

## Developments in the Value of Implicit Guarantees for Bank Debt: The Role of Resolution Regimes and Practices

by

Sebastian Schich and Byoung-Hwan Kim\*

High values of implicit guarantees for bank debt can be taken as signalling the market's expectation that public authorities will rescue the institution in question in times of severe financial distress. By the same token, declines in the measure would suggest a drop in the perceived likelihood of such a bailout, perhaps reflecting the availability of more effective failure resolution tools (although they could also reflect other factors such as an improvement in the asset quality of banks). The observed decline in the value of implicit guarantees over the past few years is at least consistent with the view that current efforts to establish more effective resolution regimes have been credible. The difficulty with this interpretation is that, as shown in previous CMF work, observed declines in the value of implicit guarantees tend primarily to reflect declining credit strength of the sovereign. The present report suggests, however, that the recently observed reduction in the value of implicit guarantees is in some cases beyond what would be expected on the basis of declining credit strength of the sovereign alone. Rather, part of the drop in value reflects the effects of changes in resolution regimes and related practices. In particular, holders of unsecured bank debt in some countries have actually incurred losses, although these events have tended to be rare and have occurred typically in the context of the failures of rather small banks. And where such losses occurred, however, there is clear evidence of a decline in implicit bank debt guarantees, especially but not exclusively in the case of smaller banks. In fact, in countries where legal changes were made to establish more effective resolution regimes and where, subsequently, actual failure resolutions involved losses of the part of at least some holders of unsecured bank debt, noticeable declines in the value of implicit guarantees were observed. Such cases remain isolated, however, among other things because there is the perception that no first-mover advantage exists from being tougher on creditors than other jurisdictions. Such course of action would put domestic banks at a funding disadvantage compared to international peers from jurisdictions where no such stance was adopted. This situation puts a premium on internationally coordinated efforts to reign in implicit guarantees, including those pursued within the European Union to develop an effective cross-border bank failure resolution framework.

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## I. Introduction

When properly designed and administered, guarantees can be effective policy instruments, capable of addressing consumer protection and stability concerns as well as facilitating access to finance. They can be efficient as well in cost terms if fees are levied that are appropriate for the underlying risks. Such “actuarial” pricing helps to limit moral hazard on the part of those protected directly by the guarantee and those protected in a more indirect way, such as their counterparties. An advantage of explicit guarantees is that the provider can specify what exactly is covered by the guarantee and to what extent, and under what circumstances.

The same cannot be said of “implicit guarantees”. The expectation that public authorities will provide a bailout of uninsured and unsecured creditors of banks is often referred to as an implicit guarantee for such bank debt. It is implicit because the authorities do not have any explicit *ex ante* commitment to provide such support. However, just like an explicit guarantee, it tends to increase the value of the affected bank debt. Often but not always, the presumed provider of the guarantee either fails to acknowledge the existence of the guarantee or expressly denies it. Thus, no fee is assessed.<sup>1</sup>

Unfortunately, as long as the guarantee is perceived to exist, so, too, does the potential for distorted incentives. The consequences of the latter can be severe. Among other effects, implicit guarantees tend to induce a misallocation of resources and can foster mispricing of risks and growing exposure to excessive risks, which poses a threat to financial stability. Also, such guarantees are, as a general rule, not explicitly budgeted for, hence governments are typically not held accountable, even though these guarantees can turn into contingent or actual government liabilities under some circumstances. There can be structural implications as well, arising in particular from distortions to competition (OECD, 2011).

This note focuses on resolution regimes and practises; it takes the view that implicit guarantees on bank bonds are inconsistent with the way bank resolution regimes are expected to operate. For example, according to the Financial Stability Board (FSB), the stated objective of an effective resolution regime “*is to make feasible the resolution of financial institutions without severe systemic disruption and without exposing taxpayers to loss, while protecting vital economic functions through mechanisms which make it possible for shareholders and unsecured and uninsured creditors to absorb losses in a manner that respects the hierarchy of claims in liquidation*”.<sup>2</sup> What we observe in practice, however, is that bondholders tend not to incur losses to the extent likely to occur in the absence of such guarantees. Under those circumstances, the existence of implicit guarantees might be directly linked to bank failure resolution practises.

