14

Financial Sector Support: Why Did Costs Differ So Much?

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14.1 Introduction

The global financial crisis continues to impose significant strains on public finances. Extensive public support has been provided to restore confidence in the financial system. As the crisis unfolds its fiscal costs remain uncertain but so far they have differed widely across countries; and differences are likely to remain significant going forward. Crisis management strategies that rely on containment at the expense of upfront restructuring tend to shift fiscal costs into the future, and ultimately increase them. Compared with previous crises, governments to date have relied more on containment (central bank liquidity provision and guarantees of bank liabilities) and less on restructuring banks' assets. This approach has given rise to large contingent liabilities as risks are transferred from private to government balance sheets (see chapters 1 and 16 of this volume), but in most cases has limited the initial fiscal outlays. Importantly, this approach delays the much needed restructuring of banking and corporate sectors, which is critical for their viability and sustainable profitability. This risks transferring the costs of the crisis into the future and extending the economic downturn.

Reliance on guarantees can be particularly costly for the government in countries where guarantees proved not to be credible and were activated. The reach of guarantees relative to fiscal space is key—owing to sovereign weaknesses entering the crisis and the size of the financial sector, or both. Fiscal outlays in these countries have been much larger and put sovereign solvency under pressure.

Financial systems structure is also important. Features that can increase the risk of fiscal strains in the event of crisis include size (relative to GDP), bank complexity and cross border orientation (which make resolution more difficult), and financial diversification (lack of which can deepen the economic downturn when banks are impaired).

The rest of the chapter is organized as follows. Section 14.2 describes the types of central bank and government support provided to the financial sector during the

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crisis. In section 14.3 we quantify the initially pledged and utilized government support measures in response to the crisis and compare these across countries. Section 14.4 compares the costs of the current crisis interventions with earlier episodes. Section 14.5 concludes.

14.2 Central Bank and Government Measures to Support the Financial Sector

14.2.1 Central Bank Support

After the financial crisis intensified in the fall 2008, the liquidity condition of financial institutions worsened rapidly. Central banks from advanced economies deployed a number of existing—aggressive interest rate cuts—and new tools to provide additional liquidity to both banks and other financial institutions. These included:

- lowering reserve requirements,
- extending the duration of existing liquidity facilities (e.g., the long-term refinancing operations, LTRO, with three-year maturity by the ECB),
- relaxing counterparty and collateral requirements, and
- outright asset purchases (quantitative easing).

These measures expanded central bank balance sheets significantly (see figure 14.1). Central bank portfolios became more risky owing to direct purchases of risky

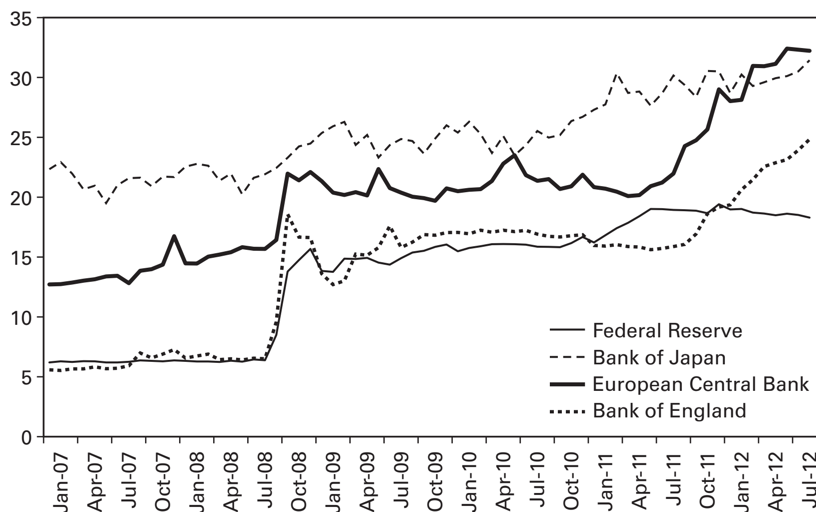

Figure 14.1
Central banks' balance sheets (percent of GDP)
Sources: Bloomberg; Haver Analytics

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assets and lower collateral requirements, implying potentially significant contingent liabilities for governments.

14.2.2 Government Support

The global nature of the crisis and the interconnectedness of the global financial system exacerbated contagion risks and the associated uncertainties. As a result government support included extensive guarantees of financial sector assets and liabilities and nationalizations of financial institutions that were deemed ”too important to fail” whereas the cleanup of financial institution balance sheets (e.g., government purchases of impaired assets and allowing bank failures) has been more limited.

