

The global economy remains fragile at this time. While the recovery in advanced economies is softening, many emerging market and developing economies have experienced a significant economic slowdown and some large countries show signs of distress. Global risk aversion has risen, and commodity prices have continued to fall since the April 2015 *Fiscal Monitor*. The weaker outlook and concerns about the ability of policymakers to provide an adequate and swift policy response have amplified downward risks and clouded global prospects. In this challenging environment, a comprehensive policy package is urgently needed to boost growth and reduce vulnerabilities.

### Worsening Fiscal Trends

Fiscal positions have worsened significantly in the past year. Many of the risks identified in previous *Fiscal Monitors* have materialized, including the steep decline in oil prices, the change in investor sentiment toward emerging market and middle-income economies, and the intensification of geopolitical tensions. As a result, debt trajectories have been revised upward in most countries (Figure 1.1). Nowhere have the revisions been more pronounced than in emerging market and middle-income economies, where fiscal deficit ratios in 2015–16 are now expected to exceed, on average, the levels observed in 2009 at the beginning of the global financial crisis (Tables 1.1a and 1.1b). In low-income developing countries, debt revisions have generally been less significant, but the debt ratio increase in 2015 is the largest since the launch of various debt relief initiatives at the end of the 1990s (Table 1.2). Among emerging market and developing economies, commodity exporters experienced the largest deterioration in their fiscal positions. Advanced economies have also been affected in the past year, and remain vulnerable in a context of high debt, low inflation, and low growth. In these countries, the turning point of the debt ratio has been delayed by one year to 2016.

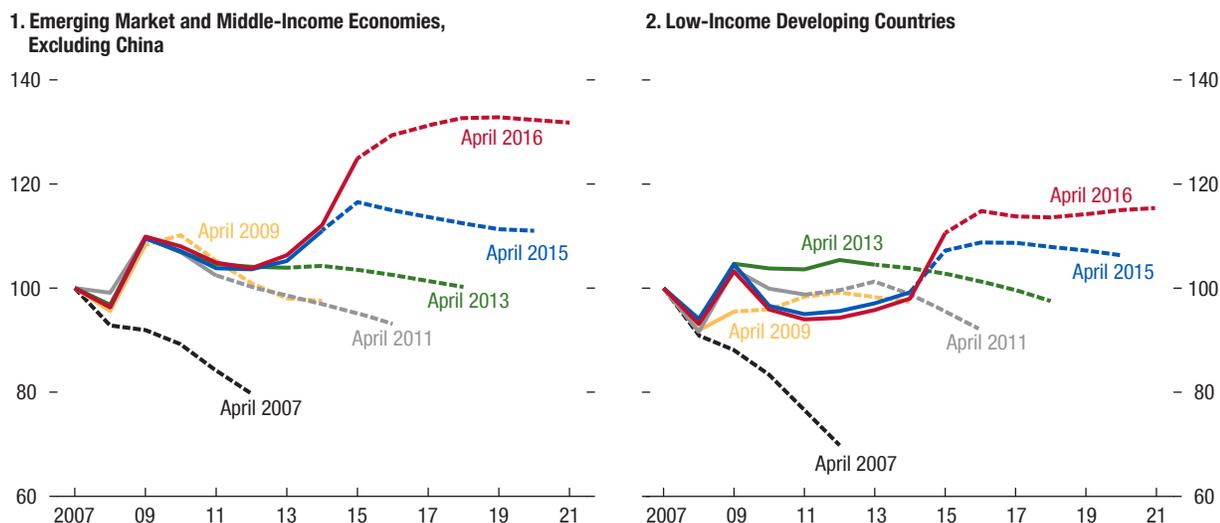
While idiosyncratic and transitory factors are also at play, the main forces driving the deterioration of debt

dynamics are ongoing adjustments in the global economy. The April 2016 *World Economic Outlook* (Chapter 1) identifies a number of major economic “realignments” that are shaping the global outlook, including continued weakness in global economic activity, the decline in commodity prices, the slowdown in trade, and the tightening of financial conditions and dwindling capital inflows to emerging market and developing economies. These key adjustments, combined with geopolitical factors, are creating persistent strains on fiscal positions, with varying impacts on each country (Figure 1.2):

- *Weaker global growth.* Estimates of potential output growth have decreased in recent years for most countries (April 2015 *World Economic Outlook*, Chapter 3). In advanced economies, the decline, which started in the early 2000s, has accelerated during the global financial crisis. In emerging markets, in contrast, it began only after the crisis (Figure 1.2, panel 1). In both cases, growth is unlikely to revert to precrisis levels, slowing the pace of increase in fiscal revenues and also affecting the denominator of fiscal ratios. As a result, debt-to-GDP ratios are expected to remain durably high, especially in advanced economies.
- *Commodity price decline.* Reflecting China’s economic slowdown and rebalancing, and supply factors, commodity prices have plummeted, dragging down the fiscal revenues of commodity producers (Figure 1.2, panel 2). In addition, persistently low prices have exerted downward pressures on producers’ currencies, raising the value of their public debt denominated in foreign currency (Figure 1.2, panel 3). In commodity importers, the price decline has not translated into significant improvements of fiscal positions due to concomitant offsetting factors.<sup>1</sup>
- *Trade slowdown.* Global trade growth in volume terms has slowed since 2009, partly driven by China’s

<sup>1</sup> The positive effect of lower commodity prices has been muted for a number of reasons, including: exchange rate depreciations that have partly offset the reduction in the oil bill in dollar terms; the partial pass-through of lower oil prices to consumers; and the drag on growth due, in particular, to lower investment in the energy and mining sectors (IMF 2015a; April 2016 *World Economic Outlook*, Chapter 1).

**Figure 1.1. Revisions to General Government Gross Debt-to-GDP Ratio, 2007–21**  
(Rebased debt ratio, index 2007 = 100)



Source: IMF staff estimates.

Note: For a list of countries in each group of economies, see Table A in the Methodological and Statistical Appendix.

economic deceleration and the sharp contraction of private investment during the global financial crisis (Figure 1.2, panel 4). This trade slowdown has eroded the fiscal positions of many emerging market and developing economies for which trade is still an important source of tax revenues (Box 1.1).

- *Tighter financial conditions.*<sup>2</sup> In many emerging market and developing economies, external funding conditions for the government have become more difficult as a result of weaker economic prospects, the U.S. Federal Reserve policy rate lift-off, concerns about China's outlook, higher geopolitical risks, and, more generally, a rise in global risk aversion (Figure 1.2, panel 5). In most advanced economies, government bond yields are very low, although in selected European countries sovereign spreads have picked up in early 2016.
- *Geopolitical tensions.* Geopolitical uncertainties are on the rise, as shown by the growing number of armed conflicts, terrorist acts, and countries affected by terrorism in the world (Figure 1.2, panel 6). The intensification of conflicts has large negative impacts on the countries directly affected, for both their economic prospects and their fiscal outcomes. Geopolitical tensions can also spill over to the fiscal

<sup>2</sup> In the text, the term “tightening of financial conditions” refers to the increase in the governments’ borrowing costs.

positions of other countries through various channels, including higher security-related spending, the need to accommodate refugee flows, and changes in perception of risk and confidence. In Europe, for instance, the surge of refugees is testing the flexibility of the fiscal rules framework and the ability of countries to integrate migrants into the labor force (Box 1.2).

### Advanced Economies: Growing Divergences in Fiscal Policy

Advanced economies, as a whole, adopted a neutral fiscal stance in 2015: their structural primary balance<sup>3</sup> remained broadly constant after four years of sustained improvement (Figure 1.3, panel 1). Against a backdrop of weak growth, sizable output gaps, and inflation rates close to zero, the fiscal stance is expected to remain neutral in 2016. As a result, the average debt-to-GDP ratio was stable in 2015 (at 106 percent), and the debt ratio is now projected to peak in 2016, one year later than projected in the April 2015 *Fiscal Monitor*.

However, the neutral aggregate stance masks rising divergences among advanced economies. Countries are taking different approaches to debt reduction

<sup>3</sup> The structural primary balance is a measure that filters out the impact of cyclical movements and one-off factors, and allows making an assessment of the “underlying” fiscal stance.

**Table 1.1a. Fiscal Balances, 2009–17: Overall Balance**  
(Percent of GDP)

	2009	2010	2011	2012	2013	2014	2015	Projections		Difference from April 2015 <i>Fiscal Monitor</i>		
								2016	2017	2015	2016	2017
<b>World</b>	<b>-7.2</b>	<b>-5.7</b>	<b>-4.3</b>	<b>-3.8</b>	<b>-2.9</b>	<b>-2.9</b>	<b>-3.6</b>	<b>-3.6</b>	<b>-3.1</b>	<b>-0.1</b>	<b>-0.7</b>	<b>-0.7</b>
<b>Advanced Economies</b>	<b>-8.8</b>	<b>-7.6</b>	<b>-6.3</b>	<b>-5.5</b>	<b>-3.7</b>	<b>-3.3</b>	<b>-3.0</b>	<b>-2.9</b>	<b>-2.5</b>	<b>0.3</b>	<b>-0.2</b>	<b>-0.3</b>
United States <sup>1</sup>	-13.1	-10.9	-9.6	-7.9	-4.4	-4.1	-3.7	-3.8	-3.7	0.5	0.0	-0.3
Euro Area	-6.3	-6.2	-4.2	-3.7	-3.0	-2.6	-2.0	-1.9	-1.5	0.2	-0.3	-0.2
France	-7.2	-6.8	-5.1	-4.8	-4.1	-3.9	-3.6	-3.4	-2.9	0.3	0.1	-0.1
Germany	-3.0	-4.1	-0.9	0.1	0.1	0.3	0.6	0.1	0.1	0.4	-0.3	-0.3
Italy	-5.3	-4.2	-3.5	-2.9	-2.9	-3.0	-2.6	-2.7	-1.6	0.0	-1.0	-0.5
Spain <sup>2</sup>	-11.0	-9.4	-9.5	-10.4	-6.9	-5.9	-4.5	-3.4	-2.5	-0.2	-0.5	0.0
Japan	-10.4	-9.3	-9.8	-8.8	-8.5	-6.2	-5.2	-4.9	-3.9	1.0	0.1	0.4
United Kingdom	-10.7	-9.6	-7.7	-7.7	-5.6	-5.6	-4.4	-3.2	-2.2	0.4	-0.2	-0.7
Canada	-3.9	-4.7	-3.3	-2.5	-1.9	-0.5	-1.7	-2.4	-1.8	0.0	-1.2	-0.9
Others	-0.8	-0.2	0.4	0.4	0.2	0.1	-0.5	-0.4	-0.1	-0.2	-0.4	-0.4
<b>Emerging Market and Middle-Income Economies</b>	<b>-3.7</b>	<b>-1.9</b>	<b>-0.9</b>	<b>-1.1</b>	<b>-1.5</b>	<b>-2.4</b>	<b>-4.5</b>	<b>-4.7</b>	<b>-4.1</b>	<b>-0.8</b>	<b>-1.4</b>	<b>-1.3</b>
Excluding MENAP Oil Producers	-4.0	-2.5	-1.8	-2.1	-2.4	-2.7	-4.1	-4.2	-3.7	-0.8	-1.0	-0.8
Asia	-3.4	-1.5	-1.6	-1.9	-1.9	-1.9	-3.2	-3.5	-3.2	-0.5	-0.6	-0.5
China	-1.8	0.6	-0.1	-0.7	-0.8	-0.9	-2.7	-3.1	-2.7	-0.8	-0.9	-0.8
India	-9.8	-8.4	-8.2	-7.5	-7.7	-7.0	-7.2	-7.0	-6.7	0.0	0.1	0.2
Europe	-5.7	-3.7	-0.1	-0.6	-1.4	-1.4	-2.7	-3.4	-2.7	0.2	-1.4	-1.3
Russia	-5.9	-3.2	1.4	0.4	-1.2	-1.1	-3.5	-4.4	-3.0	0.2	-1.9	-1.7
Latin America	-3.8	-3.1	-2.8	-3.2	-3.2	-5.1	-7.3	-6.5	-5.9	-2.5	-2.1	-1.8
Brazil	-3.2	-2.7	-2.5	-2.5	-3.0	-6.0	-10.3	-8.7	-8.5	-5.0	-3.9	-4.3
Mexico	-5.0	-3.9	-3.4	-3.8	-3.7	-4.6	-4.1	-3.5	-3.0	0.0	0.0	0.0
MENAP	-1.1	2.3	4.3	5.6	3.8	-0.6	-8.6	-10.0	-8.7	-1.1	-5.3	-5.6
Saudi Arabia	-5.4	3.6	11.2	12.0	5.8	-3.4	-16.3	-13.5	-11.8	-2.1	-5.4	-6.4
South Africa	-4.7	-4.8	-3.9	-4.1	-4.0	-3.8	-4.0	-3.8	-3.6	0.1	-0.3	-0.5
<b>Low-Income Developing Countries</b>	<b>-4.2</b>	<b>-2.7</b>	<b>-1.1</b>	<b>-2.0</b>	<b>-3.4</b>	<b>-3.2</b>	<b>-4.1</b>	<b>-4.5</b>	<b>-4.0</b>	<b>-0.6</b>	<b>-1.3</b>	<b>-1.1</b>
Nigeria	-6.0	-4.2	0.4	0.2	-2.3	-2.1	-4.0	-4.7	-4.3	-2.0	-3.0	-2.5
<b>Oil Producers</b>	<b>-2.9</b>	<b>-1.1</b>	<b>1.4</b>	<b>1.5</b>	<b>0.4</b>	<b>-1.0</b>	<b>-4.7</b>	<b>-5.6</b>	<b>-4.6</b>	...	...	...
<b>Memorandum</b>												
World Output (percent)	-0.1	5.4	4.2	3.5	3.3	3.4	3.1	3.2	3.5	-0.4	-0.6	-0.3

Source: 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. In many countries, 2015 data are still preliminary. Projections are based on IMF staff assessments of current policies. For country-specific details, see Data and Conventions and Tables A, B, C, and D in the Methodological and Statistical Appendix. MENAP = Middle East, North Africa, and Pakistan.

<sup>1</sup> For cross-country comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities and the imputed compensation of employees, which are counted as expenditures under the 2008 System of National Accounts (2008 SNA) adopted by the United States, but not in countries that have not yet adopted the 2008 SNA. Data for the United States in this table may thus differ from data published by the U.S. Bureau of Economic Analysis.