Against the background of this suggestion, this note it addresses the question: What has been the recent effect on implicit guarantees of actual cases of bank failure resolution and related regime changes? The note does not pretend to provide conclusive answers to this question, but rather to identify how perceived implicit guarantees have evolved recently and to what extent changes in bank failure resolution practises (and regimes) have affected them. It thus complements earlier CMF work, which focused on the strength of sovereigns for the value of bank debt guarantees, by focusing on aspects related to the willingness of public authorities to provide guarantees. Policymakers tend to feel compelled to use guarantees when other failure resolution measures are unavailable or untested.

## II. Implicit guarantees and resolution regimes

### 1. Policymakers have clearly announced their decision to rid banks of implicit guarantees

The global financial crisis and the policy response to it have had at least three effects that are relevant in the context of the subject under consideration here:

- First, the policy response has *inadvertently* further entrenched the perception on the part of financial market participants that bank debt, especially -- but not necessarily only -- that of banks considered sufficiently large and interconnected, benefits from an implicit guarantee from public authorities. Given these entities' suspected important role for the financial system and the funding of real activity together with policymakers' concerns about these two aspects, such banks are considered "too big to fail" (TBTF). The recent crisis has added to the cumulated experience that even when policymakers explicitly rule out that they would be prepared to assist such entities ("bail out"), such announcements may not be time-consistent and hence not credible.
- Second, while theoretical considerations regarding the role of underpriced guarantees may not be unequivocal, the empirical evidence and previous CMF discussions clearly suggest that they are an invitation for the beneficiary to use them and to take on more risks, often enough, more risks than the beneficiary can manage.<sup>3</sup>
- Third, the recent experience has reinforced policymakers' determination to put an end to the TBTF status and eliminate implicit guarantees for TBTF and other banks concerned, given that the economic costs of the issue, consisting in particular of distortions to competition and incentives (moral hazard) and the effects of associated potentially excessive risk-taking, have now become increasingly recognised. For example, the United Kingdom's Treasury concludes in its recent white paper on banking reform: "*In short, the crisis, as well as causing a global recession, exposed a range of problems which required action, most crucial of which is the perceived implicit guarantee enjoyed by banks and other financial firms*"<sup>4</sup>
- Fourth, there is an emerging consensus that a key policy requirement to achieve a reduction in implicit guarantees is to have instruments available that permit policymakers to let financial institutions fail in an orderly manner. Lacking such instruments, policymakers may feel compelled to resort to bailing out financial institutions in distress. The availability of effective resolution tools, by contrast, reduces the costs for the economy and the taxpayers of bank failures. It thus reduces the perception of implicit guarantees in that the option of letting a bank in distress fail becomes more credible. This emerging consensus is reflected in the development of the FSB's *key attributes*.

## 2. *Efforts to improve bank failure resolution frameworks have intensified*

Against the background of these observations, work to improve the frameworks for bank failure resolution has intensified. In principle, a bank should be resolved just like any other corporate. But any resolution has costs, both for the creditors of the failing entity and for the wider economy. And the application of standard corporate insolvency laws to bank failures can be very costly, especially as a bank, unlike a non-financial corporate, cannot readily operate in a state of bankruptcy (see e.g. Hüpkens, 2005). In particular, the essence of banking is the ability to make commitments to pay. Declaring a bank bankrupt and freezing its capacity to make payments is equivalent to liquidating it. Such liquidation can be very costly, as it can reduce the value of the failed bank's assets rapidly and dramatically. Moreover, given the interconnectedness of banks, the liquidation of one bank can have significant knock-on effects on other banks, thus further increasing the costs to the economy at large. The potential for contagion is a major reason why banks need some form of special resolution regime.