14.2.3 Guarantees of Bank Liabilities

The initial crisis response was wide-ranging government guarantees of financial sector liabilities. Across the board, countries increased deposit insurance (Claessens et al. 2011). Deposit insurance guarantee limits for the United States increased from $100,000 to $250,000, and in several European countries, deposit insurance was increased to EUR 100,000 (from around EUR 25,000). Other countries went further and provided unlimited coverage.

In addition countries guaranteed other financial sector liabilities such as banks' bonds issuances. The United States guaranteed newly issued senior unsecured debt, United Kingdom guaranteed short- to medium-term debt of financial institutions, Germany guaranteed interbank loans and bank debt, and the Irish government guaranteed most financial liabilities of the ten largest Irish banks. While such guarantees help restore financial market confidence and do not require any initial government outlay, contingent liabilities can potentially be large if guarantees are to be utilized.

14.2.4 Recapitalizations and Nationalizations

The widespread deterioration of bank assets has caused extensive bank recapitalizations during the crisis. Such recapitalizations included specific assistance to institutions judged as systemically important to mitigate contagion fears as well as broad-based capital support. Several advanced economies announced recapitalization programs—United States (TARP), Germany (SoFFin), United Kingdom (Bank Recapitalization Program), Spain (FROB), and France (SPPE). These capital injections were largely done via the issuance of preferred shares to limit the dilution of ownership of shareholders and ease market concerns of significant public sector ownership. For financial institutions with systemic risks or those deemed as too important to fail, governments took on ownership stakes—the purchase of ordinary or preferred shares—evident in Germany, Spain, the United Kingdom, and the United States.

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Regulators also took action to assuage concerns about the soundness of banking institutions—attributable to the wide range of uncertainty surrounding asset quality, future losses, and solvency—by undertaking tests of the health of banks in their respective jurisdictions to inform markets about their resilience. In the United States, credible stress tests coupled with policy decisiveness, disclosure, transparency and availability of public backstops allowed the financial institutions to raise capital from private sources. In the case of the EU, markets questioned the severity of the stress tests, the adequacy of coverage in terms of risks and banks included in the exercise, as well as the adequacy of backstops to address capital deficiencies (see Davies and King 2010).

14.2.5 Asset Relief Measures (Asset Purchases and Guarantees)

Asset relief measures can be either the direct sale of impaired assets to the government or asset guarantees where the government insures financial institutions against losses stemming from specific types of assets. The advantage of asset guarantees instead of outright asset purchases is that no initial outlay is required by the government. The United States, the United Kingdom, Spain, and the Netherlands designed asset guarantees to ring-fence selected portfolios of impaired assets of financial institutions. In most of these schemes, the institution bears the first loss and the subsequent losses (of up to 90 percent) are borne by the government.

Asset purchases have been somewhat less used in this crisis when compared with past episodes, such as the Nordic and East Asia crises. Only in about a quarter of the crisis countries (in Ireland and more recently in Spain), asset purchases have been considered (see figure 14.2).[1] Other forms of asset purchases—such as those for private securities and commercial papers purchased by the Fed and the Bank of England—were generally more limited in size than the programs in past crises.

14.3 Pledged and Utilized Government Support

In assessing government support, it is useful to distinguish between *pledged* support (e.g., government guarantees of assets and liabilities and pledges of bank recapitalization) and *utilized* support (e.g., recapitalization, nationalization, and asset purchases). Pledged support has been substantial across countries, whereas utilized support measures (and hence the realized strain on the public) have varied significantly.

14.3.1 Government Pledges

The upfront pledged amounts were significantly higher compared with previous banking crisis. As of end-December 2009, advanced G20 economies had made pledges for capital injections, asset purchases, and guarantees for more than $5,500