<sup>2</sup> Including financial sector support.

**Table 1.1b. Fiscal Balances, 2009–17: Cyclically Adjusted Primary Balance**  
(Percent of potential GDP)

	2009	2010	2011	2012	2013	2014	2015	Projections		Difference from April 2015 <i>Fiscal Monitor</i>		
								2016	2017	2015	2016	2017
<b>Advanced Economies</b>	<b>-4.3</b>	<b>-5.0</b>	<b>-3.8</b>	<b>-2.6</b>	<b>-1.5</b>	<b>-1.1</b>	<b>-0.9</b>	<b>-1.0</b>	<b>-0.8</b>	<b>-0.9</b>	<b>-1.0</b>	<b>-0.8</b>
United States <sup>1,2,3</sup>	-5.8	-7.5	-5.8	-4.0	-2.0	-1.5	-1.1	-1.4	-1.4	-1.1	-1.4	-1.4
Euro Area	-2.2	-2.4	-1.1	0.1	1.1	1.1	1.1	0.8	0.8	-0.1	-0.4	-0.4
France	-3.4	-3.6	-2.2	-1.6	-1.0	-0.6	-0.6	-0.6	-0.5	0.0	-0.2	-0.4
Germany	1.4	-1.2	0.7	1.8	2.0	1.8	1.9	1.1	0.8	0.5	0.0	-0.1
Italy	0.4	0.4	1.1	3.3	3.5	3.4	3.0	2.6	3.0	-0.4	-1.1	-0.7
Spain <sup>2,3</sup>	-9.1	-6.7	-5.2	-1.2	0.0	0.4	0.3	0.5	0.6	0.0	-0.4	-0.2
Japan	-7.0	-7.3	-7.7	-7.0	-7.5	-5.2	-4.6	-4.4	-3.5	0.9	0.0	0.2
United Kingdom <sup>2</sup>	-7.7	-5.1	-3.3	-3.8	-2.9	-3.1	-2.6	-1.4	-0.5	-0.2	-0.5	-1.1
Canada	-1.3	-2.9	-2.3	-1.3	-0.9	0.2	-0.4	-1.4	-1.3	0.8	-0.6	-0.7
Others	-1.7	-1.5	-1.2	-1.1	-1.0	-0.8	-1.0	-0.9	-0.6	0.1	0.0	0.0
<b>Emerging Market and Middle-Income Economies</b>	<b>-1.8</b>	<b>-0.6</b>	<b>-0.1</b>	<b>-0.4</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-1.6</b>	<b>-1.8</b>	<b>-1.3</b>	<b>-0.7</b>	<b>-0.8</b>	<b>-0.6</b>
Asia	-1.9	-0.2	-0.3	-0.5	-0.4	-0.3	-1.8	-2.0	-1.6	-0.5	-0.5	-0.3
China	-1.4	1.0	0.4	0.0	0.0	0.1	-1.9	-2.2	-1.7	-0.8	-0.7	-0.5
India	-5.0	-4.5	-4.1	-3.1	-3.0	-2.4	-2.5	-2.4	-2.1	-0.4	0.0	0.1
Europe	-4.1	-2.5	0.4	0.1	-0.7	0.2	-0.6	-1.7	-1.0	-0.2	-1.4	-1.3
Russia	-6.2	-3.1	1.5	0.2	-1.3	0.2	-2.0	-3.6	-2.1	0.0	-1.7	-1.7
Latin America	0.4	0.1	0.3	-0.1	-0.6	-1.9	-1.7	-0.9	-0.2	-1.6	-1.4	-1.0
Brazil	2.1	1.2	1.6	0.7	0.2	-1.9	-0.9	-0.5	-0.1	-2.6	-2.9	-2.6
Mexico	-1.4	-1.1	-0.9	-1.4	-1.2	-1.8	-1.2	-0.4	0.2	0.1	0.2	0.2
South Africa	-0.8	-1.0	-0.9	-1.2	-0.9	-0.4	-0.4	0.3	0.7	0.1	0.0	0.1
MENAP	...	...	...	...	...	...	...	...	...	...	...	...
Saudi Arabia	...	...	...	...	...	...	...	...	...	...	...	...
Nigeria	...	...	...	...	...	...	...	...	...	...	...	...

Source: 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 assessments of current policies. In many countries, 2015 data are still preliminary. For country-specific details, see Data and Conventions and Tables A, B, C, and D in the Methodological and Statistical Appendix. MENAP = Middle East, North Africa, and Pakistan.

<sup>1</sup> For cross-country comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities and the imputed compensation of employees, which are counted as expenditures under the 2008 System of National Accounts (2008 SNA) adopted by the United States, but not in countries that have not yet adopted the 2008 SNA. Data for the United States in this table may thus differ from data published by the U.S. Bureau of Economic Analysis.

<sup>2</sup> Excluding financial sector support.

<sup>3</sup> Data refer to structural primary balance.

depending on their initial fiscal position (Figure 1.3, panels 2 and 3):

- Countries with the most unfavorable initial conditions generally pursue fiscal consolidation, in some cases at a slower pace (Figure 1.3, panel 4): their structural primary balance is expected to keep improving by at least ½ percent of GDP in 2016 relative to 2014. This first group of countries is, predominantly, characterized by either high public debt (Japan) or a large primary deficit (United Kingdom). However, except for Japan, all these countries are expected to enjoy an annual GDP growth rate greater than 1½ percent in 2015–16.
- Other countries are relaxing their fiscal stance: their structural primary balance is expected to loosen by at least ½ percent of GDP in 2016 relative to 2014. Initial conditions were somewhat more favorable in these countries: the ratio of debt to GDP was in general lower and was either on a steady downward path (Germany) or close to peak (Austria), and the structural primary balance was already in surplus (Italy). As a result of these favorable initial conditions, the fiscal relaxation is not expected to reverse the debt decline.
- A third group of countries pauses fiscal consolidation, maintaining a broadly neutral stance in 2015–16 and effectively postponing the debt

**Table 1.2. General Government Debt, 2009–17**  
(Percent of GDP)

	2009	2010	2011	2012	2013	2014	2015	Projections		Difference from April 2015 Fiscal Monitor		
								2016	2017	2015	2016	2017
<b>Gross Debt</b>												
<b>World</b>	<b>75.1</b>	<b>77.2</b>	<b>78.2</b>	<b>79.9</b>	<b>79.1</b>	<b>79.6</b>	<b>81.3</b>	<b>83.6</b>	<b>83.4</b>	<b>1.0</b>	<b>3.6</b>	<b>4.1</b>
<b>Advanced Economies</b>	<b>92.0</b>	<b>98.5</b>	<b>102.6</b>	<b>106.9</b>	<b>105.7</b>	<b>105.6</b>	<b>105.8</b>	<b>107.6</b>	<b>107.0</b>	<b>0.4</b>	<b>2.5</b>	<b>2.8</b>
United States <sup>1</sup>	86.0	94.7	99.0	102.5	104.8	105.0	105.8	107.5	107.5	0.8	2.6	3.2
Euro Area	78.3	84.0	86.6	91.3	93.4	94.5	93.2	92.5	91.3	-0.4	0.1	0.5
France	78.8	81.5	85.0	89.4	92.3	95.6	96.8	98.2	98.8	-0.2	0.1	0.9
Germany	72.5	81.0	78.4	79.7	77.4	74.9	71.0	68.2	65.9	1.5	1.6	1.8
Italy	112.5	115.4	116.5	123.3	128.9	132.5	132.6	133.0	131.7	-1.2	0.2	0.6
Spain	52.7	60.1	69.5	85.4	93.7	99.3	99.0	99.0	98.5	-0.5	-1.0	-1.7
Japan	210.2	215.8	231.6	238.0	244.5	249.1	248.1	249.3	250.9	1.9	2.4	2.3
United Kingdom	65.7	76.6	81.8	85.3	86.2	88.2	89.3	89.1	87.9	-1.8	-2.5	-2.8
Canada <sup>1</sup>	79.3	81.1	81.5	84.8	86.1	86.2	91.5	92.3	90.6	4.5	7.3	7.5
<b>Emerging Market and Middle-Income Economies</b>	<b>39.7</b>	<b>38.7</b>	<b>37.9</b>	<b>38.1</b>	<b>39.5</b>	<b>41.5</b>	<b>45.4</b>	<b>47.5</b>	<b>49.0</b>	<b>1.5</b>	<b>2.9</b>	<b>3.9</b>
Excluding MENAP Oil Producers	42.1	41.1	40.5	40.8	42.1	44.2	47.8	49.5	50.7	1.3	2.1	2.8
Asia	43.5	41.3	40.8	41.4	42.9	44.2	46.5	48.5	50.3	0.5	0.8	1.3
China	36.9	35.1	35.3	36.9	39.5	41.1	43.9	46.8	49.3	0.4	0.6	1.2
India	72.5	67.5	68.8	67.7	66.2	66.4	67.2	66.5	65.6	2.8	3.2	3.1
Europe	28.8	28.6	27.2	26.3	27.6	29.9	33.4	34.8	34.5	-0.5	2.2	2.2
Russia	10.0	10.6	10.9	11.8	13.1	16.3	17.7	18.4	19.4	-1.1	1.3	2.3
Latin America	49.1	48.2	48.0	47.9	48.7	51.6	57.4	58.4	59.7	5.1	6.2	7.9
Brazil <sup>2</sup>	64.9	63.0	61.2	62.3	60.4	63.3	73.7	76.3	80.5	7.5	10.1	15.2
Mexico	43.9	42.2	43.2	43.2	46.4	49.5	54.0	54.9	54.9	2.6	3.2	3.2
MENAP	25.5	24.5	22.0	23.3	24.2	25.2	31.2	37.9	41.3	3.4	10.0	13.7
Saudi Arabia	14.0	8.4	5.4	3.6	2.2	1.6	5.8	17.2	25.8	4.0	15.5	24.2
South Africa	30.1	34.7	38.2	40.9	44.2	47.1	50.1	51.4	52.1	2.6	3.2	3.3
<b>Low-Income Developing Countries</b>	<b>33.2</b>	<b>30.8</b>	<b>30.2</b>	<b>30.3</b>	<b>30.8</b>	<b>31.5</b>	<b>35.6</b>	<b>36.8</b>	<b>36.6</b>	<b>1.7</b>	<b>2.5</b>	<b>2.3</b>
Nigeria	9.6	9.6	10.2	10.4	10.5	10.6	11.5	13.3	14.0	0.0	2.0	2.9
<b>Oil Producers</b>	<b>34.2</b>	<b>33.5</b>	<b>31.5</b>	<b>31.7</b>	<b>32.8</b>	<b>34.4</b>	<b>39.8</b>	<b>42.0</b>	<b>42.5</b>	...	...	...
<b>Net Debt</b>												
<b>World</b>	<b>50.6</b>	<b>54.1</b>	<b>57.2</b>	<b>59.2</b>	<b>58.3</b>	<b>58.7</b>	<b>60.6</b>	<b>63.1</b>	<b>63.3</b>	<b>-0.8</b>	<b>1.3</b>	<b>1.5</b>
<b>Advanced Economies</b>	<b>58.0</b>	<b>63.1</b>	<b>67.8</b>	<b>71.1</b>	<b>70.1</b>	<b>70.2</b>	<b>71.1</b>	<b>72.8</b>	<b>72.6</b>	<b>-0.8</b>	<b>0.5</b>	<b>0.5</b>
United States <sup>1</sup>	62.0	69.5	75.9	79.4	80.9	80.6	80.6	82.2	82.2	0.2	1.5	1.6
Euro Area	52.5	56.6	58.8	66.9	69.2	70.3	69.4	69.3	68.6	-0.4	0.1	0.4
France	70.1	73.7	76.4	81.7	84.6	87.9	89.1	90.5	91.1	-0.2	0.1	0.9
Germany	54.3	56.7	55.0	54.4	53.4	51.9	48.8	46.7	44.9	1.8	2.0	2.2
Italy	94.2	98.3	100.4	104.9	109.7	112.6	111.4	111.8	110.7	-0.4	0.7	1.1
Spain	24.2	32.5	39.3	52.1	59.9	64.0	65.0	66.2	66.6	-2.4	-2.6	-3.0
Japan	106.2	113.1	127.2	129.0	124.2	126.2	128.1	129.6	131.2	-1.5	-2.3	-3.0
United Kingdom	58.7	69.2	73.3	76.6	77.8	79.7	80.7	80.6	79.3	-1.9	-2.5	-2.9
Canada <sup>1</sup>	24.4	26.8	27.1	28.2	29.4	28.1	26.7	27.5	25.8	-11.6	-10.4	-11.4
<b>Emerging Market and Middle-Income Economies</b>	<b>12.4</b>	<b>14.0</b>	<b>12.7</b>	<b>9.8</b>	<b>9.1</b>	<b>9.9</b>	<b>11.2</b>	<b>14.5</b>	<b>17.9</b>	<b>0.3</b>	<b>1.7</b>	<b>3.8</b>
Asia	...	...	...	...	...	...	...	...	...	...	...	...
Europe	28.9	29.6	28.1	25.9	26.3	25.5	24.3	27.0	27.1	-2.3	0.0	0.0
Latin America	33.9	33.1	31.2	29.5	29.6	32.5	35.6	39.4	41.6	2.2	5.6	8.0
MENAP	-38.3	-34.9	-33.9	-35.7	-42.9	-42.4	-37.1	-30.5	-22.3	1.9	1.6	5.0
<b>Low-Income Developing Countries</b>	...	...	...	...	...	...	...	...	...	...	...	...

Source: IMF staff estimates and projections.

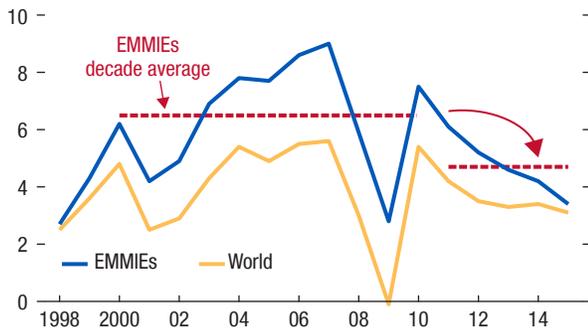
Note: All fiscal data country averages are weighted by nominal GDP converted to U.S. dollars at average market exchange rates in the years indicated and based on data availability. Projections are based on IMF staff assessments of current policies. In many countries, 2015 data are still preliminary. For country-specific details, see Data and Conventions and Tables A, B, C, and D in the Methodological and Statistical Appendix. MENAP = Middle East, North Africa, and Pakistan.