Such regimes were introduced and national bank resolution legislation changed between 2008 and 2012 in many countries (see Appendix 1 for an overview of selected countries). The specific national solutions adopted have differed, depending among other things on aspects such as financial market structure and historical developments. What is similar, however, is that the introduction of such regimes at the national level is largely motivated by the observation that the lack of effective resolution regimes during this global financial crisis has severely limited the options available to policymakers. In fact, this

situation has typically inclined policy makers to resort to so-called “bail-outs” and extensive use of guarantees when faced with acute stress in their domestic banks.<sup>5</sup>

Work on resolution regimes has progressed at the international level. In fact, many of the changes at the national level referred to above were consistent with and/or motivated by the recommendation made in March 2010 by the BIS Cross-Border Bank Resolution Group to strengthen national resolution powers and frameworks so as to improve the resolution of failing cross-border banks.

In June 2010, the G20 Toronto Summit Declaration affirmed that the “adoption of effective, credible resolution regimes to ensure resolution of all financial institutions without costs to the taxpayer and with minimal systemic impact” is one of the four key areas of focus for financial reform. It mandated the FSB to develop detailed proposals in this area. In November 2011, the “Key Attributes of Effective Resolution Regimes for Financial Institutions” developed by the FSB were endorsed by the G20 leaders. In November 2012, the FSB reported on progress among its members regarding the implementation of the “key attributes” in national resolution regimes. In Europe, the European Commission has produced in June 2012 detailed bank recovery and resolution plans that are in line with the G20 and FSB commitments.

Among other things, the FSB Key Attributes suggest that an effective resolution regime should allocate losses to firm shareholders and unsecured and uninsured creditors, and should not rely on public solvency support and create an expectation that such support will be available. The existence of perceived implicit guarantees on unsecured bank debt is inconsistent with such an outcome.

### III. Recent developments in implicit guarantees

#### 1. Credit rating agency considerations regarding the role of resolution regimes

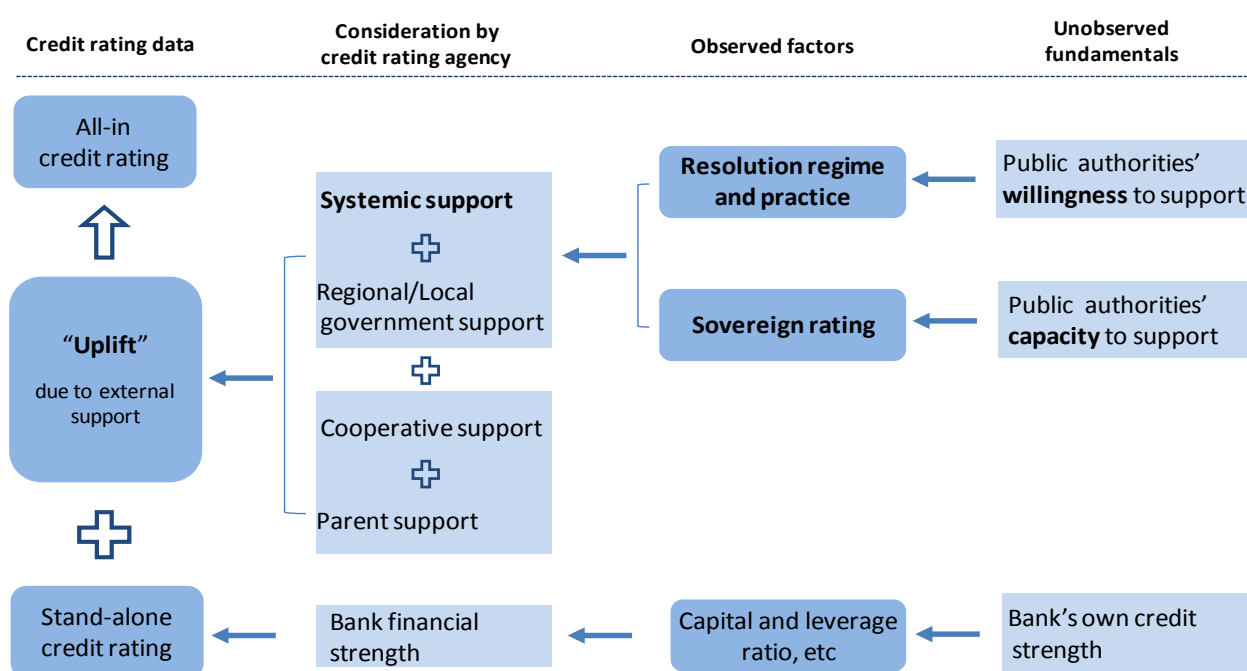
Banks default not only because they are illiquid and technically insolvent, but also because public authorities have made a conscious decision not to support them or are unable to do so. Thus, one can distinguish explicitly between the banks’ own credit strength on the one hand and external support provided by public authorities on the other, as well as regards the latter between public authorities’ willingness to provide such support and their capacity. This approach describes what rating agencies have done for some time now (see for a stylised representation Figure 1).

