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.*

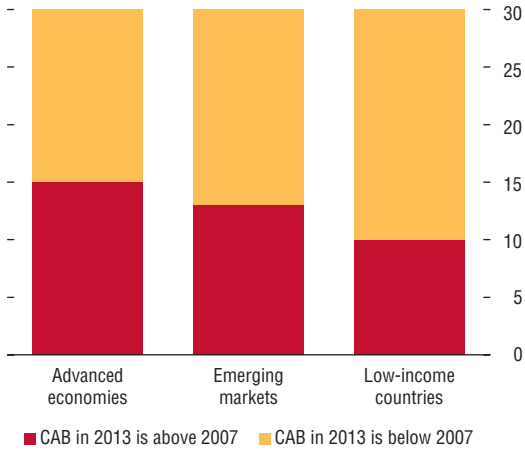
Where are we now with deficits?

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?

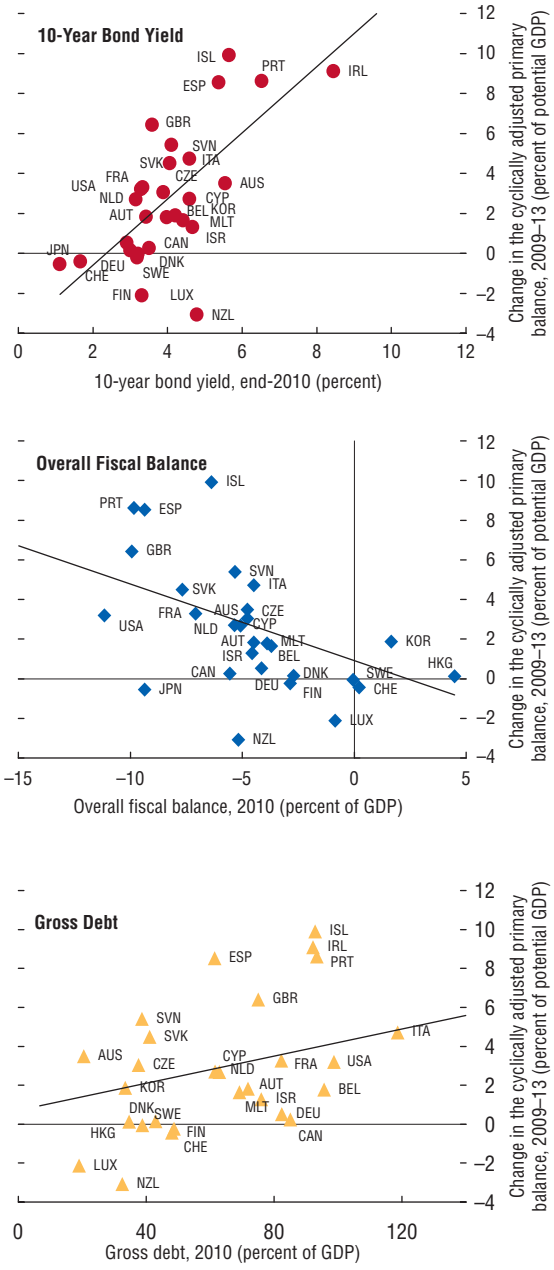
In advanced economies, fiscal adjustment has typically been largest and most front loaded in countries under market pressure (Figure 3).[5] Between 2009 and 2013, the improvement in cyclically adjusted primary balances in countries that were supported by EU/IMF programs (Greece, Iceland, Ireland, and 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.

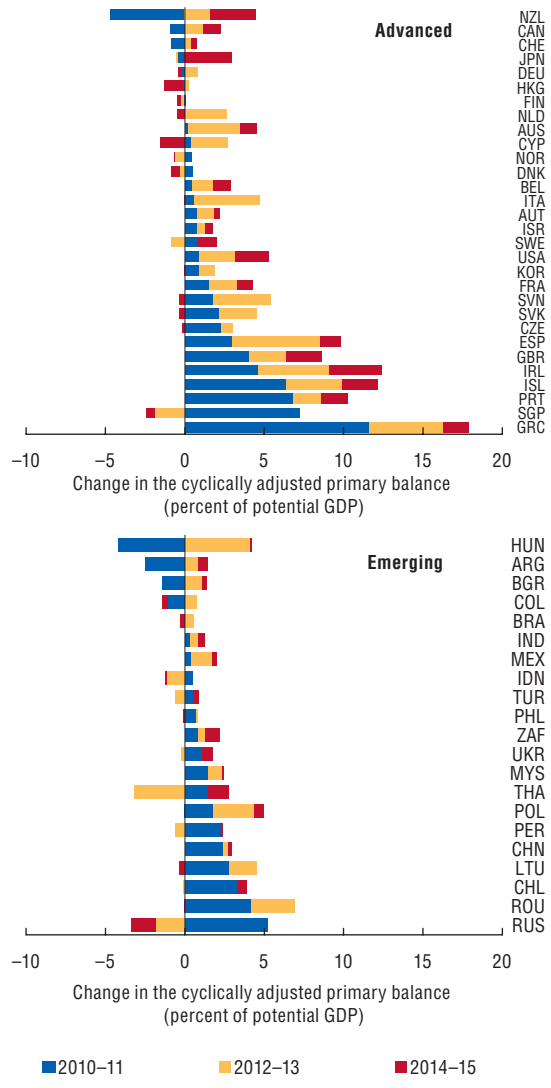
[5]The relationship between the change in cyclically adjusted primary balances and the 10-year bond yield portrayed in Figure 3 holds statistically at the 1 percent level of significance.

