23.9	21.9	24.4	24.1	23.7	23.3	22.8	22.4
Mexico	22.0	21.8	24.0	21.6	21.7	22.1	23.2	23.1	23.1	23.3	22.8	22.4
Morocco	27.4	29.9	32.5	29.3	27.5	27.6	28.3	28.1	27.5	27.3	26.7	26.6
Nigeria	32.3	26.9	32.0	17.8	20.0	29.5	26.4	25.8	24.3	23.6	23.5	23.0
Pakistan	14.7	15.3	14.9	14.9	14.4	12.8	12.8	13.6	13.6	13.9	14.3	14.3
Peru	20.1	20.9	21.1	18.7	20.0	21.6	21.1	21.4	21.5	21.8	21.5	21.4
Philippines	19.0	18.7	18.7	17.4	17.0	17.3	17.3	17.6	17.6	17.5	17.7	17.7
Poland	40.2	40.3	39.5	37.2	37.5	38.5	39.8	38.9	38.5	38.2	38.1	37.9
Romania	32.3	32.3	32.2	31.2	32.3	31.4	32.3	32.8	33.3	33.2	32.9	32.7
Russian Federation	39.5	39.9	39.2	35.0	35.5	38.4	37.7	37.0	35.6	34.5	33.5	32.7
Saudi Arabia	56.7	50.4	66.0	41.0	48.1	53.3	54.1	51.7	48.8	46.4	44.1	41.6
South Africa	27.7	29.6	29.8	27.8	27.5	27.5	27.3	27.6	27.9	28.3	28.8	29.2
Thailand	22.3	21.5	21.4	20.8	22.4	22.7	21.0	20.4	20.3	20.2	20.5	20.7
Turkey	32.8	31.7	31.7	32.4	33.1	34.6	33.6	33.0	32.9	32.9	32.9	32.9
Ukraine	43.2	41.8	44.3	42.3	43.2	42.4	43.8	42.3	41.7	41.1	40.3	39.6
Average	27.3	27.6	28.3	25.6	26.4	27.5	27.4	27.2	26.9	26.7	26.5	26.2
Asia	19.1	20.2	19.9	19.8	20.4	21.3	21.7	21.8	21.8	22.0	22.0	22.0
Europe	37.9	37.9	37.7	35.4	35.8	37.8	37.3	36.7	35.9	35.2	34.6	34.0
Latin America	28.3	28.7	30.0	28.9	30.4	30.6	30.8	30.9	30.9	30.9	30.8	30.7
Middle East and North Africa	28.5	28.8	29.5	28.1	25.8	23.9	24.1	24.8	26.3	26.5	26.3	26.1
G-20 emerging	26.8	27.1	27.8	25.2	26.2	27.4	27.4	27.2	26.9	26.7	26.5	26.2
Expenditure												
Argentina	30.8	33.6	34.2	37.9	38.5	40.3	42.6	40.9	40.3	40.8	40.5	40.2
Brazil	38.1	36.9	36.3	36.9	38.1	37.6	37.3	36.9	37.4	37.4	37.3	37.3
Bulgaria	33.6	34.9	35.2	36.2	36.6	34.4	35.5	35.8	35.5	35.4	35.0	34.5
Chile	18.7	19.4	21.7	24.6	23.6	23.3	23.9	23.6	22.7	22.2	22.2	22.2
China	18.9	18.9	20.4	23.2	22.8	23.9	24.5	24.3	24.0	23.7	23.4	23.0
Colombia	28.1	28.2	26.3	29.3	29.3	28.7	28.7	29.4	29.0	28.5	28.2	28.0
Egypt	37.8	35.3	35.8	34.5	33.0	32.0	33.6	33.2	32.9	31.8	29.3	27.7
Hungary	52.2	50.6	49.2	51.4	49.5	48.7	48.7	48.8	49.1	49.1	49.2	49.3
India	26.6	26.7	28.8	29.2	28.1	27.5	28.0	27.7	27.6	27.4	27.3	27.2
Indonesia	20.1	20.3	21.3	18.3	18.3	18.6	19.8	20.1	19.7	19.6	19.5	19.4
Jordan	36.4	37.0	34.4	35.0	30.4	33.2	31.7	31.3	31.1	31.0	30.8	30.6
Kazakhstan	19.8	24.1	26.7	23.4	22.4	21.9	22.7	22.6	22.2	21.8	21.4	21.1
Kenya	24.7	26.2	27.2	27.9	29.7	29.2	30.7	30.1	30.1	28.5	28.5	28.9
Latvia	36.7	35.7	43.1	44.1	43.5	39.1	39.3	36.8	35.4	33.8	32.5	31.6
Lithuania	33.7	34.8	37.3	43.9	42.1	38.5	37.2	36.3	36.5	35.4	35.2	34.5
Malaysia	26.1	26.9	27.8	30.9	27.5	28.8	28.2	28.4	28.1	27.8	27.6	27.4
Mexico	23.0	23.0	25.1	26.2	26.1	25.5	25.6	25.3	25.1	25.3	24.9	24.5
Morocco	29.4	30.1	31.8	31.1	31.9	34.5	34.4	33.3	32.1	31.0	29.9	29.5
Nigeria	23.3	25.3	25.7	27.2	26.7	29.2	26.8	23.0	22.6	22.3	21.5	20.9
Pakistan	18.4	20.8	22.3	19.9	20.3	19.2	19.2	20.8	19.5	19.4	19.5	19.5
Peru	18.2	17.7	18.9	20.9	20.3	19.1	19.3	19.9	20.2	20.5	20.4	20.5
Philippines	19.1	19.0	18.6	20.1	19.2	18.1	19.2	18.8	18.8	18.8	18.9	18.9
Poland	43.9	42.2	43.2	44.5	45.4	43.6	43.2	42.1	41.1	40.4	40.2	39.9
Romania	33.7	35.4	37.0	38.5	38.7	35.5	34.5	34.6	34.7	34.5	34.2	33.9
Russian Federation	31.1	33.1	34.3	41.4	39.0	36.8	37.1	36.8	36.2	36.2	36.1	36.1
Saudi Arabia	31.0	34.1	31.6	45.6	44.6	39.3	37.4	40.6	40.0	40.0	41.0	41.1
South Africa	26.9	28.1	30.2	33.1	32.3	32.1	32.3	32.3	32.0	31.6	31.1	30.5
Thailand	20.1	21.3	21.2	24.0	23.2	24.2	24.1	24.2	24.4	22.9	22.9	22.9
Turkey	32.8	33.3	34.1	38.0	35.9	34.8	35.3	34.9	34.6	34.4	34.4	34.2
Ukraine	44.6	43.8	47.4	48.6	49.0	45.1	46.9	45.4	44.6	43.8	43.1	42.2
Average	27.0	27.3	28.3	30.1	29.5	29.3	29.3	29.0	28.7	28.3	28.0	27.7
Asia	20.8	21.0	22.2	24.0	23.4	24.0	24.6	24.4	24.2	23.9	23.6	23.3
Europe	35.3	36.0	37.1	41.7	40.1	38.1	38.2	37.8	37.2	36.9	36.8	36.7
Latin America	29.7	29.9	30.7	32.4	33.2	33.0	32.9	32.5	32.6	32.6	32.4	32.2
Middle East and North Africa	34.7	33.6	34.4	33.5	32.5	32.8	33.6	33.1	32.5	31.6	29.6	28.4
G-20 emerging	26.1	26.5	27.4	29.6	29.2	29.0	29.1	28.8	28.5	28.3	28.0	27.7

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text and Table SA.2.

Statistical Table 8. Emerging Markets: General Government Gross Debt and Net Debt