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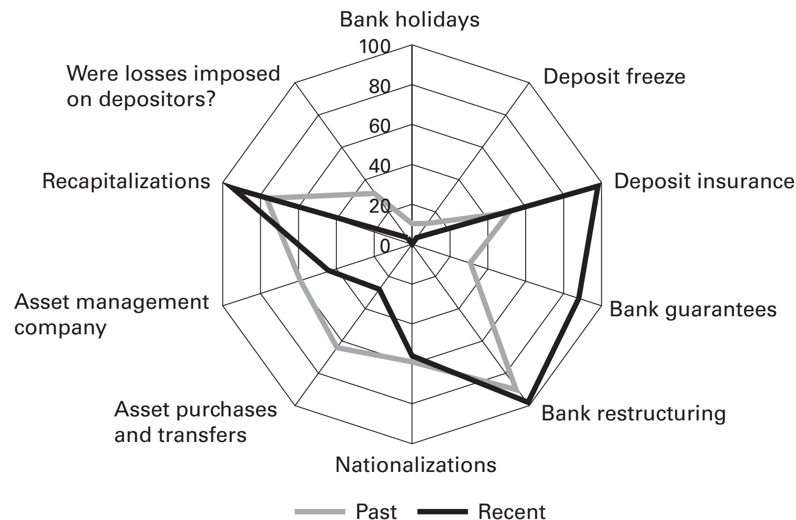

Figure 14.2
Crisis policies in current and past crises. Shown are the share of countries that applied the specific policy during the crisis. Past crises are defined as crises beginning before 2007. For detailed explanation of policy definitions, see Laeven and Valencia (2008).
Source: Laeven and Valencia (2012)

billion equivalent to 17 percent of GDP. Ireland pledged an unlimited guarantee of most liabilities of ten large financial institutions (all deposits, covered bonds, senior debt, and subordinated debt), United Kingdom pledged amount corresponded to more than 40 percent of GDP, and in Germany, France, Spain, and United States pledges exceeded 15 percent of GDP (see figure 14.3). Emerging G20 economies pledges were considerably lower around 1 percent of GDP (IMF 2010).

14.3.2 Utilization of Public Funds

For most countries utilized expenditures have been much smaller than the pledged amounts. This can be attributed to the containment of the crisis and the heavy reliance on guarantees that do not require upfront financing in most cases—although they contribute to a significant buildup of contingent liabilities. Public utilized support to the financial sector has been below 5 percent in most advanced economies so far (including United States, Germany, Italy, France, and Spain—although full-fledged reforms only started in 2H2012 in Spain). In other countries, the size of government guarantees was too large to be credible to the financial markets and utilized public measures have been significantly larger. In countries where pledges were more credible, either because of strong public finances or a lower scale of the financial sector problems, they helped contain the crisis and were not utilized.

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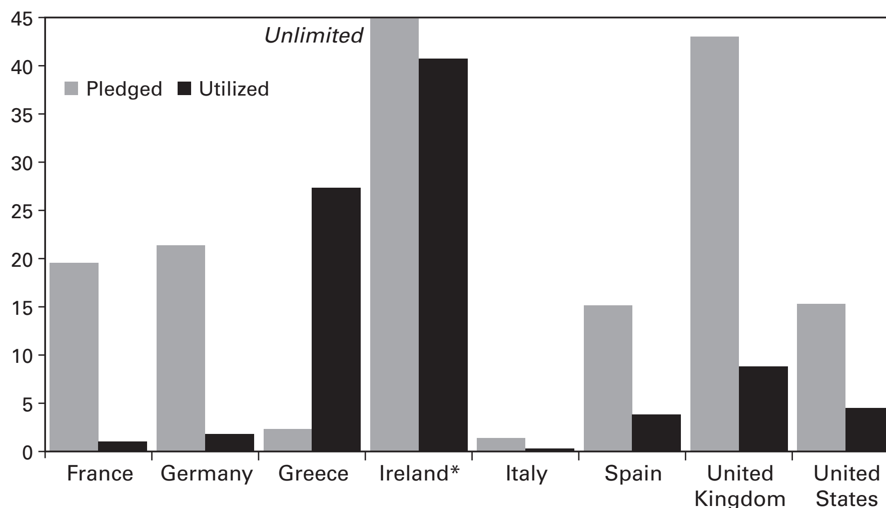

Figure 14.3
Pledged and utilized banking sector support (percent of GDP). In Ireland the government guaranteed all liabilities of ten large banks. Pledged amounts are the amount countries pledged at the onset of the crisis.
Sources: IMF staff estimates; Laeven and Valencia (2012); central banks' websites

14.3.3 Recovery of Fiscal Costs

The financial resources that have been channeled into the financial system will be partially recovered as governments' stakes in financial institutions generate revenue such as dividends or sale of assets. For most countries, recovery rates are still relatively limited owing to the ongoing crisis.

