

## V. Restoring fiscal sustainability

Fiscal positions in many advanced economies were already on an unsustainable path before the financial crisis. The crisis led to a significant further deterioration in fiscal sustainability by increasing fiscal deficits and debt. As a result, financial markets and credit rating agencies took a more critical view of sovereign credit risk. Government debt and deficits that had been tolerated before the crisis were no longer considered sustainable.

These developments have led to higher sovereign credit default swap (CDS) spreads and sovereign credit rating downgrades, most notably in the cases of Greece, Ireland, Italy, Portugal and Spain. But downgrades have also occurred for sovereigns whose risk-free status is rarely challenged, such as the United States and Japan, and whose borrowing costs have actually declined as a result of safe haven flows.

This has generated concerns about sovereigns losing their risk-free status or, more specifically, about their liabilities becoming subject to non-negligible credit risk. To be sure, even from this narrow perspective, full risk-free status is an ideal goal rather than a realistic objective. Indeed, the worst possible outcome is treating an asset as risk-free when, in fact, it is not. Arguably, this was the case for many sovereigns ahead of the recent crisis, and is still the case for some of them. Here, we use the term “risk-free” to describe assets associated with a sufficiently high probability of creditors being repaid to allow credit risk not to be explicitly taken into account by financial market participants in investment decisions. The existence of such assets contributes to the smooth and efficient functioning of the financial system.

A weakening of sovereign creditworthiness adversely affects financial stability, the conduct and credibility of fiscal and monetary policy, the functioning of financial markets and private sector borrowing costs. In the current environment – in which economic growth is anaemic, financial markets are still fragile and central banks are overextended – sovereigns’ increased riskiness is particularly worrisome. They must therefore return to sustainable fiscal positions.

The next section examines the deterioration in the creditworthiness of sovereigns and its main causes. The subsequent sections discuss the consequences of that deterioration and draw policy implications.

### Why and to what extent have sovereigns lost their risk-free status?

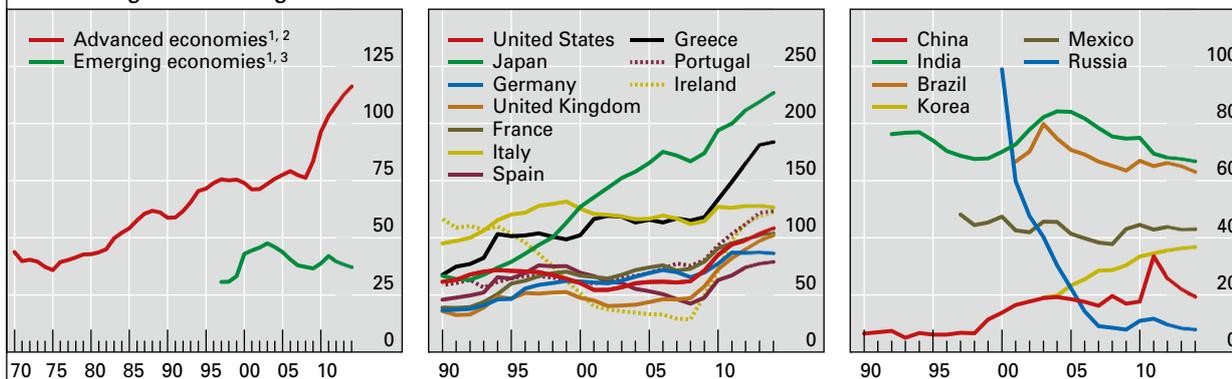
#### *Developments in public finances*

Concerns about the sustainability of fiscal positions in advanced economies were present long before the start of the recent financial crisis. Governments’ explicit debt levels (debt-to-GDP ratios) in advanced economies had risen steadily between the mid-1970s and the mid-1990s. Despite levelling off during the following

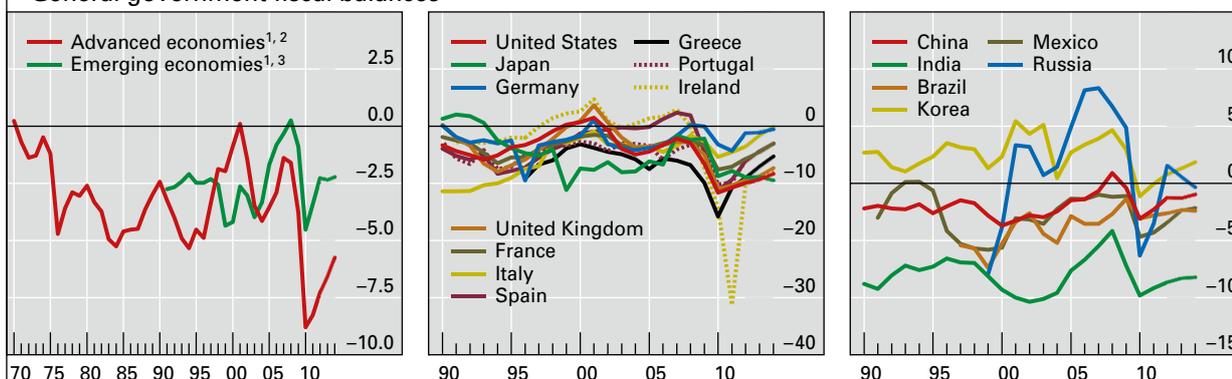
## General government fiscal indicators

As a percentage of GDP

### General government gross debt



### General government fiscal balances



The shaded areas represent forecasts.

<sup>1</sup> Weighted average of the economies listed, based on 2005 GDP and PPP exchange rates and available data. <sup>2</sup> Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States. <sup>3</sup> Argentina, Brazil, Chile, China, Chinese Taipei, Colombia, the Czech Republic, Hong Kong SAR, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, the Philippines, Poland, Russia, Singapore, South Africa, Thailand, Turkey and Venezuela.

Sources: European Commission AMECO database; IMF, *World Economic Outlook*, April 2012; OECD, *Economic Outlook*, November 2011.  
Graph V.1

decade thanks to a mixture of robust global economic growth and fiscal consolidation efforts in Europe and the United States, they remained quite high. They then went up sharply in the wake of the global financial crisis (Graph V.1).