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Gross Debt												
Argentina	76.4	67.1	58.5	58.7	49.2	44.9	45.2	42.8	42.5	41.6	40.8	39.8
Brazil	66.7	65.2	63.5	66.9	65.2	64.9	64.1	61.2	58.9	57.3	55.0	54.0
Bulgaria	23.4	18.6	15.5	15.6	14.9	15.5	17.9	16.4	18.4	15.3	13.6	11.5
Chile	5.0	3.9	4.9	5.8	8.6	11.3	11.4	12.3	12.6	12.9	13.2	13.5
China[1]	16.2	19.6	17.0	17.7	33.5	25.8	22.2	19.6	17.3	15.0	12.6	10.1
Colombia	36.8	32.7	30.9	36.1	36.4	34.2	32.2	30.9	30.0	29.3	28.3	27.3
Egypt	90.3	80.2	70.2	73.0	73.2	76.4	79.7	81.1	78.5	75.0	69.4	63.8
Hungary	65.9	67.0	72.9	79.7	81.3	80.6	74.0	74.2	75.3	75.9	76.3	76.6
India	78.5	75.5	74.1	74.2	68.0	67.0	67.6	66.7	65.6	65.1	64.7	64.3
Indonesia	39.0	35.1	33.2	28.6	26.9	24.5	23.9	22.2	20.9	19.8	18.9	18.2
Jordan	76.3	73.8	60.3	64.5	66.8	70.4	75.0	79.6	79.4	76.4	75.4	74.8
Kazakhstan	6.7	5.9	6.7	10.2	10.7	10.5	12.4	13.0	12.2	11.1	9.9	8.8
Kenya	46.8	46.0	45.6	47.5	49.9	48.5	47.2	45.3	45.3	44.2	44.6	45.2
Latvia	9.9	7.8	17.2	32.9	39.9	37.8	37.4	40.6	38.5	35.0	35.7	33.3
Lithuania	17.9	16.8	15.5	29.4	38.0	38.5	40.0	40.5	40.8	40.6	40.5	40.2
Malaysia	41.5	41.2	41.2	52.8	51.0	52.9	53.0	53.5	53.9	54.4	55.1	55.8
Mexico	37.9	37.6	43.0	44.5	42.9	43.8	43.1	43.2	43.2	43.1	43.0	42.9
Morocco	59.4	54.6	48.2	48.0	51.3	54.3	58.1	58.9	59.1	58.5	57.2	55.1
Nigeria	11.8	12.8	11.6	15.2	15.5	17.3	14.7	15.4	15.9	15.8	14.9	13.7
Pakistan	58.6	55.9	60.5	61.5	61.6	60.2	62.4	63.0	61.6	59.5	57.8	56.4
Peru	33.1	30.4	25.0	28.4	24.6	20.9	19.6	18.3	17.6	17.0	16.7	16.3
Philippines	51.6	44.6	44.2	44.3	43.5	41.9	41.5	39.7	38.1	36.7	35.3	34.0
Poland	47.7	45.0	47.1	50.9	54.8	56.3	55.1	55.3	55.0	54.6	53.4	52.5
Romania	12.6	12.7	13.6	23.8	31.2	33.0	34.6	34.5	33.7	32.9	32.1	31.3
Russian Federation	9.0	8.5	7.9	11.3	11.8	12.0	11.0	9.9	10.8	11.5	13.0	12.9
Saudi Arabia	27.3	18.5	13.2	15.9	9.8	6.1	5.5	5.3	5.2	5.0	4.8	4.6
South Africa	32.6	28.3	27.4	31.5	35.3	38.8	41.2	43.3	44.9	45.2	44.2	41.9
Thailand	42.0	38.3	37.3	45.2	42.6	41.7	44.2	46.2	48.8	49.9	50.9	51.4
Turkey	46.5	39.9	40.0	46.1	42.4	39.3	37.7	36.7	36.3	36.3	36.2	36.1
Ukraine	14.8	12.3	20.5	35.4	40.5	36.0	35.2	35.1	35.0	35.2	35.0	34.7
Average	36.9	35.5	33.6	36.1	40.5	37.0	34.8	33.1	31.8	30.4	29.0	27.6
Asia	34.4	34.9	31.5	31.3	40.7	34.7	32.1	30.0	28.1	26.3	24.5	22.7
Europe	27.1	24.1	24.2	30.5	30.5	28.9	26.9	25.9	26.1	26.0	26.5	26.2
Latin America	50.6	49.6	50.5	53.5	51.9	51.6	50.2	48.2	47.1	46.2	44.9	44.1
Middle East and North Africa	78.4	71.1	62.3	64.8	66.7	69.9	73.9	75.4	73.5	70.8	66.7	62.5
G-20 emerging	36.6	35.5	33.1	34.7	40.2	36.0	33.5	31.3	29.8	28.4	27.0	25.5
Net Debt												
Argentina	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Brazil	47.0	45.1	38.0	41.5	39.1	36.4	34.4	32.0	30.1	28.7	27.5	26.6
Bulgaria	–10.4	–10.2	–13.6	–13.9	–13.6	–11.3	–9.7	–8.8	–8.8	–9.4	–10.7	–12.6
Chile	–6.6	–13.0	–19.3	–10.5	–7.1	–8.7	–6.9	–5.9	–5.3	–4.9	–4.3	–3.8
China	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Colombia	26.3	22.7	21.0	27.2	28.4	26.7	24.9	24.5	23.8	23.4	22.8	22.2
Egypt	71.4	64.5	55.6	58.7	60.0	64.3	68.9	71.7	70.4	68.0	63.3	58.4
Hungary	64.8	65.4	65.3	73.3	76.3	78.6	72.6	72.9	74.1	74.7	75.2	75.5
India	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Indonesia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Jordan	68.8	67.6	54.9	57.1	61.1	65.1	69.2	73.1	72.5	69.0	67.6	66.5
Kazakhstan	–10.7	–14.4	–13.7	–10.9	–10.2	–12.9	–15.8	–18.1	–19.7	–21.0	–22.3	–23.3
Kenya	42.1	41.3	40.6	42.6	44.7	43.5	41.7	39.6	39.6	38.6	39.2	40.1
Latvia	7.5	4.7	11.3	21.5	29.9	31.1	30.5	30.3	29.7	29.4	28.8	27.8
Lithuania	11.0	11.1	12.7	23.3	30.7	34.0	35.8	36.5	37.1	37.2	37.3	37.2
Malaysia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexico	32.6	32.8	38.7	39.1	39.3	40.3	39.8	39.8	39.8	39.8	39.7	39.6
Morocco	56.8	53.1	47.5	47.3	50.8	53.9	57.7	58.5	58.7	58.1	56.7	54.7
Nigeria	2.9	4.7	1.3	11.0	14.4	10.4	3.3	–3.1	–4.0	–4.3	–5.3	–4.8
Pakistan	54.5	51.0	55.6	57.7	58.1	56.9	59.1	59.7	58.3	56.2	54.6	53.3
Peru	22.8	16.0	12.5	11.7	9.9	6.3	4.0	2.3	0.8	–0.6	–1.6	–2.5
Philippines	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Poland	15.0	10.2	9.9	15.0	20.6	25.7	26.4	23.1	23.8	24.4	24.2	23.3
Romania	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Russian Federation	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Saudi Arabia	1.7	–17.1	–45.8	–50.2	–49.2	–47.7	–60.0	–68.9	–76.3	–80.1	–80.2	–77.8
South Africa	29.7	24.8	23.4	27.4	31.3	35.1	37.3	40.0	42.2	42.8	42.0	40.1
Thailand	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Turkey	39.0	32.7	33.4	37.6	34.8	31.3	29.5	28.5	28.2	27.9	27.6	27.3
Ukraine	11.7	10.1	18.3	31.9	38.4	34.8	34.7	34.6	34.5	34.8	34.6	34.4
Average	31.2	27.7	24.2	28.6	28.8	27.3	24.7	22.9	21.8	21.0	20.3	19.9
Asia	54.5	51.0	55.6	57.7	58.1	56.9	59.1	59.7	58.3	56.2	54.6	53.3
Europe	29.3	24.7	25.1	30.9	32.6	32.6	31.5	30.2	30.3	30.2	29.9	29.4
Latin America	35.7	34.5	32.9	35.5	34.6	32.9	31.2	29.6	28.5	27.6	26.8	26.1
Middle East and North Africa	66.1	60.9	52.9	55.2	57.6	61.5	66.1	68.5	67.5	65.5	61.9	58.1
G-20 emerging	34.9	31.5	27.0	30.1	29.4	27.2	23.6	21.5	20.3	19.5	19.1	19.0

Sources: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text and Table SA.2.

[1]For China, data revisions from the authorities indicate that debt at end-2010 was much larger than previously reported, but no revised historical series is yet available for previous years.

Statistical Table 9. Low-Income Countries: General Government Overall Balance and Primary Balance

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Overall Balance												
Armenia	–2.0	–2.3	–1.8	–7.7	–4.9	–2.8	–3.1	–2.6	–2.3	–2.0	–2.0	–2.0
Bolivia	4.5	2.6	4.3	0.6	1.7	0.8	0.8	0.2	0.4	0.5	0.5	0.5
Burkina Faso	16.1	–6.7	–4.3	–5.3	–4.7	–2.5	–3.8	–3.0	–2.8	–2.9	–2.4	–2.5
Cambodia	–0.2	–0.7	0.3	–4.2	–2.8	–4.1	–3.3	–2.5	–2.0	–1.6	–1.2	–1.0
Cameroon	33.1	4.5	2.3	–0.1	–1.1	–2.9	–3.3	–3.7	–4.4	–4.4	–4.3	–4.4
Chad	2.6	3.1	4.5	–9.9	–5.2	3.1	–0.7	–1.6	–0.9	–1.5	–1.5	–1.5
Congo, Dem. Rep. of the	–3.6	–3.8	–3.8	–2.6	4.9	–1.8	–2.6	–3.4	–3.7	–3.4	–3.3	–2.9
Congo, Rep. of	16.6	9.4	23.4	4.8	16.1	16.4	3.7	3.1	1.7	–0.7	–0.6	–2.5
Côte d'Ivoire	–1.8	–0.8	–0.6	–1.6	–2.3	–4.3	–3.7	–1.9	–2.0	–1.9	–1.8	–1.8
Ethiopia	–3.8	–3.6	–2.9	–0.9	–1.3	–1.6	–2.3	–2.9	–2.3	–2.1	–2.1	–1.9
Georgia	3.4	0.8	–2.0	–6.5	–4.8	–0.9	–1.4	–2.1	–2.1	–1.7	–1.4	–1.3
Ghana	–4.7	–5.6	–8.5	–5.8	–7.2	–4.1	–5.6	–3.8	–2.8	–3.1	–2.6	–2.3
Haiti	–1.7	0.2	–2.8	–4.6	2.4	–3.7	–3.6	–4.7	–5.2	–4.9	–4.3	–4.6
Honduras	–1.9	–1.6	–1.7	–4.7	–2.9	–2.8	–3.4	–3.2	–2.7	–2.4	–2.2	–2.0
Lao P.D.R.	–2.9	–2.5	–3.7	–6.5	–4.2	–2.8	–2.5	–2.5	–2.5	–2.5	–2.4	–2.3
Madagascar	–0.5	–2.7	–1.1	–3.1	–0.4	–4.8	–2.9	–2.5	–2.6	–3.4	–3.5	–3.9
Mali	33.7	–0.2	2.1	0.5	1.8	0.1	7.8	8.7	1.8	1.8	1.8	1.8
Moldova	0.0	–0.2	–1.0	–6.3	–2.5	–2.4	–1.3	–1.1	–1.0	–0.9	–0.8	–0.8
Mozambique	–4.1	–2.9	–2.5	–5.5	–3.9	–5.0	–6.3	–7.0	–6.7	–5.8	–5.6	–5.1
Myanmar	–2.3	–2.0	–0.7	–3.5	–5.1	–5.9	–9.2	–8.6	–7.8	–7.9	–7.9	–7.9
Nepal	0.3	–0.8	–0.4	–2.6	–0.8	–1.0	1.9	–0.8	–1.0	–1.1	–1.4	–1.4
Nicaragua	0.7	1.2	–0.8	–1.9	–0.5	0.5	–1.4	–0.9	–0.9	–0.7	–0.9	–0.7
Senegal	–5.4	–3.8	–4.7	–4.9	–5.2	–6.3	–6.5	–4.7	–4.3	–3.9	–3.7	–3.5
Sudan	–2.7	–2.5	–0.1	–4.2	–0.4	–1.3	–4.0	–3.9	–2.7	–2.0	–2.0	–1.9
Tanzania	–4.5	–1.9	–2.6	–6.0	–6.5	–5.0	–4.8	–4.9	–4.2	–3.7	–3.2	–3.0
Uganda	0.6	0.1	–1.6	–1.9	–6.3	–4.8	–6.0	–2.6	–3.5	–3.0	–2.4	–1.6
Uzbekistan	5.4	5.2	10.2	2.8	4.9	9.0	3.0	2.0	1.8	1.2	1.1	0.9
Vietnam	0.3	–2.2	–0.5	–7.2	–3.1	–3.2	–4.6	–3.4	–3.2	–2.6	–2.6	–2.6
Yemen	1.2	–7.2	–4.5	–10.2	–4.0	–4.3	–5.7	–6.0	–6.3	–5.4	–5.2	–5.1
Zambia	20.2	–1.3	–0.9	–2.5	–3.1	–3.0	–5.8	–3.8	–3.5	–3.7	–3.7	–3.6
Average	2.5	–1.3	–0.3	–3.9	–2.0	–1.9	–3.4	–3.1	–2.9	–2.8	–2.7	–2.6
Oil producers	7.0	–0.9	1.3	–6.0	–1.8	–1.7	–4.0	–3.4	–3.5	–3.1	–3.1	–3.1
Asia	–0.3	–1.9	–0.6	–5.8	–3.4	–3.7	–5.0	–4.3	–4.0	–3.7	–3.6	–3.6
Latin America	0.8	0.6	0.6	–2.2	0.0	–0.9	–1.3	–1.6	–1.4	–1.2	–1.1	–1.1
Sub-Saharan Africa	5.5	–1.3	–0.9	–2.8	–2.3	–2.2	–3.5	–2.9	–2.9	–2.9	–2.7	–2.6
Others	0.4	–1.5	0.8	–4.1	–0.5	0.7	–1.9	–2.2	–1.9	–1.6	–1.6	–1.5
Primary Balance												
Armenia	–1.7	–2.0	–1.5	–7.2	–4.1	–1.9	–2.0	–1.5	–1.2	–0.8	–0.7	–0.7
Bolivia	7.0	5.1	6.3	2.2	3.1	2.1	2.1	1.4	1.4	1.5	1.4	1.4
Burkina Faso	16.7	–6.3	–3.9	–4.9	–4.2	–1.9	–3.5	–2.6	–2.4	–2.5	–2.1	–2.2
Cambodia	0.0	–0.5	0.5	–4.0	–2.5	–3.8	–3.0	–2.2	–1.7	–1.3	–0.9	–0.6
Cameroon	34.0	5.0	2.7	0.3	–0.8	–2.5	–2.9	–3.2	–3.8	–3.8	–3.6	–3.7
Chad	3.1	3.4	4.7	–9.3	–4.5	3.9	–0.1	–1.4	–0.6	–1.2	–1.2	–1.1
Congo, Dem. Rep. of the	1.0	1.4	0.9	2.9	7.1	0.9	–0.3	–1.3	–1.9	–1.7	–1.7	–1.5
Congo, Rep. of	21.1	11.9	25.8	6.1	17.0	16.5	3.5	3.0	1.3	–1.4	–1.3	–3.1
Côte d'Ivoire	0.0	1.0	1.2	0.0	–0.6	–2.3	–2.4	–0.4	–0.1	0.2	0.3	0.4
Ethiopia	–3.0	–2.9	–2.4	–0.6	–0.9	–1.2	–2.0	–2.5	–1.7	–1.4	–1.3	–1.1
Georgia	4.1	1.4	–1.3	–5.6	–3.8	0.3	–0.2	–1.0	–1.0	–0.6	–0.3	–0.2
Ghana	–2.6	–3.7	–6.2	–3.0	–4.1	–1.4	–2.6	–0.4	0.3	–0.6	–0.3	–0.1
Haiti	–1.2	1.3	–2.1	–3.8	3.0	–3.3	–3.2	–4.3	–4.9	–4.5	–3.9	–4.1
Honduras	–2.3	–2.2	–2.7	–5.5	–3.5	–3.1	–2.9	–2.7	–2.2	–2.0	–1.9	–1.6
Lao P.D.R.	–2.3	–2.0	–3.2	–6.1	–3.7	–2.2	–1.7	–1.6	–1.8	–1.8	–1.8	–1.8
Madagascar	1.9	–1.5	–0.3	–2.3	0.4	–4.0	–2.2	–1.6	–1.6	–2.3	–2.5	–3.0
Mali	34.2	0.2	2.5	0.9	2.2	0.8	8.4	9.4	2.5	2.5	2.5	2.4
Moldova	1.3	1.0	0.2	–5.0	–1.7	–1.6	–0.5	–0.4	–0.3	–0.4	–0.3	–0.3
Mozambique	–3.3	–2.3	–2.0	–5.0	–3.1	–4.0	–5.2	–5.8	–5.4	–4.4	–4.2	–3.7
Myanmar	–1.6	–1.3	0.0	–2.7	–4.0	–4.6	–7.7	–7.1	–6.3	–6.3	–6.4	–6.4
Nepal	0.9	–0.1	0.3	–1.9	0.0	–0.1	2.6	–0.1	–0.3	–0.3	–0.5	–0.5
Nicaragua	2.5	2.5	0.3	–0.6	0.8	1.9	0.2	0.6	0.6	0.7	0.4	1.0
Senegal	–4.5	–3.2	–4.0	–4.2	–4.3	–4.7	–5.0	–3.1	–2.7	–2.4	–2.2	–1.9
Sudan	–1.5	–1.5	0.9	–3.1	0.7	0.0	–2.8	–2.2	–1.0	–0.3	–0.4	–0.3
Tanzania	–3.3	–0.7	–1.6	–5.1	–5.5	–3.9	–3.6	–3.5	–2.8	–2.3	–1.8	–1.6
Uganda	2.0	1.3	–0.4	–0.7	–5.2	–3.7	–4.5	–1.2	–2.2	–1.7	–1.1	–0.3
Uzbekistan	5.6	5.3	10.3	2.9	5.0	9.1	3.1	2.1	1.9	1.3	1.1	1.0
Vietnam	1.1	–1.1	0.6	–5.9	–1.8	–1.8	–3.0	–2.1	–1.9	–1.5	–1.6	–1.6
Yemen	3.5	–4.9	–2.1	–7.7	–1.7	–0.1	–1.4	–2.8	–2.9	–2.0	–2.1	–2.1
Zambia	22.1	0.4	0.8	–0.9	–1.3	–1.8	–4.1	–1.9	–1.5	–1.8	–1.7	–1.6
Average	3.7	–0.2	0.8	–2.8	–0.9	–0.6	–2.1	–1.8	–1.6	–1.5	–1.4	–1.4
Oil producers	8.3	0.3	2.5	–4.8	–0.5	–0.1	–2.2	–2.0	–2.1	–1.8	–1.8	–2.0
Asia	0.5	–1.0	0.3	–4.8	–2.3	–2.5	–3.6	–3.1	–2.8	–2.5	–2.5	–2.5
Latin America	2.0	1.7	1.3	–1.5	0.7	–0.2	–0.3	–0.7	–0.6	–0.4	–0.4	–0.3
Sub-Saharan Africa	7.1	0.1	0.4	–1.5	–1.1	–1.0	–2.2	–1.5	–1.6	–1.6	–1.4	–1.3
Others	1.5	–0.5	1.8	–3.0	0.6	2.2	–0.4	–0.8	–0.5	–0.2	–0.3	–0.3