<sup>1</sup> For cross-country comparability, gross and net debt levels reported by national statistical agencies for countries that have adopted the 2008 System of National Accounts (Australia, Canada, Hong Kong SAR, United States) are adjusted to exclude unfunded pension liabilities of government employees' defined-benefit pension plans.

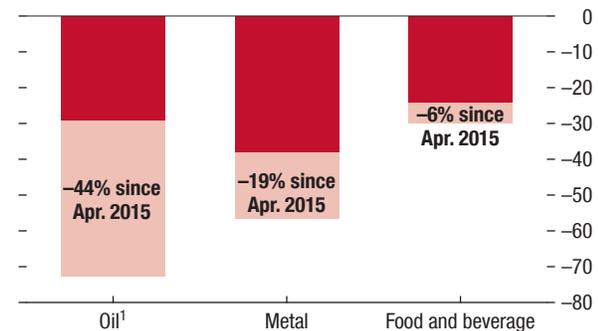
<sup>2</sup> Gross debt refers to the nonfinancial public sector, excluding Eletrobras and Petrobras, and includes sovereign debt held on the balance sheet of the central bank.

**Figure 1.2. Major Realignments in the Global Economy**

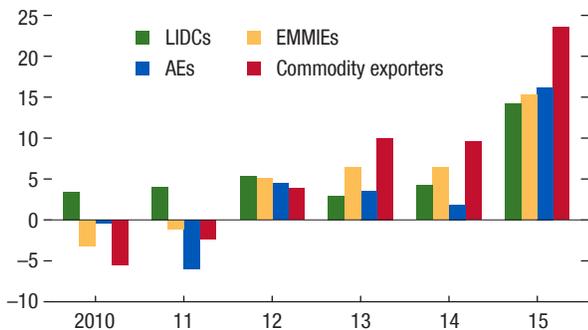
**1. Real GDP Growth since 1998 (Percent change)**



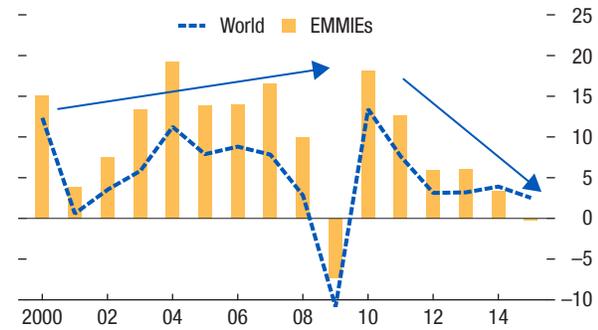
**2. Commodity Prices (Percent change from peak levels, Apr. 2011–Feb. 2016)**



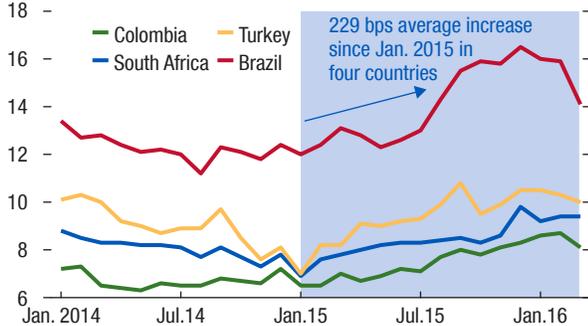
**3. Exchange Rate, National Currency per U.S. Dollar, 2010–15 (Annual percent change)**



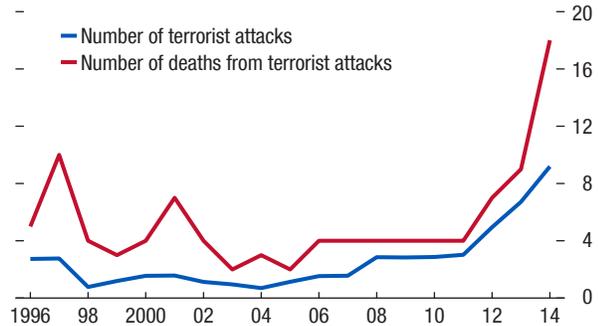
**4. Import Volume Growth, 2000–15 (Percent change)**



**5. Emerging Market and Middle-Income Economies: 10-Year Sovereign Bond Yields, 2014–16<sup>2</sup> (Selected countries, percent)**



**6. Global Terrorism, 1996–2014 (Thousands)**

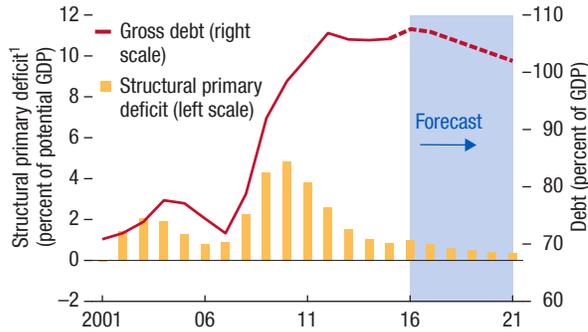


Sources: Thomson Reuters DataStream; Global Terrorism Database; IMF Primary Commodity Price System Database; and IMF staff estimates. Note: For a list of countries in each group of economies, see Table A in the Methodological and Statistical Appendix. bps = basis points; AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries.

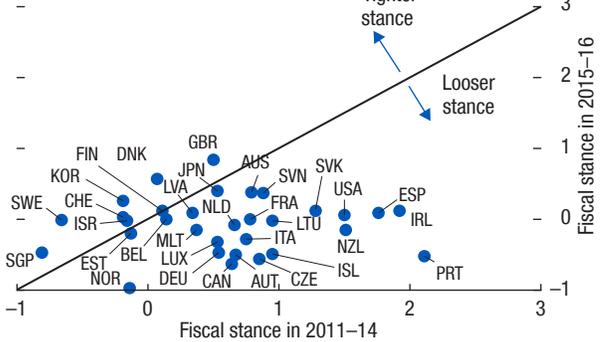
<sup>1</sup> Oil refers to the Brent crude index.  
<sup>2</sup> Data refer to the end of the month.

**Figure 1.3. Fiscal Trends in Advanced Economies**

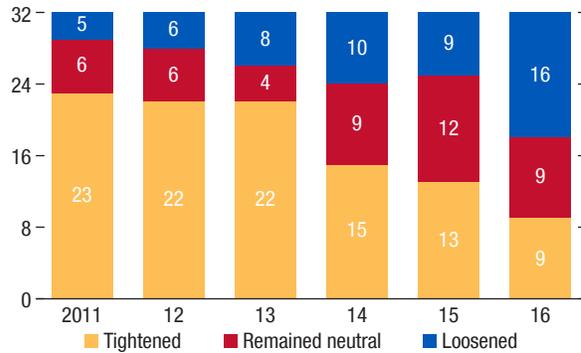
**1. Debt and Deficit, 2001–21**



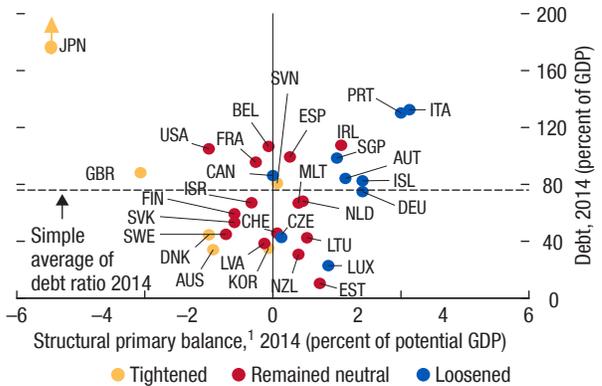
**2. Fiscal Stance in 2015–16 versus 2011–14<sup>2</sup> (Percent of potential GDP)**



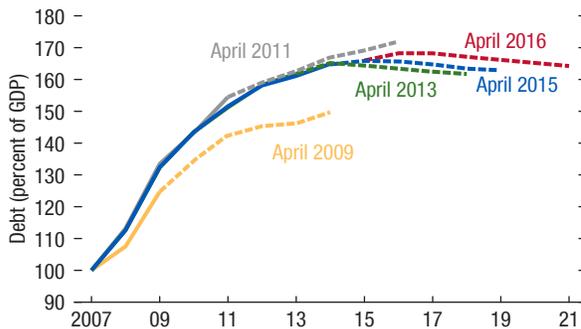
**3. Number of Countries in Which the Fiscal Stance Was Tightened, Loosened, or Remained Neutral, 2011–16<sup>3</sup>**



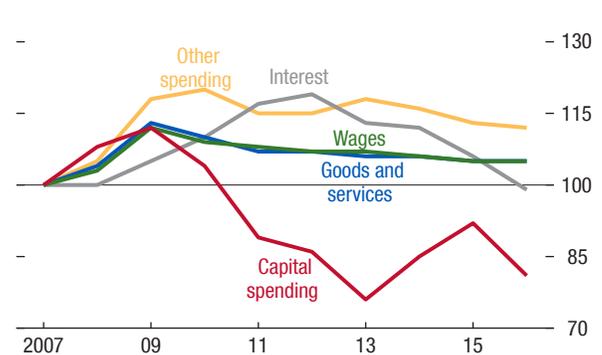
**4. Initial Fiscal Conditions in 2014 and Fiscal Stance in 2015–16<sup>3</sup>**



**5. Revisions to General Government Gross Debt Ratio for Countries with Neutral Fiscal Stance in 2015–16<sup>3</sup> (Rebased debt ratio, index 2007 = 100)**



**6. General Government Expenditure Composition, 2007–16 (Rebased ratio to GDP, index 2007 = 100)**



Source: IMF staff estimates.

Note: For a list of countries in the advanced economies group, see Table A in the Methodological and Statistical Appendix. For definition and coverage of government subsectors in the advanced economies, see Table B in the Methodological and Statistical Appendix. Data labels in the figure use International Organization for Standardization (ISO) country codes.

<sup>1</sup> Structural primary deficit refers to the difference between the cyclically adjusted primary deficit 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, assets and commodity prices and output composition effects).

<sup>2</sup> Fiscal stance in 2011–14 (respectively 2015–16) is measured as the average change per year in the structural primary balance between 2010 and 2014 (respectively 2014 and 2016).

<sup>3</sup> Fiscal stance is tightened if the ratio of the structural primary balance to potential GDP improves by at least 0.25 percent per year; it is loosened if it deteriorates by at least 0.25 percent per year, remains neutral otherwise. In panels 4 and 5, the fiscal stance in 2015–16 is based on the change in the structural primary balance to potential GDP between 2014 and 2016.

decrease (Figure 1.3, panel 5). This group is more heterogeneous, with some low-debt countries having relatively small adjustment needs and others balancing the medium-term need for consolidation with the near-term priorities of bolstering growth and job creation (Belgium, France, United States).

Progress has been mixed in implementing fiscal policies that support growth while ensuring fiscal sustainability. After increasing in 2014–15, the average ratio of public investment to GDP in advanced economies is expected to resume its decline in 2016 (Figure 1.3, panel 6). Only a few countries plan to raise their public investment ratio this year. In Canada, the federal government announced in March a pro-growth budget that includes an increase in infrastructure spending by 0.5 percent of GDP over the next two fiscal years. In the euro area, the European Fund for Strategic Investment has started its operations, with about €76 billion of projects approved so far, jointly financed by the public and the private sectors. With regard to fiscal rebalancing, in most countries labor income taxation remains high and gains from cutting inefficiency in public spending have not yet been realized. Austria approved a personal income tax reform starting in 2016 but half of the financing relies on measures to combat tax fraud with uncertain yields. Belgium has implemented a pension reform and a tax shift that reduces the labor tax wedge.

Reforming fiscal institutions and developing credible, clear, and comprehensive medium-term fiscal plans continue to be challenges in most advanced economies. The Japanese authorities announced a new fiscal strategy in June 2015 consisting of stronger growth objectives, greater labor force participation, and a broader and more efficient social security system; however, fiscal policy continues to rely on a one-time stimulus, and further specific measures should be identified to achieve the fiscal year (FY) 2020 primary surplus goal. In the United States, the budget bill passed in October 2015 reduced uncertainty by lifting the debt ceiling until about March 2017 (after the next presidential administration takes over), but it contains mostly one-time measures on the revenue side. The United Kingdom announced a detailed multiyear fiscal plan in December 2015. The authorities have also adopted a new fiscal rule requiring a public sector fiscal surplus starting in FY2019/20, with an escape clause should growth fall below 1 percent. The rule effectively operates on a “comply or explain” basis, adding another degree of flexibility. In October 2015, the European Commission proposed establishing an independent European Fiscal Board that would, among

other duties, evaluate the implementation of European Union fiscal rules and assess the appropriateness of the overall euro area fiscal stance. The board’s effectiveness will hinge upon its independence from the commission and outside political pressures.

## Emerging Market and Middle-Income Economies: Tough Policy Adjustments Ahead

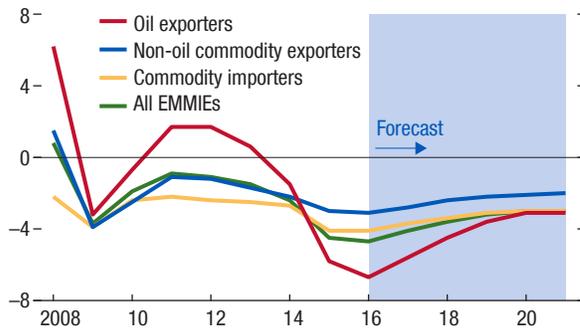
Headline fiscal balances in emerging market and middle-income economies deteriorated sharply, from an average deficit of 2.4 percent of GDP in 2014 to 4.5 percent in 2015. The 2015 number was the largest deficit since the 1990s and the largest yearly deterioration since the beginning of the global financial crisis (Figure 1.4, panel 1). Although China accounted for one-third of the overall deficit increase, this trend was broad-based, affecting about two-thirds of the countries in the sample. Driving this deterioration was a sharp slowdown in growth and several aggravating factors—notably plummeting commodity prices, tighter external funding conditions, and decelerating capital inflows (Figure 1.4, panels 2 and 3). The average debt ratio in this group of countries reached 45.4 percent of GDP in 2015, a jump of 3.9 percentage points from a year ago, amid rising deficits and depreciating currencies (Figure 1.4, panel 4). In this context, sovereign debt ratings have recently been downgraded in a number of countries, including Azerbaijan, Brazil, Russia, Saudi Arabia, South Africa, and Venezuela.