But explicit government debt tells only part of the story. The fiscal picture becomes even gloomier once one accounts for projected increases in public spending on pensions and health care due to ageing populations.<sup>1</sup> In the developed world, those two categories of government spending are projected to rise by an average of 7.9 percentage points of GDP between 2010 and 2050.<sup>2</sup>

<sup>1</sup> See S Cecchetti, M Mohanty and F Zampolli, "The future of public debt: prospects and implications", *BIS Working Papers*, no 300, March 2010, and IMF, *Global Financial Stability Report*, April 2012, Chapter 4.

<sup>2</sup> Weighted average based on 2005 GDP and PPP exchange rates for the advanced economies listed in footnote 2 of Graph V.1 where estimates are available in IMF Fiscal Affairs Department, *The challenge of public pension reform in advanced and emerging economies*, December 2011, and IMF Fiscal Affairs Department, *Macro-fiscal implications of health care reform in advanced and emerging economies*, December 2010.

Furthermore, credit and asset price booms before the crisis made the fiscal positions of some advanced economies look better than they actually were. The governments of some countries, most notably Ireland and Spain, were lulled into a false sense of security by the rise in tax revenues that turned out to be driven exclusively by unsustainable financial booms.<sup>3</sup> The associated temporary increases in tax receipts from the financial and real estate sectors gave a one-off boost to governments' fiscal balances relative to what normal cyclical economic expansions could be expected to produce, leading policymakers to overestimate structural balances (see box).<sup>4</sup> This in turn encouraged more relaxed fiscal policies, which proved dangerous once the financial booms turned to bust.

On the surface, the fiscal situation in emerging market economies (EMEs) looks much better than that in the advanced economies. Fiscal deficits and government debt as a share of GDP have generally been much lower in these economies (Graph V.1), and their public debt-to-GDP ratios have been declining on average since 2010.

Nevertheless, the underlying fiscal position in EMEs may not be as uniformly healthy as it appears. As Graph V.1 shows, there is significant dispersion among their fiscal positions. The government debt-bearing capacity of EMEs is generally lower than that of advanced economies owing to a variety of factors, including a history of previous defaults and lower tax-raising capacity. Just like their advanced economy peers, many emerging market governments are facing large increases in public spending on pensions and health care (an average of 7.0 percentage points of GDP between 2010 and 2050) due to ageing populations.<sup>5</sup> And the fiscal accounts of a number of EMEs are being falsely enhanced by potentially unsustainable credit and asset price booms (see Chapter III).

One measure of fiscal sustainability, the fiscal gap, is the change in cyclically adjusted primary fiscal balances needed to bring the government debt-to-GDP ratio back to a sustainable level over a given horizon.<sup>6</sup> While views differ as to the optimal level of the government debt-to-GDP ratio, as an admittedly rough guide, the existing empirical evidence suggests that ratios above 85% hurt growth.<sup>7</sup> If correct, and given recent experience, this would suggest that ratios would have to be well below 85% to allow some room for countercyclical fiscal policy and a rise in public debt during a recession.

Allowing such headroom, and as an indicative exercise, one can take a benchmark long-term ratio of, say, 50% to be reached by 2050. Using this

<sup>3</sup> See J Suárez, "The Spanish crisis: background and policy challenges", *CEPR Discussion Papers*, no 7909, July 2010.

<sup>4</sup> See also BIS, *81st Annual Report*, June 2011, Chapter II.

<sup>5</sup> Weighted average based on 2005 GDP and PPP exchange rates for the emerging economies listed in footnote 3 of Graph V.1 where estimates are available in IMF Fiscal Affairs Department (2011), *op cit*, and IMF Fiscal Affairs Department (2010), *op cit*.

<sup>6</sup> This is an imperfect proxy measure, since fiscal sustainability also depends on factors not captured by fiscal gaps.

<sup>7</sup> See S Cecchetti, M Mohanty and F Zampolli, "The real effects of debt", *BIS Working Papers*, no 352, September 2011.

## The financial cycle, potential output and cyclically adjusted fiscal balances

The calibration of macroeconomic policies relies on estimates of potential or sustainable output, which allow policymakers to distinguish between cyclical fluctuations and longer-term trends. The difference between actual and potential output is generally termed the “output gap”. Potential output, however, is not directly observable. This box explains how information about the financial cycle can be used to derive such estimates and applies them to the measurement of structural budget balances.

The most common approach for estimating potential output and the corresponding output gap is to extract the long-term trend from actual output using a purely statistical procedure (eg the Hodrick-Prescott (HP) filter). This approach is simple, but does not rely on additional information about economic relationships. Other approaches are more model-based, and differ significantly in terms of the economic information they include. The most common type of information concerns the relationship between economic slack and inflation (the Phillips curve), the basic idea being that inflation varies with the size of the output gap. Some approaches go even further and also include information about the economy’s production function.

Existing approaches do not embed information about the financial cycle. There are, however, good reasons to believe that financial market conditions can have a profound effect on output. This is so especially during periods in which credit and asset prices move beyond sustainable ranges, generating financial imbalances. These developments can, for instance, go hand in hand with patterns of investment and consumption that, over time, lead to serious misallocations in output and the capital stock. Such unsustainable booms, while appearing benign in the short term, can undermine sustainable output over the longer term. As they proceed, output moves increasingly beyond sustainable levels.

We address this issue by extending the most widely used statistical approach for estimating potential output (the HP filter) to incorporate information about the financial cycle. To facilitate the exposition, we only consider information from credit aggregates.<sup>9</sup> Specifically, we use the percentage change in inflation-adjusted private sector credit relative to its sample average as a general proxy for financial conditions. We gradually increase the weight on this variable as the credit-to-GDP ratio moves beyond normal historical ranges, thereby signalling unsustainable developments or the build-up of financial imbalances.