Rating agencies differentiate between a so-called *stand-alone credit strength rating* of a debtor and a so-called *all-in credit rating*. The former abstracts from any external support, while the latter factors in external support, including assumed government and central bank support motivated by systemic concerns. The difference between the two types of ratings is referred to here as credit rating “uplift”. This uplift functions just like a guarantee; namely, it increases the value of the debt concerned. Inasmuch as the external support underlying the “uplift” is not explicit, the “uplift” is used here as an approximation of the extent or value of an implicit guarantee.

Considerations regarding the existence or not of a special bank failure resolution regime or, if it exists, its design aspects are not directly feeding through to the extent of “uplift”. Rather, such considerations enter mainly in an indirect manner through the rating agencies’ assessment of the governments’ *willingness* to provide support. That said, some analysis published by credit rating agencies seems to suggest that such regimes may also be related to the governments’ *capacity* to provide support. In any case, the quality of a failure resolution regime is generally not considered by rating agencies as an explicit separate category when the likelihood of government support is assessed. Rather, so far, the influence of such regimes appears to be more indirect, through their effect on the expected track record.

In fact, rating agencies place a sharp focus on the history of bank defaults and observed failure resolution cases. Rating agencies recognise nonetheless that the latter reflects the availability of resolution tools and that changes in the availability of such tools can help predict future resolution outcomes. For example, the rating agency Moody's explains in a footnote to its 'country support and systemic support scorecards' in March 2012: *The historical trend provides objective evidence of authorities behaviour to form expectation for the future. In the current environment of unprecedented legal, regulatory and policy changes affecting banks and especially where new tools are being put in place for bank resolution and loss sharing the historical view needs to be complemented with these developments to form an expectation of impact on bank creditors in the future.* More generally, rating agencies recognise that the availability of credible resolution frameworks affects public authorities' willingness to provide support for banks, effectively making it less likely that they do.

**Figure 1. Stylised representation of approach underlying the analysis**



**Notes:** The stylized representation of the assessment of unsecured bank debt given above fits the case of Moody's better than those of Standard & Poor's and FitchRatings. The latter two consider models where external support does not enter in a linear additive way as is depicted here.