The shift in fiscal positions has been the largest in oil exporters, which experienced a decline in oil prices of more than 40 percent in the past 12 months (Figure 1.2, panel 2). Their revenue ratio dropped by a marked 5.8 percentage points of GDP in 2015. Revenue shortfalls were higher in oil exporters with small or no currency adjustments (Kuwait, Libya, Saudi Arabia), whereas countries that let their currencies depreciate (Colombia, Mexico, Russia) partly recouped the losses in domestic currency (Figure 1.4, panel 5). Countries responded to stumbling revenues in a variety of ways: by cutting current spending (Indonesia, Islamic Republic of Iran) or capital expenditure (Saudi Arabia) or both (Mexico); or by raising taxes (Islamic Republic of Iran) or non-oil non-tax revenues (Saudi Arabia). Several others accommodated the shock by running down financial assets, including foreign exchange reserves, to finance their deficits (Gulf region, Russia, Venezuela) (Figure 1.4, panel 6).

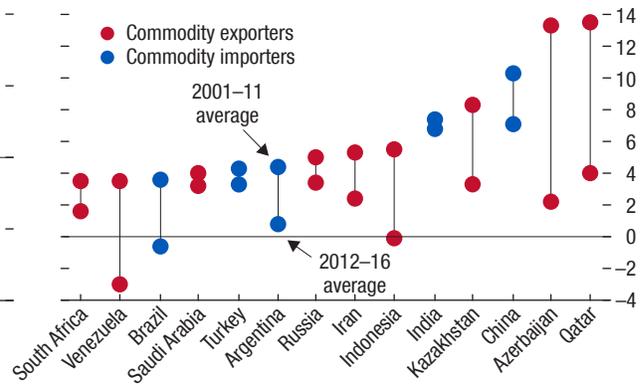
The fiscal positions of other commodity exporters (Chile, Peru, South Africa) and commodity importers deteriorated far less in general. In China, the on-bud-

**Figure 1.4. Fiscal Trends in Emerging Market and Middle-Income Economies**

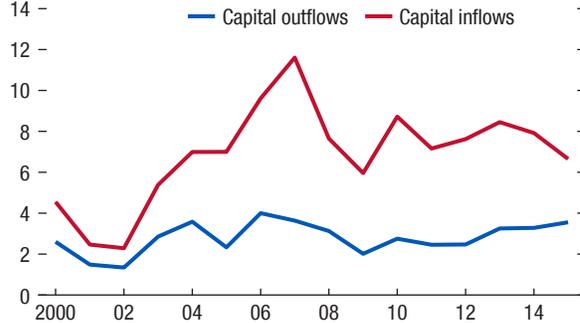
**1. General Government Overall Balance, 2008–21  
(Percent of GDP)**



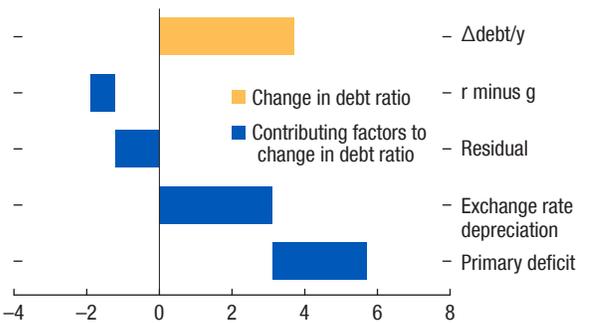
**2. Average Real GDP Growth: 2001–11 versus 2012–16  
(Percent)**



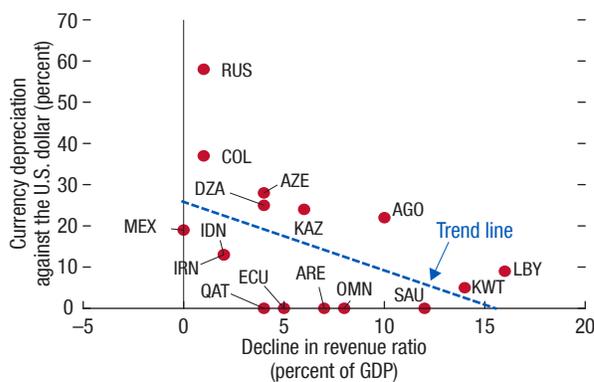
**3. Capital Flows in G20 Emerging Market and Middle-Income Economies, 2000–15<sup>1</sup>  
(Percent of GDP)**



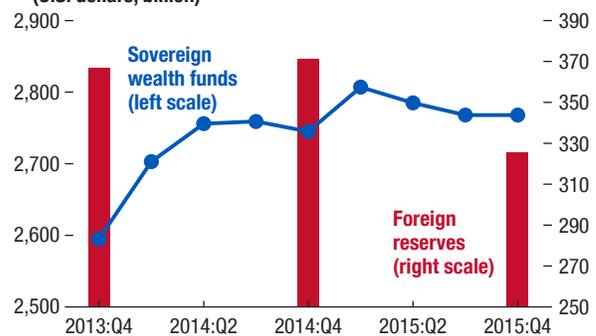
**4. Emerging Market and Middle-Income Economies: Decomposition of Change in Debt Ratio between 2014 and 2015<sup>2</sup>  
(Percentage points)**



**5. Oil Exporters in 2015: Currency Depreciation versus Revenue Ratio Decline**



**6. Gulf Region: Sovereign Wealth Funds and Foreign Reserve Assets<sup>3</sup>  
(U.S. dollars, billion)**



Sources: Sovereign Wealth Fund Institute; and IMF staff estimates.

Note: For a list of countries in the emerging market and middle-income economies group, see Table A in the Methodological and Statistical Appendix. Data labels in the figure use International Organization for Standardization (ISO) country codes. EMMIEs = emerging market and middle-income economies; G20 = Group of Twenty;  $\Delta\text{debt}/y$  = annual change in gross debt to GDP;  $r$  minus  $g$  = interest–growth rate differential.

<sup>1</sup> Capital inflows are net purchases of domestic assets by nonresidents. Capital outflows are net purchases of foreign assets by domestic residents. EMMIEs in the G20 include Argentina, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, and Turkey. 2015 figure includes data available up to Q3 and excludes Argentina due to the unavailability of GDP figure. Numbers are aggregated over the sample of G20 EMMIEs using the simple average method.

<sup>2</sup> Average contributions over the sample of EMMIEs using the simple average method.

<sup>3</sup> Gulf region includes Kuwait, Oman, Saudi Arabia, Qatar, and the United Arab Emirates.

get deficit increased to 2.7 percent of GDP from 0.9 percent in 2014, partly because of weaker industrial profits and imports, but restraint in off-budget local spending is likely to have brought down the “augmented” deficit (which includes off-budget activity by local government financing vehicles). Compared with other commodity importers, Brazil experienced a larger deterioration in its headline deficit, which increased by 4.3 percentage points to 10.3 percent of GDP in 2015 driven by weak revenues, a soaring interest bill, and a clean-up of past arrears, in a context of deepening recession and political turbulence. As a result, its debt stock surged by 10.4 percentage points to 73.7 percent of GDP.

In 2016, the outlook remains uncertain, particularly for oil exporters that based their budgets on optimistic oil price assumptions and may have to revise their plans in the course of the year. Under the baseline scenario, the fiscal position in emerging market and middle-income economies is projected to mildly deteriorate, with the overall deficit averaging 4.7 percent of GDP. However, this general trend masks great heterogeneity across countries:

- To manage the economic slowdown and rebalancing, China intends to maintain a stimulatory fiscal position, supported mainly through tax cuts, raising its on-budget deficit target to 3 percent of GDP in 2016. Reforming state-owned enterprises, including through corporate restructuring and downsizing, is a key objective, although the reform’s implementation details need to be further clarified. The authorities also plan to complete their value-added tax (VAT) reform bringing all remaining services under the VAT regime.
- In India, following a pause in FY2015/16, fiscal consolidation is expected to resume with the FY2016/17 budget, partly through capital spending restraint and asset sales. The authorities also announced plans to revamp the fiscal responsibility framework to allow for a more countercyclical policy response in the future. India’s debt ratio is set to decline gradually in the medium term, in part because of strong growth prospects.
- Even though oil producers are implementing large fiscal consolidation measures, many will experience a deterioration in their headline fiscal position in 2016. Fiscal deficits are set to increase significantly in the Gulf economies except Saudi Arabia. In this country, a mix of spending cuts, energy price reforms, and non-oil revenue measures should bring

down the fiscal deficit by almost 3 percent of GDP this year. Reforms are also being undertaken to strengthen the fiscal and debt management frameworks. In Russia, the authorities are considering further reductions in nondefense and social spending, as well as excise tax hikes, in addition to the public wage freeze and partial indexation of pension benefits already included in the initial 2016 budget. The government also plans to adopt a new fiscal rule based on a lower oil price and return to its medium-term budget framework.

- The fiscal position is expected to improve in some countries as a result of measures they are implementing in response to new fiscal pressures. In Brazil, the authorities target a lower primary deficit in 2016 than in 2015—albeit less ambitious than initially planned.<sup>4</sup> The debt ratio is expected to reach 76.3 percent of GDP in 2016. To anchor medium-term fiscal prospects, the authorities plan to introduce a multiyear ceiling on expenditure growth and have been discussing the need to reform the social security system. In Argentina, the authorities have announced multiyear fiscal targets to bring the federal government primary deficit to near zero in 2019. For 2016, they envisage a ½ percentage point of GDP improvement in this deficit as a result of spending cuts, including in energy subsidies. Mexico remains committed to raising the fiscal balance by about ½ percentage point of GDP per year during the period 2015–18 to put the debt-to-GDP ratio on a declining path. In February, the government announced expenditure cuts of 0.7 percent of GDP in response to lower oil prices.

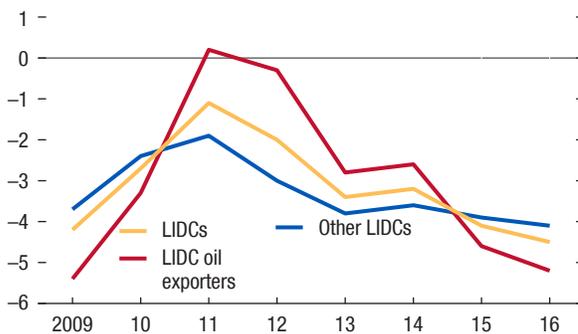
### Low-Income Developing Countries: Riding Out the Turning Tide

In low-income developing countries, the average overall deficit increased to 4.1 percent of GDP in 2015, a level last seen at the onset of the global financial crisis (Figure 1.5, panel 1). In addition to lower commodity prices and slowing growth, several factors contributed to large deteriorations in the overall fiscal balance, including conflict (Yemen), the Ebola epidemic (Guinea), and tax shortfalls (Kenya). A notable exception to the trend of rising fiscal deficits is Ghana,

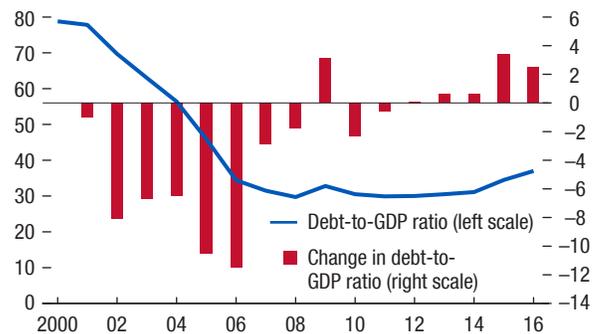
<sup>4</sup> The government has revised downward its initial budget objectives to reflect weaker revenues, higher investment spending, and rising health costs (including those related to the Zika virus).

**Figure 1.5. Fiscal Trends in Low-Income Developing Countries**

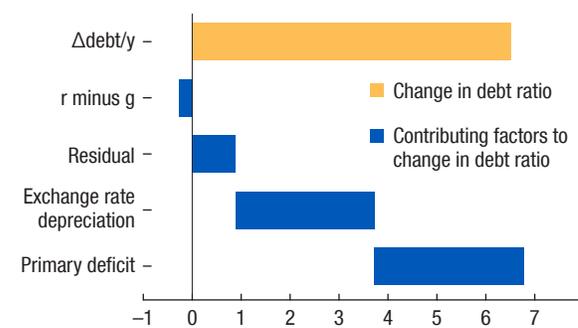
**1. Overall Fiscal Balance: 2009–16  
(Percent of GDP)**



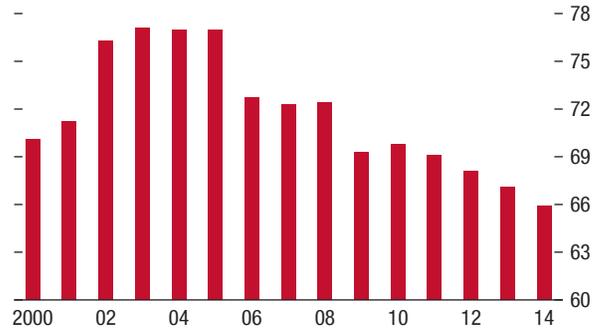
**2. Change in Debt-to-GDP Ratio, 2000–15  
(Percent of GDP)**



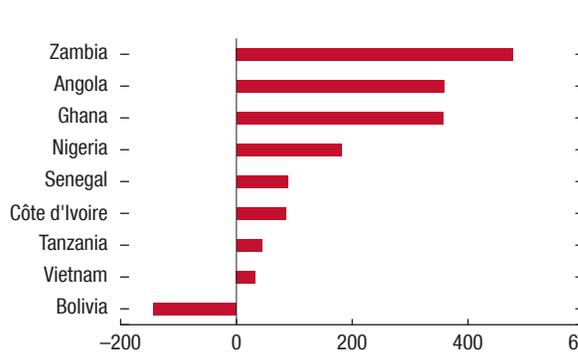
**3. Low-Income Developing Countries: Decomposition of Debt Ratio Change, 2014–15<sup>1</sup>  
(Percentage points)**



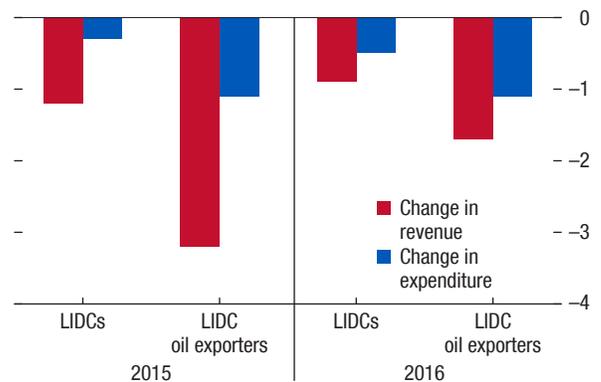
**4. Low-Income Developing Countries: Share of Concessional Debt in Total External Debt, 2000–14  
(Percent)**



**5. EMBI Sovereign Spreads<sup>2</sup>  
(Basis points, change since April 2015)**



**6. Annual Change in General Government Revenue and Expenditure Ratios, 2015–16  
(Percent of GDP)**



Sources: Thomson Reuters Datastream; World Bank; and IMF staff estimates.