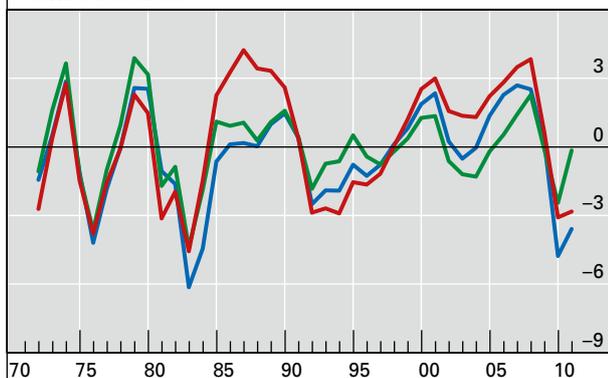
For illustrative purposes, Graph V.A.1 compares the credit-based output gaps for the United States and Spain with those obtained by applying the standard HP filter and those reported by the OECD based on the production function approach. Graph V.A.1 indicates that credit-based estimates of potential output are comparatively much lower during the unsustainable credit booms that preceded the recent financial crises in both countries. By contrast, the different approaches yield very similar results during periods in which credit moved within narrower ranges, thereby playing a less prominent role. This is, for example, the case during the 1970s in the United States – a period of tighter financial market regulation.

To assess the economic significance of the differences between the output gap estimates, we use them to cyclically adjust the government budget balances. Constructing such structural budget balances requires estimates of the elasticity of different tax and government expenditure categories with respect to

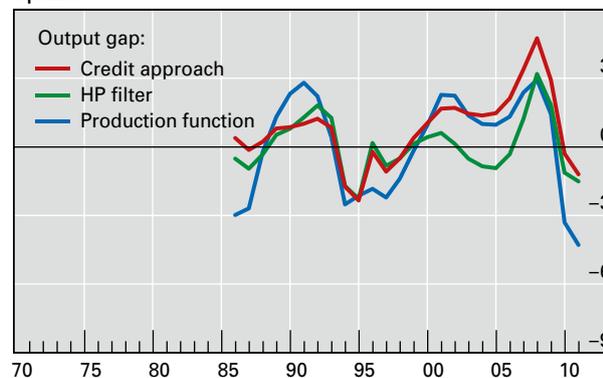
### Different output gap estimates

In percentage points

United States



Spain



Sources: OECD, *Economic Outlook*, November 2011; national data; BIS calculations.

Graph V.A.1

the output gap. For this we use OECD estimates.<sup>2</sup> It should be stressed that we do not correct for the additional effects that asset price booms may have on government revenues. Thus, differences between the cyclically adjusted budget balances reflect solely those in output gap estimates.

Graph V.A.2 shows the unadjusted budget balances for the United States and Spain along with the cyclical corrections implied by the different output gap estimates. In this context, a difference of more than half a percentage point is generally considered to be economically significant. The graph reveals that the difference between the credit-based estimates and the rest is generally of such a magnitude. Moreover, the credit-based cyclically adjusted balances are lowest during unsustainable credit booms, consistent with the view that such booms falsely enhance the fiscal accounts, as subsequent developments have confirmed.

<sup>2</sup> A more elaborate analysis would also include information about asset prices, especially property prices (see Chapter III and M Drehmann, C Borio and K Tsatsaronis, "Characterising the financial cycle: don't lose sight of the medium term!", *BIS Working Papers*, forthcoming). For technical information about the derivation of the estimates, see C Borio, P Disyatat and M Juselius, "Rethinking potential output: embedding information about the financial cycle", *BIS Working Papers*, forthcoming. <sup>3</sup> See N Girouard and C André, "Measuring cyclically adjusted budget balances for OECD countries", *OECD Economics Department Working Papers*, no 434, 2005.

## Budget balances and cyclical adjustments

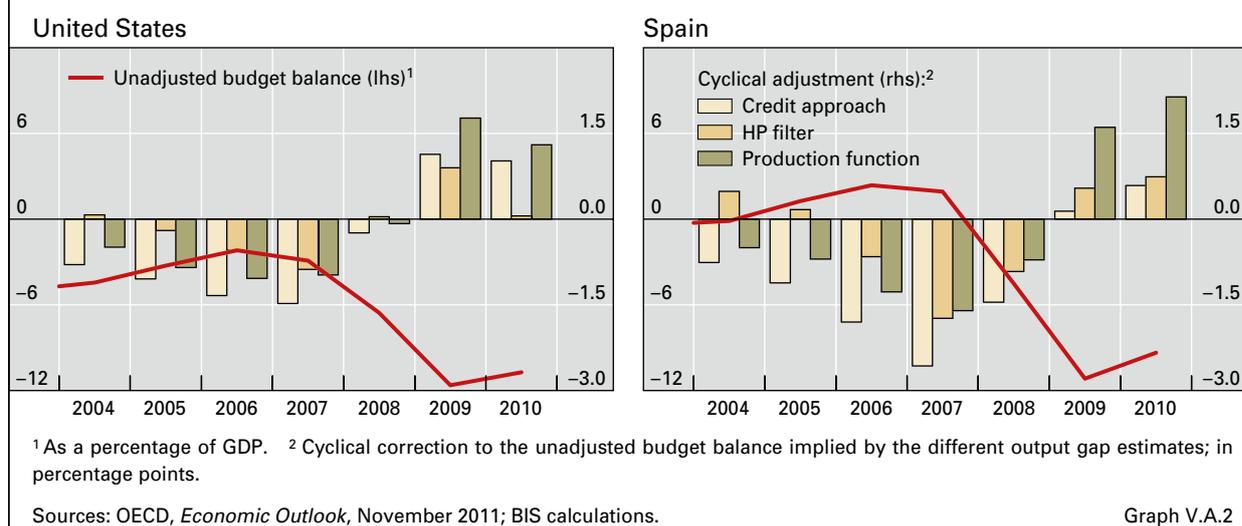


figure as a rough guide would indicate that, accounting for projected increases in public spending on pensions and health care, most advanced economies would need to improve their cyclically adjusted primary balances immediately by 3% of GDP or more, compared with their projected levels for 2012,<sup>8</sup> according to OECD estimates (Table V.1).<sup>9</sup> In 2012, this measure of the fiscal gap is particularly large – above 8% of GDP – for Ireland, Japan, the United Kingdom and the United States. Fiscal gaps for Canada, France and the Netherlands are not much lower, ranging between 5.4% and 6.3% of GDP. The current fiscal gaps for Greece, Italy and Portugal are smaller, ranging from 2.6% to 3.3% of GDP, mainly due to larger cyclically adjusted primary

<sup>8</sup> Based on projections made in 2011.