Sources: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: Primary balance is defined as the overall balance excluding net interest payments. For country-specific details, see "Data and Conventions" in text and Table SA.3.

Statistical Table 10. Low-Income Countries: General Government Revenue and Expenditure

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenue												
Armenia	18.0	20.1	20.5	20.9	21.0	21.9	21.4	21.9	22.1	22.4	22.6	22.7
Bolivia	34.3	34.4	38.9	35.8	33.2	36.2	36.6	35.7	35.4	35.6	35.6	35.7
Burkina Faso	40.8	20.1	16.9	19.6	20.1	21.8	23.9	23.1	23.5	23.6	24.0	23.7
Cambodia	12.8	13.7	15.9	15.8	17.0	17.1	17.3	16.8	16.9	16.9	16.9	16.9
Cameroon	47.6	20.3	20.8	18.4	17.5	18.9	18.7	18.7	18.2	18.0	18.0	18.0
Chad	19.1	24.2	27.9	19.6	25.3	32.3	26.4	24.1	24.5	23.5	22.8	22.2
Congo, Dem. Rep. of the	19.5	17.0	21.1	24.3	33.0	27.3	30.8	28.5	27.9	28.1	28.1	28.2
Congo, Rep. of	44.4	39.3	47.0	29.5	37.5	42.5	42.8	41.9	41.5	38.6	37.2	35.2
Côte d'Ivoire	19.0	19.7	20.6	19.5	19.7	15.2	19.3	20.9	21.1	21.5	21.7	21.8
Ethiopia	18.4	17.1	16.0	16.3	17.3	16.7	15.5	14.6	14.8	14.8	14.8	14.8
Georgia	26.7	29.3	30.7	29.3	28.3	28.4	28.2	27.7	27.4	27.1	26.9	27.0
Ghana	17.1	17.5	16.0	16.5	16.8	19.5	20.8	19.8	21.0	21.1	21.5	20.7
Haiti	13.5	15.8	15.1	17.9	28.4	29.8	27.9	27.0	27.0	25.4	23.9	22.2
Honduras	24.1	24.4	26.4	25.1	24.8	23.5	23.5	24.0	24.1	23.5	22.9	22.2
Lao P.D.R.	14.6	15.8	16.0	17.9	18.1	18.4	19.5	19.5	19.4	19.4	19.3	19.1
Madagascar	21.0	16.0	17.6	12.3	12.3	11.3	12.0	13.2	13.9	12.4	12.2	12.0
Mali	58.6	23.9	21.4	24.2	22.6	23.3	22.9	23.2	23.6	23.6	23.6	23.6
Moldova	39.9	41.7	40.6	38.9	38.3	36.7	38.1	37.9	37.4	37.2	37.0	37.0
Mozambique	22.9	25.2	25.3	27.1	29.5	30.0	30.1	28.3	28.6	28.9	29.2	29.5
Myanmar	7.7	7.3	7.2	6.3	6.9	5.7	6.1	6.7	7.6	7.5	7.5	7.5
Nepal	13.0	14.2	14.9	16.8	18.0	17.7	18.2	17.7	18.0	18.0	18.1	18.2
Nicaragua	32.3	33.3	32.2	32.6	32.8	34.6	34.2	33.7	33.8	33.8	33.6	33.9
Senegal	21.2	23.6	21.6	21.7	22.0	22.4	23.6	23.4	23.5	23.5	23.2	23.4
Sudan	22.1	22.9	24.0	16.5	19.3	18.7	12.9	14.1	14.4	13.9	13.6	13.5
Tanzania	18.8	21.3	21.9	21.0	21.0	22.1	22.7	22.5	22.2	22.1	22.3	22.4
Uganda	18.3	17.6	15.5	15.3	15.7	14.8	15.0	15.6	15.6	15.7	15.9	16.0
Uzbekistan	34.4	35.6	40.7	36.7	37.0	40.2	38.0	37.1	36.9	36.6	36.4	36.3
Vietnam	28.7	28.5	28.9	27.3	29.6	27.7	26.7	26.9	26.4	26.4	26.4	26.3
Yemen	38.6	33.2	36.7	25.0	26.0	24.6	29.9	25.8	24.0	22.7	21.6	21.0
Zambia	43.6	23.0	23.0	18.9	19.6	22.5	20.2	21.5	22.5	23.3	24.0	24.2
Average	26.4	23.5	24.4	21.9	23.1	23.4	23.2	23.1	23.0	22.9	22.8	22.7
Oil producers	34.0	28.4	30.3	25.5	27.8	27.3	27.3	26.6	25.9	25.5	25.2	24.9
Asia	22.3	21.9	21.9	20.6	21.8	20.5	20.4	20.6	20.6	20.6	20.6	20.6
Latin America	27.5	28.0	30.3	29.3	29.8	31.2	31.2	30.9	30.8	30.5	30.0	29.5
Sub-Saharan Africa	27.2	20.8	21.1	19.4	20.8	21.7	21.7	21.3	21.5	21.5	21.6	21.4
Others	28.7	28.4	30.9	25.2	26.3	27.1	26.9	26.8	26.6	26.2	25.9	25.8
Expenditure												
Armenia	20.0	22.4	22.2	28.6	25.9	24.7	24.5	24.5	24.4	24.4	24.6	24.7
Bolivia	29.8	31.8	34.6	35.2	31.5	35.4	35.8	35.5	35.0	35.1	35.1	35.1
Burkina Faso	24.6	26.8	21.1	24.9	24.9	24.3	27.8	26.1	26.3	26.4	26.5	26.2
Cambodia	13.0	14.5	15.6	20.0	19.9	21.2	20.6	19.2	18.9	18.5	18.1	17.9
Cameroon	14.5	15.7	18.5	18.4	18.6	21.7	21.9	22.4	22.5	22.4	22.3	22.4
Chad	16.5	21.1	23.4	29.5	30.5	29.2	27.2	25.7	25.4	25.0	24.3	23.7
Congo, Dem. Rep. of the	23.1	20.8	24.9	26.9	28.1	29.1	33.4	31.8	31.6	31.6	31.4	31.1
Congo, Rep. of	27.8	29.9	23.6	24.7	21.4	26.1	39.1	38.8	39.8	39.3	37.8	37.7
Côte d'Ivoire	20.8	20.5	21.1	21.1	22.0	19.4	23.1	22.8	23.1	23.5	23.5	23.6
Ethiopia	22.2	20.7	18.9	17.2	18.6	18.4	17.8	17.5	17.0	16.9	16.9	16.7
Georgia	23.3	28.4	32.7	35.8	33.1	29.2	29.6	29.9	29.5	28.9	28.3	28.2
Ghana	21.8	23.1	24.5	22.3	24.0	23.6	26.3	23.6	23.7	24.2	24.1	23.0
Haiti	15.2	15.6	17.9	22.5	26.0	33.5	31.5	31.7	32.2	30.3	28.2	26.8
Honduras	26.0	26.0	28.1	29.7	27.7	26.3	26.9	27.2	26.8	25.9	25.1	24.2
Lao P.D.R.	17.5	18.3	19.7	24.4	22.3	21.2	22.0	22.0	22.0	21.9	21.7	21.4
Madagascar	21.5	18.7	18.6	15.3	12.7	16.0	14.8	15.7	16.6	15.8	15.6	15.9
Mali	24.9	24.1	19.3	23.7	20.8	23.2	15.1	14.5	21.8	21.8	21.8	21.8
Moldova	39.8	42.0	41.6	45.2	40.8	39.1	39.4	39.1	38.4	38.1	37.9	37.7
Mozambique	27.0	28.1	27.8	32.6	33.4	35.1	36.4	35.3	35.3	34.6	34.8	34.5
Myanmar	10.0	9.3	7.9	9.8	12.0	11.6	15.3	15.3	15.3	15.4	15.4	15.4
Nepal	12.7	15.0	15.4	19.4	18.8	18.6	16.3	18.6	19.0	19.2	19.5	19.6
Nicaragua	31.7	32.1	33.0	34.5	33.4	34.1	35.6	34.6	34.6	34.5	34.5	34.7
Senegal	26.6	27.5	26.3	26.6	27.2	28.6	30.1	28.1	27.7	27.3	27.0	26.8
Sudan	24.8	25.4	24.1	20.7	19.6	20.0	16.9	18.0	17.1	15.8	15.6	15.4
Tanzania	23.2	23.1	24.5	27.0	27.5	27.1	27.5	27.4	26.4	25.8	25.5	25.4
Uganda	17.8	17.5	17.1	17.2	21.9	19.6	21.0	18.1	19.1	18.6	18.2	17.6
Uzbekistan	29.0	30.4	30.5	33.9	32.1	31.2	34.9	35.2	35.0	35.4	35.4	35.4
Vietnam	28.4	30.6	29.4	34.5	32.7	30.9	31.3	30.3	29.6	29.0	29.1	28.9
Yemen	37.4	40.3	41.2	35.2	30.1	28.9	35.6	31.8	30.3	28.1	26.8	26.1
Zambia	23.5	24.3	23.9	21.3	22.6	25.5	26.0	25.3	26.0	27.0	27.6	27.8
Average	23.9	24.9	24.7	25.8	25.1	25.3	26.7	26.1	26.0	25.6	25.5	25.3
Oil producers	27.0	29.3	29.1	31.5	29.6	29.0	31.3	30.0	29.4	28.6	28.3	28.1
Asia	22.5	23.8	22.5	26.4	25.2	24.2	25.4	24.9	24.6	24.2	24.3	24.2
Latin America	26.7	27.4	29.8	31.5	29.8	32.2	32.5	32.4	32.2	31.7	31.2	30.6
Sub-Saharan Africa	21.8	22.1	22.0	22.2	23.1	23.9	25.2	24.2	24.4	24.4	24.3	24.0
Others	28.4	29.9	30.1	29.3	26.7	26.4	28.8	29.0	28.5	27.8	27.5	27.3