Note: For a list of low-income developing countries, see Table A in the Methodological and Statistical Appendix. EMBI = Emerging Markets Bond Index; LIDCs = low-income developing countries;  $\Delta\text{debt}/y$  = annual change in gross debt-to-GDP ratio;  $r$  minus  $g$  = interest-growth rate differential.

<sup>1</sup> Average contributions over the sample of low-income developing countries using the simple average method.

<sup>2</sup> Data refer to J.P. Morgan EMBI global stripped spread. Data are from April 1, 2015 through March 24, 2016.

where policy efforts on the revenue and spending sides helped reduce the overall fiscal deficit from a relatively high level of 12.4 percent of GDP in 2014 to 5 percent in 2015.

The average government debt ratio rose by 4 percentage points to 35.6 percent of GDP in 2015—the largest increase since 2000—as a result of widening primary deficits and currency depreciations against the U.S. dollar (Figure 1.5, panels 2 and 3). There are some differences across countries nonetheless. In countries that were early beneficiaries of multilateral debt relief initiatives, debt ratios started increasing much earlier from the second half of the 2000s, as some of these countries accessed international markets and took advantage of favorable borrowing conditions to finance higher deficits (IMF 2014). As for debt composition, an increasing number of low-income developing countries have made debut issuances of international bonds in the past decade, and several have tapped the markets again. Although this new source of finance is welcome, it is more expensive than concessional loans, which have traditionally accounted for the bulk of their external financing (Figure 1.5, panel 4). Moreover, it carries significant refinancing and exchange rate risks, which are compounded by rising sovereign spreads (Baum and others, forthcoming, and Figure 1.5, panel 5).

Policy responses to budgetary pressures in 2015 relied primarily on spending cuts. These cuts exceeded 5 percent of GDP in some cases (Republic of Congo, Mongolia, Mozambique) despite previous spending commitments, including those related to wages (Republic of Congo). In Mongolia, the on-budget structural deficit ceiling under the Fiscal Stability Law was relaxed for the 2015–18 period to enable gradual convergence from the current level of about 5 percent of GDP to 2 percent in 2018.

As in emerging market and middle-income economies, the baseline fiscal scenario for 2016 is very sensitive to assumptions about developments in commodity markets. In 2016, the average overall fiscal deficit is expected to deteriorate further to 4.5 percent of GDP while the average debt is projected to rise by 1.2 percentage points to 36.8 percent of GDP. The increase in the fiscal deficit is larger in oil exporters despite initial budget plans for 2016 that have renewed the focus on revenue mobilization in addition to expenditure reallocations and reductions (Figure 1.5, panel 6). These measures will not be sufficient to reverse the deterioration in the fiscal deficit

that has been occurring since 2011. Moreover, the implementation of budget plans is facing increasing difficulties because of further declines in oil prices and public resistance to additional adjustment. For instance, the Nigerian budget targets an increase of 20 percent in non-oil revenue, through mobilization efforts and growth-friendly policies such as higher infrastructure investment, reductions in public spending inefficiencies including fuel subsidies, and anticorruption measures. The overall general government deficit, however, is projected to widen by 0.7 percentage points to 4.7 percent of GDP.

Among countries that do not export oil, the fiscal deficit is expected to continue to increase at a slower pace on average. Higher deficits reflect varying country circumstances such as public sector pay hikes (Bangladesh), implementation of large public investment projects ahead of upcoming elections (Kyrgyz Republic, Uganda), reconstruction following an earthquake (Nepal), and continued support to drought-relief efforts (Ethiopia).

## Fiscal Risks on the Rise

Fiscal risks have increased in the past year, particularly in emerging market and developing economies, where vulnerabilities are aggravated by lower commodity prices, tighter financial conditions, and geopolitical tensions. The major realignments shaping the global economy (described in the opening section) are accompanied by heightened macroeconomic volatility, exposing fiscal accounts to important downside risks at a time when fiscal buffers are already low in many countries.

*Weak nominal growth.* Europe and Japan could experience an extended period of mediocre growth resulting from persistently low inflation, insufficient progress on structural reforms, depressed investment, or failure to deal with legacies of the crisis. In emerging market and middle-income economies, the overleveraged private sector and possible enduringly low commodity prices are weighing on medium-term growth prospects. A deeper economic slowdown in China would also have important international fiscal spillovers by driving commodity prices even lower and raising global risk aversion. Low-income developing countries are particularly vulnerable to a significant slowdown in emerging markets, as they have become more dependent on the BRICS (Brazil, Russia, India, China, South Africa) through trade, investment, and bilateral external

financing linkages (IMF 2011). Overall, the risk is high that growth will remain weak in many countries, which would have large implications for debt dynamics, especially in countries where inflation remains below target and a further decline in oil prices could lower inflation expectations even more. A simulation model by End and others (2015) shows that, for the euro area, a disinflationary shock of 1 percentage point per year over five years would contribute to an increase in the debt-to-GDP ratio of about 6 percentage points at the end of the period.

*Disorderly market conditions.* Tighter and more volatile global financial conditions, related, for instance, to investors' reassessment of underlying risk, higher risk aversion, or further divergence between the European and U.S. economic and monetary cycles, may significantly push up the interest bill at a time when gross financing needs in emerging market and developing economies are higher (Tables 1.3 and 1.4). Frontier economies with shallow domestic financial markets are particularly exposed. Further portfolio shifts toward safe assets could also raise the borrowing costs of European countries with more fragile debt dynamics. In emerging market and middle-income economies, a larger depreciation of exchange rates would have adverse valuation effects on debt stocks, given that one-third of their debt is in foreign currency, on average.

*Contingent liabilities.*<sup>5</sup> The deterioration of the global economic outlook has raised the likelihood that contingent liabilities may materialize (Box 1.3). In Europe, weak growth and negative interest rates have squeezed bank profitability and contributed to the recent sell-off in their market shares. Further deterioration in banks' balance sheets could reignite the negative loops between sovereign and bank balance sheets. In emerging market economies, corporate debt of nonfinancial firms has quadrupled in the past decade (October 2015 *Global Financial Stability Report*). In these countries, weaker growth, higher borrowing costs, and deteriorating corporate balance sheets could put pressure on the debt nexus between corporations, financial institutions, and the government. With the continued decline in commodity prices, resource companies are facing strong headwinds, and state-owned enterprises with

links to the resource sector may require government support. In China, the government has recently taken steps to mitigate the fiscal risks stemming from off-budget local borrowing by reducing the use of finance vehicles and converting existing liabilities into municipal bonds with more favorable term and rate conditions. Nevertheless, as in other emerging markets, contingent liability risks remain, particularly in the event of a further slowdown in growth and in real estate, because of high levels of overall credit and the low profitability of state-owned enterprises. In low-income developing countries, contingent liabilities are large and growing, partly driven by a past boom in public-private partnerships. The stock of contingent liabilities in a sample of sub-Saharan African countries ranges from 4 percent to 31 percent of GDP, as estimated by a recent survey (OECD and MEFMI 2015). In a context of financial deepening and infrastructure development, these risks are likely to increase further, posing significant threats to debt sustainability (IMF 2015b).

*Political risks.* The electoral calendar or political gridlock could complicate policy implementation or discourage bold policy action in 2016 in a number of countries, including advanced economies (Australia, Greece, United States), emerging markets (Brazil, South Africa, Venezuela), and low-income developing countries (Ghana, Zambia). The U.K. referendum on membership in the European Union, which will take place in June 2016, might have large consequences for the future of Europe. Greater political instability in the Middle East would aggravate the fiscal stress in the region but may also have contagion effects on the rest of the world, including increased refugee flows (Box 1.2). In West and Central Africa, violent activities by terrorist and other insurgency groups are on the rise and could exact a toll on economic activity, prospective foreign direct investment, and regional political stability if they persist or expand (October 2015 *Regional Economic Outlook: Sub-Saharan Africa*).

## Responding to New Realities

The major realignments in the global economy and the increase in downside risks call for a comprehensive policy response to reduce vulnerabilities and boost growth in the short and in the medium terms. Fiscal policy and fiscal frameworks have an important role to play in supporting the economic recovery, building resilience, and restoring confidence. Success-

<sup>5</sup> Contingent liabilities are obligations that are not recorded on government balance sheets and that arise only in the event of a particular discrete situation, such as a crisis.

**Table 1.3. Selected Advanced Economies: Gross Financing Need, 2016–18**  
(Percent of GDP)

	2016			2017			2018		
	Maturing Debt	Budget Deficit	Total Financing Need	Maturing Debt <sup>1</sup>	Budget Deficit	Total Financing Need	Maturing Debt <sup>1</sup>	Budget Deficit	Total Financing Need
Australia	1.3	2.4	3.7	2.6	1.5	4.1	2.6	0.5	3.2
Austria	4.6	1.8	6.4	5.9	1.4	7.3	5.8	1.3	7.1
Belgium	15.1	2.8	17.9	15.7	2.2	17.9	14.1	1.9	16.0
Canada	9.1	2.4	11.6	11.3	1.8	13.1	9.1	1.3	10.4
Czech Republic	6.1	1.6	7.7	7.6	1.5	9.1	6.9	1.2	8.1
Denmark	4.5	2.8	7.3	4.1	2.0	6.1	2.5	1.8	4.3
Finland	5.3	2.8	8.1	8.6	2.6	11.2	5.8	2.2	8.0
France	10.6	3.4	14.0	12.7	2.9	15.6	11.9	2.3	14.2
Germany	4.3	-0.1	4.2	5.1	-0.1	5.0	4.0	-0.3	3.7
Iceland	6.5	-14.3	-7.8	1.1	0.5	1.6	8.0	-0.5	7.5
Ireland	6.2	0.4	6.6	5.2	-0.3	4.8	6.2	-0.4	5.8
Italy	16.0	2.7	18.7	18.4	1.6	20.0	14.1	0.5	14.6
Japan	36.5	4.9	41.4	41.7	3.9	45.6	36.2	3.4	39.6
Korea	2.7	-0.3	2.4	3.5	-0.5	3.0	3.8	-1.1	2.6
Lithuania	6.1	1.2	7.3	5.1	1.0	6.1	5.3	0.8	6.1
Malta	7.7	1.2	8.9	7.6	1.0	8.5	7.5	0.9	8.4
Netherlands	6.6	1.7	8.3	8.2	1.2	9.4	8.6	1.1	9.8
New Zealand	1.4	0.1	1.5	5.9	-0.1	5.8	1.2	-0.4	0.8
Portugal	15.5	2.9	18.4	12.3	2.9	15.2	11.8	2.8	14.6
Slovak Republic	5.8	2.2	8.0	6.2	2.0	8.2	2.7	1.7	4.4
Slovenia	6.1	2.7	8.9	8.2	2.5	10.8	6.9	2.7	9.5
Spain <sup>2</sup>	14.7	3.4	18.1	14.8	2.5	17.2	14.7	2.0	16.7
Sweden	5.1	0.9	6.0	5.4	0.8	6.2	4.7	0.4	5.1
Switzerland	1.7	0.3	1.9	2.2	0.2	2.4	2.2	0.1	2.3
United Kingdom	6.2	3.2	9.4	7.9	2.2	10.1	6.9	1.3	8.2
United States <sup>3</sup>	16.0	3.8	19.8	17.0	3.7	20.6	14.7	3.5	18.2
Average	14.2	3.1	17.2	15.7	2.6	18.3	13.6	2.3	15.8

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. For country-specific details, see Data and Conventions and Table B in the Methodological and Statistical Appendix.

<sup>1</sup> Assumes that short-term debt outstanding in 2016 and 2017 will be refinanced with new short-term debt that will mature in 2017 and 2018, respectively. Countries that are projected to have budget deficits in 2016 or 2017 are assumed to issue new debt based on the maturity structure of debt outstanding at the end of 2015.

<sup>2</sup> Data refer to the general government on a consolidated basis.

<sup>3</sup> For cross-country comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities and the imputed compensation of employees, which are counted as expenditures under the 2008 System of National Accounts (2008 SNA) adopted by the United States, but not in countries that have not yet adopted the 2008 SNA. Data for the United States in this table may thus differ from data published by the U.S. Bureau of Economic Analysis.

ful implementation of reforms will require building public consensus around them and adapting them to country-specific institutional and legal settings (October 2013 *Fiscal Monitor*, Chapter 2). Contingency planning is also crucial at the current juncture; additional policy actions need to be identified that could be deployed rapidly should downside risks materialize.