<sup>9</sup> See OECD, "Fiscal consolidation: how much is needed to reduce debt to a prudent level?", *OECD Economics Department Policy Notes*, no 11, April 2012, and R Merola and D Sutherland, "Fiscal consolidation: Part 3. Long-run projections and fiscal gap calculations", *OECD Economics Department Working Papers*, no 934, January 2012, including for details of the assumptions underlying the projections.

surpluses as a share of GDP projected for 2012 as a result of their recent fiscal consolidation efforts. Sweden is the only country in the sample that does not need to make an adjustment according to this measure. The large fiscal gaps for many advanced economies show that they will need to make sizeable adjustments to their government budgets in order to restore fiscal sustainability.

The vulnerability of fiscal positions depends not only on fiscal and macroeconomic long-term trends, but also on the distribution of government bond holdings (Graph V.2). Other things being equal, a higher share of domestic bond holdings, as in Brazil and Japan, can temporarily support higher

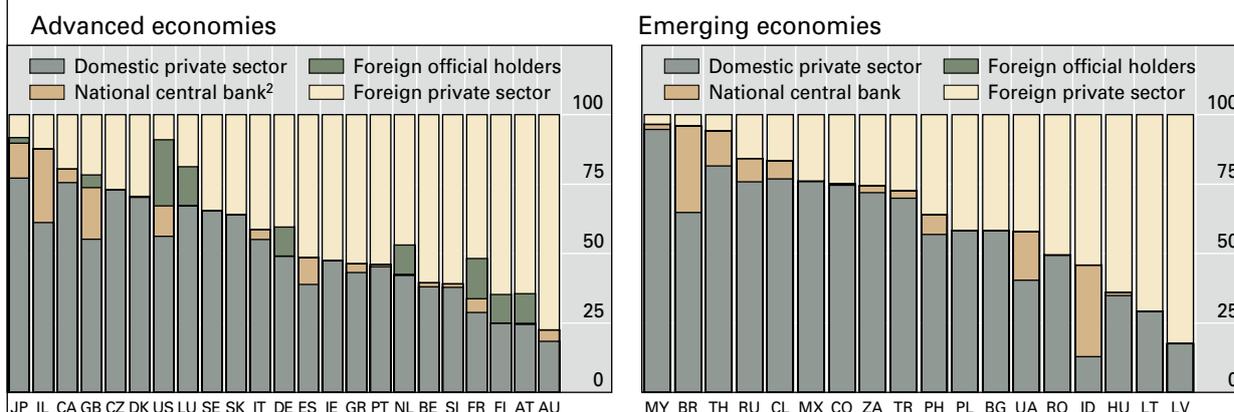
Development of fiscal gaps					
In percentage points					
	Fiscal gaps <sup>1</sup>		Decomposition of changes in fiscal gaps, 2007–12 <sup>2</sup>		
	2007 <sup>3</sup>	2012	Change in underlying primary balance	Change in debt	Change in interest on debt
Japan	7.4	12.2	2.6	1.7	0.4
New Zealand	3.2	9.6	5.5	0.8	0.1
United States	3.8	9.4	5.0	1.2	-0.5
Luxembourg	9.3	9.3	0.0	0.0	0.0
Ireland	3.1	8.6	2.3	2.3	1.0
United Kingdom	6.5	8.5	1.9	1.2	-1.1
Netherlands	5.4	6.3	1.0	0.3	-0.4
Belgium	4.6	6.0	1.5	0.3	-0.4
Finland	3.8	5.7	1.4	0.4	0.1
Canada	3.5	5.5	2.5	0.4	-0.9
France	4.8	5.4	0.3	0.9	-0.5
Slovakia	4.9	5.2	-0.8	0.7	0.4
Germany	4.1	4.8	1.2	-0.1	-0.4
Poland	1.9	4.7	1.7	0.6	0.5
Austria	3.5	4.6	0.9	0.5	-0.3
Czech Republic	5.0	4.6	-1.2	0.7	0.1
Korea	4.3	4.3	0.0	0.0	0.0
Spain	3.1	4.2	0.7	0.7	-0.3
Hungary	6.6	3.5	-3.1	0.1	-0.1
Greece	7.8	3.3	-6.3	1.4	0.4
Australia	2.4	3.2	0.5	0.5	-0.2
Portugal	4.2	3.0	-1.9	0.5	0.2
Italy	3.7	2.6	-1.0	0.1	-0.3
Switzerland	2.2	2.2	0.0	0.0	0.0
Denmark	1.7	2.0	0.1	0.1	0.1
Sweden	0.0	0.0	0.0	0.0	0.0

<sup>1</sup> Immediate rise in the underlying primary balance as a percentage of GDP needed to bring gross financial liabilities to 50% of GDP in 2050; includes health care and long-term care costs and projected increases in pension spending. <sup>2</sup> The contribution of changes is evaluated as the difference from the fiscal gaps in a baseline simulation where spending on pensions, health care and long-term care is assumed to remain constant as a share of GDP. A negative contribution implies that the underlying fiscal position improved or the interest rate paid on government debt fell between 2007 and that projected for 2012. <sup>3</sup> The implied fiscal gap considers the impact of the prevailing underlying fiscal position, debt levels and interest rates in 2007 on the 2012 fiscal gap.

Source: OECD, "Fiscal consolidation: how much is needed to reduce debt to a prudent level?", *OECD Economics Department Policy Notes*, no 11, April 2012. Table V.1

## Holdings of government debt<sup>1</sup>

As a percentage of total outstanding



AT = Austria; AU = Australia; BE = Belgium; BG = Bulgaria; BR = Brazil; CA = Canada; CL = Chile; CO = Colombia; CZ = Czech Republic; DE = Germany; DK = Denmark; ES = Spain; FI = Finland; FR = France; GB = United Kingdom; GR = Greece; HU = Hungary; ID = Indonesia; IE = Ireland; IL = Israel; IT = Italy; JP = Japan; LT = Lithuania; LU = Luxembourg; LV = Latvia; MX = Mexico; MY = Malaysia; NL = Netherlands; PH = Philippines; PL = Poland; PT = Portugal; RO = Romania; RU = Russia; SE = Sweden; SI = Slovenia; SK = Slovakia; TH = Thailand; TR = Turkey; UA = Ukraine; US = United States; ZA = South Africa.