Sources: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text and Table SA.3.

Statistical Table 11. Low-Income Countries: General Government Gross Debt and Net Debt

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Gross Debt												
Armenia	16.2	14.2	14.6	34.1	33.3	35.1	34.2	31.3	29.3	27.5	26.4	25.0
Bolivia	55.2	40.5	37.2	40.0	38.5	34.7	34.8	33.7	32.6	31.6	30.6	29.4
Burkina Faso	22.6	22.0	23.6	26.1	27.1	29.3	28.1	26.5	25.4	24.7	24.2	24.4
Cambodia	32.7	30.6	27.5	28.9	29.1	28.5	28.5	28.1	28.3	27.8	27.1	26.2
Cameroon	15.9	12.0	9.5	10.6	12.1	13.7	17.8	20.5	23.9	27.0	29.7	32.2
Chad	29.6	26.0	23.6	30.5	25.8	27.0	23.4	24.2	24.9	26.3	27.6	28.8
Congo, Dem. Rep. of the	149.0	126.1	133.1	136.3	35.1	29.9	32.3	34.7	36.7	37.3	37.4	36.5
Congo, Rep. of	98.8	98.0	68.1	57.2	23.9	22.5	23.0	21.6	19.6	16.6	15.0	13.2
Côte d'Ivoire	84.2	75.6	75.3	66.5	66.4	67.9	62.6	61.6	60.3	56.4	52.3	48.6
Ethiopia	39.0	36.8	30.5	25.1	27.6	25.9	22.2	23.2	23.8	23.9	24.1	24.2
Georgia	27.3	21.5	27.6	37.3	39.2	33.9	33.8	32.1	31.6	30.1	28.6	26.8
Ghana	26.2	31.0	33.6	36.2	46.3	43.4	44.9	41.1	38.0	36.9	35.5	36.1
Haiti	39.0	34.8	37.8	27.7	17.3	11.7	16.6	20.1	23.5	26.2	28.6	30.1
Honduras	31.7	19.7	19.8	23.9	26.3	28.1	31.1	32.3	32.3	32.1	31.4	30.3
Lao P.D.R.	68.8	63.3	59.0	63.5	59.4	53.8	52.5	50.7	49.6	48.6	47.4	46.0
Madagascar	45.5	44.5	45.2	62.2	64.4	59.1	58.7	57.2	55.5	53.0	49.1	44.1
Mali	20.3	21.7	21.6	24.2	29.5	30.6	30.1	27.9	28.2	28.8	29.5	27.2
Moldova	30.0	24.0	18.8	28.6	26.2	23.2	22.4	20.7	19.0	17.5	16.1	15.7
Mozambique	53.6	41.9	42.1	41.6	41.1	36.8	42.0	46.2	48.9	49.2	49.5	49.1
Myanmar	72.1	66.5	54.1	55.5	53.0	53.5	43.5	40.3	38.6	37.6	36.8	36.1
Nepal	49.5	42.8	41.2	39.3	35.4	32.9	28.3	27.4	26.6	26.4	26.4	26.5
Nicaragua	114.9	84.2	76.6	82.1	79.9	70.7	63.5	58.3	54.8	50.9	47.5	45.0
Senegal	21.8	23.5	23.9	34.2	35.7	40.8	46.1	47.6	48.3	48.5	48.6	48.5
Sudan	80.8	76.7	69.4	72.5	74.0	74.1	112.1	116.3	115.1	112.5	110.2	106.7
Tanzania	49.8	36.3	36.0	39.0	42.7	45.4	46.8	48.8	50.3	50.3	50.1	49.4
Uganda	72.5	23.6	22.1	22.2	27.0	33.3	36.2	38.9	41.9	44.0	45.2	44.1
Uzbekistan	21.3	15.8	12.7	11.0	10.0	9.1	8.8	8.6	8.6	8.7	8.8	9.0
Vietnam	41.8	44.6	42.9	51.2	54.0	50.4	50.4	50.6	50.8	50.5	50.2	49.9
Yemen	40.8	40.4	36.4	49.8	40.9	42.4	44.9	45.1	47.4	48.8	50.3	51.5
Zambia	29.8	26.7	23.5	26.9	25.8	26.0	28.0	28.5	28.6	28.8	29.0	29.1
Average	49.3	44.0	41.1	44.1	42.8	41.1	42.5	41.8	41.5	41.0	40.5	39.9
Oil producers	40.8	41.2	37.8	44.7	43.0	41.5	43.0	43.8	44.7	44.9	45.3	45.5
Asia	47.4	47.9	44.6	50.1	50.8	48.4	45.7	45.1	44.7	44.2	43.8	43.3
Latin America	54.6	39.3	37.5	39.0	37.4	34.3	35.0	34.7	34.2	33.5	32.7	31.7
Sub-Saharan Africa	49.2	41.5	39.5	39.7	35.9	35.1	36.2	36.6	37.0	36.8	36.4	36.0
Others	49.7	45.8	40.9	46.3	45.6	43.5	51.5	48.9	47.8	46.8	46.0	45.0
Net Debt												
Armenia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Bolivia	41.9	27.3	20.6	23.1	18.4	14.4	12.2	11.0	9.8	8.4	7.2	6.1
Burkina Faso	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Cambodia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Cameroon	15.9	12.0	9.5	10.6	12.1	13.7	17.8	20.5	23.9	27.0	29.7	32.2
Chad	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Congo, Dem. Rep. of the	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Congo, Rep. of	98.8	98.0	68.1	57.2	23.9	22.5	23.0	21.6	19.6	16.6	15.0	13.2
Côte d'Ivoire	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Ethiopia	29.3	28.9	25.6	21.0	23.5	20.5	18.4	20.0	21.1	21.6	22.1	22.4
Georgia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Ghana	21.9	23.3	30.1	32.7	43.0	39.5	42.5	38.6	34.7	33.3	31.4	31.8
Haiti	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Honduras	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Lao P.D.R.	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Madagascar	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mali	14.9	15.8	15.1	14.1	20.1	22.8	24.8	22.9	23.5	24.4	25.3	23.2
Moldova	30.0	24.0	18.8	28.6	26.2	23.2	22.4	20.7	19.0	17.5	16.1	15.7
Mozambique	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Myanmar	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Nepal	49.5	42.8	41.2	39.3	35.4	32.9	28.3	27.4	26.6	26.4	26.4	26.5
Nicaragua	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Senegal	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Sudan	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Tanzania	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Uganda	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Uzbekistan	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Vietnam	35.2	36.7	36.1	47.7	51.1	47.7	48.1	48.6	49.0	48.8	48.7	48.6
Yemen	33.0	35.2	31.4	43.7	36.8	39.1	41.8	42.5	45.1	46.7	48.4	49.8
Zambia	25.8	21.4	19.9	22.0	22.1	22.3	24.6	25.6	26.4	27.2	27.9	28.4
Average	33.6	32.2	30.3	35.1	35.9	34.1	34.8	34.9	35.1	35.2	35.2	35.3
Oil producers	36.2	36.5	33.7	42.1	41.4	40.0	41.9	42.8	43.8	44.2	44.6	44.9
Asia	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Latin America	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Sub-Saharan Africa	29.5	28.0	26.3	24.3	26.1	25.1	26.4	26.1	26.0	26.2	26.3	26.7
Others	32.5	33.3	29.1	41.0	35.2	36.4	38.5	38.9	40.7	41.7	42.7	43.6

Sources: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text and Table SA.3.