**Source:** OECD assessment based on Moody's (2011b).

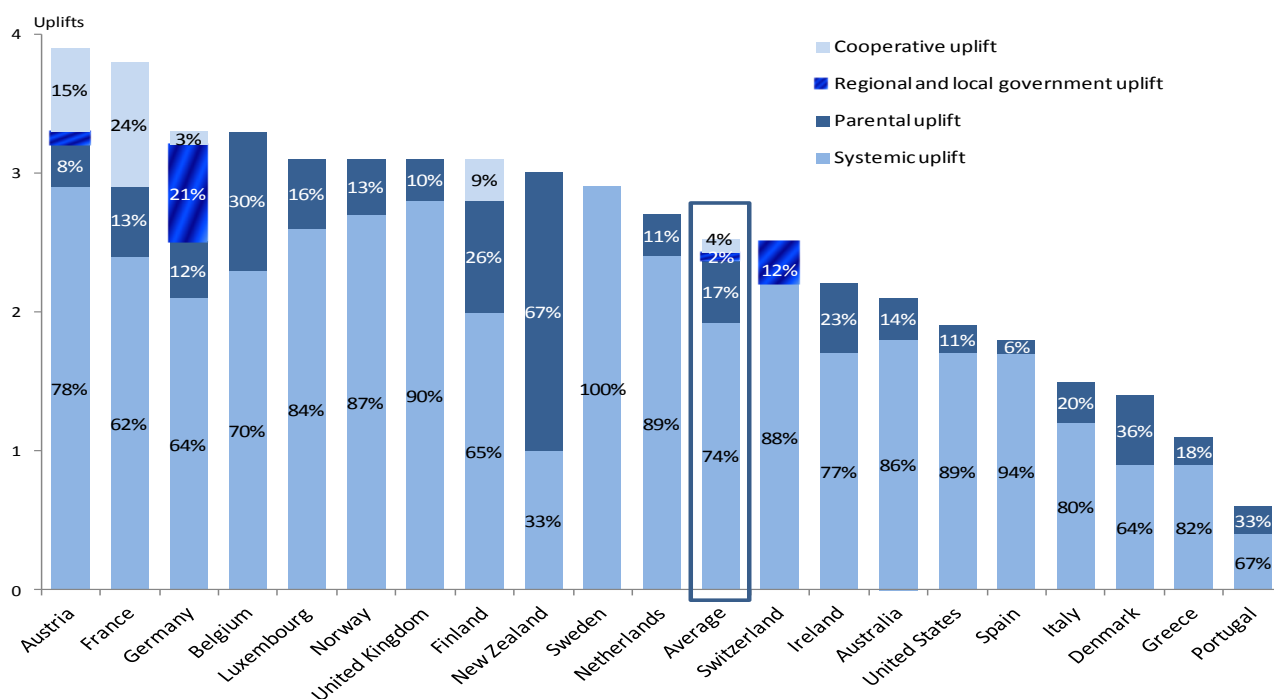
## 2. Measuring assumed external support reflecting systemic concerns

The three major rating agencies each use a mixture of formal models often involving some scoring methods and expert opinion to determine the two types of ratings mentioned above (and, hence, the perceived "uplift"). The all-in credit rating is the measure that is commonly referred to in order to characterise a debtor, while the so-called stand-alone credit rating (or intrinsic credit strength rating) is less widely reported and not available for many rated debtors. Where both types of ratings are generated and reported, the underlying model used for each type of rating differs. The models as well as the relationships between the two types of ratings also differ from one rating agency to another.

In the remainder of this note, we rely mainly on a measure of implicit guarantees calculated on the basis of credit rating assessments by the rating agency Moody's, as historical data of sufficient length is not available to us from the other two major agencies.<sup>6</sup> Our main data consist of time series of the bank financial strength rating (abstracting from external support) and the long-term issuer credit rating<sup>7</sup> (incorporating an assessment of external support) of banks. As the former abstracts from external support, and the latter does not, we use the difference between the two, henceforth referred to as "uplift", as a proxy measure for the implicit guarantee for bank debt.

It should be noted that this "uplift" reflects the effect of a range of different types of external support, although government support motivated by concerns about systemic stability appears to be the empirically most important type. On average, government support including local and regional government accounts on average for more than 75% of the assumed total external support (Figure 2).

**Figure 2. Decomposition of sources for external support in selected constituencies**



**Notes:** Weighted average of "notches" (transferred to a numerical scale) of support to long-term senior debt for banks in the constituencies shown. Relative contribution as a percentage of total uplift. Sample average is the simple unweighted average of the constituencies shown. As of 17 November 2011.

**Source:** Secretariat estimates based on data from Moody's (2011b) and Bloomberg.

### 3. Recent developments in value of implicit guarantees

Implicit guarantees for the unsecured debt of large European banks, as measured by credit rating uplifts, have declined recently, but they nonetheless do persist. In fact, by some measure, they are as high now as they were at the beginning of the global financial crisis. Most of the recent decline in banks issuer credit rating observed over the last few years reflects the reduction in the average *stand-alone credit strength rating* of banks. For example, the average issuer credit rating of European banks is currently slightly lower than Baa1, while that rating was much higher at close to Aa3 at the end of 2007 (Figure 3).

