CHAPTER 1

GLOBAL FINANCIAL STABILITY ASSESSMENT

In late 2011, the euro area's banking and government bond markets came under stresses that pushed financial stability risks to a new peak of intensity. Subsequent policy actions eased bank funding strains and helped stabilize sovereign markets, but the risks to global financial stability remain elevated (Figures 1.1 and 1.2). This report calls on policymakers to utilize recent stabilization gains to swiftly implement a comprehensive set of policies to achieve durable stability.

The global economy suffered a major setback in late 2011 as concerns about financial stability in the euro area came to a head. Market stress spread throughout the currency zone, bond yields soared in peripheral economies, and liquidity evaporated as investors grew increasingly concerned about the risk of a disorderly bank failure or sovereign default. These developments dramatically highlighted the risk of adverse, self-fulfilling shifts in market sentiment that could rapidly push fragile sovereigns into a bad equilibrium of rising yields, a funding squeeze for domestic banks, and a worsening economy.

Bold and unprecedented policy actions have brought some much-needed relief:

- The European Central Bank's decision to provide unlimited, collateralized three-year liquidity to banks and to widen the range of eligible collateral has significantly eased bank funding strains and contained the risk of illiquidity-driven bank failures.
- Governments in several countries, notably Italy and Spain, have set in train potentially important reform programs to reduce fiscal deficits, improve competitiveness, and, in the Spanish case, to further the repair of the domestic financial system.
- Ireland and Portugal have made good progress in implementing their adjustment programs. Greece came to a major agreement to restructure debt held by the private sector, and a successor program has been agreed with the European Commission, the European Central Bank (ECB), and the IMF, and approved by both euro area member states and the IMF.
- Policymakers across most of the European Union have firmed up their commitment to a set of fiscal institutions that will foster fiscal discipline in the future. Governments have committed to enhanced surveillance of intra-euro-area imbalances and divergences in competitiveness. They agreed to pursue structural reforms to reinvigorate growth.
- Meanwhile, euro area banks are in the process of securing stronger capital positions under a European Banking Authority (EBA)-coordinated initiative.

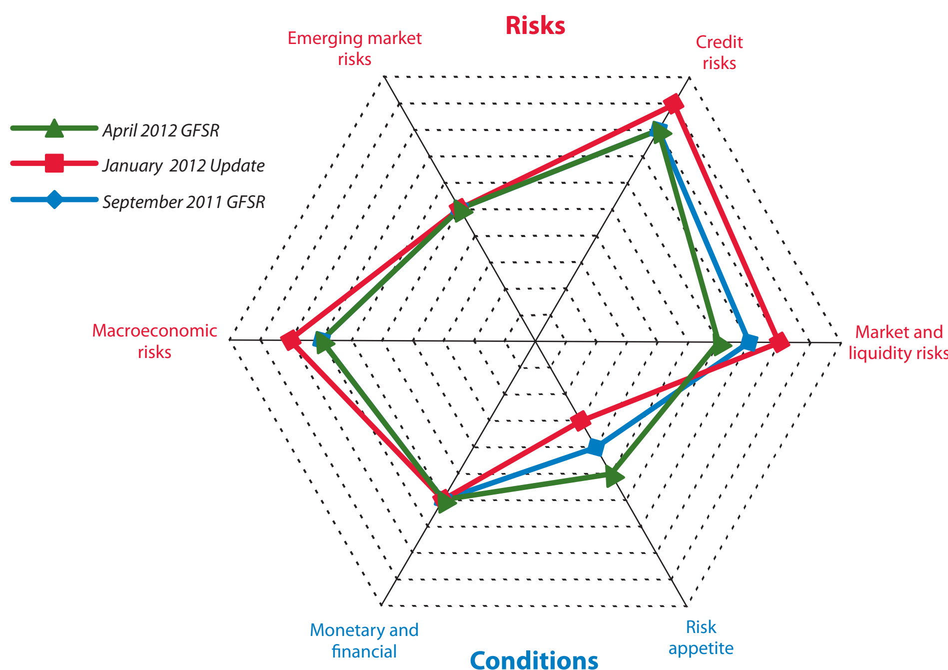
Status of Stability Indicators

As a result of the above actions, sovereign spreads have eased, bank funding markets have partly reopened, and equity prices have rebounded. *Market and liquidity risks* have improved sharply (Figures 1.1 and 1.2), falling below the levels of the September 2011 *Global Financial Stability Report* (GFSR), as immediate concerns of an imminent collapse were averted and official funding relieved refinancing pressures in the banking system.

Against the backdrop of deleveraging pressures and weakening growth, the ECB also cut its policy rate to 1.0 percent in December 2011 and reduced reserve requirements. That, together with fresh policy steps by other central banks—including further balance sheet expansion at the Bank of Japan, the Bank of England, and the U.S. Federal Reserve (Figure 1.3)—has eased global monetary conditions. However, bank lending standards have tightened, and broader financial conditions have deteriorated since the previous GFSR, leaving overall *monetary and financial conditions* unchanged.

Note: This chapter was written by Peter Dattels and Matthew Jones (team leaders), Sergei Antoshin, Serkan Arslanalp, Eugenio Cerutti, Jorge A. Chan-Lau, Nehad Chowdhury, Sean Craig, Jihad Dagher, Reinout De Bock, Martin Edmonds, Michaela Erbenova, Luc Everaert, Jeanne Gobat, Vincenzo Guzzo, Kristian Hartelius, Sanjay Hazarika, Eija Holttinen, Anna Ilyina, William Kerry, Peter Lindner, Estelle Xue Liu, André Meier, Paul Mills, Esther Perez Ruiz, Marta Sánchez Saché, Jochen Schmittmann, Alasdair Scott, Katharine Seal, Narayan Suryakumar, Takahiro Tsuda, Nico Valckx, and Chris Walker.

Figure 1.1. Global Financial Stability Map



Source: IMF staff estimates.
Note: Away from center signifies higher risks, easier monetary and financial conditions, or higher risk appetite.

The additional liquidity has boosted *risk appetite*, and the price of risk assets has strengthened, reflecting both increased liquidity and declining perceptions of tail risk (Figure 1.4). Bank equities have recovered and default risk has declined sharply. Sovereign financing markets have shown signs of easing from the extremes reached in late 2011, and recent auctions have been mostly well subscribed, supported in part by the ECB's longer-term refinancing operations (LTROs) as banks in some countries appear to have increased holdings of government debt. Nevertheless, bond markets remain fragile and volatile, reflecting the erosion of traditional investor bases and large fiscal financing needs. These issues are explored in Chapter 2.