<sup>1</sup> Data as of Q4 2011 for the United Kingdom and the United States; Q3 2011 for Brazil and Spain; Q2 2011 for Australia, France, Israel and Japan; Q1 2011 for Germany; Q2 2011 for the remaining emerging economies; and Q4 2010 for the remaining advanced economies. Refers to general government gross debt, except for Australia (Commonwealth Government Securities, including Treasury notes), Canada (Government of Canada Bonds and short-term paper), France (negotiable debt securities), Israel (tradable government bonds), Japan (central government bonds; also includes Japan Post Bank, 100% of which is held by JP Holdings, 100% of which in turn is held by the government), Spain (marketable central government debt), the United Kingdom (central government gilts) and the United States (Treasury securities, including non-marketable debt). <sup>2</sup> Does not include the ECB.

Sources: IMF, *Fiscal Monitor*, April 2012, and *World Economic Outlook*, April 2012; OECD, *Economic Outlook*, November 2011; World Bank, Quarterly External Debt Statistics; BIS calculations. Graph V.2

debt-to-GDP ratios: there is a lower probability of a serious impact from foreign capital flight, and interest payments are a smaller drag on domestic income. In addition, a higher proportion of foreign official investors for a given share of foreign government debt holdings, as in the United States, may point to more stable government borrowing costs since foreign official holders are less likely to react to short-run macroeconomic news or sudden spikes in global risk aversion.

Net international investment positions can also influence fiscal sustainability. The countries most affected by the euro area sovereign debt crisis have large negative net international investment positions relative to GDP. At the end of 2011, the country with the most negative such position was Portugal, at  $-108\%$  of GDP, followed by Ireland ( $-95\%$ ), Spain ( $-86\%$ ) and Greece ( $-73\%$ ). By contrast, the large positive net international investment position of Japan ( $51\%$ ) helps to lessen the vulnerability of its fiscal position, even though its government debt-to-GDP ratio stood at  $212\%$  in 2011.

### *The impact of the financial crisis on fiscal positions*

The financial crisis caused significant deterioration in the state of public finances in advanced economies. Virtually all governments in the developed world became much more indebted than they had been in 2007 (Graph V.1). And even though their public debt levels did not go up as much, EMEs were not spared either.

We can assess the marginal impact of the financial crisis and its aftermath on the sustainability of public finances by examining how fiscal gaps evolved. In several large advanced economies (eg Japan, the United Kingdom and the United States), fiscal gaps rose substantially due to swelling of fiscal deficits and debt triggered by the crisis (Table V.1). Ireland and Spain also saw their fiscal gaps widen between 2007 and 2012, despite their recent fiscal consolidation efforts. In both instances, the increases were driven in roughly equal measure by rises in government debt and in cyclically adjusted primary fiscal deficits.

Several factors drove the large fiscal deficits that governments ran in response to the crisis. The non-discretionary portions of government budgets shrank as tax revenues fell and automatic spending rose. Many governments implemented substantial fiscal stimulus packages to combat the slowdown in macroeconomic activity. In the immediate aftermath of the crisis, many sovereigns also provided support to financial institutions headquartered in their jurisdictions in the form of asset purchase programmes, direct equity injections and debt guarantees. The financial support programmes were often sizeable, with upfront costs reaching up to 55% of GDP.<sup>10</sup> And, as discussed above, in countries that had experienced credit and asset price booms prior to the crisis, tax revenues shrank much more than they would have as a result of a cyclical decline in macroeconomic activity.

#### *The impact of deteriorating sovereign health on the financial system*

The crisis has triggered an adverse feedback loop between bank risk and sovereign risk. Financial system weakness has hurt public finances while the deterioration in sovereigns' perceived creditworthiness has damaged the health of financial institutions.

The decline in sovereigns' perceived creditworthiness has affected the financial sector through several channels.<sup>11</sup> It has depressed the market value of banks' holdings of government debt and reduced the availability of high-quality collateral. This has adversely affected banks' funding conditions (as discussed in the next section and Chapter VI). Furthermore, the decline in the perceived ability of the sovereign to provide a backstop to the financial system has led to increases in the borrowing costs of financial institutions. This link has been most obvious in Greece, Italy, Portugal and Spain, where the lessening of perceived official support for banks over the past year has led to a fall in their all-in ratings.<sup>12</sup> Finally, as sovereigns have lost their perceived risk-free status, government debt has become a closer substitute for bank debt in investors' portfolios, raising the risk of crowding it out. Even though this effect applies to all private borrowers, it affects banks more given their sizeable funding needs.

<sup>10</sup> See C Borio, B Vale and G von Peter, "Resolving the financial crisis: are we heeding the lessons from the Nordics?", *BIS Working Papers*, no 311, June 2010.

<sup>11</sup> See Committee on the Global Financial System, "The impact of sovereign credit risk on bank funding conditions", *CGFS Publications*, no 43, July 2011, for further discussion.

<sup>12</sup> See N Tarashev, "Different causes for recent bank downgrades", *BIS Quarterly Review*, December 2011, pp 8–9.

Market prices clearly reflect the heightened risk of such a negative feedback loop. Correlations between bank and sovereign CDS spreads have risen considerably since the start of 2010. This is true not only for bank/sovereign CDS correlations within the same country, but also for many cross-country bank/sovereign pairs. For example, the correlation coefficient between daily changes in French bank and sovereign CDS spreads rose from 0.38 in 2008–09 to 0.79 in 2010–11. Over the same period, bank/sovereign CDS spread correlation coefficients also increased in Germany (0.33 to 0.66), Italy (0.53 to 0.78), Spain (0.38 to 0.71) and the United Kingdom (0.34 to 0.71).