Statistical Table 12a. Advanced Economies: Structural Fiscal Indicators

(Percent of GDP, except where otherwise indicated)

	Pension spending change, 2011–30[1]	Net present value of pension spending change, 2011–50[1,2]	Health care spending change, 2011–30[3]	Net present value of health care spending change, 2011–50[2,3]	Gross financing needs, 2012[4]	Average term to maturity, 2012 (years)[5]	Debt-to-average maturity, 2012	Projected interest rate–growth differential, 2012–17 (percent)	Precrisis overall balance, 2000–07	Projected overall balance, 2012–17	Nonresident holding of marketable central government debt, 2012 (percent of total)[6]	Nonresident holding of general government debt, 2012 (percent of total)[7]
Australia	0.8	23.7	2.1	67.0	5.3	5.1	5.3	–0.9	1.6	–0.6	76.1	51.2
Austria	0.9	20.3	3.2	104.6	8.5	7.7	9.7	0.3	–1.7	–1.6	71.2	83.0
Belgium	2.8	73.3	2.0	64.3	19.4	6.7	14.7	0.1	–0.3	–1.2	. . .	57.9
Canada	1.9	43.3	2.0	61.1	16.5	5.1	17.2	0.0	1.1	–2.0	20.7	20.9
Czech Republic	0.0	21.0	0.6	17.5	12.3	5.5	7.9	0.0	–3.9	–2.7	27.8	33.9
Denmark	–0.9	–29.4	0.8	21.5	11.7	7.6	6.2	–0.1	2.3	–1.8	42.9	41.4
Estonia	–2.5	–67.6	1.1	37.3	. . .	10.6	0.8	–1.9	1.5	–0.2	. . .	52.4
Finland	2.1	50.0	2.5	76.4	8.6	6.0	8.7	–1.2	4.1	–0.3	95.3	90.6
France	0.1	–0.7	1.5	43.8	18.5	6.9	13.0	0.0	–2.8	–2.4	62.9	64.1
Germany	1.1	30.4	0.9	28.1	8.5	6.5	12.9	–0.1	–2.2	–0.2	57.3	61.7
Greece	0.3	21.0	3.2	106.9	28.9	11.1	15.3	3.5	–5.6	–3.5	. . .	55.9
Hong Kong SAR	. . .	. . .	. . .	. . .	. . .	. . .	. . .	–6.3	0.0	2.8	. . .	1.7
Iceland	0.4	6.9	3.2	105.0	10.2	7.4	12.7	0.5	1.5	–0.3	28.1	. . .
Ireland	0.8	35.7	0.7	23.2	15.9	6.4	18.3	1.0	1.4	–4.6	76.5	60.5
Israel	. . .	. . .	. . .	. . .	. . .	5.3	13.8	0.6	–5.0	–2.8	11.0	17.1
Italy	–1.6	–33.7	0.6	18.8	30.1	6.6	19.1	3.0	–3.0	–1.6	43.1	35.2
Japan	–0.2	6.5	1.0	27.5	59.4	6.0	39.1	–0.5	–5.8	–7.4	. . .	7.5
Korea	4.5	152.5	3.2	111.9	1.3	5.3	6.3	–2.6	2.1	2.7	. . .	14.4
Netherlands	2.4	58.5	2.6	79.3	14.1	6.8	10.1	0.4	–0.6	–3.4	. . .	56.0
New Zealand	2.3	66.3	3.0	95.9	9.0	4.6	8.4	0.1	3.1	–1.1	36.4	. . .
Norway	2.3	63.7	1.7	52.0	–9.3	2.4	20.4	–3.4	13.4	10.7	37.8	25.6
Portugal	0.7	21.4	3.5	116.5	27.4	5.7	20.9	2.6	–4.1	–2.9	. . .	54.2
Singapore[8]	. . .	. . .	. . .	. . .	. . .	3.3	32.0	–5.1	7.1	4.6	. . .	. . .
Slovak Republic	0.7	25.5	1.2	37.1	12.3	5.1	9.1	–1.2	–5.0	–3.3	35.2	41.1
Slovenia	2.9	101.6	0.7	22.2	7.9	6.1	8.7	1.2	–1.0	–3.0	60.9	50.3
Spain	0.5	33.6	1.6	51.5	22.6	5.7	15.8	2.9	0.3	–4.5	43.8	28.0
Sweden	–1.0	–30.8	0.4	11.7	4.7	5.5	6.8	–1.2	1.3	1.0	43.3	45.8
Switzerland	2.2	58.4	3.9	127.7	2.8	7.8	6.0	–0.4	0.2	0.7	. . .	10.8
United Kingdom	0.4	12.7	3.3	113.3	15.1	14.4	6.2	–0.7	–1.7	–5.0	30.7	31.1
United States	1.7	37.9	5.1	164.5	26.3	5.4	20.0	–1.4	–3.1	–5.8	47.9	30.2
Average	1.1	29.5	3.0	97.3	24.7	6.3	18.7	–0.7	–2.1	–3.8	48.2	33.5
G-7	0.9	23.9	3.2	103.7	28.7	6.4	20.9	–0.7	–3.0	–4.8	46.8	31.8
G-20 advanced	1.1	28.6	3.2	102.5	26.8	6.3	19.8	–0.8	–2.7	–4.4	48.4	32.1

Sources: Bloomberg L.P.; national authorities; Haver Analytics; Organisation for Economic Co-operation and Development, OECD.Stat; Joint External Debt Hub; and IMF staff estimates and projections.

Note: All country averages are weighted by nominal GDP converted to U.S. dollars at average market exchange rates in the years indicated and based on data availability.

[1] Pension projections are based on IMF (2011a). Projections do not take into account reforms enacted after December 2011.

[2] For net present value calculations, a discount rate of 1 percent a year is used in excess of GDP growth for each country.

[3] *Health care spending* projections are based on IMF (2010b). Projections do not take into account recent reforms (or plans for reforms) in the following countries: France, Germany, Greece, Ireland, Italy, Portugal, Spain, and the United Kingdom.

[4] *Gross financing needs* are defined as the projected overall balance and maturing government debt in 2012; for more details on the assumptions, see note 1 in Table 8. Data are from Bloomberg and IMF staff projections.

[5] For most countries, *average term to maturity* data refer to central government securities; source is Bloomberg.

[6] *Nonresident holding of central government debt* (marketable securities) data are from national authorities and the OECD, OECD.Stat for 2012:Q1 or latest available. General government for Germany, Greece, Italy, Portugal, and Spain.

[7] *Nonresident holding of general government debt* data are 2012:Q1 or latest available from the Joint External Debt Hub (JEDH), Quarterly External Debt Statistics, which include marketable and nonmarketable debt. For some countries, tradable instruments in the JEDH are reported at market value. External debt in U.S. dollars is converted to local currency, then taken as a percentage of 2012 gross general government debt .

[8] Singapore's general government debt is covered by financial assets and issued to develop the bond market.

Statistical Table 12b. Emerging Markets: Structural Fiscal Indicators

(Percent of GDP, except where otherwise indicated)

	Pension spending change, 2011–30[1]	Net present value of pension spending change, 2011–50[1,2]	Health care spending change, 2011–30[3]	Net present value of health care spending change, 2011–50[2,3]	Gross financing needs, 2012[4]	Average term to maturity, 2012 (years)[5]	Debt-to-average maturity, 2012	Projected interest rate–growth differential, 2012–17 (percent)	Precrisis overall balance, 2000–07	Projected overall balance, 2012–17	Nonresident holding of general government debt, 2012 (percent of total)[6]
Argentina	1.5	55.8	1.5	51.8	8.1	14.1	3.2	–9.2	–4.7	–2.4	32.5
Brazil	1.3	71.0	1.6	52.0	17.9	5.1	12.6	1.4	–3.5	–1.9	3.8
Bulgaria	–1.2	–19.1	1.3	44.6	2.7	4.0	4.5	0.3	1.1	–0.1	40.2
Chile	–1.9	–43.6	1.5	50.5	1.2	7.8	1.5	0.2	2.4	–0.3	15.7
China	3.3	94.7	0.8	27.8	8.2	8.4	2.6	–7.2	–1.8	–0.3	. . .
Colombia	. . .	. . .	. . .	. . .	5.4	7.1	4.6	1.9	–1.8	–1.1	28.1
Egypt	4.1	85.2	. . .	. . .	. . .	1.7	46.8	1.9	–8.6	–6.5	12.5
Hungary	–3.0	–78.9	1.6	51.9	16.7	5.0	14.8	1.7	–6.6	–3.6	67.5
India	0.0	–1.9	0.4	12.6	13.9	9.1	7.5	–5.9	–8.3	–8.9	6.2
Indonesia	0.4	13.1	0.5	15.6	2.9	10.2	2.3	–6.6	–1.0	–1.9	52.6
Jordan	3.2	115.8	. . .	. . .	7.2	1.6	47.2	–3.7	–3.5	–4.3	25.1
Kazakhstan	. . .	. . .	. . .	. . .	–2.3	7.5	1.7	–5.9	4.6	3.5	18.3
Kenya	. . .	. . .	. . .	. . .	. . .	5.5	8.6	–6.3	–1.9	–3.7	0.0
Latvia	1.0	21.0	1.0	34.7	5.6	4.3	8.8	–1.2	–1.4	–1.3	93.4
Lithuania	0.8	24.7	1.5	49.4	9.0	4.8	8.4	–1.6	–1.8	–2.8	89.3
Malaysia	1.9	60.4	0.8	25.8	7.3	5.5	9.7	–3.2	–3.7	–4.5	3.3
Mexico	1.3	16.7	1.1	37.7	11.2	7.8	5.5	–0.2	–2.2	–2.1	30.0
Morocco	. . .	. . .	. . .	. . .	11.6	4.9	11.9	–3.0	–3.5	–4.3	21.0
Nigeria	. . .	. . .	. . .	. . .	. . .	3.7	4.0	–2.1	3.9	1.6	. . .
Pakistan	0.1	6.1	0.2	8.3	30.2	2.5	25.2	–6.1	–3.2	–5.9	. . .
Peru	. . .	. . .	. . .	. . .	–0.9	14.7	1.3	–3.0	–0.4	1.3	50.0
Philippines	0.9	31.2	0.5	15.6	9.9	10.2	4.1	–1.5	–2.4	–1.3	. . .
Poland	–2.1	–61.3	1.8	58.7	11.5	5.2	10.6	–0.2	–4.3	–2.6	50.1
Romania	1.5	45.8	1.3	43.0	10.9	4.7	7.4	–0.7	–2.6	–1.6	53.7
Russian Federation	3.1	104.0	1.1	36.7	0.7	7.2	1.5	–1.8	4.6	–1.3	16.9
Saudi Arabia	2.7	86.7	1.0	35.5	. . .	11.4	0.5	1.5	11.2	7.8	. . .
South Africa	0.9	25.9	1.1	36.5	6.4	9.1	4.6	–1.7	–0.6	–3.5	28.1
Thailand	0.7	19.6	1.1	36.5	9.3	6.5	6.8	–5.5	–0.4	–3.0	7.5
Turkey	4.4	150.1	1.3	44.0	9.4	4.1	9.2	0.6	–5.0	–1.6	29.0
Ukraine	1.7	84.6	1.2	38.8	10.4	3.9	9.1	–1.9	–2.4	–2.9	37.7
Average	2.1	66.4	1.0	31.7	9.2	7.7	5.7	–4.1	–1.8	–1.7	21.1
G-20 advanced	2.7	87.0	1.0	32.9	8.5	7.8	4.5	–4.6	–0.8	–0.7	19.6

Sources: Bloomberg L.P.; Joint External Debt Hub; and IMF staff estimates and projections.

Note: All country averages are weighted by nominal GDP converted to U.S. dollars at average market exchange rates in the years indicated and based on data availability.

[1] Pension projections are based on IMF (2011a). Projections do not take into account reforms enacted after December 2011.

[2] For net present value calculations, a discount rate of 1 percent a year is used in excess of GDP growth for each country.

[3] *Health care spending* projections are based on IMF (2010b).

[4] *Gross financing needs* are defined as the projected overall balance and maturing government debt in 2012. Data are from IMF staff projections. See Table 9.

[5] *Average term to maturity* data refer to central government securities; source is Bloomberg.

[6] *Nonresident holding of general government debt* data are 2012:Q1 or latest available from the Joint External Debt Hub (JEDH), Quarterly External Debt Statistics, which include marketable and nonmarketable debt. For some countries, tradable instruments in the JEDH are reported at market value. External debt in U.S. dollars is converted to local currency, then taken as a percentage of 2012 gross general government debt .