One exception has been the United States where the government has recovered so far more than three-fourths of the support provided to the financial sector. The Treasury has recovered almost all of TARP's bank programs through repayments, dividends, interest, and other income. The relative success of the United States in recovering capital injections under TARP was largely due to the government adopting substantial fiscal and especially monetary and housing support measures that boosted banks profitability which in turn helped to recoup some of the fiscal costs.

The fiscal burden has for some countries been relatively small owing to the lack of comprehensive diagnostic assessments. Even though implicit and explicit central bank support was put in place, a diagnostic assessment through comprehensive and transparent stress testing is imperative. Comprehensive and intrusive diagnostics of firms and associated triage should be undertaken prior to intervention leading to credible recapitalization plans or restructuring of institutions' liabilities without amplifying sovereign debt burdens. Several countries such as Ireland, and more recently Spain, adhered to the sequencing of crisis management: diagnosis, recapitalization, and the removal of nonperforming assets or the creation of bad and good banks.

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For some of the other advanced economies (United States and United Kingdom), swift and decisive actions in providing liquidity support and guarantees helped in reducing the fiscal burden of financial crisis. Europe, in contrast, by adopting such an approach, is reeling from a sovereign debt crisis with pronounced implications for the financial sector.

14.4 Comparison with Earlier Episodes of Systemic Crises

14.4.1 Fiscal Costs

The final net fiscal costs cannot yet be assessed as the crisis is ongoing. Gross fiscal outlays since the onset of the crises can be compared with previous episodes, though. Iceland and Ireland emerge as the venues of the costliest banking crises, accounting for more than 40 percent of GDP, but still lower than that of Indonesia during the 1990s. Countries such as the United States and the United Kingdom incurred much smaller fiscal costs (4.5 and 8.8 percent of GDP respectively). If we compare fiscal costs to financial system assets, the costs are much lower in the current crisis (figure 14.4). Hence the reason for the large fiscal costs of the crises in Ireland and Iceland

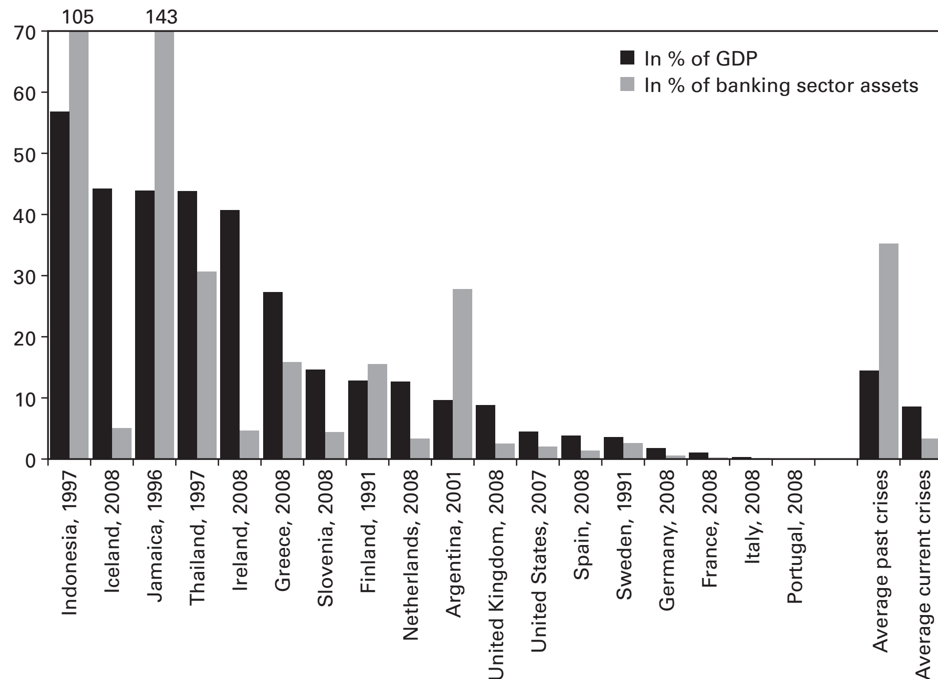

Figure 14.4
Gross fiscal costs of crises
Source: Laeven and Valencia (2012)