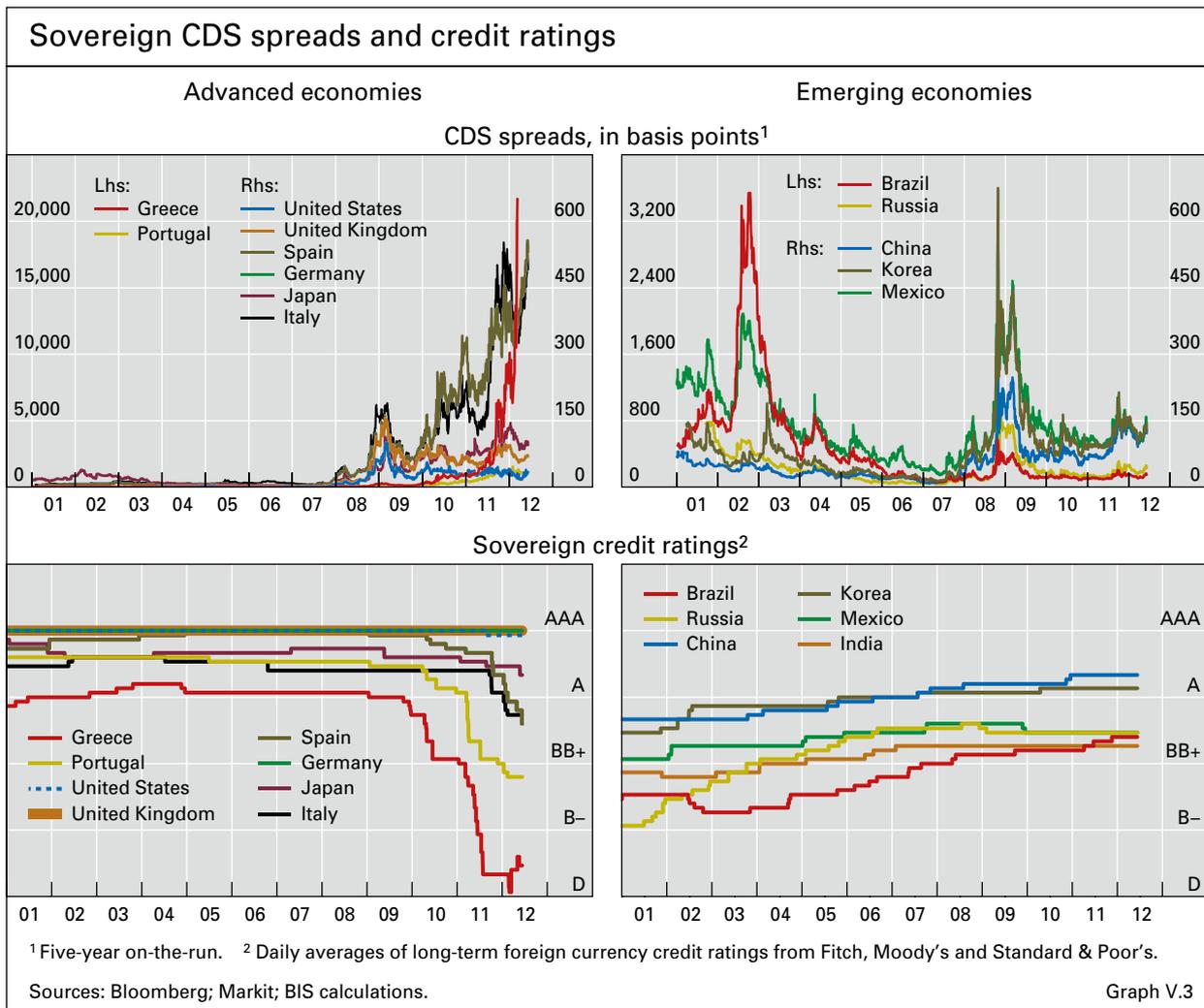
#### *Reactions to the deteriorating fiscal health of sovereigns*

The long-term borrowing costs of many, but not all, governments in advanced economies have risen considerably over the past couple of years. Concern about sovereigns' creditworthiness has been particularly strong in some euro area countries. Ten-year government bond yields in Greece, Ireland and Portugal increased strongly during 2010. Greek and Portuguese yields surged in 2011 and ended the year at 35.0% and 13.4%, respectively. After being virtually shut out of markets, each of the three governments concerned asked for official assistance. The long-term borrowing costs of Italy and Spain, whose joint government debt in 2011 amounted to around EUR 2.7 trillion, rose to 5.9% and 6.6%, respectively, by end-May 2012. However, 10-year German, Japanese and US government bond yields fell to 1.2%, 0.8% and 1.6%, respectively, by end-May 2012 as a result of a flight to safety.

As reflected in the prices of credit derivatives, the increase in sovereign credit risk was even more widespread. The sovereign CDS spreads of many advanced economies reached unprecedented levels towards the end of 2011 and, despite declining somewhat in early 2012, remain very high (Graph V.3, top left-hand panel). Even debt markets that benefited from a flight to safety and a decline in borrowing costs saw their sovereign CDS spreads rise.

The erosion of advanced economies' perceived creditworthiness also resulted in widespread credit rating downgrades (Graph V.3, bottom left-hand panel). Even the United States, the issuer of the world's most widely held international reserve currency, saw Standard & Poor's cut its sovereign credit rating in August 2011, as the Congressional Joint Committee on Deficit Reduction failed to reach agreement on a firm medium-term debt reduction strategy. As with market prices, the downgrades may have reflected not only the crisis-induced deterioration in public finances, but also a reappraisal of sovereign risk, with what had been regarded as sustainable before the crisis being judged as more risky.

Markets and credit rating agencies have been more positive about emerging economies. The sovereign CDS spreads of major EMEs were relatively stable over the past couple of years and, despite rising in the second half of 2011, remained well below their 2008–09 peaks (Graph V.3, top right-hand panel). Furthermore, emerging economies' credit ratings have trended upwards over the past decade, leading to some convergence with those of advanced economies (Graph V.3, bottom right-hand panel). Nevertheless, the picture is not uniform. The credit ratings of some smaller emerging market