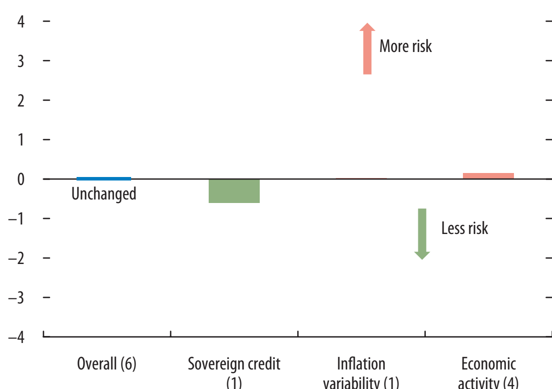
As a result of the strong policy actions outlined above, *credit risks* have retreated from high levels. However, pressures on European banks remain elevated. Banks are coping with sovereign risks, weak economic growth, high rollover requirements, and the need to strengthen capital cushions to regain investor confidence. Together, these pressures have induced a broad-based drive to reduce the size of bank balance sheets. Although some deleveraging is both inevitable and desirable, its precise impact depends on the nature, pace, and scale of asset shedding. The EBA explicitly discouraged banks from shedding assets to meet the 9 percent capital target, by requiring that banks cover the shortfall mainly through capital measures. Asset sales would be recognized toward achievement of the EBA target only if they do not lead to a reduced flow of lending to the economy. So far, deleveraging has occurred predominantly through buttressing capital positions and reducing noncore activities, leaving the impact on the rest of the world manageable. It is essential to continue to avoid a synchronized, large-scale, and aggressive trimming of balance sheets that could do serious damage to asset prices, credit supply, and economic activity in Europe and beyond. See Chapter 2 for a detailed analysis of deleveraging and its economic impact.

Reflecting these strains, the World Economic Outlook (WEO) baseline has been revised downward since September 2011, largely because the euro area economy is now expected to suffer a mild recession in

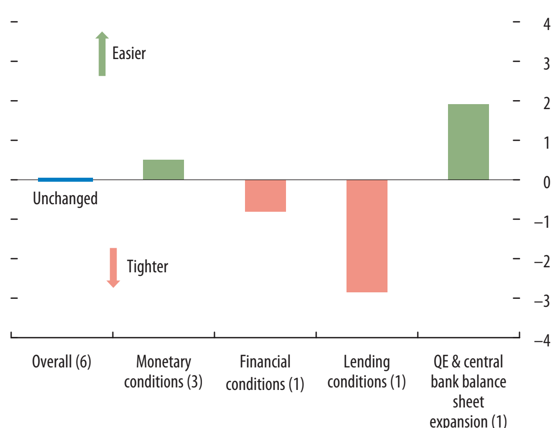
Figure 1.2. Global Financial Stability Map: Assessment of Risks and Conditions

(In notch changes since the September 2011 GFSR)

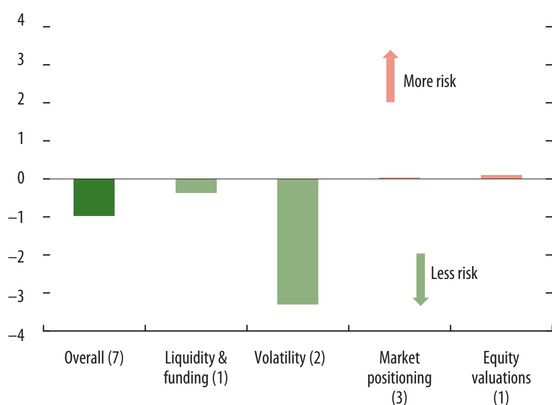
Macroeconomic risks remained unchanged, as prospects are gradually improving after the global economy suffered a major setback in late 2011.



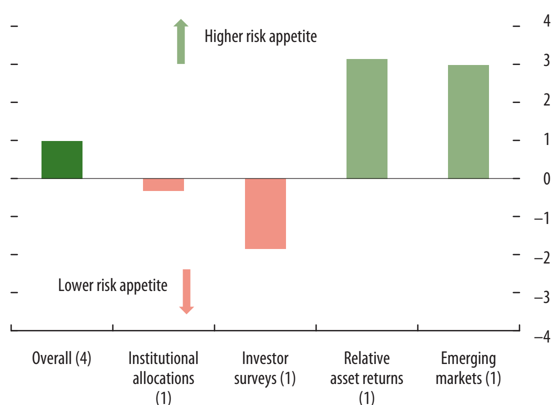
Despite an easier monetary stance, financial and bank lending conditions tightened, leaving ***monetary and financial conditions*** unchanged.



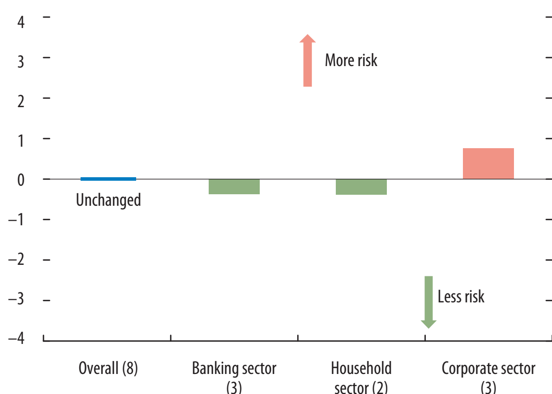
Market and liquidity risks improved after the ECB alleviated funding and market stress by providing three-year liquidity to banks…



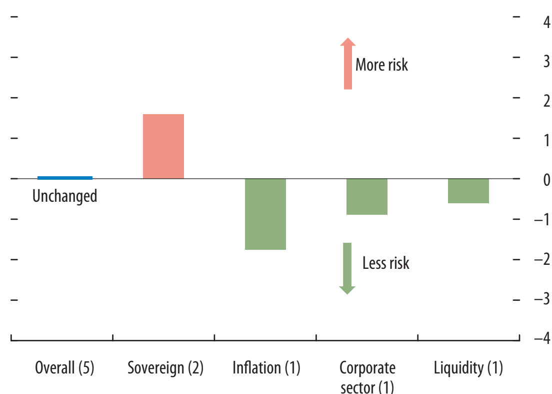
… which, in turn, boosted ***risk appetite***.



The banking sector showed a slight improvement thanks to policy efforts, but ***credit risks*** were unchanged overall at high levels.