## Supporting Growth in the Short and Medium Terms

### *Using Fiscal Policy Flexibly to Support Demand in the Short Term*

Fiscal policy should be used flexibly to support aggregate demand, in particular in advanced economies. The specific form of fiscal support depends on

**Table 1.4. Selected Emerging Market and Middle-Income Economies: Gross Financing Need, 2016 and 2017**  
(Percent of GDP)

	2016			2017		
	Maturing Debt	Budget Deficit	Total Financing Need	Maturing Debt	Budget Deficit	Total Financing Need
Argentina	4.1	6.4	10.5	5.1	5.5	10.6
Brazil	9.3	8.7	18.0	8.8	8.5	17.3
Chile	1.1	3.0	4.1	1.1	3.0	4.1
Colombia	2.2	3.1	5.3	3.2	2.7	5.9
Croatia	15.8	3.3	19.1	17.8	2.8	20.6
Dominican Republic	3.5	3.5	6.9	3.7	3.7	7.4
Ecuador	3.4	2.7	6.2	5.7	-1.3	4.4
Egypt	49.4	11.5	60.8	46.2	10.1	56.3
Hungary	17.2	2.1	19.3	18.9	2.2	21.1
India	4.1	7.0	11.1	4.2	6.7	10.9
Indonesia	1.8	2.7	4.5	1.9	2.8	4.7
Malaysia	6.5	3.3	9.9	7.8	2.9	10.7
Mexico	6.5	3.5	10.0	6.0	3.0	9.0
Morocco	8.9	3.5	12.4	8.9	3.0	11.9
Pakistan	27.6	4.1	31.7	26.8	3.3	30.1
Peru	2.9	2.2	5.1	3.5	1.4	5.0
Philippines	6.7	0.6	7.4	6.6	0.8	7.5
Poland	7.1	2.8	9.9	5.1	3.1	8.2
Romania	6.5	2.8	9.4	4.7	2.8	7.5
Russia	0.8	4.4	5.2	0.5	3.0	3.5
South Africa	7.9	3.8	11.6	8.0	3.6	11.5
Sri Lanka	23.3	5.4	28.7	20.5	5.4	25.9
Thailand	6.0	0.4	6.3	5.9	0.5	6.4
Turkey	2.7	1.9	4.6	4.3	1.3	5.6
Ukraine	6.3	3.7	10.0	6.6	3.0	9.6
Uruguay	8.3	3.6	11.9	9.2	3.3	12.5
Average	6.9	4.8	11.8	6.9	4.4	11.3

Source: IMF staff estimates and projections.

Note: Data in the table refer to general government data. For some countries, general government deficits are reported on an accrual basis. For country-specific details, see Data and Conventions and Table C in the Methodological and Statistical Appendix.

individual countries' fiscal positions, macroeconomic conditions, and relevant fiscal risks:

- Countries with fiscal space should do more to bolster growth, particularly where risks of low growth and low inflation have materialized. The focus should be on fiscal measures that boost both short- and medium-term growth—such as infrastructure investment—and policy actions that support the implementation of structural reforms (see next paragraph). To preserve debt sustainability and anchor expectations, any fiscal relaxation should be accompanied by a medium-term fiscal plan that clarifies the long-term objectives of fiscal policy and ensures consistency between these objectives and

the annual budget targets. For instance, in the euro area, member states should make full use of the existing room within the Stability and Growth Pact, particularly for public investment. Higher infrastructure investment in Germany would benefit the country itself and have positive economic spillovers on neighboring countries that undertake significant consolidation.

- Commitments to credible medium-term consolidation plans can create policy space in the short term, even in countries with relatively high levels of debt. In the United States, building on the 2013 and 2015 bipartisan budget agreements, a new and complementary credible medium-term deficit

reduction plan would provide scope for a moderate near-term expansion of the budget envelope to finance growth-enhancing measures. These measures should focus on infrastructure investment, incentives for innovation, education spending, and ways to develop and expand a skilled labor force (including through immigration reform, job training, and providing child-care assistance for working families). In Japan, a commitment to fiscal consolidation centered on a preannounced path of gradual consumption tax hikes and a strengthening of fiscal institutions would create policy space to moderate the pace of near-term fiscal consolidation.

- Where fiscal adjustment is needed and cannot be postponed, its pace and composition should be calibrated to reduce the short-term drag on economic activity (as long as financing allows). The speed of adjustment should be consistent with the economic environment, so as not to undermine the recovery. With regard to composition, countries should move away from indiscriminate tax increases or spending cuts, and take into account the growth effect of various measures across time horizons, as well as their durability. In France, spending containment should shift to higher-quality structural measures based on broad-based expenditure reviews at all levels of government. In the United Kingdom, efforts should continue to make consolidation more pro-growth by, for example, improving the efficiency of the tax system and further prioritizing investment in infrastructure. In Italy, further fiscal consolidation is needed primarily through a pro-growth mix of rationalizing spending and reducing tax expenditures to improve the structural fiscal balance and set the debt on a firmly downward path.
- In China, the fiscal deficit has to be reduced in the medium term to ensure debt sustainability, but there is space in the short term to support economic activity in the transition to the new growth model. In particular, China should increase on-budget support for household consumption while scaling down off-budget public investment.

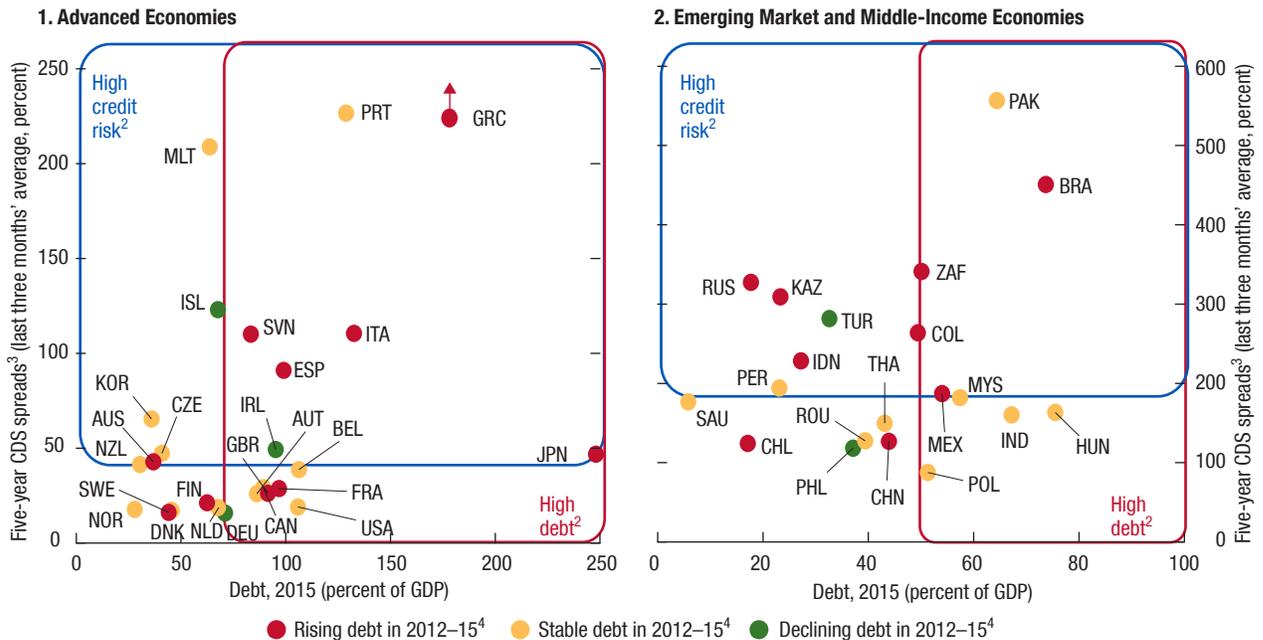
Fiscal support should be part of a comprehensive growth-enhancing policy package that combines and coordinates fiscal, monetary, and structural policies. This three-pronged approach to policymaking is necessary to achieve sustained growth and keep inflation on target, particularly in advanced economies. Specifically, fiscal policy can boost demand and reinforce the effect of monetary policy when policy rates are near zero and

when the financing of the debt is firmly secured. This complementarity would make demand management more credible and effective. Fiscal policy can also support the implementation of structural reforms in various ways. Some structural reforms have well-identified upfront budgetary costs that may have to be accommodated—for instance, training costs related to active labor market policies. Compensating those who lose from the reforms through government transfers may also be necessary to secure political support (October 2014 *Fiscal Monitor*; Chapter 2). Because structural reforms tend to yield fewer benefits when the economy is weak, their effect can be amplified when they are complemented by policies that support aggregate demand.<sup>6</sup>

In a context of rising downside risks, a significant decline in global growth could threaten the fragile recovery and trigger self-reinforcing downward spirals of economic stagnation, low inflation, and high real interest rates. In the face of a global slowdown, the larger economies should stand ready to deploy an international policy response in order to short-circuit these self-reinforcing negative spirals and reduce vulnerabilities. The coordinated policy package should include a combination of supportive fiscal, monetary, and structural policies that lift nominal growth in the short and medium terms. Larger gains could be achieved if the package were to be implemented simultaneously because of the positive international spillovers. Such a coordinated approach is illustrated in Scenario Box 2 of the April 2016 *World Economic Outlook* (Chapter 1). The scenario uses the IMF's G20 Model (G20MOD) to show the importance of quickly responding to the negative self-reinforcing growth dynamics that could be unleashed should secular stagnation forces settle in advanced economies. The scenario also illustrates the additional benefits to G20 countries of following through on the implementation of their remaining Brisbane Growth Strategy structural reform commitments. To exploit the important spillover and spillback effects, large participation in the policy response is important. In this particular simulation exercise, the assessment of which major countries should participate was based on standard fis-

<sup>6</sup> For instance, when demand is depressed, relaxing employment protection may not stimulate job creation, or increasing the retirement age may raise the number of unemployed. Chapter 3 of the April 2016 *World Economic Outlook* presents empirical evidence that stimulating aggregate demand through fiscal policy can ease the short-term economic costs of some reforms, particularly during periods of low growth.

**Figure 1.6. Indicators of Fiscal Space in Advanced Economies and Emerging Market and Middle-Income Economies<sup>1</sup>**



Sources: Bloomberg, L.P.; Markit; and IMF staff estimates.

Note: For a list of countries in each group of economies, see Table A in the Methodological and Statistical Appendix. Data labels in the figure use International Organization for Standardization (ISO) country codes. CDS = credit default swap.

<sup>1</sup> In this simple and partial measure of fiscal space, the higher the level of debt and the higher the credit risk, the lower the fiscal space. In reality, fiscal space depends on a broader range of economic fundamentals, including the level and trajectory of public debt, deficit, growth, and cost of borrowing, as well as the ability to raise new revenue and cut low-priority spending.

<sup>2</sup> High and low thresholds are based on the sample median.

<sup>3</sup> Data are from December 24, 2015 through March 24, 2016.

<sup>4</sup> The classification is based on the average annual change in the debt ratio between 2012 and 2015. Lower and upper bounds of categories are –2 (–1) and 2 (1) percent of GDP for advanced economies (emerging market and middle-income economies, respectively). Note that in 2015, the debt ratios of Japan, Spain, and Sweden declined.

cal indicators (as illustrated in Figure 1.6). As a result, most advanced economies and a few emerging market economies were included. The simulation results show that a mix of mutually reinforcing supply and demand policies in these economies could boost nominal growth and reduce their debt ratio by 3 percentage points by 2021 relative to the stagnation scenario. In addition, the package would also have significant positive spillovers to other economies that, given market pressures, credibility challenges, or sustainability concerns, cannot participate in the stimulus.

### *Making Medium-Term Growth the Cornerstone of the Fiscal Strategy*

In many countries, potential growth has declined sharply in the aftermath of the global financial crisis. Restoring robust growth is essential for addressing the fiscal challenges ahead. The impact of GDP growth on debt dynamics is very large and can, in some

instances, dwarf discretionary fiscal efforts. Simulations based on *World Economic Outlook* data show that, in advanced economies with relatively high debt ratios in 2015, most of the debt built up since 2008 could be undone with 1 percentage point of additional real growth during the next 10 years on average, provided that governments can save the higher revenues (Figure 1.7).<sup>7</sup> For emerging market and developing economies, the average additional growth necessary to bring debt ratios to their precrisis levels is larger, ranging between 1 and 2 percentage points. In practice, raising potential growth to such an extent is not an easy task, but fiscal

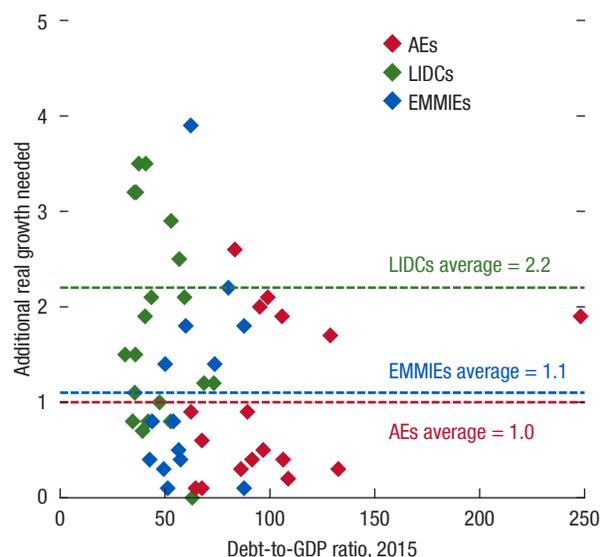
<sup>7</sup> Results are robust to alternative interest rate responses. Under a fast adjustment scenario (interest rates fully adjust to higher growth by 2021) and assuming an average debt maturity of five years, the additional growth needed to bring debt ratios to their precrisis levels would increase to 1.3 percentage points for advanced economies, 1.4 percentage points for emerging market and middle-income economies, and 2.8 percentage points for low-income developing countries.

policy can play an important role. Based on country studies and model simulations, IMF (2015e) finds that comprehensive fiscal reforms on both the revenue and spending sides can raise per capita medium-term growth by as much as  $\frac{3}{4}$  percentage point in advanced economies. The growth dividend could be even higher in emerging market and developing economies. Realistically, achieving robust growth will require wide-ranging reforms, including labor and product market reforms (April 2016 *World Economic Outlook*, Chapter 3), as well as addressing remaining legacy issues in the financial sector.