Statistical Table 13a. Advanced Economies: Illustrative Adjustment Needs

(Percent of GDP)

	2011		Age-related spending, 2011–30[3]	Illustrative Fiscal Adjustment Strategy to Achieve Debt Target in 2030		
	Gross debt[1]	CAPB[2]		CAPB in 2020–30[4]	Required adjustment between 2011 and 2020	Required adjustment and age-related spending, 2011–30
	(1)	(2)	(3)	(4)	(4) – (2)	(4) + (3) – (2)
Australia	8.2	–3.9	2.9	0.4	4.3	7.2
Austria	72.3	0.4	4.2	2.1	1.8	5.9
Belgium	97.8	–0.2	4.8	5.0	5.2	10.1
Canada	33.1	–3.3	3.9	1.1	4.3	8.2
Czech Republic	40.5	–1.1	0.6	1.0	2.1	2.7
Denmark	44.1	1.5	–0.1	0.8	–0.7	–0.8
Finland	49.1	2.3	4.6	0.9	–1.4	3.2
France	86.0	–1.3	1.6	4.5	5.8	7.4
Germany	80.6	1.6	2.0	2.6	0.9	3.0
Greece	165.4	–1.5	3.4	9.0	10.5	13.9
Iceland	99.2	0.3	3.5	3.5	3.1	6.7
Ireland	106.5	–4.6	1.5	6.8	11.4	12.9
Israel	74.1	0.3	. . .	2.3	2.0	. . .
Italy	120.1	2.0	–1.0	7.6	5.6	4.6
Japan	126.4	–7.7	0.8	12.6	20.3	21.1
Korea	34.2	3.0	7.8	–0.4	–3.4	4.3
Netherlands	65.2	–2.3	5.0	2.1	4.5	9.5
New Zealand	8.3	–4.9	5.3	1.0	6.0	11.3
Portugal	107.8	0.4	4.2	6.6	6.2	10.4
Slovak Republic	43.3	–3.1	1.8	1.0	4.1	5.9
Slovenia	46.9	–2.3	3.6	1.4	3.7	7.3
Spain	69.1	–5.1	2.1	5.5	10.6	12.7
Sweden	37.9	1.4	–0.6	0.3	–1.0	–1.6
Switzerland	46.8	1.1	6.1	0.0	–1.1	5.0
United Kingdom	81.8	–3.7	3.8	5.7	9.4	13.1
United States	102.9	–5.3	6.8	7.5	12.8	19.6
Average	89.7	–3.4	3.9	6.1	9.5	13.3
G-20 advanced	93.5	–3.7	4.0	6.6	10.4	14.4

Sources: IMF staff estimates and projections.

Note: The cyclically adjusted primary balance (CAPB) required to reduce debt and its comparison to the 2011 CAPB is a standardized calculation, and policy recommendations for individual countries would require a case-by-case assessment. For countries with debt above 60 percent of GDP in 2011, calculations show the CAPB required to reduce debt to 60 percent of GDP by 2030 (no shading). For countries with debt to GDP below 60 percent of GDP in 2011, calculations show the CAPB required to stabilize debt at the end-2011 level by 2030 (shaded entries).

[1] Gross general government debt, except in the cases of Australia, Canada, Japan, and New Zealand, for which net debt ratios are used.

[2] CAPB is reported in percent of nominal GDP (in contrast to the conventional definition in percent of potential GDP). CAPB is defined as cyclically adjusted balance (CAB) plus gross interest expenditure (this differs from the definition in Statistical Table 2), except in the cases of Australia, Canada, Japan, and New Zealand, for which CAPB is defined as CAB plus net interest payments (as in Statistical Table 2). Structural balances are used instead of CAB for Sweden and the United States. For details, see "Data and Conventions" in text.

[3] See Statistical Table 12a.

[4] CAPB needed to bring the debt ratio down to 60 percent in 2030 (no shading, "higher debt"), or to stabilize debt at the end-2012 level by 2030, if the respective debt-to-GDP ratio is less than 60 percent (shaded entries, "lower debt"). For Japan, a net debt target of 80 percent of GDP is assumed, which corresponds to a target of 200 percent of GDP for gross debt. The CAPB is assumed to change in line with *Fiscal Monitor* projections in 2011–13 and adjust gradually from 2014 until 2020 (except in the cases of Ireland and Portugal, for which adjustment starts in 2015); thereafter it is maintained constant until 2030. Calculations take into account the endogenous (dynamic) impact of debt levels on the interest rate–growth differential ($r - g$). Initial country-specific interest rate–growth differentials (based on *Fiscal Monitor* projections) converge over time to model-based country-specific levels with the speed of adjustment derived from empirical estimates of the effect of public debt on the interest rate (Poghosyan, 2012) and potential growth rates based on *Fiscal Monitor* projections up to 2017 and model-based growth rates based on empirical estimates of the effect of public debt on economic growth (Kumar and Woo, 2010) after 2017. The assumption on $r - g$ for countries with IMF/EU-supported programs (Greece, Ireland, Portugal) is drawn from their debt sustainability analyses. From 2016 onward, in the cases of Ireland and Portugal, $r - g$ is assumed to follow the endogenous adjustment path determined by debt levels.

Statistical Table 13b. Emerging Markets: Illustrative Adjustment Needs

(Percent of GDP)

	2011		Age-related spending, 2011–30[3]	Illustrative Fiscal Adjustment Strategy to Achieve Debt Target in 2030		
	Gross debt[1]	CAPB[2]		CAPB in 2020–30[4]	Required adjustment between 2011 and 2020	Required adjustment and age-related spending, 2011–30
	(1)	(2)	(3)	(4)	(4) – (2)	(4) + (3) – (2)
Argentina	44.9	–1.1	3.0	0.7	1.8	4.8
Brazil	64.9	4.1	2.9	1.1	–3.0	–0.1
Bulgaria	15.5	–0.3	0.2	0.1	0.4	0.6
Chile	11.3	–0.5	–0.4	0.1	0.6	0.3
China	25.8	0.5	4.1	–0.3	–0.8	3.4
Colombia	34.2	1.0	. . .	–0.3	–1.3	. . .
Hungary	80.6	–2.4	–1.4	2.9	5.3	3.9
India	67.0	–5.4	0.4	3.6	9.0	9.4
Indonesia	24.5	0.5	0.9	0.2	–0.3	0.6
Jordan	70.4	–4.6	. . .	4.0	8.6	. . .
Kazakhstan	10.5	5.1	. . .	–0.6	–5.7	. . .
Kenya	48.5	–1.5	. . .	0.9	2.4	. . .
Latvia	37.8	0.5	2.0	0.0	–0.5	1.5
Lithuania	38.5	–2.1	2.3	0.5	2.6	4.9
Malaysia	52.9	–2.8	2.6	2.1	4.8	7.5
Mexico	43.8	–0.8	2.4	0.5	1.3	3.7
Morocco	54.3	–2.7	. . .	2.3	4.9	. . .
Nigeria	17.3	1.9	. . .	–1.2	–3.0	. . .
Pakistan	60.2	–2.4	0.4	2.9	5.3	5.7
Peru	20.9	2.7	. . .	–0.5	–3.2	. . .
Philippines	41.9	0.5	1.4	–0.2	–0.7	0.7
Poland	56.3	–2.5	–0.3	1.6	4.1	3.7
Romania	33.0	–1.5	2.8	0.4	1.9	4.7
Russia	12.0	2.6	4.3	–0.2	–2.9	1.4
South Africa	38.8	–1.7	2.0	0.9	2.7	4.7
Thailand	41.7	0.4	1.8	1.5	1.1	2.9
Turkey	39.3	2.5	5.7	–0.2	–2.6	3.1
Ukraine	36.0	–0.3	. . .	0.4	0.8	. . .
Average	37.5	0.4	2.8	0.5	0.2	3.9
G-20 emerging	37.0	0.5	3.3	0.5	0.0	3.2

Sources: IMF staff estimates and projections.

Note: The cyclically adjusted primary balance (CAPB) required to reduce debt and its comparison to the 2011 CAPB is a standardized calculation, and policy recommendations for individual countries would require a case-by-case assessment. For countries with debt above 40 percent of GDP in 2011, calculations show the CAPB required to reduce debt to 40 percent of GDP by 2030 (no shading). For countries with debt to GDP below 40 percent of GDP in 2011, calculations show the CAPB required to stabilize debt at the end-2011 level by 2030 (shaded entries).

[1] Gross general government debt.

[2] CAPB is reported in percent of nominal GDP (in contrast to the conventional definition in percent of potential GDP). CAPB is defined as cyclically adjusted balance (CAB) plus gross interest expenditure (this differs from the definition in Statistical Table 6). Structural balances are used instead of CAB for Chile and Peru. For countries not reporting CAB in Statistical Table 6, a Hodrick-Prescott filter is used to estimate potential output, and the CAB is estimated assuming growth elasticities of one and zero for revenues and expenditure, respectively. For details, see "Data and Conventions" in text.

[3] See Statistical Table 12b.

[4] CAPB needed to bring the debt ratio down to 40 percent in 2030 (no shading, "higher debt"), or to stabilize debt at the end-2012 level by 2030 if the respective debt-to-GDP ratio is less than 40 percent (shaded entries, "lower debt"). The CAPB is assumed to change in line with *Fiscal Monitor* projections in 2011–13 and adjust gradually from 2014 until 2020; thereafter it is maintained constant until 2030. The analysis makes some simplifying assumptions: in particular, up to 2016, an interest rate–growth differential of 0 percentage points is assumed (broadly in line with *Fiscal Monitor* projections), and of 1 percentage point afterward, regardless of country-specific circumstances. For large commodity-producing countries, even larger fiscal balances might be called for in the medium term than shown in the illustrative scenario, given the high volatility of revenues and the exhaustibility of natural resources.

Statistical Table 14. General Government Nonfinancial Assets

(Percent of GDP)

			Produced Assets							Nonproduced Assets				
				Fixed assets										
	Latest Available Data	Total Nonfinancial Assets	Total produced assets	Total fixed assets	Buildings and structures	Machinery and equipment	Other fixed assets	Inventories	Valuables	Total non-produced assets	Land	Subsoil assets	Other naturally occurring	Intangible non-produced
Australia	2010	69.7	46.9	44.8	41.9	2.5	0.4	0.6	1.6	22.8	22.4	. . .	. . .	0.4
Barbados[1]	2010	33.7	17.3	17.3	13.7	1.7	1.9	0.0	0.0	16.5	16.4	. . .	. . .	0.1
Belgium	2010	. . .	37.9	37.9	36.4	1.3	0.2	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Bolivia[1]	2007	5.7	3.3	3.2	2.8	0.3	0.0	0.1	0.0	2.4	2.4	. . .	. . .	. . .
Canada	2010	44.2	34.7	34.7	32.2	2.5	0.0	0.0	. . .	9.5	. . .	. . .	. . .	. . .
Colombia	2010	35.7	27.4	26.3	22.6	2.8	0.9	1.0	0.1	8.3	4.4	4.0	. . .	. . .
Costa Rica[1]	2010	48.7	0.9	0.9	0.6	0.3	. . .	. . .	. . .	47.8	47.8	. . .	. . .	. . .
Czech Republic	2010	160.3	140.5	134.5	130.5	3.7	. . .	5.9	0.1	19.8	17.7	. . .	. . .	2.0
Dominican Republic[1]	2006	11.0	10.8	10.8	9.3	1.5	. . .	. . .	. . .	0.2	0.2	. . .	. . .	. . .
El Salvador	2010	1.5	1.0	0.9	0.4	0.3	0.3	0.1	. . .	0.5	0.5	. . .	. . .	. . .
Estonia	2009	. . .	. . .	. . .	4.0	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Finland	2010	. . .	48.5	48.5	45.5	2.7	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
France	2010	85.4	51.3	50.4	48.7	1.2	. . .	0.9	. . .	34.1	34.0	. . .	. . .	. . .
Germany	2010	. . .	44.2	44.2	42.8	1.3	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Hong Kong SAR	2010	18.3	18.3	18.1	15.0	0.6	2.5	0.1	. . .	. . .	. . .	. . .	. . .	. . .
Hungary	2009	. . .	117.9	117.9	111.8	5.8	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Italy	2009	. . .	. . .	. . .	3.5	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Japan	2010	120.2	94.3	93.9	91.4	2.2	0.3	0.4	. . .	26.0	26.0	. . .	. . .	. . .
Korea	2009	128.1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Latvia	2009	. . .	167.1	165.1	160.2	4.2	. . .	2.0	0.0	. . .	. . .	. . .	. . .	. . .
Lithuania	2010	. . .	64.2	64.2	60.2	3.6	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Luxembourg	2010	. . .	86.5	86.5	83.2	3.0	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Netherlands	2010	. . .	63.1	63.0	59.8	2.9	. . .	0.1	. . .	. . .	9.2	27.4	. . .	. . .
New Zealand	2010	98.6	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Norway	2010	46.5	46.5	46.5	43.0	3.5	0.0	0.0	. . .	. . .	. . .	. . .	. . .	. . .
Poland	2009	. . .	. . .	. . .	4.6	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Russian Federation	2010	46.3	43.7	38.8	17.1	5.0	16.7	5.0	. . .	2.6	0.1	. . .	2.5	. . .
Slovak Republic	2010	2.5	2.2	2.2	2.0	0.1	. . .	. . .	. . .	0.3	0.3	. . .	. . .	. . .
Slovenia	2010	. . .	48.3	48.3	43.5	3.9	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Sweden	2009	. . .	. . .	. . .	0.3	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Switzerland	2009	23.2	20.5	20.4	19.1	1.1	0.1	0.1	. . .	3.4	3.3	. . .	. . .	. . .
United Kingdom	2010	49.3	49.2	49.2	45.5	1.4	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
United States	2010	72.6	65.0	65.0	61.6	2.9	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