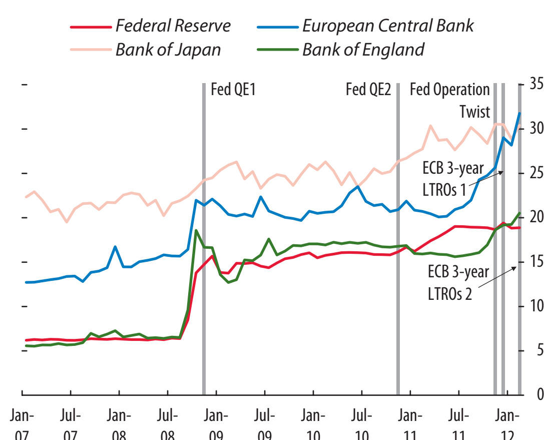
Emerging market risks remained contained, as inflation moderated and corporate spreads declined, despite an increase in sovereign downgrades.



Source: IMF staff estimates.

Note: Changes in risks and conditions are based on a range of indicators, complemented with IMF staff judgment; see Annex 1.1. in the April 2010 GFSR and Dattels and others (2010) for a description of the methodology underlying the Global Financial Stability Map. Numbers in parentheses denote the number of individual indicators within each subcategory of risks and conditions. The "overall" notch change in each panel is the simple average of notch changes in individual indicators in that panel. In the monetary and financial conditions panel, a positive value for lending conditions represents a slower pace of tightening or faster easing, and QE = quantitative easing.

Figure 1.3. Central Bank Balance Sheet Expansion
(In percent of GDP)



Sources: Bloomberg L.P.; and Haver Analytics.
Note: ECB = European Central Bank; Fed = Federal Reserve; LTROs = longer-term refinancing operations; QE = quantitative easing.

2012. Although downside economic risks have been reduced, financial stability risks stemming from the *macroeconomic* situation remain unchanged. This is because the slowdown in growth in the euro area and the divergence between core and peripheral countries will make dealing with debt burdens more challenging (Figure 1.5). Deleveraging pressures in Europe's banking system risk creating an adverse feedback loop that could have further effects on economic activity.

Emerging markets generally have substantial buffers and policy room to cope with fresh external shocks—as reflected in the unchanged, moderate level of *emerging market risk*. So far, these economies have been well able to manage the deleveraging coming from European banks, but looking ahead, there is a potential for deleveraging to have a global impact on the supply of credit. Although the pressures are likely to be most intense in emerging Europe, a sharp pullback in credit could expose existing external vulnerabilities throughout emerging markets, triggering additional portfolio outflows and upending domestic financial stability. See Chapter 2 for further analysis.

Why is a disorderly process of deleveraging so threatening? The risks to growth and financial stability during the deleveraging process are magnified by the fact that balance sheet repair often extends across several economic sectors (households, corporations, and the public sector). As Table 1.1 shows, strained public finances are but one aspect of weak balance sheets in advanced economies. Many economies are weighed down by high debt burdens across multiple sectors (Annex 1.1).[1] Indeed, historical experience suggests that balance sheet repair takes time and tends to dampen activity. Countries with large external debts face a particular challenge, as the required rebalancing is hampered by entrenched competitiveness problems and subdued external demand. Policymakers need to coordinate a careful mix of financial, macroeconomic, and structural policies that ensure a smooth deleveraging process, support growth, and facilitate rebalancing. In the euro area, a clear path toward a more integrated and fuller monetary and economic union built on solidarity and strengthened risk-sharing arrangements is essential, as elucidated in Chapter 2.

The Policy Challenges

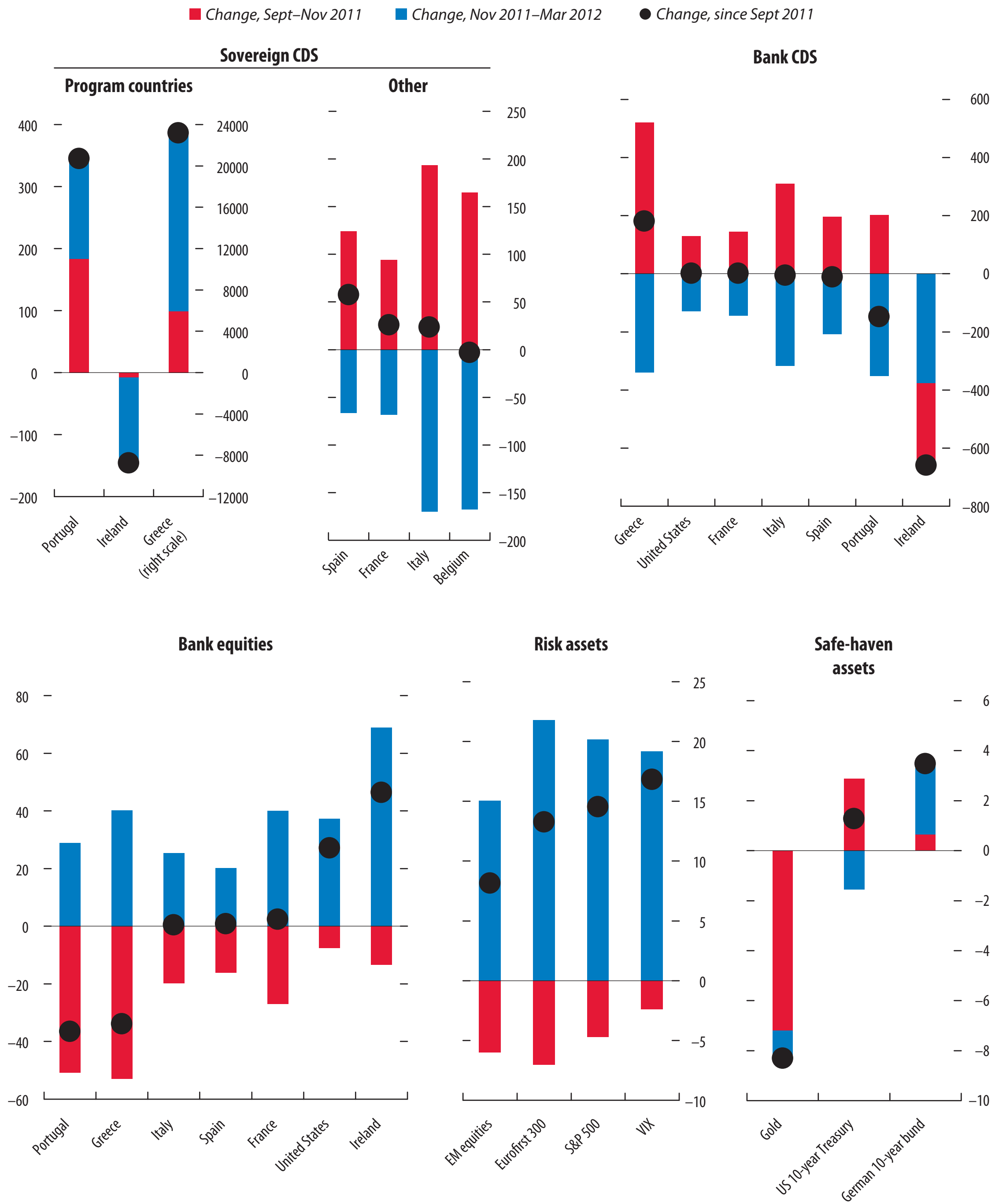
This section analyzes the risks to global financial stability by comparing three illustrative scenarios for euro area policymaking (Figure 1.6). These scenarios capture the notion of a baseline of *current policies* along with upside potential through a recommended *complete policies* scenario, and downside risks (*weak policies*).