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?

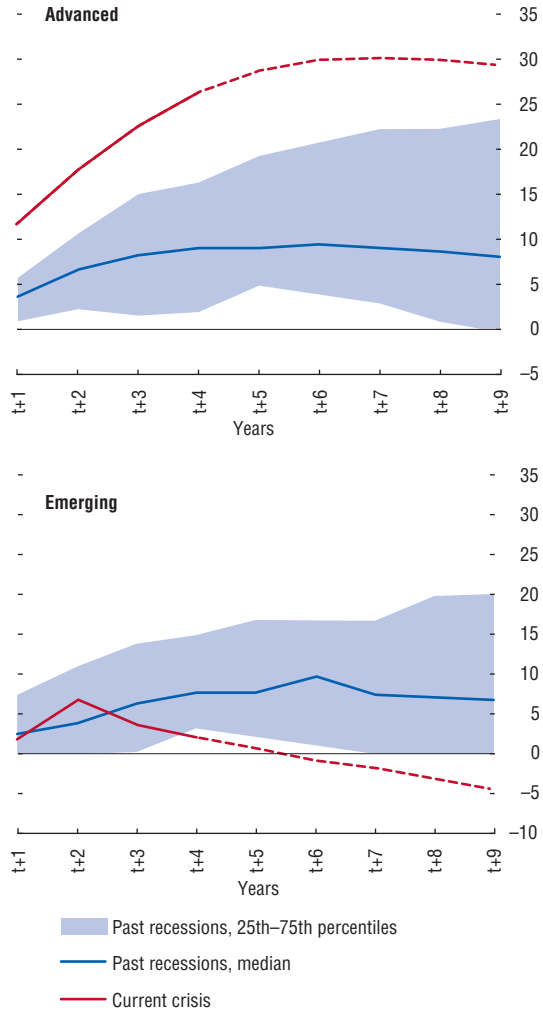
Deficit reductions have not yet led to a substantial decline in debt ratios in most advanced economies, as headline deficits in many cases remain very high. Indeed, the pace of debt reduction in advanced economies has been substantially slower than that observed following previous recessions. For recessions 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)



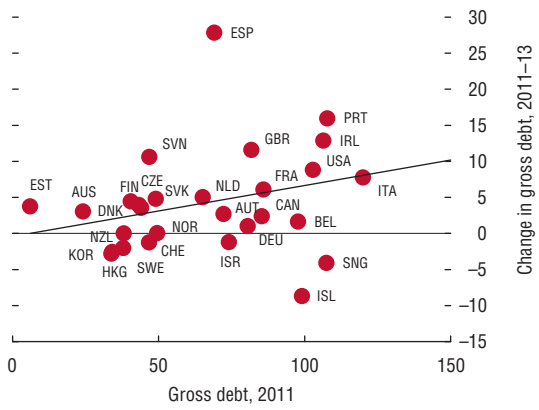
Sources: Kinda, Poplawski-Ribeiro, and Woo (2012); and IMF staff estimates and projections.
Note: Solid line corresponds to 2009–12, and dashed line to 2013–17.