Credit rating uplifts increased after 2008, when many countries put in place particularly substantial bank rescue packages. They declined more recently as credit valuation pressures on several European sovereigns fed through to the value of bank debt, and implied that the value of the bank debt implicitly guaranteed by the sovereign declined. Declines in credit rating uplifts were not limited to countries in which the sovereign was exposed to significant pressures such as in Ireland, Spain, Portugal, and Italy, however. Noticeable declines were also observed in the United Kingdom and Denmark. Outside of Europe, changes to the extent of implicit guarantees have been more limited. With the exception of Japan, where implicit guarantees declined, changes were minimal in the selected non-European countries (Australia, Canada, Mexico, New Zealand, South Korea, the United States) shown in Figure 4.

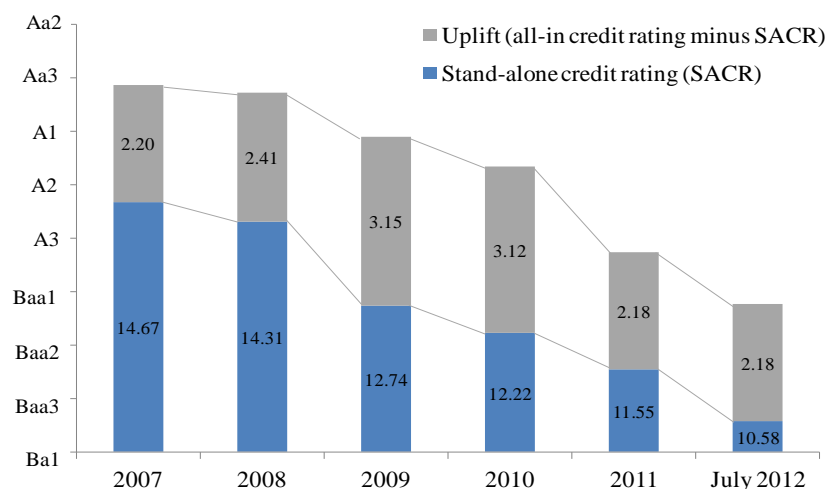
Credit rating revisions have been numerous over the past year and a half. Looking at the history of rating changes since January 2011 for banks in 20 selected countries, one finds that they have consisted mostly of downgrades (Figure 5; left-hand panel). Judged by this sample consisting of banks that experienced a rating change since January 2011 (hence a different sample than the one considered in Figures 3 and 4, consisting of almost 230 worldwide banks that experienced rating changes recently, the distribution of uplifts has shifted to the left. This situation implies a more limited incidence of such guarantees. In fact, the peak of the distribution of credit uplifts is now a zero, as opposed to an uplift of 2 notches in January 2011 (Figure 5; right-hand panel). As a general rule, the compression of these uplifts was concentrated among the smaller banks within the sample (see Box 1 for more details).

#### *4. Interpretation of recent changes*

The progress made in establishing more effective resolution regimes, especially since 2010, is consistent with the decline in implicit guarantees observed, on average, since their peak in 2009. The justification of rating actions provided by the rating agency considered here suggests however that in a few countries the decline of perceived implicit guarantees was mainly due to the decline in the sovereigns' own credit strength and, hence, in its capacity to provide support to its banks (including Ireland, Italy, Portugal, Spain).<sup>8</sup> What is remarkable in this context is that some banks, especially but not only larger ones, in countries where the declines owe much to the declining sovereign strength, nonetheless continue to benefit from implicit guarantees. This observation perhaps reflects considerations regarding the lender of last resort or potential joint sovereign support.