Current Policies Scenario

Under the scenario of *current policies*, systemic risks are averted but strains remain, as policymakers do not capitalize on recent progress to secure further breakthroughs in the areas of national reforms, bank restructuring, and further financial and fiscal integration needed to entrench stability. Consistent with that notion, current forward markets suggest that spreads will persist at relatively elevated levels for weaker sovereigns and banks. Still-fragile confidence implies that foreign investors will not increase their exposures to peripheral bonds, causing the dependence on home institutions to rise.

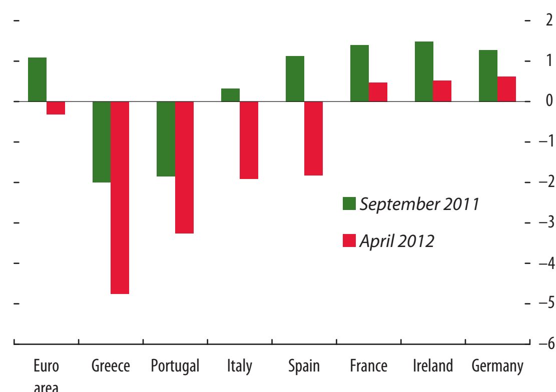
[1]Annex 1.1 explores how this constellation complicates the process of balance sheet repair, as simultaneous belt tightening in several sectors squeezes economic activity and, in the worst case, may push the economy into "debt deflation"—a downward spiral in prices and economic activity.

Figure 1.4. Asset Price Performance since September 2011 GFSR
(In percent; CDS in basis points; VIX in percentage points and inverted)



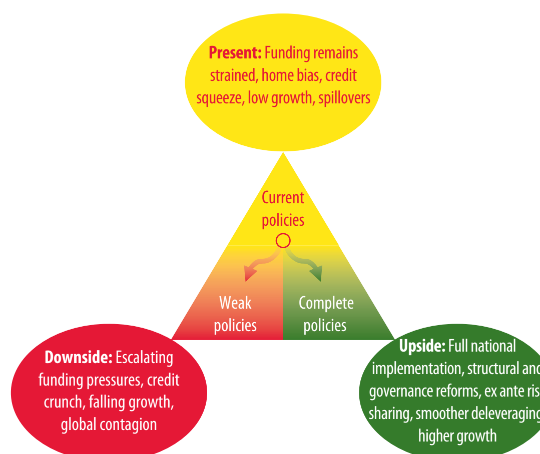
Sources: Bloomberg L.P.; and IMF staff estimates.
Note: CDS = credit default swaps; EM = emerging markets; VIX = implied volatility on S&P 500 index options.

Figure 1.5. WEO Projections of 2012 GDP Growth in Selected Euro Area Countries
(In percent)



Source: IMF, World Economic Outlook (WEO) database.

Figure 1.6. Policy Action to Entrench Stability and Avoid Downside Risks



Meanwhile, responsibility for the financial system remains divided along national lines, portending some fragmentation of financial sector activity and policy within the euro area. The overall result allows vulnerabilities to linger, leaves policies subject to considerable implementation risks, and caps the benefits from economic and financial integration.

In this scenario, which is embedded in the current WEO projections for a mild euro area recession in 2012, Europe's banks are likely to face pressures to shed assets due to remaining funding concerns as well as the need to reshape their business and funding models. The analysis in this GFSR suggests that 58 large EU-based banks could shrink their combined balance sheet by as much as $2.6 trillion (€2.0 trillion) through end-2013, or almost 7 percent of total assets (Table 1.2). About a quarter of this deleveraging is projected to occur through a reduction in lending, as most is expected to come largely from sales of securities and noncore assets. The impact on euro area credit supply is equivalent to about 1.7 percent of present credit outstanding. In advanced economies, high-spread euro area countries face the biggest cutbacks in credit. In emerging markets, the impact would be hardest felt in Europe.

The analysis of deleveraging involves a considerable amount of uncertainty since it includes assumptions about the behavior of banks and there are some data gaps. Moreover, the ultimate impact on credit across countries is subject to many other factors. For example, the ability of local banks and other intermediaries—not included in the simulations—to substitute for EU bank lending is not quantified, and neither is the importance of bank credit to overall credit supply. The methodology, however, gives priority to other actions by banks for reducing balance sheets before cutting back lending to the real economy (see Chapter 2 and Annex 2.1 for further discussion).

Complete Policies Scenario

Policymakers are aware of the need to improve upon the baseline scenario of current policies and shift the situation firmly toward a good equilibrium of moderating funding costs, affordable debt levels, and reduced stress in the banking system. Indeed, the set of policies that are necessary and sufficient to achieve lasting stability, while difficult to enact and implement, remains attainable. Under a *complete policies* scenario, policymakers would further strengthen crisis management, pursue bank restructuring, and commit to a road map for a more financially and fiscally integrated monetary union, with a prudent framework for ex ante risk sharing. Although this is politically challenging, some key elements of the framework have already been put in place, including mechanisms to secure fiscal discipline, coordinate fiscal policies, and strengthen economic governance at the euro area level. What remains is to establish better instruments

Table 1.1. Indebtedness and Leverage in Selected Advanced Economies

(Percent of WEO projections for 2012 GDP except as noted)