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

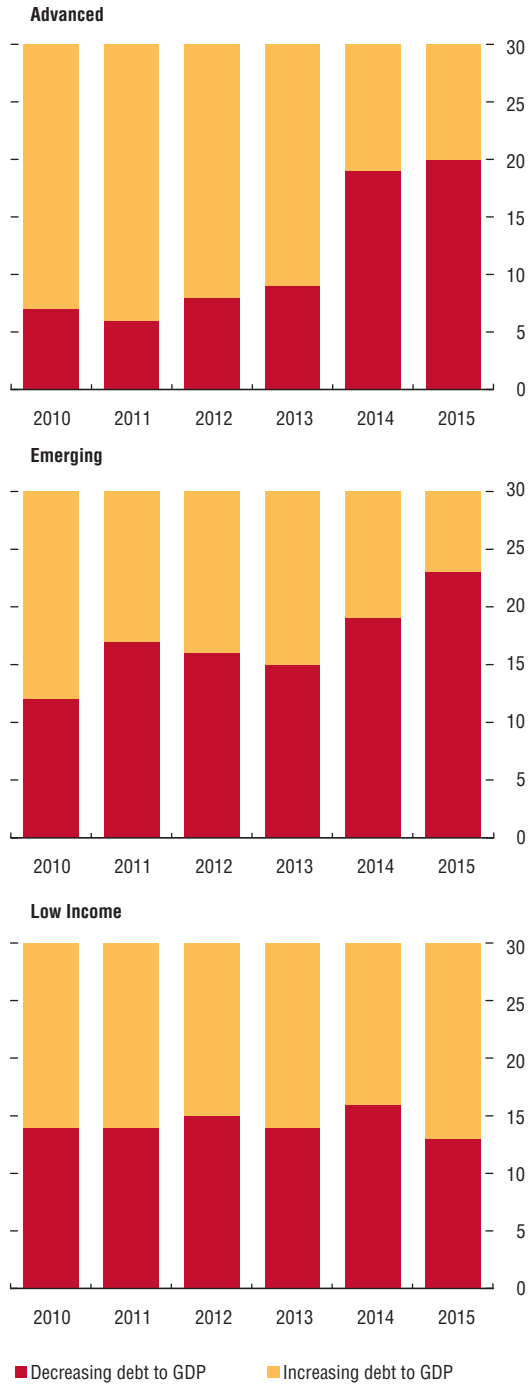
[7]Chapter 3 of the October 2012 WEO also looks at the factors affecting debt dynamics. Unlike in the historical case studies analyzed in the WEO, inflation is not a significant factor in explain-

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).

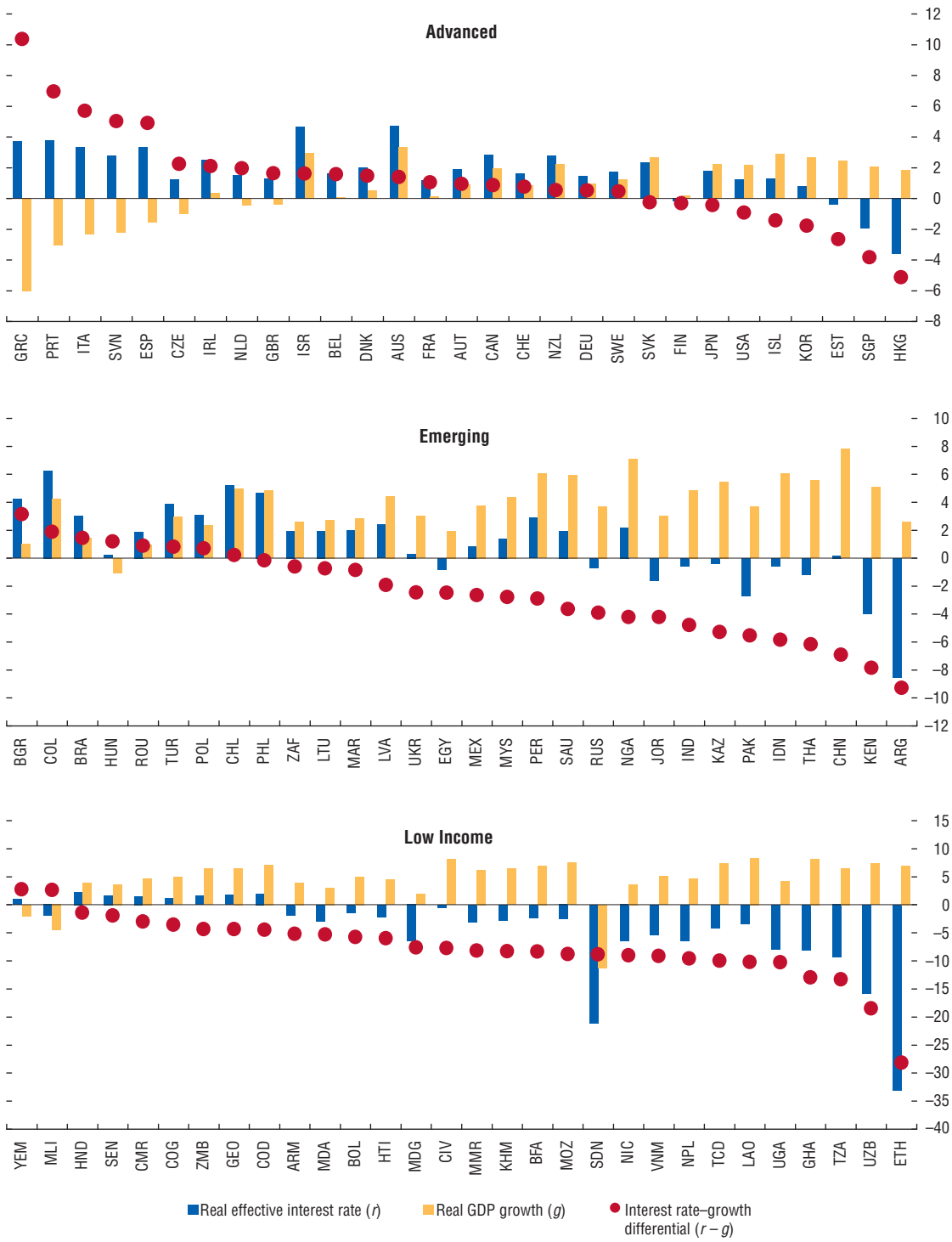
Although fiscal consolidation and growth-enhancing structural reforms are an important part of the recipe to improve debt dynamics, other short-run uncertainties need to be addressed to restore market confidence. Differences in interest rate–growth differentials across advanced economies are attributable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