Sources: IMF, *Government Finance Statistics*; Eurostat; Organisation for Economic Co-operation and Development; and IMF staff estimates.

[1] Central government.

Statistical Table 15a. Advanced Economies: Taxation of Public Pension Benefits

	Average income tax rate on public pension benefits[1] (percent)	Spending on public pensions (percent of GDP)		Tax relief		Notes
		Gross	Net[2]	None	Full	
Australia	0.1	4.7	4.6			Tax credit for those above pensionable age, phased out once income reaches 70 percent of the average wage. Tax offset for those who depend fully on public pensions.
Austria	22.6	14.5	11.2	✓		No special treatment for pensions.
Belgium	11.9	10.9	9.6			Full exemption for those who receive income only from public pensions and under 30 percent of the average wage; tax deduction for all others depending on the public pension share in total income and the level of income.
Canada	1.1	4.9	4.8			Age tax credit for all sources of income, phased out at 170 percent of the average income. The guaranteed income scheme which tops up pensions for low-income pensioners is not taxable.
Czech Republic	0.0	9.8	9.8			Full exemption for pensions under 70 percent of the average wage.
Denmark	26.9	8.1	5.9	✓		No special treatment for pensions.
Finland	18.0	12.0	9.8			Pension allowance for those with total income under 80 percent of the average wage.
France	10.5	14.3	12.8	✓		No special treatment for pensions.
Germany	15.9	10.9	9.2			The portion of the pension subject to the pension tax is increasing from 50 percent in 2005 to 100 percent in 2040.
Greece	13.1	13.9	12.1			Higher exemption limits for the elderly.
Iceland	25.4	3.3	2.5	✓		No special treatment for pensions.
Ireland	0.0	8.1	8.1			Full exemption for those over 65 with income below 50 percent of the average wage. All individuals over 65 also receive a higher tax credit than younger individuals.
Italy	16.6	15.6	13.0			Full exemption for pensioners with income below 30 percent of the average wage (a similar exemption is available for earned income).
Japan	8.1	10.0	9.2			The minimum deductible amount is about 25 percent of the average wage. Alternatively, the deductible amount is calculated as follows: flat deduction of about 10 percent of the average wage, with additional deductions of 25 percent of pensions up to 70 percent of the average wage, 15 percent between 70 percent and 140 percent of the average wage, and 5 percent above 140 percent of the average wage.
Korea	0.7	1.7	1.7			Full exemption for pensions under 10 percent of the average wage. Partial deductions for pensions above 10 percent of the average wage.
Luxembourg	9.4	7.9	7.2			Retirement allowance of 600 euro.
Netherlands	27.9	6.8	4.9			Tax credit for those over 65.
New Zealand	17.8	5.5	4.5	✓		No special treatment for pensions.
Norway	17.3	7.3	6.0			Full exemption for pensions under 30 percent of the average wage. Additional old-age allowance of about 5 percent of the average wage.
Portugal	7.4	13.4	12.4			Full exemption for pensions under 40 percent of the average wage.
Slovak Republic	0.0	7.7	7.7		✓	Full exemption.
Slovenia	0.0	11.1	11.1			Extra deduction for those older than 65. Additional credit equal to 13.5 percent of pensions.
Spain	5.8	10.8	10.2			Deductions for those older than 65.
Sweden	27.5	9.2	6.7	✓		No special treatment for pensions.
Switzerland	17.1	8.2	6.8	✓		No special treatment for pensions.
United Kingdom	3.2	7.2	7.0			Deductions for those older than 65.
United States	4.4	6.8	6.5			Exemption for pensioners with incomes under 60 percent of the average wage. Between 50 and 85 percent of pension income included for those with incomes between 60 and 85 percent of the average wage. Deductions for those older than 65.
Average	11.4	9.1	8.0			

Sources: European Commission Directorate-General for Economic and Financial Affairs (2012a); OECD (2011); and IMF staff estimates.

[1]The average tax rate is calculated as the ratio of net pension spending to gross pension spending for European economies (European Commission Directorate-General for Economic and Financial Affairs [2012a]) or the tax rate paid by pensioners at the gross replacement rate of an average earner for other economies (OECD, 2011).

[2]Spending on pensions with revenue from income taxes netted out.

Statistical Table 15b. Emerging Markets: Taxation of Public Pension Benefits

	Average income tax rate on public pension benefits[1] (percent)	Spending on public pensions (percent of GDP)		Tax relief		Notes
		Gross	Net[2]	None	Full	
Argentina	0.0	7.4	7.4		✓	Full exemption.
Brazil	0.0	9.1	9.1		✓	Full exemption.
Bulgaria	0.0	8.2	8.2			
China	0.0	3.4	3.4		✓	Full exemption.
Chile	15.5	5.5	4.6	✓		No special income tax treatment for public pensions. However, some vulnerable pensioners are exempt from paying health contributions, which typically represent 7 percent of income.
Colombia	0.0	5.3	5.3		✓	Full exemption.
Egypt		4.0				
Estonia	5.0	14.5	13.8			Full exemption for pensions under 40 percent of the average wage.
Hungary	0.0	11.4	11.4			
India	0.0	1.0	1.0			Full exemption for pensions under 140 percent of the average wage.
Indonesia		0.7		✓		No special treatment for pensions.
Jordan		4.1				
Latvia		9.4				
Lithuania	0.0	8.4	8.4			
Malaysia	0.0	3.0	3.0		✓	Full exemption.
Mexico	0.0	1.5	1.5			Full exemption for pensions under nine times the minimum wage.
Pakistan		0.6				Deduction of 50 percent of taxable income.
Philippines		1.7				
Poland	14.9	11.5	9.8	✓		No special treatment for pensions.
Romania	5.0	9.5	9.0			
Russian Federation	0.0	8.9	8.9		✓	Full exemption.
Saudi Arabia	0.0	2.2	2.2		✓	Full exemption.
South Africa	0.0	1.9	1.9			The old age pension (older pension grant) is means tested. It can be received only by individuals who have incomes below the tax thresholds and are therefore unlikely to pay income taxes.
Thailand		1.0			✓	Full exemption.
Turkey	0.0	6.3	6.3		✓	Full exemption.
Ukraine		17.7				
Average	3.0	6.3	6.4			

Sources: European Commission Directorate-General for Economic and Financial Affairs (2012a); OECD (2011); and IMF staff estimates.

[1]The average tax rate is calculated as the ratio of net pension spending to gross pension spending for European economies (European Commission Directorate-General for Economic and Financial Affairs [2012a]) or the tax rate paid by pensioners at the gross replacement rate of an average earner for other economies (OECD, 2011).

[2]Spending on pensions with revenues from income taxes on pensions netted out.

ACRONYMS

ALMP	active labor market program
BIS	Bank for International Settlements
CAB	cyclically adjusted balance
CAPB	cyclically adjusted primary balance
CBO	Congressional Budget Office (United States)
CDS	credit default swap
CEA	Council of Economic Advisers of the White House
CIS	Commonwealth of Independent States (WEO classification)
CIT	corporate income tax
EC	European Commission
ECB	European Central Bank
EFSF	European Financial Stability Facility
EFSM	European Financial Stabilisation Mechanism
EIU	Economist Intelligence Unit
EME	emerging market economy
ESM	European Stability Mechanism
EU	European Union
FAT	financial activities tax
FCR	financial crisis responsibility fee
FII	Fiscal Indicators Index
FSC	financial stability contribution
FTT	financial transaction tax
GDP	gross domestic product
GFS	Government Finance Statistics
GFSM	*Government Finance Statistics Manual*
GFSR	*Global Financial Stability Report*
GSE	government-sponsored enterprise
LAC	Latin America and the Caribbean
LIC	low-income country
MBSs	mortgage-backed securities
MENA	Middle East and North Africa
MTO	medium-term budgetary objective
OECD	Organisation for Economic Co-operation and Development
OMB	Office of Management and Budget (United States)
PB	primary balance
PCSE	panel-corrected standard error
PIT	personal income tax
RAS	relative asset swap
SB	structural balance
SCE	employee's social contributions
SCR	employer's social contributions
SGP	Stability and Growth Pact
SMP	Securities Market Program
SSA	Sub-Saharan Africa
SSC	social security contributions
SUR	seemingly unrelated regression
TARP	Troubled Asset Relief Program
VAT	value-added tax
WEO	*World Economic Outlook*
WH	Western Hemisphere

COUNTRY ABBREVIATIONS

Code	Country name
AFG	Afghanistan
ALB	Albania
DZA	Algeria
AGO	Angola
ATG	Antigua and Barbuda
ARG	Argentina
ARM	Armenia
AUS	Australia
AUT	Austria
AZE	Azerbaijan
BHS	Bahamas, The
BHR	Bahrain
BGD	Bangladesh
BRB	Barbados
BLR	Belarus
BEL	Belgium
BLZ	Belize
BEN	Benin
BTN	Bhutan
BOL	Bolivia
BIH	Bosnia and Herzegovina
BWA	Botswana
BRA	Brazil
BRN	Brunei Darussalam
BGR	Bulgaria
BFA	Burkina Faso
BDI	Burundi
KHM	Cambodia
CMR	Cameroon
CAN	Canada
CPV	Cape Verde
CAF	Central African Republic
TCD	Chad
CHL	Chile
CHN	China
COL	Colombia
COM	Comoros
COD	Congo, Democratic Republic of the
COG	Congo, Republic of
CRI	Costa Rica
CIV	Côte d'Ivoire
HRV	Croatia
CYP	Cyprus
CZE	Czech Republic
DNK	Denmark