	United States	Japan	United Kingdom	Canada	Euro area	Belgium	France	Germany	Greece	Ireland	Italy	Portugal	Spain
General government debt[1]													
Gross	107	236	88	85	90	99	89	79	153	113	123	112	79
Net[2]	84	135	84	35	70	84	83	54	n.a.	103	102	111	67
Primary balance	–6.1	–8.9	–5.3	–3.1	–0.5	0.5	–2.2	1.0	–1.0	–4.4	3.0	0.1	–3.6
Household debt[3]													
Gross	88	74	99	89	70	53	63	59	70	120	51	105	89
Net[4]	–226	–236	–178	–151	–123	–191	–127	–118	–48	–68	–171	–124	–72
Nonfinancial corporate debt													
Gross[3,5]	87	143	118	53	138	178	152	63	75	244	112	154	196
Debt divided by equity (percent)	82	184	86	45	106	53	85	107	264	84	139	144	149
Financial institutions													
Gross debt[3]	87	177	742	60	142	124	169	97	33	691	97	63	109
Leverage of domestic banks[6]	11	23	22	18	23	27	24	28	15	24	19	16	20
Bank claims on public sector[3]	7	79	8	18	n.a.	23	17	21	29	27	32	19	26
External liabilities													
Gross[3,7]	146	66	717	93	191	403	255	219	207	1,717	142	286	221
Net[3,7]	16	–52	11	11	14	–64	9	–33	97	93	23	107	93
Government debt held abroad[8]	30	19	25	17	25	57	56	48	87	66	49	62	28

Sources: Bank for International Settlements (BIS); Bloomberg L.P.; European Union Consolidated Banking Data; U.S. Federal Deposit Insurance Corporation; IMF, International Financial Statistics, Monetary and Financial Statistics, and World Economic Outlook (WEO) databases; BIS-IMF-OECD-World Bank Joint External Debt Hub (JEDH); and IMF staff estimates.

Note: Values in red cells are in the top 25 percent of values for all countries shown for 1990 through 2010 (or longest sample period available); green, bottom 50 percent; yellow, 50th to 75th percentiles. The sample period for bank leverage data starts in 2008.

[1]WEO debt projections for 2012.

[2]Gross debt minus financial assets that are debt instruments.

[3]Most recent data divided by WEO projection for 2012 GDP.

[4]Calculated with flow of funds data on financial assets and liabilities.

[5]Includes intercompany loans and trade credit, which can differ significantly across countries.

[6]Ratio of tangible assets to tangible common equity.

[7]Calculated from assets and liabilities reported in each country's international investment position; includes data on International Financial Services Centers.

[8]Most recent data from JEDH divided by WEO projection for 2012 GDP. JEDH and WEO debt data are incompatible when one set is at market value and the other is nominal.

for risk sharing, both in the short term with respect to crisis management and in the long term with respect to completing the architecture of an effective economic and monetary union (Box 1.1).

What are the policy steps that would bring about this upside scenario of complete policies? The first step is the continued implementation of well-timed fiscal consolidation policies at the national level. It is crucial to cushion the impact of adjustment with other policies geared toward supporting growth. These should include: (1) sufficiently accommodative monetary policy, consistent with the objective of price stability and the recognition that deflationary dynamics, once in train, are particularly difficult to reverse; and (2) structural reforms that raise productivity, strengthen competitiveness, and thereby lay the foundation for stronger, sustained growth and more balanced external accounts in deficit countries. It is also necessary to deliver on the improvements in euro area economic governance that have already been agreed and which will entail significant further efforts to ensure political support for implementation. In addition, this GFSR identifies two short-term priorities for stabilization:

- *A credible firewall* that is large, robust, and flexible enough to stem contagion and facilitate the adjustment process in the highly indebted countries. The recent decision to combine the European Stability Mechanism (ESM) and the European Financial Stability Facility (EFSF) is welcome and, along with other recent European efforts, will strengthen the European crisis mechanism and support the IMF's efforts to bolster the global firewall.
- Further progress on *bank restructuring and resolution* is essential to complement the bank capital and provisioning increases currently under way, backed, if necessary, by the firewall. Banks currently benefit from extraordinary ECB liquidity support, in some cases alongside national funding guarantees. The recent stabilization afforded by this support must be used to advance the necessary restructuring of weak banks and secure an orderly deleveraging process. In addition, regulators should ensure that banks exercise appropriate restraint on dividend and remuneration budgets to preserve capital buffers. To break the pernicious link between sovereigns and banks, the facilities constituting the euro area firewall should also be allowed to inject capital directly into banks if the situation warrants it. In time, a credible effective bail-in regime enabling prompt recapitalization through debt restructuring could be considered.[2]

There are two longer-term reform objectives necessary for sustaining the complete policies scenario. While these objectives are not immediately achievable given the need for time to forge a political consensus, it is important that policymakers recognize and articulate the direction in which the policy framework needs to move. These objectives are:

- *Developing a road map for a complete pan-euro-area financial stability framework*. Monetary union will function properly only if the financial system is dealt with at the euro area level in crucial areas that give rise to externalities and spillovers. This ultimately requires centralized euro area coordination of policies and a common framework in bank supervision and resolution as well as deposit insurance.
- *Progress toward greater fiscal risk sharing*, conditional upon more centralized fiscal governance. As the crisis has demonstrated, individual euro area countries may run into financing difficulties even if their fundamentals are basically sound. Such shocks can ripple rapidly through the entire currency area because of its high degree of interconnectedness.

Table 1.2. Impact of European Bank Deleveraging under Three Policy Scenarios, through End-2013

Scenario	Change in Bank Assets[1]: Trillions of U.S. dollars	Change in Bank Assets[1]: Percent	Change in Euro Area Supply of Bank Credit[2] (in percent)	Change in Euro Area GDP[3] (in percent)
Complete policies	–2.2	–6	–0.6	0.6
Current policies	–2.6	–7	–1.7	–
Weak policies	–3.8	–10	–4.4	–1.4

Source: IMF staff estimates.

Note: The methodology and detailed results are presented in Chapter 2, Annex 2.1.

[1]For a sample of 58 banks based in European Union countries.

[2]Domestic and direct cross-border credit, relative to level in 2011:Q3.

[3]Change from 2011 level of GDP relative to the current policies scenario.

[2]See Zhou and others (2012) for a detailed discussion on bail-in.

Box 1.1. Addressing the Euro Area Crisis and Moving Toward a More Integrated Union

European policymakers have outlined important elements of a comprehensive strategy to deal with the crisis. To safeguard the financial stability of the euro area, they aim to enhance existing crisis mechanisms and improve economic governance at the euro area and national levels; and they call for strong national efforts to consolidate public finances, restore sound lending, and improve growth prospects. To meet its objective, however, this strategy needs to be further strengthened during its implementation, and a clear vision of a more integrated Economic and Monetary Union (EMU) must be spelled out.