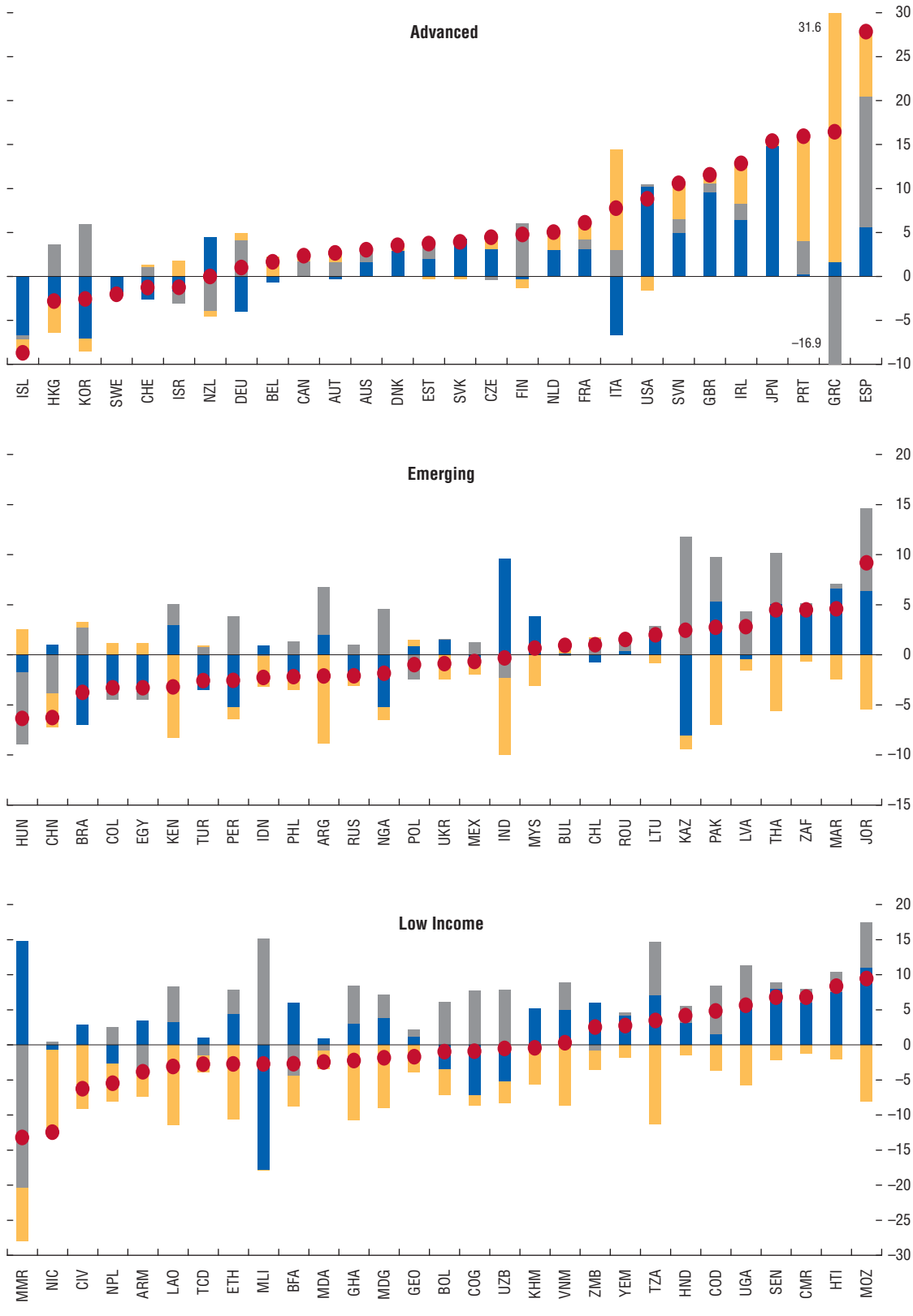
(Percent)