In practice, fiscal policy can promote medium-term growth through structural tax and expenditure policies, focusing on the main country-specific growth bottlenecks (IMF 2015e):

- **Increase investment.** Physical investment—both public and private—is an important driver of growth in all economies. In countries with infrastructure needs, such as Germany and the United States, a strong case can be made for front-loading public projects in the current environment of low borrowing costs and weak global growth. Addressing infrastructure bottlenecks is also a priority in some emerging market and developing economies. However, investment efficiency must be ensured through better project selection, management, and evaluation (IMF 2015f). In some cases, the limited fiscal space calls for increasing private and foreign participation in public projects, provided that sound public-private partnership frameworks are in place—for instance, in Brazil, the implementation of the concessions program could be accelerated by lifting the impediments to private sector involvement. Finally, fiscal policy can also boost capital accumulation by stimulating private investment directly through targeted incentives that reduce the cost of capital, such as accelerated depreciation schemes and investment tax credits (IMF 2015e).
- **Encourage labor supply.** In many advanced and emerging market economies, sustaining high growth requires offsetting the adverse impact of aging on the labor supply and addressing low labor force participation rates, particularly among women. These changes can be accomplished by cutting taxes on labor, redesigning social benefits, and expanding active labor market programs. In France, for instance, job search incentives could be strengthened by lengthening the period of work that is required to be eligible for unemployment benefits

**Figure 1.7. Additional Real Growth in 2016–25 Needed to Bring the Debt Ratio Back to the 2007 Level<sup>1</sup>**



Source: IMF staff estimates.

Note: For a list of countries in each group of economies, see Table A in the Methodological and Statistical Appendix. AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries.

<sup>1</sup>Until 2021, the baseline uses the *World Economic Outlook* forecasts.

Beyond 2021, the implicit interest rate, nominal GDP growth, and primary balance over 2022–25 are assumed to remain at their 2021 levels. Under the higher-growth alternative scenario, elasticities of 1 for revenue and 0 for expenditure are assumed. The interest rate is assumed to be identical in the baseline and alternative scenarios. The sample includes countries for which debt in 2015 was greater than 60 percent of GDP for AEs, 40 percent for EMMIEs, and 25 percent for LIDCs, and it excludes some outliers.

and introducing some link between the amount of benefits and the length of unemployment. Eliminating tax-induced disincentives to work for second earners and increasing the availability of child care could further raise female labor force participation in Germany and Japan. A similar objective could be achieved in India through various policies, including greater labor market flexibility to create more formal jobs, considering that many women are employed in the informal sector. In low-income developing countries, the focus should be on providing equal access to and improving efficiency of education and health services, as well as dismantling legal obstacles to female labor force participation.

- **Boost productivity.** Fiscal policy can raise total factor productivity through several channels, including by stimulating research and development, providing critical infrastructure, and raising government efficiency. For example, in Italy proper implementation of the public administration reform, including

substantial rationalization of local governments and enterprises and simplification of administrative procedures and regulations, is crucial for unlocking productivity gains in the public and the private sectors. Chapter 2 discusses in greater detail how fiscal policy can boost productivity by encouraging innovation through research and development, technology transfer, and entrepreneurship. Public spending on education and training can also enhance labor productivity by improving workers' ability to absorb new technologies.

- *Enhance competition.* Leveling the playing field between the private and the public sectors is essential to achieving gains in efficiency, expanding markets, and improving corporate governance. In many emerging market and developing economies, reforming state-owned enterprises has the potential to unleash new sources of growth. Deepening public enterprise reform is one of the priorities of the Chinese government and progress could be accelerated by allowing greater tolerance to bankruptcy and exit. In Russia, reinvigorating the privatization agenda as soon as market conditions permit would enhance economic efficiency.

In many instances, the implementation of these growth-enhancing fiscal reforms has a net budgetary cost in the short term and requires additional resources, which may originate from various sources. Countries with low debt and low borrowing costs can resort to borrowing, as debt-financed reforms have the potential to improve fiscal sustainability by increasing the economy's productive capacity and, ultimately, the ability to service debt (October 2014 *World Economic Outlook*, Chapter 3). Many economies also have room to generate savings from expenditure rationalization, revenue administration reforms, and elimination of tax expenditures. Countries facing market pressures should focus on budget-neutral fiscal reforms shifting resources from less to more productive budget items (such as rebalancing from costly fuel subsidies to spending on infrastructure or education). Finally, some countries could finance fiscal reforms by using one-time windfalls—particularly lower fuel subsidies from cheaper oil or interest savings from quantitative easing.<sup>8</sup> Long-term bond yields on safe assets reached historic lows in early 2016 and are expected to remain low for the foreseeable future. Benchmark

<sup>8</sup> Countries without fiscal space should use interest savings to lower their public debt.

sovereign yields in major economies like Germany and Japan have even dropped into negative territory for a significant segment of the yield curve. In the euro area, the general government interest bill declined by 0.6 percent of GDP between 2012 and 2015.

## Reducing Vulnerabilities

### *Addressing Revenue Shortfalls through Adjustment and Diversification*

Between 2014 and 2016, about two-thirds of the countries in the *Fiscal Monitor* sample experienced a decline in their revenue-to-GDP ratios, especially emerging market and middle-income economies (Table 1.5). The appropriate policy response depends crucially on the factors underlying these shortfalls and mainly on whether they are temporary or permanent. In commodity exporters, which have suffered the largest declines in revenue, the financing gap that has opened is likely to be long lasting, reflecting persistently lower commodity prices. However, the fiscal measures currently being considered are often inadequate for achieving the needed medium-term adjustment. For instance, under current policies, most oil exporters in the Middle East and North Africa would run out of buffers in less than five years despite sizable net foreign asset positions accumulated during the past commodity boom (October 2015 *Regional Economic Outlook: Middle East and Central Asia*). In these countries, cumulative fiscal balances are expected to deteriorate by over \$2 trillion (about 100 percent of their aggregate GDP in 2015) in the next five years relative to 2004–08 when oil prices peaked.<sup>9</sup>

To ensure fiscal sustainability, most commodity exporters must adjust their fiscal positions by realigning public spending with tighter resources. The adjustment will need to be anchored by credible medium-term plans. Declining oil prices can make energy subsidy reforms politically easier to implement and free up significant resources, even with targeted outlays to compensate the poor. Cutting poorly targeted or wasteful spending and boosting the efficiency of public service delivery can be difficult—requiring that fiscal institutions be strengthened and public sector reforms be pushed through—but can generate savings while delivering better outcomes. Allowing for exchange rate

<sup>9</sup> For oil exporters as a whole, the change in cumulative fiscal balances is about \$4 trillion, equivalent to 40 percent of their 2015 aggregate GDP.

**Table 1.5. General Government Revenue Shortfall between 2014 and 2016**

	Number of Countries with a Revenue Shortfall between 2014 and 2016 <sup>1</sup>	Revenue Shortfall, 2014–16 <sup>2</sup> (Percent of GDP, simple average)	Revenue Shortfall, 2014–16 <sup>3</sup> (Percent of 2014 revenue ratio)
Advanced Economies	21	–0.1 [–6.8 to 12]	–0.2
Emerging Market and Middle-Income Economies	28	–4.1 [–22.3 to 2.3]	–13.2
Low-Income Developing Countries	22	–1.0 [–11.7 to 2.6]	–4.4
Commodity Exporters (World)	29	–4.8 [–25.3 to 2.9]	–16.2
of which Oil Exporters (World)	23	–7.5 [–25.3 to 2.6]	–22.7

Source: IMF staff estimates.

<sup>1</sup> There are 115 countries in the *Fiscal Monitor* sample, which includes advanced economies (35), emerging market and middle-income economies (40), and low-income developing countries (40).

<sup>2</sup> Revenue shortfall is measured as the change in the revenue-to-GDP ratio between 2014 and 2016. Numbers in brackets represent ranges from minimum to maximum.

<sup>3</sup> Revenue shortfall is measured as revenue shortfall 2014–16 (percent of GDP using simple average) divided by initial revenue ratio in 2014.

flexibility can also make the adjustment less painful by cushioning the impact of adverse terms-of-trade shocks on exporters' revenues (provided that unhedged currency mismatches are not too large in the private and public sector balance sheets). In some commodity exporters, the availability of financial buffers can also help smooth the adjustment to lower commodity prices.

Beyond adjustment, diversification of revenue sources is also important. Commodity exporters should explore possibilities for broadening their tax bases and strengthening tax compliance—two areas in which the IMF has provided extensive technical assistance to countries. For instance, oil producers in the Middle East could begin to gradually broaden their tax bases by introducing a low-rate VAT, profit taxes applied to all resident companies, excise taxes, and property taxes (IMF 2015g). However, the benefits from greater revenue mobilization are not confined to commodity producers. A broad, stable, and elastic tax base is essential in many countries for governments to preserve necessary public services and be able to make fiscal policy choices. In low-income developing countries, building revenue mobilization capacity is also necessary for achieving the Sustainable Development Goals. About one-fifth of them still have tax ratios below 12¾ percent of GDP, while revenue collection in fragile and conflict-affected states is generally even weaker.<sup>10</sup> These economies often have room to tap additional sources of revenues, such as carbon taxation and property

<sup>10</sup> Gaspar, Jaramillo Mayor, and Wingender (2016) provide strong empirical evidence that once the tax-to-GDP level exceeds 12¾ percent, real GDP per capita increases sharply and in a sustained manner over several years.

taxes. Improving revenue administration is also essential for raising revenue capacity (IMF 2015h). In many countries, weak revenue administration remains a fundamental barrier to effective and fair taxation. Reform progress has been mixed in this area. Although the need to focus attention on large taxpayers is now nearly universally accepted, the impact of computerization has often been disappointing, in part because of inadequate integration within a broader reform strategy. In addition, revenue administrations in many countries continue to suffer from a lack of funding and skilled personnel.

### *Managing Tighter and More Volatile Financial Conditions*

Effective debt management is critical in emerging market and developing economies, where borrowing costs and financing needs are on the rise. A credible debt management strategy can help reduce debt-servicing costs, strengthen investor confidence, and mitigate market instability. To achieve these objectives, debt management frameworks have evolved in three main directions, although important gaps remain (Gardner and Olden 2013):

- *Medium-term debt management strategy.* A three- to five-year debt management strategy is considered an essential tool for guiding debt operations. This strategy should be communicated regularly and transparently to the market, especially when fiscal risks are high (IMF and World Bank 2009). Such a strategy should broadly identify the funding targets and the potential financing instruments necessary to achieve the objectives; describe the desired composition of

the debt portfolio; and highlight the risks (including those related to exchange rate movements), while outlining strategies to manage them. Although progress has been made, several emerging market and developing economies remain at an early stage in developing such plans.

- *Governance and capacity constraints.* Fragmentation of responsibilities regarding governments' financial assets and liabilities is a significant obstacle to their efficient management, particularly because most countries face shortages of skilled professionals with financial market expertise in the public sector. Most advanced economies have sought to address this by charging a single entity with the management of all government financial activities. However, fragmented institutional models still prevail in low-income developing countries.
- *Diversified funding.* The deterioration in the risk appetite of international investors highlights the importance of developing diversified financing sources, including a resilient pool of domestic savings to fill shortfalls in external financing. Some countries have included the development of the domestic public debt market as a key objective in their debt management strategies. However, this market remains at an early stage in many developing economies, requiring continuing reforms to the pension and insurance industries to allow for domestic debt issuances at longer maturities.

The recent collapse in commodity prices underscores the importance for commodity exporters of developing and implementing adequate debt management strategies, even when no large borrowing need is anticipated in the near term. Until recently, many oil producers had large cash buffers they could use to mitigate temporary deteriorations in their fiscal positions. However, the scale of recent price falls could rapidly deplete these buffers, absent offsetting measures. These pressures are compounded by possible difficulties in liquidating financial assets quickly without a significant loss. Consequently, some oil exporters are now considering returning to financial markets after a long pause.

### *Adopting a New Approach to Fiscal Risk Management*

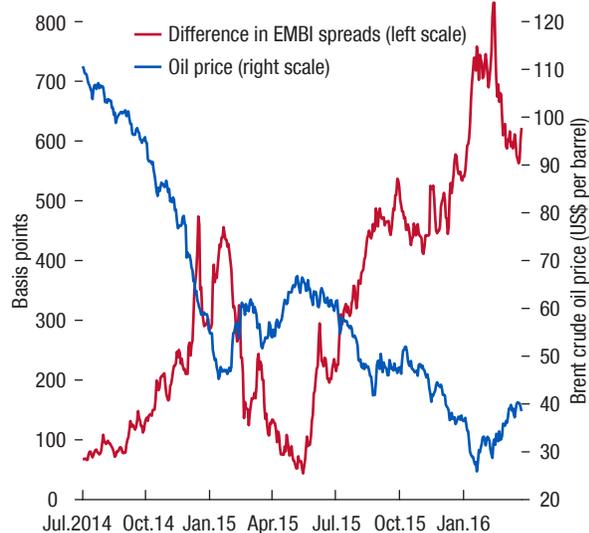
*Risk analysis.* Countries at all levels of development are increasingly aware of the need for a more informed approach to fiscal risk analysis and disclosure, but the quality and coverage of reporting arrangements vary across and within income groups. A prerequisite to effective risk analysis is comprehensive and timely

public reporting on the state of public finances, which can foster a more precautionary and accountable fiscal policy. In China, for instance, fiscal transparency could be enhanced by bringing on budget more projects undertaken by local government financing vehicles and by continuing reforms to government accounting and financial reporting. Going beyond standard fiscal accounts reporting by analyzing specific fiscal risks is not yet common practice in most countries. An increasing number of advanced economies produce quantified information on fiscal risks, such as the sensitivity of the fiscal position to a wide range of economic shocks. However, in many cases these efforts remain relatively limited in scope, and few countries produce comprehensive information on the potential impact of economic shocks on government stocks by applying such shocks to government balance sheets. While specific fiscal risks such as natural disasters and explicit contingent liabilities are included in many countries' fiscal risk statements, the analysis frequently lacks any quantification of the size or probability of realization. In some cases, administrative reforms are important to improving the analysis of risks. For instance, in Brazil, risk monitoring is fragmented, with different institutions overseeing subnational governments, public enterprises, concessions, and public-private partnerships. While individual fiscal risks can (and often should) be monitored by separate agencies, the framework can be strengthened by setting up a centralized unit tasked with coordinating individual efforts and assessing the magnitude of the government's overall exposure to risk (considering possible interdependencies between sources of risks) and whether these risks are being adequately managed.

*Risk mitigation.* Another important shortcoming of current approaches to fiscal risks is that the focus on identifying risks is not accompanied by specific measures to mitigate them. Institutional arrangements for actively managing fiscal risks are underdeveloped almost everywhere in the world. While many advanced and emerging market economies and some low-income developing countries do carry out a range of risk mitigation measures, such as introducing caps to guarantee issuance or limiting the borrowing activities of subnational governments and exposure to state-owned enterprises, these measures tend to be ad hoc and focused on individual risks rather than part of an integrated approach. Only a few economies (for example, New Zealand, United Kingdom) have developed comprehensive risk management strategies that seek to encapsulate the wide range of risks that governments typically face (Box 1.4).