Recent Policy Initiatives

Since the September 2011 GSFR, further important steps have been taken to address the euro area crisis:

- *National adjustment programs.* All euro area countries facing market pressures or vulnerabilities have undertaken further fiscal adjustment, combined with reforms to boost growth. To gain fiscal credibility, euro area countries have committed to enshrine fiscal discipline in their national fiscal frameworks.
- *Agreement on support for Greece*. Conditions have been clarified for restoring the fiscal sustainability of Greece, including through private sector burden sharing and the provision of additional official support.
- *Enhancement of crisis management facilities.* The establishment of the permanent crisis management mechanism, the European Stability Mechanism, has been brought forward, and its flexibility has been improved.
- *Strengthening of bank capital.* The European Banking Authority (EBA) has required banks to increase capital positions, including buffers to deal with sovereign risks, while national authorities have granted additional funding guarantees for bank debt. The EBA explicitly discouraged banks from shedding assets to meet the 9 percent capital target, by requiring that banks cover the shortfall mainly through capital measures. Asset sales may be recognized toward achievement of the EBA target only if they do not lead to a reduced flow of lending to the economy.
- *Improvement in governance.* EU members adopted the so called "six pack" of reforms to strengthen governance and excessive deficit procedures, and most EU members have signed the Fiscal Compact, which reinforces previous commitments under the Stability and Growth Pact and adds structural balance rules ("debt brakes") at the national level to prevent fiscal imbalances. Procedures were also adopted to coordinate and monitor fiscal policy (European Semester) and to identify and redress imbalances.
- *European Central Bank support.* The ECB lowered its policy rate, cut reserve requirements, intervened in poorly functioning intermediation markets via the Securities Market Program, and provided exceptional liquidity support for banks through a new program of three-year collateralized refinancing under broadened criteria for eligible collateral.

Strengthening the Crisis Strategy

With growth at a premium, it is essential that policies be directed to support demand as much as possible. Given downside risks to inflation, monetary conditions will need to remain highly accommodative, and further easing may need to be considered. Fiscal consolidation needs to take place over the medium term but must proceed in a manner consistent with supporting growth in the short term. Although a number of countries have no choice but to make up-front fiscal adjustments, others can afford to allow automatic stabilizers to operate fully along their consolidation paths or to slow adjustment.

A strong euro area firewall is necessary to arrest contagion and minimize the risks of an escalation of the crisis. The recent decision by euro area policymakers to raise the effective lending capacity of the European Stability Mechanism (through accelerated buildup of capital and temporary backstopping by the European Financial Stability Facility) marks an important step in this direction.

The banking system needs further strengthening. Funding risk requires continued attention through ample liquidity provision by the ECB, but additional loss-absorbing capital is also needed, in line with EBA requirements. Public support may be necessary for banks that have difficulty obtaining new

Note: Prepared by Alasdair Scott.

Box 1.1 *(continued)*

capital from private sources. And to avoid having such support raise concerns about sovereign debt sustainability, common resources from the euro area crisis management facilities should be used to inject capital directly into such banks.

Bank restructuring must be accelerated. With large liquidity support and sovereign funding guarantees providing breathing space, banks now should adjust their business models to rely less on wholesale funding and deal with legacy assets.

Supporting a Better-Integrated EMU

The crisis has amply demonstrated the interconnectedness of the financial systems of all members of the currency union and the vicious feedback loop between banks and sovereigns. Nonetheless, for an effective monetary union, deeper integration is required. To this effect, the monetary union must be supported with a pan-euro-area approach to bank supervision, deposit insurance, and resolution, with centralized funding for insurance and resolution.

Ultimately, for an effective monetary union, fiscal arrangements will need to be redesigned to accomplish ex ante fiscal risk sharing. A number of proposals have been made to support this, such as eurobonds (see Chapter 2, Box 2.6) and a debt redemption fund. Without ex ante risk sharing, countries will continue to face very different financing conditions and remain prone to having liquidity crises turn into solvency concerns.

Implementing these changes will take political determination and time, but a credible commitment to a truly integrated EMU would have immediate benefits. It would result in significant improvements in funding conditions and prevent stresses from becoming a self-fulfilling prophecy.

Providing some ex ante risk-sharing mechanism would avoid self-fulfilling dislocations of financial markets and could even help enforce fiscal discipline via conditional access to central funding.

If implemented, these policy steps could lead to a sharp tightening in sovereign spreads, a gradual rebuilding of the investor base, and a consequent improvement in banking sector conditions. Under this scenario, the impact from bank deleveraging would reduce credit supply by approximately 0.6 percent, which is less than under the *current policies scenario*, and GDP would be 0.6 percent above the baseline after two years.

Weak Policies Scenario

In a more adverse scenario of *weak policies*, conditions could deteriorate to the point of reviving acute market tension. This scenario could be triggered because the implementation of the policies under the *current policies* falls short of what has been agreed, national policies falter, political solidarity underpinning euro area reforms fragments, or shocks overwhelm the firewalls. Under this scenario, credit spreads rise sharply again, pushing several sovereigns toward a bad equilibrium of prohibitive funding costs, worsening debt dynamics, and risks of illiquidity or financial repression. Further stresses in the banking system could force banks to accelerate the deleveraging drive. As a result, EU banks could shed an additional $1.2 trillion in assets above the baseline by end-2013, or a further 3 percent of assets. This retrenchment could reduce euro area credit supply by 4.4 percent and GDP by a further 1.4 percent from the baseline after two years.

Such large-scale deleveraging under the downside scenario would have consequences well beyond the euro area. The fire sale of bank assets could have a significant impact on asset prices and market liquidity. Through derivatives markets, stress could be transmitted to U.S. banks, even though their direct exposures to European banks and sovereigns are relatively low. Moreover, a global retrenchment of credit could expose the external vulnerabilities of some emerging market economies, trigger additional portfolio outflows, and hurt their domestic financial stability. While many emerging markets have substantial buffers and policy room to cope with external shocks, the weak policy scenario would have far-reaching negative repercussions, especially in emerging Europe.

Other Challenges

Medium-term public and private debt challenges are by no means confined to the euro area. In fact, the high fiscal deficits facing Japan and the United States pose a latent risk to financial stability, especially since there has been little progress to date in laying out strategies to address the problem, in contrast to what is happening in Europe. Both countries require credible multiyear plans for deficit reduction that protect short-term growth but reassure financial markets that debt will return to a sustainable trajectory over the medium term.

In the United States, more-aggressive policies to alleviate households' mortgage debt burden—in particular through write-downs of underwater mortgages and expanded access to refinancing—would reduce foreclosures and thereby support the housing sector and the broader economy. The administration has recently taken steps in this direction by announcing new proposals and actions to support the housing market. The proposals include a significant strengthening of the Home Affordable Mortgage Program (HAMP), and calls on Congress to broaden access to refinancing for mortgages backed by government-sponsored enterprises (GSEs) as well as non-GSE mortgages, allowing a larger share of borrowers to refinance their mortgages at the current low interest rates. A workable plan for reform of the GSEs and the restoration of private mortgage supply are important in the longer term. In the meantime, however, U.S. mortgage supply remains almost entirely dependent on GSE mortgage insurance (along with the Federal Housing Administration). Hence, the authorities face a difficult balancing act between reducing the still-central role of the GSEs in the mortgage market and fostering the recovery of the housing market. In that regard, the recent pilot initiative to convert foreclosed properties held by the GSEs into rental units is welcome, but more is needed to satisfactorily address this important issue.