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

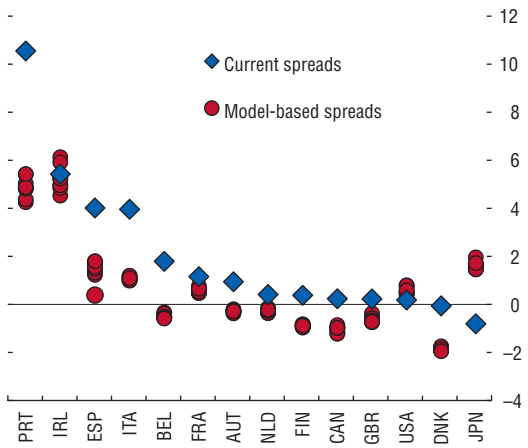
(Percent of GDP)



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

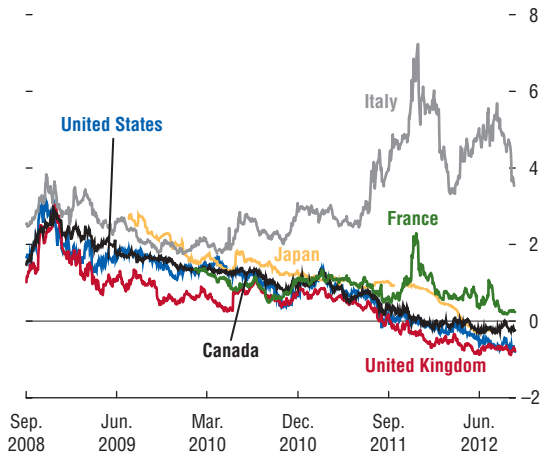
Often, these market indicators cannot be explained fully by underlying fiscal variables. The dichotomy between countries under severe market pressure and those benefiting from safe-haven flows reveals a disconnection of markets' risk perceptions from long-term macroeconomic fundamentals, partially driven 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)



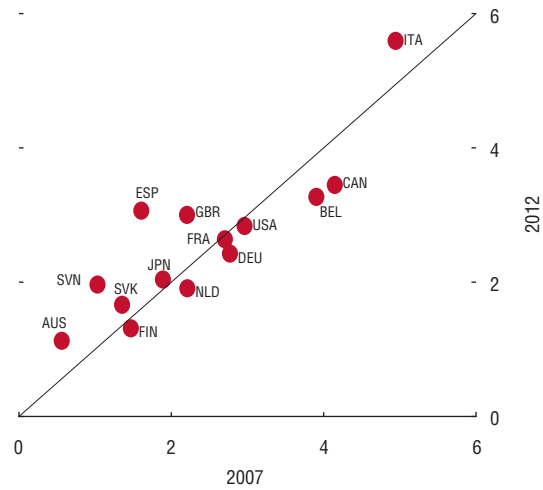
Sources: Bloomberg L.P.; Poghosyan (2012); and IMF staff estimates.
Note: Average for first half of 2012, with respect to Germany. Model-based spreads refer to the fitted values of alternative specifications of the model described in Box 3.

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."