These comprehensive frameworks should help prevent the realization of risks such as those arising from fragile banks in advanced economies, state-owned companies and highly-leveraged corporations in emerging market and middle-income economies, and public-private partnerships in low-income economies. In emerging market and developing economies, fiscal frameworks also need to adapt to a more volatile environment with possible large shifts in commodity prices, capital flows, and exchange rates. Strong multiyear budget and debt management frameworks with effective commitment controls are crucial for dealing with volatility, enforcing discipline, and generating savings to absorb shocks. Oil exporters, in particular, need to devise long-term strategies to avoid procyclical fiscal policy and build sufficient buffers to protect against the high volatility of fiscal revenues. This long-term strategy can also alleviate the constraint of procyclical market access—that is, access to financial markets generally tightens precisely when oil exporters need to borrow, as illustrated by the strong negative correlation between their sovereign spreads and oil prices (Figure 1.8).

**Figure 1.8. Difference in EMBI Spreads: Oil Exporters Minus Non-Commodity Exporters<sup>1</sup>**



Sources: Thomson Reuters DataStream; and IMF staff estimates.

Note: EMBI = Emerging Markets Bond Index.

<sup>1</sup> Data are through March 24, 2016.

### Box 1.1. The Fiscal Implications of Slowing Global Trade for Emerging Market and Developing Economies

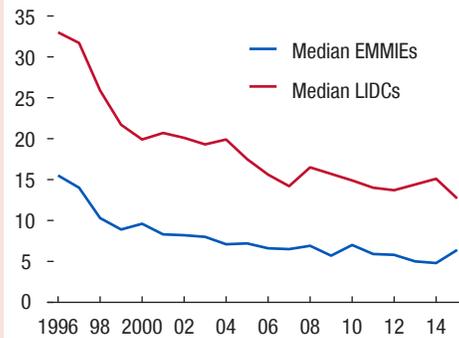
The global trade slowdown following the global financial crisis is one of the sharpest observed since the 1970s. The current episode stands out in its severity and synchronicity across countries, despite a short-lived recovery in 2010 (Baldwin 2009). Both cyclical and structural factors could explain this phenomenon, as suggested by a rapidly growing literature. Sluggish activity in the euro area and depressed capital investment worldwide are possible cyclical determinants. Structural factors include the postcrisis rise in protectionism, China’s rebalancing toward a growth model that is less import-intensive, and the reduction in the international fragmentation of production (Boz, Bussière, and Marsilli 2014).

How severe have the fiscal implications of the trade slowdown been for emerging market and developing economies? In these countries, trade generates a substantial share of government revenue in the form of export and import taxes, and thus is likely to have a direct impact on the fiscal position. The median share of these taxes for emerging market and middle-income economies and low-income developing countries was, respectively, 6.5 percent and 13.5 percent of total revenue in 2015 (Figure 1.1.1). International trade can also affect fiscal accounts indirectly. Greater openness is generally associated with higher growth, which should improve fiscal positions (Frankel and Romer 1999). In countries with greater trade and financial openness (more outward-oriented policies), flexible exchange rates and capital flows can lead to more budget discipline (Combes and Guillaumont 2002). However, trade can also generate higher demand for public spending to provide insurance against external risks, including terms-of-trade shocks (Rodrik 1998).

To estimate the fiscal impact of the cumulative decline in the share of imports to GDP since 2009, two empirical approaches are used. As a first step, effective tax rates on trade (ETRs) are computed by dividing the tax raised by the value of imports. The ETRs average 6.4 percent in the sample of countries for the 2009–15 period. Applying these country-specific ETRs to the decline in the imports-to-GDP ratio reveals a drop in trade taxes of between 0.1 and 1.1 percent of GDP, with an average decline of 0.4 percent (Figure 1.1.2).

These findings are corroborated by preliminary econometric results. Using panel data for 70 developing countries over the 1990–2015 period, the total tax-to-GDP ratio is regressed on its lag (to

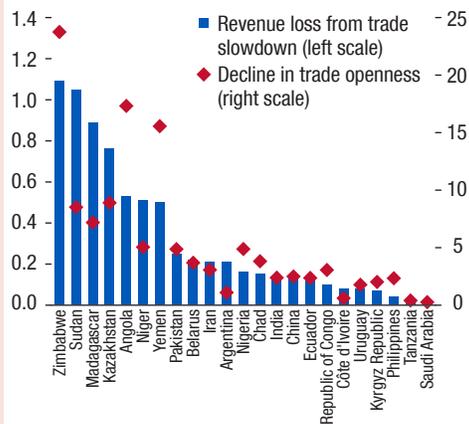
**Figure 1.1.1. Share of Trade-Related Taxes to Total Taxes, 1996–2015**  
(Percent)



Source: IMF staff estimates.

Note: For a list of countries in each group of economies, see Table A in the Methodological and Statistical Appendix. EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries.

**Figure 1.1.2. Impact of Trade Slowdown on Tax Revenues since 2009<sup>1</sup>**  
(Percent of GDP)



Source: IMF staff estimates.

Note: Trade openness is measured as the ratio of import value to GDP.

<sup>1</sup> Estimated effect on tax revenues using effective tax rates on trade.

capture persistence); trade openness, proxied by the import ratio; and standard determinants, including the level of economic development, public debt, share of agriculture in value added, and development aid. The results, which are robust to alternative specifications, suggest an average revenue loss of 0.4 percent of GDP for countries that have experienced a trade slowdown.

### Box 1.2. The Fiscal Response to the Refugee Influx in Europe

In 2015, the number of forced migrants worldwide rose to the highest level since the 1990s, driven mainly by the increase in conflicts in the Middle East and sub-Saharan Africa (IMF 2015c). While countries immediately adjacent to conflict zones have been the main recipients, the number of asylum applicants seeking shelter in the European Union (EU) surged by 110 percent in 2015 (EC 2015a; Figure 1.2.1).

Processing asylum applications and addressing refugees' immediate needs such as housing and food imposes direct fiscal costs on the recipient countries. In addition, many European countries have made additional funds available, for example, to help migrants learn the local language and identify marketable skills. Typically, the cost per asylum applicant ranges from €8,000 to €12,000 in the first year after arrival, according to the Organisation for Economic Co-operation and Development (OECD 2015). Recent estimates put the projected total cost associated with the surge in asylum seekers in 2016 at 0.31 percent of GDP in Austria; 0.35 percent in Germany; and 1 percent in Sweden, which has experienced the largest influx of asylum seekers per capita in the EU (IMF 2016).

Improving administrative procedures and accelerating refugees' integration into the labor market can potentially reduce the cost per asylum applicant significantly. Many European governments are trying to shorten the delay between the asylum application and the decision. While fast-track applications might not always be feasible, the OECD estimates that they can significantly reduce the administrative costs per applicant. In addition, helping refugees gain access to the labor market as quickly as possible can reduce costs in the medium term by incurring higher upfront costs to pay for targeted job support programs. Indeed, if refugees are successfully integrated into the labor market, they have the potential to provide a net fiscal benefit to the host country because they then pay taxes rather than receive support. Sweden, for example, has a long-standing introduction program to promote the labor market integration of migrants through personalized training and employment assistance, and the authorities are making improvements such as the "fast track" initiative (IMF 2015i).

The fiscal cost of the increase in asylum applicants, even taking into account the offsetting measures

**Figure 1.2.1. Monthly Asylum Applications to the EU-28, 2010–15**  
(Thousands)



Sources: Eurostat; and IMF staff estimates.  
Note: EU-28 refers to European Union with 28 member countries.

described above, might still lead some countries to come close to breaching European fiscal rules. Given the exceptional nature of the situation, the European Commission recently announced that it will use the flexibility provided for in the Stability and Growth Pact to accommodate some of these costs (EC 2015b). In particular, the commission will apply special provisions allowing for a marginal loosening of fiscal targets following an unusual event. The rationale for granting this flexibility is that like the upfront costs associated with a major structural reform, the short-term cost of welcoming asylum seekers might ultimately prove beneficial for fiscal sustainability. Well-integrated refugees can, for example, ease the pressure on pension systems, which, given Europe's aging population, poses a risk to fiscal sustainability (IMF 2015d). Nonetheless, any exemption granted should be temporary and properly monitored.

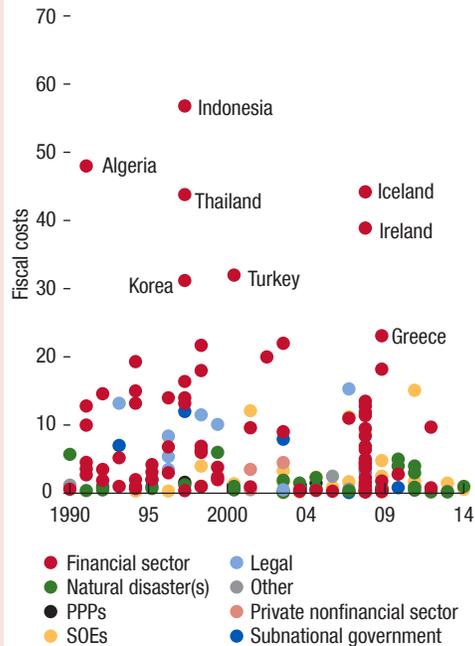
### Box 1.3. Skeletons in the Closet? Shedding Light on Contingent Liabilities

Contingent liabilities are obligations that are not recorded on government balance sheets and that arise only in the event of a particular, discrete situation (such as a crisis). Often these obligations are not even explicit government guarantees, but are implicit; they involve a moral obligation or expected responsibility of the government that is not established by law or contract but is based on public expectations of intervention, such as after a crisis. Examples include support to troubled banks deemed too big to fail, support to weak state-owned enterprises, or legal claims. Once a contingent liability entails a fiscal cost, it is said to have materialized.

Government contingent liabilities have been one of the largest sources of fiscal risk during the past few decades. Figure 1.3.1 plots the fiscal cost of 174 contingent liability materializations that can be identified in advanced economies and emerging market and middle-income economies from 1990 to 2014 (Bova and others 2016). This review finds that the probability for a country to experience a materialization is roughly 9 percent in any given year. It also shows that a country can expect to be affected once every 12 years on average, at a cost of roughly 6 percent of GDP. In general, contingent liabilities tend to occur at times of crisis (the Asian crisis in the late 1990s and the global financial crisis are clearly visible in Figure 1.3.1). In addition, many of these materializations happen at the same time—*when it rains it pours*—putting considerable strain on government finances.

Financial sector support has been the most costly type of materialization. Bank recapitalizations and other forms of support to troubled financial institutions cost about 10 percent of GDP, on average, per episode (each of which can last several years). Indeed, during the global financial crisis, contingent liabilities related to the financial sector were one of the major drivers of the large increases in government debt-to-GDP ratios (IMF 2012). Fiscal costs of bank bailouts

**Figure 1.3.1. Fiscal Costs of Contingent Liabilities by Subcategory and Year, 1990–2014**  
(Percent of GDP)



Source: IMF staff estimates.

Note: PPPs = public-private partnerships; SOEs = state-owned enterprises.

were as high as 44 percent of GDP in Iceland and 39 percent of GDP in Ireland (Eurostat 2015; Laeven and Valencia 2012). Other important types of contingent liability materializations over the past 25 years have been bailouts of troubled state-owned enterprises or subnational governments, which led to average fiscal costs of about 3 percent and 4 percent of GDP, respectively.

### Box 1.4. Developing a Fiscal Risk Management Framework

The preparation of a fiscal risk management strategy can be divided into four stages (Figure 1.4.1). Identifying and assessing fiscal risks is a prerequisite to mitigating them (Step 1). The IMF “Fiscal Transparency Code” establishes international standards for the disclosure of information about fiscal risks. Although countries are increasingly adopting more sophisticated techniques for assessing fiscal exposure to macroeconomic shocks, less attention is given to estimating the likelihood of realization of other fiscal risks. In addition, existing approaches are generally fragmented and fail to capture the key characteristics of fiscal risks that are often much larger than envisaged; asymmetric, with the impacts of negative shocks outstripping the impacts of positive shocks; and highly correlated, with shocks from one sector often flowing through to others. Testing the resilience of fiscal policy to fiscal shocks would require a more integrated approach in the form of a fiscal stress test similar to those used in the financial sector (IMF forthcoming).

Having identified the scale and likelihood of the various risks, governments should consider what measures can be taken to reduce the probability that they will occur (Step 2). These measures should tackle risk-taking behaviors, for example, by eliminating the debt bias in the tax system (which can complement macroprudential measures to limit excessive leverage in the corporate sector) or by requiring beneficiaries of guarantees to post collateral. Activities of individuals or entities that are sources of fiscal risk should be properly regulated, for example, by requiring banks to hold adequate capital.

Where the probability of risks cannot be further reduced, governments should consider adopting

measures to minimize the potential costs in the event the risk occurs (Step 3). These measures include enacting policies that unilaterally reduce fiscal exposure, for example, by reorienting civil servant pension schemes away from defined benefits. Another option is to transfer risk to third parties through the use of market instruments, for example, by insuring against natural disasters or hedging risks through the use of commodity futures or other derivative products.

Finally, governments should determine the fiscal space needed to absorb the remaining risks that cannot be mitigated (Step 4). This can take the form of budget provisioning for moderate risks that are likely to occur or creating sufficient fiscal space to accommodate larger tail risks, either by establishing contingency funds or by setting prudent debt levels.

This general framework could, for instance, be applied to the management of risks originating from public-private partnerships (PPPs). As a first step, risk exposures associated with PPPs should be clearly identified and assessed by maintaining registries of PPP commitments and subjecting them to sensitivity analysis. To reduce the probability of risks occurring, mitigation strategies could include a gatekeeping role for a central authority, such as the Ministry of Finance, subjecting individual PPPs to value-for-money assessments and charging guarantee fees. Next, reducing exposure could involve introducing risk-sharing frameworks and capping payments linked to demand. Finally, remaining risks could be accommodated through adequate budget provisions for expected cash flows associated with realization of PPP contingent liabilities.

Figure 1.4.1. Four-Step Framework



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