Policymakers in emerging markets should stand ready to use their existing policy space to cushion negative external shocks. A key challenge will be to control potential spillovers from the euro area into emerging Europe and other exposed economies, notably by averting excessive retrenchment by European Union parent banks. So far the impact of the deleveraging process on emerging markets has been manageable and well managed, but risks and challenges remain. Countercyclical policies, along with the creative deployment of targeted facilities and instruments, can be effective in sustaining growth in the face of a major external shock. The scope for easing credit policy is limited, as many emerging markets are already in the advanced stages of the credit cycle. Easing credit further would, therefore, add to domestic financial vulnerabilities, given that sustained periods of above-trend credit expansion tend to foreshadow higher nonperforming loan rates down the road.

Long-lasting stability of the financial system will be supported by progress in implementing the G20 regulatory reform agenda. Priorities for G20 reform include the Basel III framework, policy measures for globally systemic financial institutions, resolution frameworks, and over-the-counter derivatives market reforms. Policy efforts to control the systemic risk from derivatives markets need to be further advanced, and oversight of the shadow banking system must be strengthened.

Annex 1.1. Why Is Deleveraging so Challenging?

High debt burdens across multiple sectors continue to weigh down many advanced economies . . .

The continued volatility in euro area financial markets has kept the spotlight on sovereign debt burdens.[3] In many countries, however, high public debt is but one aspect of strained balance sheets in the broader economy. Across the euro area, these strains can be traced to a convergence process that induced many private and public borrowers to ramp up debt during the first decade of the monetary union. Unprecedented low interest rates and ample credit supply, including from foreign lenders, fueled lending booms often centered on real estate. Rising asset prices flattered net asset positions, boosted economic performance, and concealed an erosion of competitiveness, allowing households, firms, and sovereigns to borrow and spend freely—until the tide turned (Figure 1.7).

Credit-fueled booms were not limited to the euro area. Rather, lax lending standards and the secular fall in real interest rates caused sharp increases in household debt in several other countries, notably the United Kingdom and United States. When the credit cycle went into reverse, economies were left with severe threats to financial stability: borrower net worth declined and cash flows shrank, inflicting large losses on lenders that were themselves overleveraged and reliant on fragile funding structures.

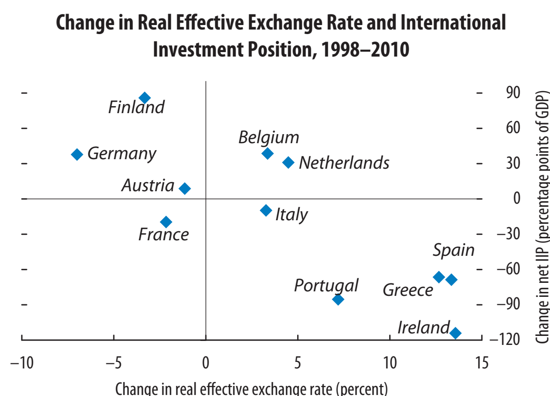
Although the most acute phase of the crisis may have passed, high debt burdens persist as a dangerous chronic condition. To be sure, countries differ significantly in their individual debt problems. Ireland and Spain are examples of a private debt overhang weighing down the sovereign, whereas in Italy and Japan high public debt is balanced by strong household balance sheets. Weak external positions further compound the challenges facing Greece, Ireland, Portugal, and Spain (see Table 1.1 and Figure 1.8).

Note: Prepared by André Meier.

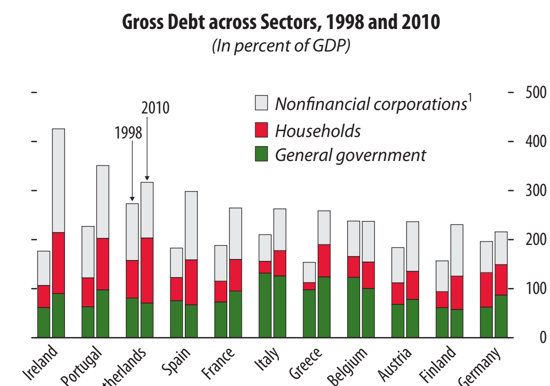
[3]See Chapter 2. For an in-depth analysis of household sector deleveraging, see Chapter 3 of the April 2012 *World Economic Outlook*.

Figure 1.7. External Positions and Gross Debt in Selected Euro Area Countries

The current crisis in several euro area countries was preceded by a sharp weakening in their external positions ...



... as low interest rates and easy credit led to lending and asset price booms that left behind heavy debt burdens.



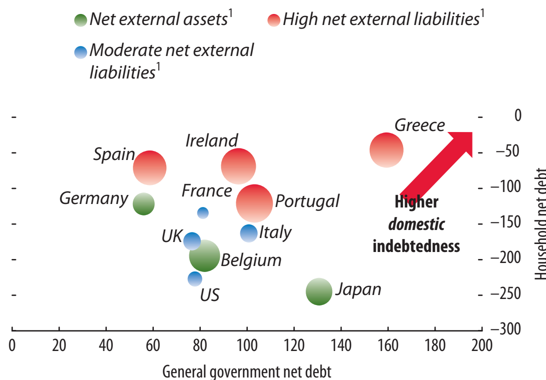
Sources: (Top panel): Haver Analytics; and IMF, International Financial Statistics and World Economic Outlook databases. (Bottom panel) Eurostat; Haver Analytics; and IMF staff estimates.

Note: IIP = international investment position. For Ireland, IIP data exclude International Financial Services Center.

[1]Consolidated basis.