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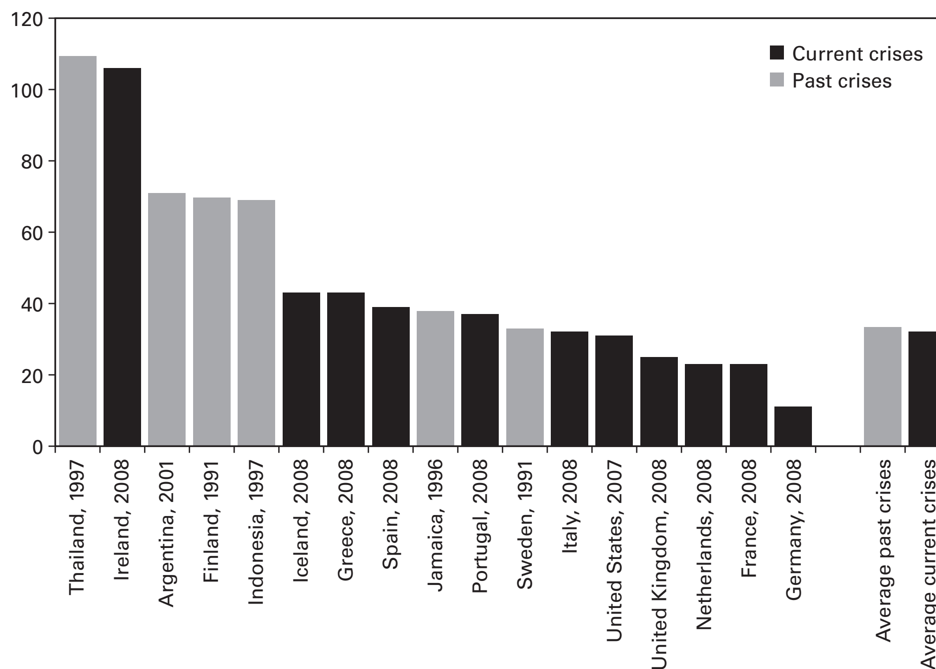

Figure 14.5
Output losses (percent of GDP). Output losses are calculated as the cumulative sum of the differences between actual and trend real GDP from the year of the crisis and the three years after.
Source: Laeven and Valencia (2012)

is not that the impact on the banking system was extraordinarily large but more that banking systems in these countries were several times the size of GDP.

14.4.2 Real Effects of the Crisis

Output losses have been large in most countries and are comparable to previous crises (figure 14.5). The largest decline during the crisis occurred in Ireland (where output losses have been larger than in past crises), Iceland, Greece, Spain, and Portugal (where output losses are comparable to those of past crises).

The initial decline in output faced by advanced economies was lower at 4.2 percent compared to that of emerging economies (7.2 percent). This illustrates that advanced economies had greater financial resources to cushion the blow from the fallout of the financial crisis. The recovery of advanced economies however has lagged that of emerging countries and will be complicated by the second wave of sovereign debt overhang, which would amplify fiscal costs. The impact on unemployment has been more pronounced in advanced economies where unemployment increased from

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around 6 percent before the crisis to over 10 percent after, whereas in emerging markets unemployment has increased less.

14.4.3 Accommodating Monetary and Fiscal Policies

In the current crises several countries have had the buffers to implement unprecedented policy responses to stave off the crises with the impact on the fiscal burden kept at a moderate level. Monetary policies were critical in supporting banks and asset markets and were relaxed significantly early on by quickly adjusting short-term interest rates to historical lows, with major central banks taking coordinated actions. Several central banks maintained low interest rates for prolonged periods. Those moves were a reversal of the efforts of central banks in many past crises in which nominal rates were kept high or sometimes even raised to support currencies. In the recent crises, the low policy rates and ample liquidity often allowed banks to preserve their intermediation margins in spite of higher costs of other funding. Accommodative monetary policy also helped support overall asset values, reduced the risk of an adverse debt-deflation spiral, and limited nonperforming loans, at least initially, thus protecting some of the banks' profit streams and balance sheets despite losses on traded securities.

Accommodative fiscal policies were also important in maintaining aggregate demand and asset values, thus indirectly supporting financial institutions (see chapter 10 in this volume). By supporting aggregate demand, fiscal stimulus helped reduce expected defaults on bank loans (fiscal policy has a greater effect on firms that are relatively dependent on external finance, see Aghion et al. 2009; Laeven and Valencia 2011) and thus reduced banks' recapitalization needs (Claessens et al. 2011). This approach differs from that of past crises, when fiscal policy was often contractionary. Also fiscal policy responses were more coordinated across countries than in the past, further helping to support economies. In some countries, however, expansionary fiscal policy and the costs of financial sector support measures have caused the financial crisis to transform into a sovereign debt crisis and the expansionary policies have been reversed and replaced by extensive fiscal consolidation.