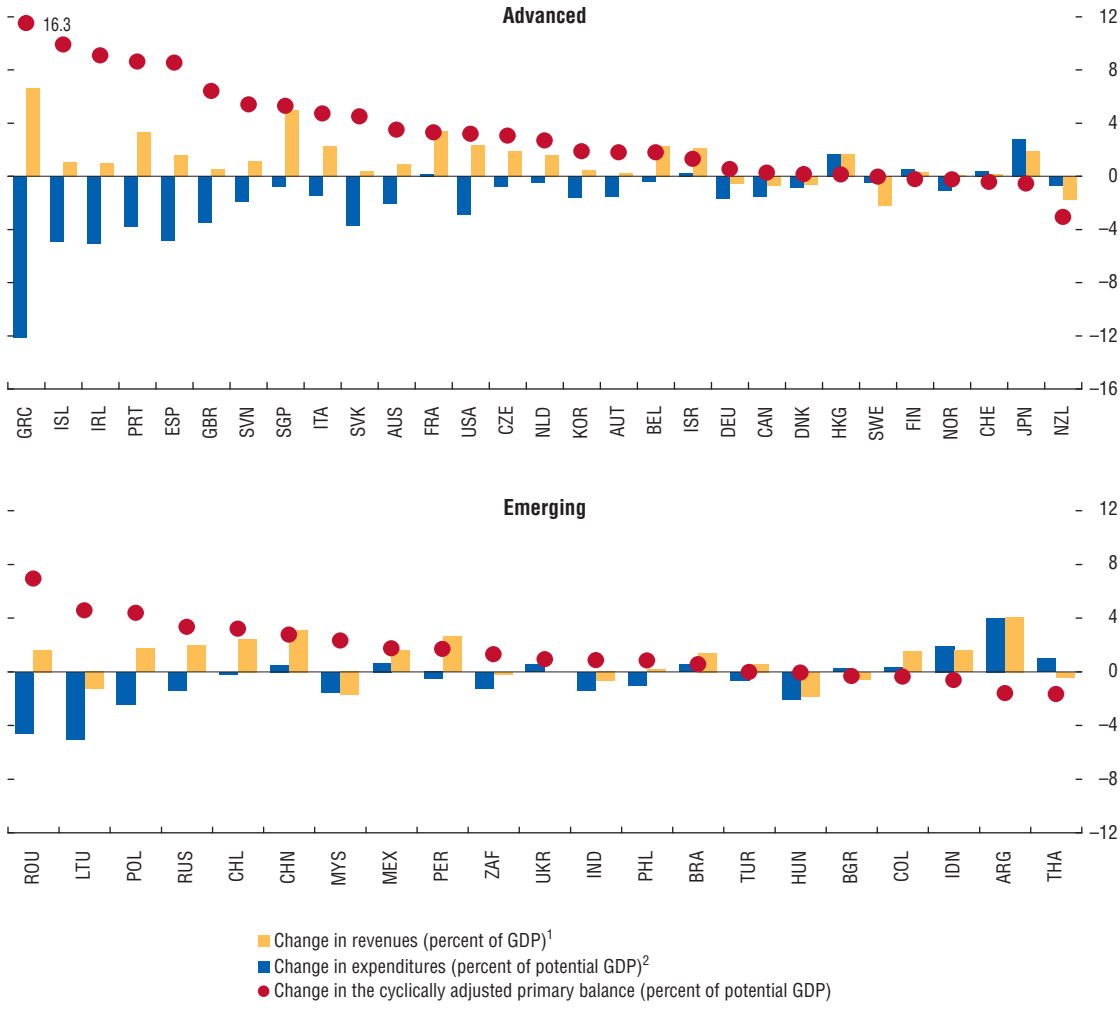
[6] Discretionary spending caps and automatic cuts.

[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.

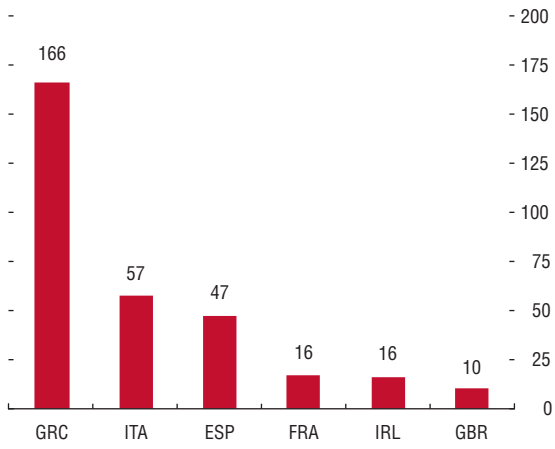
least postpone, the need for an increase in the VAT. On the other hand, Spain has proposed additional revenue measures that can be implemented relatively quickly, as earlier packages placed greater emphasis on expenditure measures.

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.