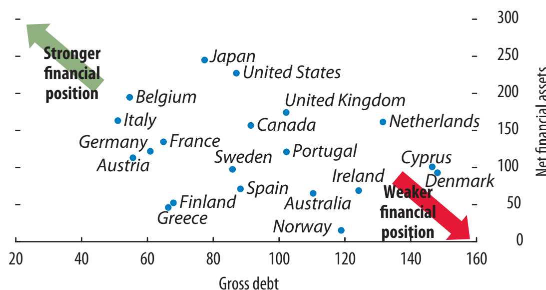
Aggregate data inevitably convey only a partial sense of financial vulnerabilities in the cross-section of households or companies. There also are no firm general limits on how much debt any given sector or entity can sustain. Indeed, Figure 1.9 shows high household debt levels in several countries that have not suffered a crisis, such as Australia and Norway. Nonetheless, highly indebted agents face a continuous risk of reaching hard credit constraints that leave no choice but

Figure 1.8. Debt Burdens in Selected Advanced Economies, 2011
(Percent of GDP)



Sources: Eurostat; Haver Analytics; IMF , International Financial Statistics and World Economic Outlook databases; national statistics offices; and IMF staff estimates.
Note: IIP = international investment position. Data for household net financial debt are as of end-September 2011; negative value indicates positive net financial assets. Government net debt is as of end-2011. Net external position is the net international investment position at end-2010 (for Ireland, excluding International Financial Services Center).
[1]In the figure, the larger the circles, the larger the net external assets or liabilities.

Figure 1.9. Household Net Financial Assets and Gross Debt, End-September 2011
(Percent of GDP)



Sources: Eurostat; Haver Analytics; and IMF staff estimates.
Note: Net financial assets is gross financial assets (hence, excluding houses and other nonfinancial assets) less gross debt. Data for gross debt are as of end-March 2011 for Austria, France, and Ireland; and as of end-December 2010 for Cyprus and Finland. Data for net financial assets are as of end-March 2011 for Cyprus; for Norway they are as of end-June 2011 and are scaled by mainland GDP.

to reduce debt. In other cases, stretched borrowers will resolve to deleverage even before they are forced to do so by market pressures.

. . . foreshadowing a difficult period of deleveraging . . .

This deleveraging process offers a path to healthier financial positions over the medium term but poses significant challenges during the transition.

First, deleveraging in the household or government sector weighs on growth insofar as it entails an extended period of spending below revenue levels.[4] During this period, overall growth must be underpinned by stronger spending in other sectors. Yet, a smooth "handover" is difficult when several domestic sectors are under strain simultaneously. Foreign demand also may not provide an immediate offset, as external rebalancing often requires improvements in competitiveness that take time. Moreover, many large economies are currently weighed down by high debt, leaving few sources of robust external demand.

Second, simultaneous belt tightening across sectors may reinforce financial vulnerabilities. Recessionary tendencies generate asset quality problems, which may worsen financial sector health and lead to further tightening of credit conditions. Meanwhile, weak income growth and real depreciation of the exchange rate, both of which are necessary to restore competitiveness, also increase the real debt burden. In the worst case, downward price dynamics might become entrenched, tipping the economy into debt deflation.

. . . which historical experience suggests is likely to be a drawn-out process . . .

The experience from three historical deleveraging episodes in advanced economies—Finland, Japan, and Sweden—underscores the drawn-out nature of debt cycles (Table 1.3). In each case, household debt as a share of GDP took between 6 and 10 years to reach a bottom that was 10 to 35 percent below peak levels. GDP growth during the intervening years tended to be weak relative to the preceding period.

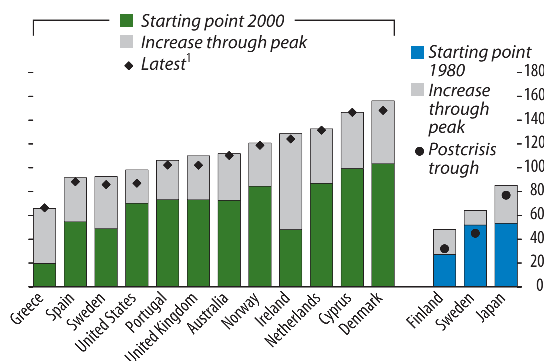
[4]Deleveraging in the corporate and banking sectors can be achieved somewhat more easily, at least in principle, through injection of fresh equity. While this requires outlays from the household or (as a backstop) government sector, it remedies excessive leverage more quickly and smoothly than a long period of balance sheet shrinkage. In practice, however, capital injections may be difficult to arrange in sufficient size when equity valuations are weak. Thus, historical experience suggests that corporate deleveraging also tends to be a lengthy process that depresses investment spending and labor income; see Ruscher and Wolff (2012). For a detailed analysis of bank deleveraging challenges today, see Chapter 2.

Table 1.3. Three Past Episodes of Household Deleveraging Associated with a Banking Crisis

Characteristic	Finland	Japan	Sweden
Banking crisis period[1]	1991–94	1992–97	1991–94
Deleveraging period (peak to trough in ratio of gross household debt to GDP)	1991–97	1999–2007	1988–98
Change in ratio of gross household debt to GDP (percentage points of GDP)			
During 8 years preceding deleveraging period	16.8	16.4	12.2
During deleveraging period	–16.2	–8.3	–19.1
Average annual growth of real GDP (percent)			
During 8 years preceding banking crisis period	3.1	4.9	2.6
During deleveraging period	2.1	1.5	1.6

Sources: Eurostat; national authorities; and IMF staff estimates.
[1]Reinhart and Rogoff (2008).

Figure 1.10. Two Household Credit Cycles: 1980s and 2000s
(Gross household debt, in percent of GDP)



Sources: Eurostat; Haver Analytics; national statistics offices; and IMF staff estimates.
[1]As of end-September 2011 except for Cyprus (end-December 2010) and Ireland (end-March 2011).

Parallels with today's situation should not be overstated, as conditions are specific to each case. For instance, no country has suffered as extreme a swing in real estate prices and corporate leverage as Japan did in the 1980s and 1990s. On the other hand, the historical credit booms listed in Table 1.3 are eclipsed by the scale of debt creation in many advanced economies since 2000 (Figure 1.10). With household debt at significantly higher levels today than during the historical reference episodes, deleveraging has barely started in most countries (with the notable exception of the United States).

. . . putting the onus on policies to ensure a smooth and successful repair of balance sheets.

Together, these challenges impose great responsibility on policymakers—in the countries concerned, but also beyond, especially within the common currency area. To prevent a self-defeating deleveraging cycle, some combination of the following policies will be critical:

- *Accommodative monetary policy*, which lowers borrowers' debt service costs, supports asset prices, promotes dissaving by financially stronger households, and averts a possible slide into deflation.
- *Targeted financial policies* to ensure continued credit supply for viable borrowers.
- *Fiscal support* to aggregate demand in countries whose public finances are in relatively good health and not subject to market pressures.
- *Structural reform* to increase potential growth through better-functioning product and factor markets.
- *Redistribution* from financially strong to financially weak agents, including through targeted debt relief (e.g., private sector involvement for Greece, mortgage write-downs for overindebted households—Annex 2.3).

A more detailed discussion of policy priorities is provided in Chapter 2.

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