14.4.4 Public Support and Conditionality

While some public sector support programs imposed restrictions, deeper operational restructuring—such as cost cutting, downsizing, changes in management, forced write-downs of shareholder value—has been imposed less than in past crises (Claessens et al. 2011), except when governments took majority ownership or fully nationalized institutions. The less intrusive conditions than in the past reflect institutions' stronger "reported" solvency positions and continued majority private ownership. More conditions were imposed on institutions receiving state support in EU countries where public liability guarantees came with restrictions on balance

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sheet growth, dividends, and employee compensation. When recapitalizing institutions and providing asset relief, EU countries included significant balance sheet and operational conditions such as restrictions on acquisitions, refocus on core activities, and divestments of businesses and assets. To avoid back tracking or complacency, EU also imposed a deadline for institutions to restructure their balance sheets. For other institutions, including those that have benefited from government support, market pressures will force many to rebuild balance sheets and restructure operations. Capital assistance under TARP in the United States come with the requirement that banks had to be adequately capitalized which implied that the only restrictions were limits on executives' compensation and the need for approval from the US treasury prior to any issuance of dividends.[2]

14.4.5 Asset Restructuring

While the recent crises broadly exhibit the characteristics of a typical boom–bust cycle (Reinhart and Rogoff 2009), the rise in nonperforming loans for many countries was much less pronounced. For Europe more broadly, impaired assets increased more gradually and have been lower to date than in past crises.[3] This was in part due to the types of assets involved, with the drop in the value of securitized loans occurring earlier than in other crises, before the end of the cycle. Actual defaults followed only when the crisis affected the real economy and corporate sector and household conditions had worsened. Furthermore in most countries corporate sectors were generally not overleveraged. Partly for these reasons, asset restructuring has been far more limited in the recent crises than in the past. In the recent episodes, many countries applied asset restructuring on a case-by-case basis, with public relief provided mainly through guarantees against a large deterioration in asset values—less frequent in the recent crises has been the use of asset management companies or "bad banks." Governments took on higher contingent costs through the issuance of asset guarantees, which minimized further deterioration in asset values of financial institutions but delayed asset restructuring.

Asset guarantees were preferred over asset purchases owing to the size and complexity of nonperforming assets including the many securitized portfolios and mortgages to be restructured. While the reliance on extensive asset guarantees has mitigated some of the anticipated fiscal costs in containing a financial crisis, they imply that the removal of nonperforming from banks' balance sheets have been more limited than in past crises. In the Asian and Nordic financial crises public asset management companies or bad banks removed nonperforming loans from financial institutions' balance sheets to a larger extent than in the current crisis. Leaving nonperforming loans on the balance sheets of financial institutions risks further weakening of banks' profitability, and the delayed restructuring of bank assets can come with large costs as witnessed during the banking crisis of Japan beginning in the mid-1990s.

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14.4.6 Structure of the Financial System

The global nature and the speed of contagion in the current crisis make it unusual compared to past crises. Crises in the past were to a larger extent limited to specific regions or types of economies—the Nordic countries in the early 1990s, Latin America in the mid-1990s, Asia in the late 1990s, and the emerging market economies of the early 2000s. In the current crisis, it took on a global nature as it affected countries with a speed and malignancy not witnessed since the Great Depression with advanced economies and countries recently joining the European Union the most affected. This, coupled with their large and complex financial structures, has entailed significant fiscal costs. Also banking crises in the past occurred more frequently among economies that had smaller financial systems, implying lower costs of government support of the financial system.

In the run up to the financial crisis several features of the structure of the financial system implied increased risks of strains to public finances from financial sector support. Financial intermediation had changed from its traditional role where banks take deposits and make loans making a profit from the interest margin. Banks relied more on trading activities, nonbank financial institutions had come to play a larger role, and new innovative products had emerged. These changes implied that more financial intermediation took place in markets instead through traditional bilateral negotiation (IMF 2012). This shift towards more market based financial intermediation caused changes in the structure of financial markets. Banks became larger and more complex, making them more difficult to resolve in the current crisis compared to earlier episodes. The banking industry has thus become more concentrated with few large—and often too important to fail—institutions. The increase in market based financial intermediation implied that banks behaved more pro-cyclically since banks that mark their assets to market increase their demand when asset prices rise and vice versa when they fall. This can induce upward spiraling asset prices in upturns and lead to downward spiraling asset prices and fire sales in downturns. Such boom–bust financial cycles were amplified by the complexity of the innovative financial products on banks' balance sheets—such as US Mortgage Backed Securities (MBS) and Collateralized Debt Obligations (CDOs). With the shift in financial intermediation towards more tradable financial products banks have become more interconnected. While this has brought better diversification and better integrated global financial integration it has also left the financial system more vulnerable to large systemic shocks.