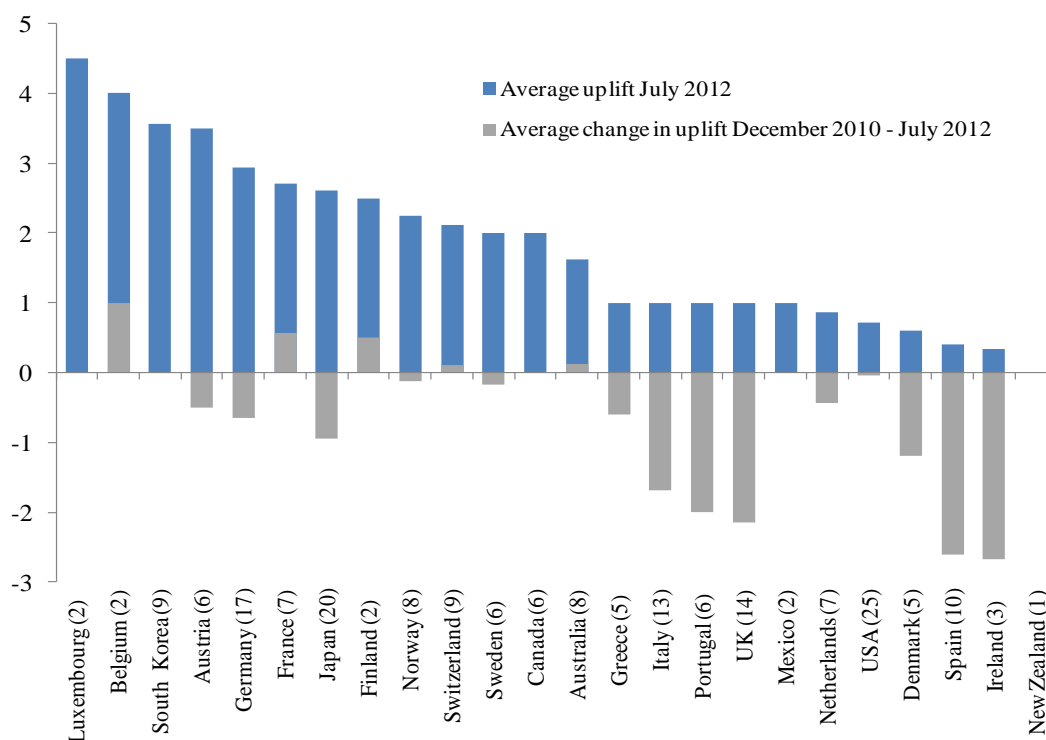
Where the sovereign strength remained more or less unchanged, incidence of declines were more muted, with the notable exception of Denmark and the United Kingdom. In the latter two cases, investors in unsecured bank bonds did actually incur losses. Elsewhere, implicit guarantees have in many countries not fully retraced their earlier increase until 2009. By some measure, they are as large today than they were before the global financial crisis. Also, as the declines in the systemically motivated credit uplifts were concentrated among smaller banks (Appendix 2), the issue of competitive distortions resulting from the funding cost advantages for bigger as compared to smaller banks has become more relevant.

**Figure 3. Changes in stand-alone and all-in ratings of large international banks**  
(average stand-alone ratings and rating uplifts, as well as their numerical equivalents)



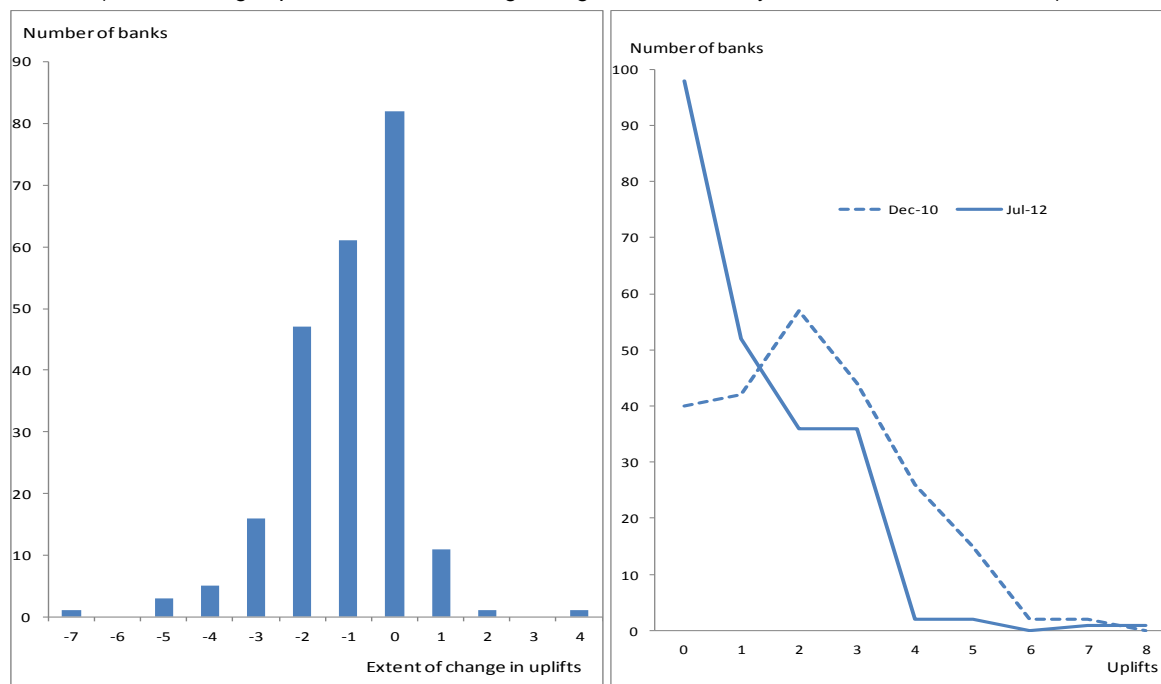
**Notes:** Value of uplift is estimated as the difference in notches between the "all-in credit rating" (AICR) and the "stand-alone credit rating" (SACR), where rating classes are mapped into numerical values (e.g. a rating of Aaa is given a value of 20, Aa2 = 19, Aa3 = 18, etc; see also Moody's, 2011). One notch is the difference between subsequent rating categories. The data shown are simple unweighted averages and the sample consists of 118 large European banks for which time series for both ratings that are rated by Moody's between 2007 and 2012. **Sources:** Bloomberg, Moody's and OECD Secretariat estimates, produced with help from the Swedish Riksbank.