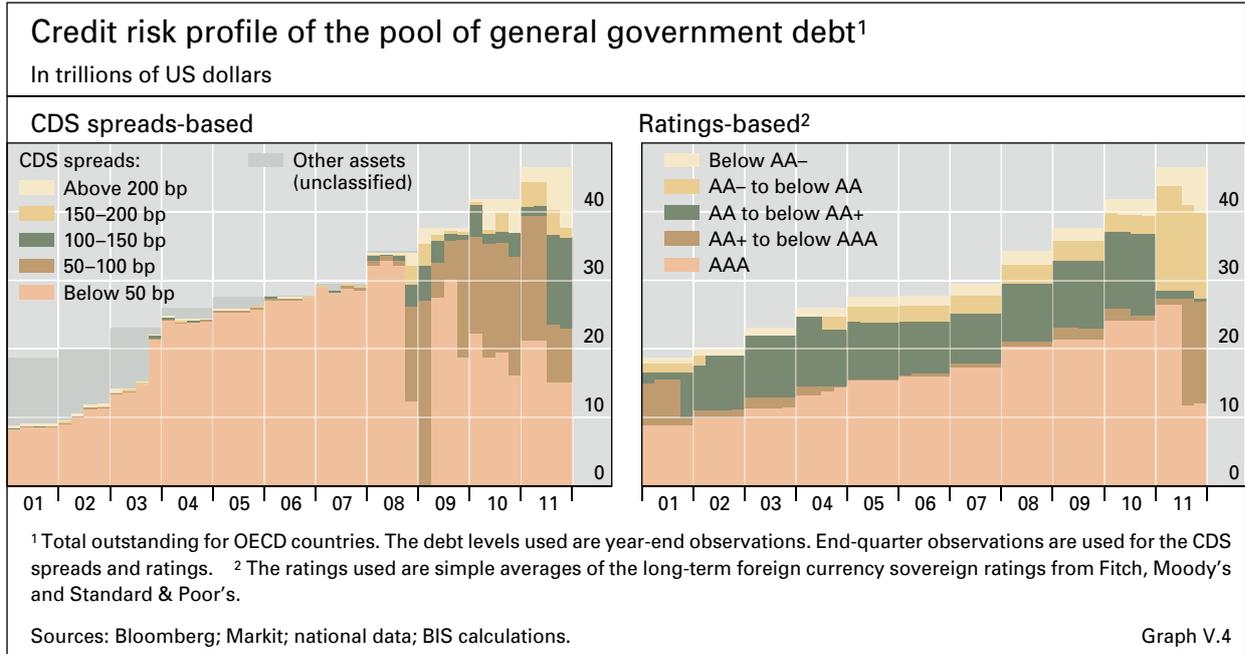


economies were downgraded over the past few years. For others, credit ratings and borrowing costs remained virtually unchanged despite rapid economic growth. Finally, for many countries in emerging Asia, credit ratings are currently lower than prior to the 1997 Asian financial crisis.

### Implications of sovereigns' loss of risk-free status

The deterioration in sovereign creditworthiness has significant undesirable effects. It undermines financial stability and the credibility of macroeconomic policies, and it increases private sector borrowing costs.

Sovereigns' loss of risk-free status undermines financial stability. Governments whose debt is risky cannot provide a reliable backstop for the financial system – the ultimate anchor of stability. Moreover, risk-averse private agents and financial intermediaries are deprived of a valuable and stabilising wealth preservation option at times of stress, including in the form of collateral. Indeed, the credit risk profile of the global pool of government bonds has deteriorated significantly, as indicated by both CDS spreads (Graph V.4, left-hand panel) and credit ratings (right-hand panel). As a result, the global pool of "safe" government bonds has shrunk just as demand has risen due to a flight



to safety, leading to a major shortage of safe assets in the global financial system.

The increased riskiness of sovereign debt weakens macroeconomic stability also through its effect on fiscal and monetary policy. It reduces the scope for implementing stabilising countercyclical fiscal policies. And it can undermine the credibility of monetary policy by raising concerns about fiscal dominance and monetisation of government debt.<sup>13</sup> This could unanchor inflation expectations and destabilise the macroeconomy.

Finally, the deterioration in the perceived creditworthiness of a sovereign raises the funding costs of virtually all private borrowers in its jurisdiction. The interest rates on government bonds set an effective floor on the borrowing costs of the majority of such borrowers.<sup>14</sup> They are also highly correlated with those costs (Graph V.5), especially during crises.<sup>15</sup>

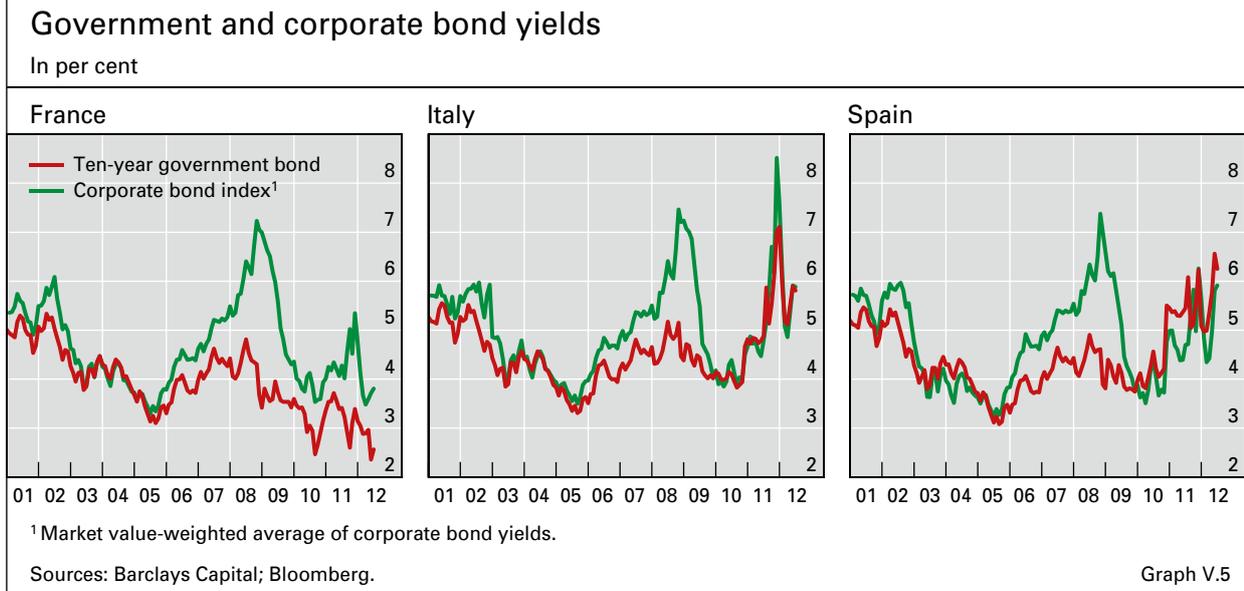
### How can sovereigns become risk-free again?

Governments in many advanced economies will have to significantly improve their fiscal balances to put their finances on a sustainable path and restore confidence in their fiscal positions. This is a prerequisite for a return to sustainable growth. It will require implementing effective fiscal consolidation and breaking the adverse feedback loop between bank and sovereign risk.