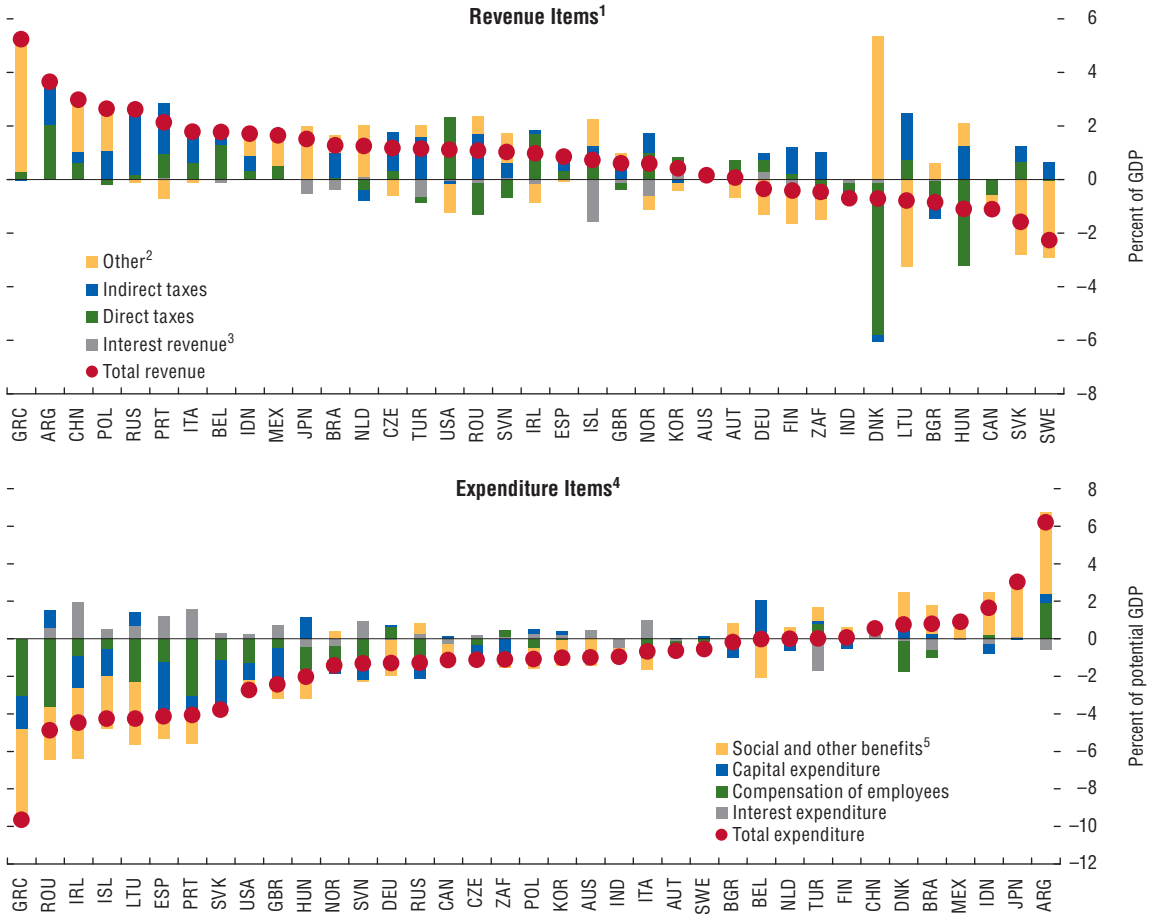
Several advanced economies have introduced reforms of their health care systems, although in most cases these are unlikely to have dramatic impacts on long-term spending trends. In the United States, a sweeping reform expanded coverage, introduced cost-cutting measures, and increased payroll and excise 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.