IMF (2012) finds that financial stress from 2008 to 2011 was higher in countries with a high degree of financial globalization (large amounts of foreign bank assets, high global interconnectedness), less traditional bank-based intermediation (e.g., low net interest margin implying less reliance on traditional banking activities), and bigger financial systems.

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14.5 Lessons and Conclusions

In the current crisis, extensive containment measures have restored confidence in the financial system and averted a global economic depression. An important element of these containment measures consisted in extensive guarantees to the financial sector. While pledges have been large, fiscal costs have so far been limited in many countries. However, for some countries, pledges were too large to be credible and have placed their sovereign solvency under immense pressure with markets now focused on their sovereign risks. Further, as many countries have not yet undertaken the necessary restructuring of their banking sector, additional costs may be realized going forward. Although we are in the midst of the second phase of the crisis, four main lessons can be drawn.

First, in the current crisis there was a widespread use of government guarantees and less asset purchases compared to earlier crises. Such policies give rise to large contingent liabilities as risks are transferred from the private sector to the sovereign. Markets will most likely recognize these contingent liabilities as sovereign risks. This increases the likelihood of self-fulfilling prophecies where doubt about the strength of the government lowers the value of guarantees which in turn reduces the strength of the banking sector. Further, if the size of the banking sector is large, regulators have to tread carefully when issuing blanket guarantees, as guarantees that are not fully credible may be utilized. In particular, if a government has a high level of sovereign debt, to avoid further increases, governments could assume sufficient ownership of shares of distressed financial institutions in return for public support.

Second, exit from public sector involvement is necessary to minimize the fiscal burden. For those banks having a large public ownership interest, restructuring efforts will directly depend on government actions with the ultimate goal of selling its stake. The United States has been successful in transferring its involvement in the financial sector back into private hands, but the same cannot be said for other advanced economies notably in Europe.

Third, the mix of policies could have transferred the costs to the future in the form of higher public debt and likely slower economic recovery. While the complexity may have justified more emphasis on guarantees to restore confidence and less deep restructuring early on, it precluded thorough due diligence of individual banks and might currently reduce incentives to restructure assets. Past crisis experiences show that prompt corrective action is a key ingredient of successful banking reform. It is important to effectively diagnose the nature and extent of the problems, identify the underlying causes, and design a restructuring strategy to address them systematically. Failing to do so raises the total cost of restructuring. Instead of a policy of targeted, diagnosis-based resolution and early asset restructuring, the current stance is, in many cases, a muddling-through approach that delays addressing nonviable banks

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and nonperforming assets through a mix of accounting and regulatory forbearance, guarantees, and (implicit) public support. With the crisis entering into its sixth year, it is clear that the public sector support should have imposed stricter conditions and requirements which would have put governments in a position to require banks to clean up their balance sheets. The presumption should therefore remain in favor of deep restructuring early on, even when generally pursuing accommodative policies.

Last, but not least, prompt action and coordination are critical. The United States in dealing with the crisis, though there were several independent agencies involved, acted decisively and quickly with a unified set of messages. For Europe, efforts to act swiftly have been hampered by the multiple country independent agencies, with positions that have not been well coordinated.

Notes

1. The crisis episodes considered throughout the chapter are based on those identified by Laeven and Valencia (2012). Implicit and direct support programs of only a selection of countries are covered.

2. The recent crises followed this pattern through the first phase, but subsequent policy responses have been less forceful, at least for the major countries. Other papers reviewing policy responses in past and recent crises include Claessens, Klingebiel, and Laeven (2003); Ingves and Lind (2008); Ingves et al. (2009); Panetta et al. (2009); and Calomiris et al. (2005).

3. Exceptions have been Ireland and Spain, which experienced a more traditional banking crisis following the collapse of a real estate bubble.

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