Code	Country name
DJI	Djibouti
DMA	Dominica
DOM	Dominican Republic
ECU	Ecuador
EGY	Egypt
SLV	El Salvador
GNQ	Equatorial Guinea
ERI	Eritrea
EST	Estonia
ETH	Ethiopia
FJI	Fiji
FIN	Finland
FRA	France
GAB	Gabon
GMB	Gambia, The
GEO	Georgia
DEU	Germany
GHA	Ghana
GRC	Greece
GRD	Grenada
GTM	Guatemala
GIN	Guinea
GNB	Guinea-Bissau
GUY	Guyana
HTI	Haiti
HND	Honduras
HKG	Hong Kong SAR
HUN	Hungary
ISL	Iceland
IND	India
IDN	Indonesia
IRN	Iran
IRQ	Iraq
IRL	Ireland
ISR	Israel
ITA	Italy
JAM	Jamaica
JPN	Japan
JOR	Jordan
KAZ	Kazakhstan
KEN	Kenya
KIR	Kiribati
KOR	Korea
SCG	Kosovo
KWT	Kuwait

Code	Country name
KGZ	Kyrgyz Republic
LAO	Lao P.D.R.
LVA	Latvia
LBN	Lebanon
LSO	Lesotho
LBR	Liberia
LBY	Libyan Arab Jamahiriya
LTU	Lithuania
LUX	Luxembourg
MKD	Macedonia, former Yugoslav Republic of
MDG	Madagascar
MWI	Malawi
MYS	Malaysia
MDV	Maldives
MLI	Mali
MLT	Malta
MHL	Marshall Islands
MRT	Mauritania
MUS	Mauritius
MEX	Mexico
FSM	Micronesia, Federated States of
MDA	Moldova
MNG	Mongolia
MNE	Montenegro
MAR	Morocco
MOZ	Mozambique
MMR	Myanmar
NAM	Namibia
NPL	Nepal
NLD	Netherlands
NZL	New Zealand
NIC	Nicaragua
NER	Niger
NGA	Nigeria
NOR	Norway
OMN	Oman
PAK	Pakistan
PLW	Palau
PAN	Panama
PNG	Papua New Guinea
PRY	Paraguay
PER	Peru
PHL	Philippines
POL	Poland
PRT	Portugal
QAT	Qatar
ROU	Romania
RUS	Russian Federation
RWA	Rwanda
KNA	Saint Kitts and Nevis
LCA	Saint Lucia
VCT	Saint Vincent and the Grenadines
WSM	Samoa
SMR	San Marino
STP	São Tomé and Príncipe
SAU	Saudi Arabia
SEN	Senegal
SRB	Serbia
SYC	Seychelles
SLE	Sierra Leone
SGP	Singapore
SVK	Slovak Republic
SVN	Slovenia
SLB	Solomon Islands
SOM	Somalia
ZAF	South Africa
ESP	Spain
LKA	Sri Lanka
SDN	Sudan
SUR	Suriname
SWZ	Swaziland
SWE	Sweden
CHE	Switzerland
SYR	Syria
TWN	Taiwan Province of China
TJK	Tajikistan
TZA	Tanzania
THA	Thailand
TLS	Timor-Leste
TGO	Togo
TON	Tonga
TTO	Trinidad and Tobago
TUN	Tunisia
TUR	Turkey
TKM	Turkmenistan
TUV	Tuvalu
UGA	Uganda
UKR	Ukraine
ARE	United Arab Emirates
GBR	United Kingdom
USA	United States
URY	Uruguay
UZB	Uzbekistan
VUT	Vanuatu
VEN	Venezuela
VNM	Vietnam
YEM	Yemen
ZMB	Zambia
ZWE	Zimbabwe

GLOSSARY

Automatic stabilizers	Budgetary measures that dampen fluctuation in real GDP, automatically triggered by the tax code and by spending rules.
Contingent liabilities	Obligations of a government whose timing and magnitude depend on the occurrence of some uncertain future event outside the government's control. Can be explicit (obligations based on contracts, laws, or clear policy commitments) or implicit (political or moral obligations) and sometimes arise from expectations that government will intervene in the event of a crisis or a disaster, or when the opportunity cost of not intervening is considered to be unacceptable.
Credit default swap (CDS) spread	Annual amount (in basis points of the notional amount) that a protection buyer must pay the seller over the length of the contract to protect the underlying asset against a credit event.
Cyclical balance	Cyclical component of the overall fiscal balance, computed as the difference between cyclical revenues and cyclical expenditures. The latter are typically computed using country-specific elasticities of aggregate revenue and expenditure series with respect to the output gap. Where unavailable, standard elasticities (0, 1) are assumed for expenditure and revenue, respectively.
Cyclically adjusted balance (CAB)	Difference between the overall balance and the automatic stabilizers; equivalently, an estimate of the fiscal balance that would apply under current policies if output were equal to potential.
Cyclically adjusted (CA) expenditure and revenue	Revenue and expenditure adjusted for temporary effects associated with the deviation of actual from potential output (i.e., net of automatic stabilizers).
Cyclically adjusted primary balance (CAPB)	Cyclically adjusted balance excluding net interest payments.
Expenditure elasticity	Elasticity of expenditure with respect to the output gap.
Fiscal multiplier	The ratio of a change in output to an exogenous and temporary change in the fiscal deficit with respect to their respective baselines.
Fiscal stimulus	Discretionary fiscal policy actions (including revenue reductions and spending increases) adopted in response to the financial crisis.
General government	All government units and all nonmarket, nonprofit institutions that are controlled and mainly financed by government units comprising the central, state, and local governments; does not include public corporations or quasi-corporations.
Gross debt	All liabilities that require future payment of interest and/or principal by the debtor to the creditor. This includes debt liabilities in the form of Special Drawing Rights, currency, and deposits; debt securities; loans; insurance, pension, and standardized guarantee schemes; and

	other accounts payable. (See the 2001 edition of the IMF's *Government Financial Statistics Manual* and the *Public Sector Debt Statistics Manual*). The term "public debt" is used in the *Monitor*, for simplicity, as synonymous with gross debt of the general government, unless otherwise specified. (Strictly speaking, the term "public debt" refers to the debt of the public sector as a whole, which includes financial and nonfinancial public enterprises and the central bank.)
Gross financing needs (also gross financing requirements)	Overall new borrowing requirement plus debt maturing during the year.
Interest rate–growth differential ($r - g$)	Effective interest rate (r, defined as the ratio of interest payments over the debt of the preceding period) minus nominal GDP growth (g), divided by 1 plus nominal GDP growth: $(r - g)/(1 + g)$.
Labor tax wedge	Difference between the labor costs paid by employers and the net compensation received by workers due to income taxes and social insurance contributions.
Net debt	Gross debt minus financial assets, including those held by the broader public sector: for example, social security funds held by the relevant component of the public sector, in some cases.
Nonfinancial public sector	General government plus nonfinancial public corporations.
Output gap	Deviation of actual from potential GDP, in percent of potential GDP.
Overall fiscal balance (also "headline" fiscal balance)	Net lending/borrowing, defined as the difference between revenue and total expenditure, using the 2001 edition of the IMF's *Government Finance Statistics Manual* (GFSM 2001). Does not include policy lending. For some countries, the overall balance continues to be based on GFSM 1986, in which it is defined as total revenue and grants minus total expenditure and net lending.
Policy lending	Transactions in financial assets that are deemed to be for public policy purposes but are not part of the overall balance.
Primary balance	Overall balance excluding net interest payment (interest expenditure minus interest revenue).
Public debt	See *Gross debt*.
Public sector	The general government sector plus government-controlled entities, known as public corporations, whose primary activity is to engage in commercial activities.
Revenue elasticity	Elasticity of revenue with respect to the output gap.
Stock-flow adjustment	Annual change in gross debt not explained by the budget balance.
Structural fiscal balance	Difference between the cyclically adjusted balance and other nonrecurrent effects that go beyond the cycle, such as one-off operations and other factors whose cyclical fluctuations do not coincide with the output cycle (for instance, asset and commodity prices and output composition effects).
Tax expenditures	Government revenues that are foregone as a result of preferential tax treatments to specific sectors, activities, regions, or economic agents.

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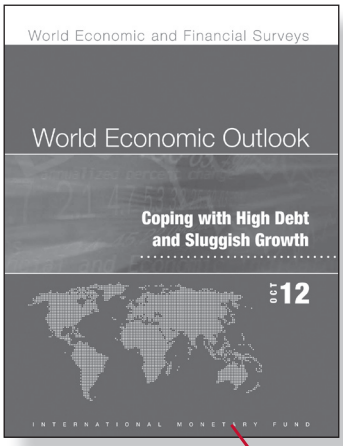

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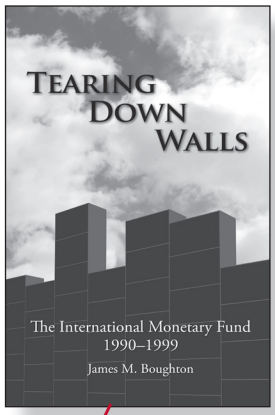

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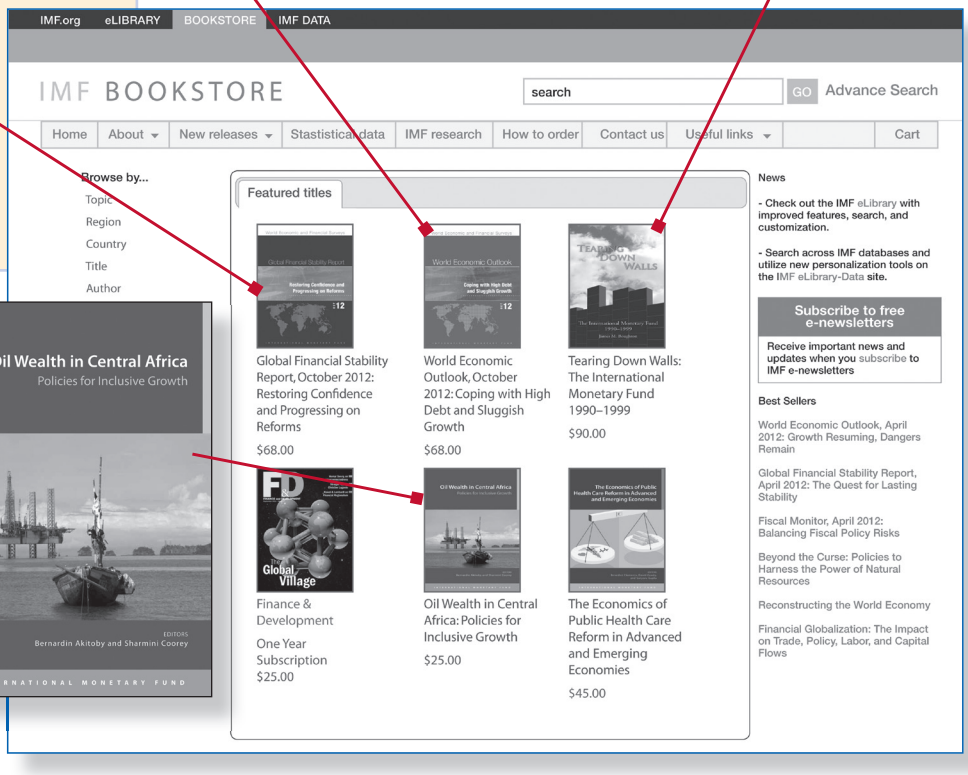

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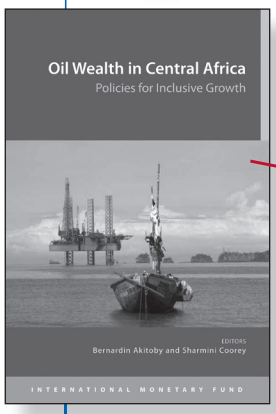

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