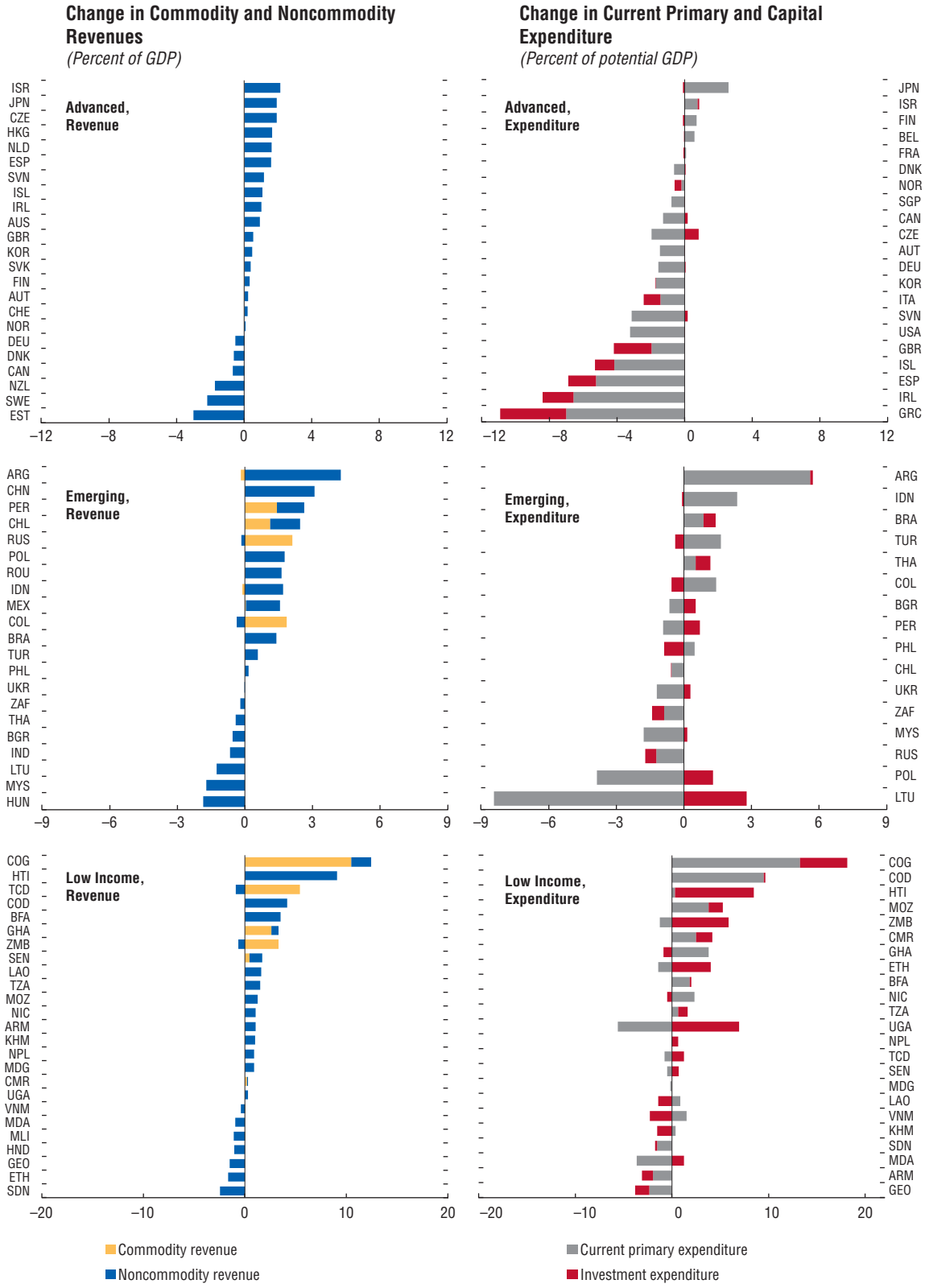
because of its impact on potential growth, though inefficient capital spending should not be exempt from cuts. For all countries, some room for priority capital outlays can be preserved by increasing the efficiency of other government spending, such as through replacing blanket subsidies with targeted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

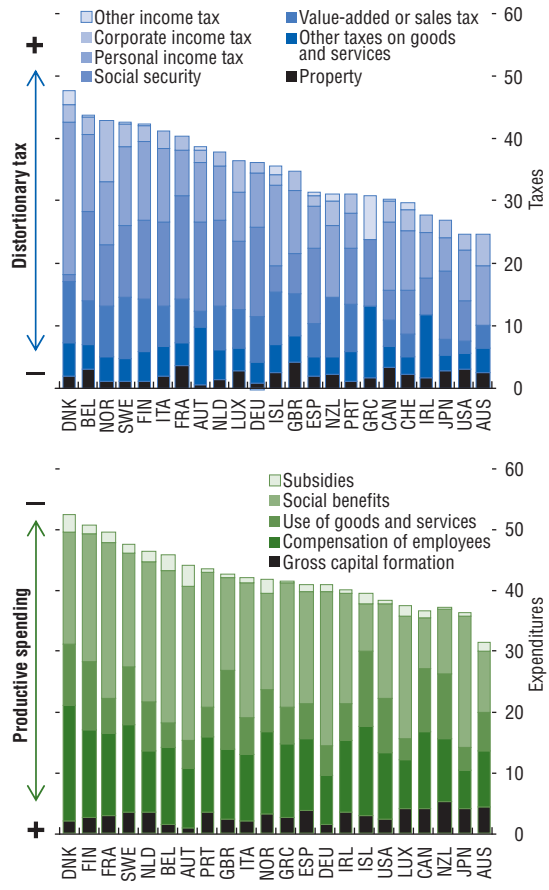
On the revenue side, advanced economies have attempted to focus on less distortionary levies such as indirect taxes and property taxes (Figure 17). A large majority of emerging market and advanced economies have raised excise taxes and taken steps to improve compliance (which typically improves the degree 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.