<sup>13</sup> See also BIS, "Threat of fiscal dominance?", *BIS Papers*, no 65, May 2012.

<sup>14</sup> The few exceptions typically include large multinational corporations whose revenues and operations are diversified internationally.

<sup>15</sup> See G Corsetti, K Kuester, A Meier and J Mueller, "Sovereign risk, fiscal policy, and macroeconomic stability", *IMF Working Papers*, no 12/33, January 2012.



Fiscal consolidation has started in a number of advanced economies (see Chapter II), but more needs to be done. According to OECD estimates, cyclically adjusted primary fiscal deficits as a percentage of GDP in advanced economies fell to an average of 4.1% in 2011, and are expected to decrease further to 3.1% in 2012 and 2.1% in 2013. The ratio was smaller on average in emerging economies in 2011 and is expected to decline only slightly in the next two years.<sup>16</sup> Nevertheless, many of the countries that implemented deficit reduction measures were not able to meet their headline deficit-to-GDP targets. This reflected a combination of weaker than expected growth and larger than expected deficits.

Financial markets can both help and hinder the return to fiscal sustainability. On the one hand, market discipline can provide incentives for fiscal consolidation. On the other, financial markets can remain complacent about fiscal problems for too long and react too late. Policymakers should therefore not wait for market signals to emerge in order to engage in fiscal consolidation.

Governments should implement pension and health care reforms now. Doing so would reduce the long-term contingent liabilities of the government and bolster confidence in the long-term sustainability of public finances.

In many advanced economies, large adjustments in government budgets and deep reform of the public sector are needed to restore fiscal sustainability. The specific timing and intensity of these measures will inevitably depend on country-specific conditions. But delaying fiscal consolidation could weaken confidence, leading to higher borrowing costs. For some countries, confidence in the sustainability of public finances has eroded so much that immediate fiscal consolidation is the only viable policy option. In those cases, it is

<sup>16</sup> See IMF, *Fiscal Monitor*, April 2012.

necessary to provide a boost to confidence, which is crucial for reviving economic growth.

Policy recommendations differ as to the best timing of fiscal consolidation. These differences partly reflect the uncertain size of fiscal multipliers, which may depend on the state of the economy and the constraints on monetary policy. Recent work suggests that fiscal multipliers may be larger when output gaps are negative and monetary policy is constrained by the zero lower bound, as is currently the case in major advanced economies.<sup>17</sup> That said, fiscal multipliers in a balance sheet recession may be lower than in normal recessions. In particular, in a balance sheet recession, overly indebted agents – these days, households typically – are likely to allocate a higher fraction of each additional unit of income to reducing their debt rather than increasing discretionary spending.

This also suggests that fiscal consolidation should factor in the potential use of the available fiscal space to support balance sheet repair of the financial and non-financial sectors where necessary. In countries where private sector balance sheet repair is an issue, fiscal space should be made available to address it, without prejudice to overall fiscal consolidation and debt reduction (see Chapters III and VI).

It is important for policymakers to manage the expectations of economic agents and financial markets by encouraging them to look beyond the very short term. This means communicating clearly about the likely impact of planned fiscal consolidation measures at various horizons. Research suggests that the adverse impact of fiscal tightening on economic activity is temporary.<sup>18</sup>

Increasing the flexibility of the economy can dampen any short-run adverse effects on output and quicken the return to longer-term sustainable growth. Structural policies, including product and labour market reform, are especially important. They can facilitate the reallocation of resources, support competitiveness and boost productivity growth.

Longer-term, policymakers need to take measures to break the feedback loop between financial sector and sovereign risk. One key step is encouraging banks to build capital and liquidity buffers – a priority of the regulatory reforms under way (see Chapter VI) – which would reduce the probability that governments would have to bail them out again. Another is for governments to be especially prudent in good times, building appropriate fiscal buffers, to be able to provide support for the financial system if needed without denting their creditworthiness (see the previous section). Finally, the risk weights for government debt held by banks should be based on a realistic assessment of sovereign credit risk, as encouraged by the internal ratings-based (IRB)

<sup>17</sup> See A Baum, M Poplawski-Ribeiro and A Weber, “Fiscal multipliers and the state of the economy”, *IMF Working Papers*, forthcoming; J DeLong and L Summers, “Fiscal policy in a depressed economy”, March 2012, mimeo; and R Barrell, D Holland and I Hurst, “Fiscal consolidation: Part 2. Fiscal multipliers and fiscal consolidations”, *OECD Economics Department Working Papers*, no 933, February 2012.

<sup>18</sup> See K Clinton, M Kumhof, D Laxton and S Mursula, “Budget consolidation: short-term pain and long-term gain”, *IMF Working Papers*, no 10/163, July 2010; C Freedman, M Kumhof, D Laxton, D Muir and S Mursula, “Global effects of fiscal stimulus during the crisis”, *Journal of Monetary Economics*, vol 57, no 5, 2010; and IMF, *World Economic Outlook*, October 2010, Chapter 3.

approach of the Basel standards. This would discourage banks from concentrating their portfolios excessively in sovereign bonds. In contrast to the spirit of the approach, many banks and supervisors have assigned zero risk weights to domestic government bonds, increasing the incentive to hold such assets.<sup>19</sup>

Countries less affected by the financial crisis, including many emerging market economies, could take the opportunity to put their public finances on a path that is sustainable in the long term. This would better prepare them to deal with increases in public spending on pensions and health care due to ageing populations and provide more room for countercyclical fiscal policy in the future.

## Summing up

Sovereigns have been losing their risk-free status at an alarming rate. Fiscal positions were already unsustainable in many advanced economies before the financial crisis, which in turn led to significant further weakening. The deterioration of public finances has undermined financial stability, lowered the credibility of fiscal and monetary policy, impaired the functioning of financial markets, and increased private sector borrowing costs. Restoring sustainable fiscal positions will require implementing effective fiscal consolidation, promoting long-term growth, and breaking the adverse feedback loop between bank and sovereign risk.

<sup>19</sup> For example, an EU directive stipulates such a zero risk weight on member countries' government bonds denominated and funded in the domestic currency of the country. See also H Hannoun, "Sovereign risk in bank regulation and supervision: where do we stand?", speech delivered at the Financial Stability Institute High-Level Meeting, Abu Dhabi, United Arab Emirates, 26 October 2011.