**Figure 4. Changes in uplift of large international banks in selected countries**  
(numerical equivalents of average rating uplifts and changes in rating uplifts)



**Notes:** See notes for Figure 3. Sample consists of the 193 largest international banks in the countries shown for which data on the two ratings by Moody's was available to us. Subsidiaries of banks already included in the sample are not considered. Number of banks headquartered in countries shown in parentheses. The data for New Zealand refers to one bank only, which is a bank that benefits from a credit uplift of six notches from its parent, a state-owned company. This aspect is already factored into Moody's adjusted "stand-alone rating credit rating" and there is no additional perceived support due to regional government support or systemic concerns. Hence, the data for New Zealand cannot easily be compared to that of the other countries shown here. It should also be noted that Moody's data for 2011 (see Figure 2) suggests that the credit uplift due to assumed external government support is positive and equal to one notch. Unfortunately, no breakdown of that latter data is available to us. **Source:** Bloomberg, Moody's and OECD Secretariat estimates, produced with help from the Swedish Riksbank.

**Figure 5: Changes in “credit uplifts” due to assumed government support**  
(banks having experienced credit rating changes since January 2011 in selected countries)



**Notes:** Credit rating uplifts due to central (“systemically motivated”), regional or local government support. The sample only includes banks that have experienced a change in either their stand-alone or all-in credit ratings assessments by Moody’s since January 2011. The countries selected are Austria, Australia, Belgium, Denmark, Finland, France, Germany, Greece<sup>3</sup>, Ireland, Italy, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States. **Source:** OECD Secretariat estimates based on Moody’s and Bankscope.

#### Box 1: Selected observations regarding recent changes in credit rating uplifts

Two different data sets were collected to assess the changes of credit rating uplifts over time. In one exercise, we collected data for the five largest banks in a set of 20 CMF participating countries: Austria, Australia, Belgium (four banks only), Denmark, Finland (four banks only), France, Germany, Greece<sup>3</sup>, Ireland, Italy, Luxembourg, Netherlands, New Zealand (four banks only), Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States) for which data allowing us to calculate the credit rating uplift was available publicly from Moody’s website for each year from 2007 to mid-2012. On average for all countries in the sample, the incidence of implicit guarantees increased from 2008 to 2009, but then it declined again both during 2010 (albeit only very slightly) and during 2011 and 2012. The average level in mid-2012 is similar to that in 2007. Most countries follow a broad pattern of initially increasing and then decreasing incidence of implicit guarantees, except for Australia, Finland and Switzerland (where the value of the uplift changed little throughout the sample period) and France (where the incidence increases slightly towards the end of the sample period). Most of the compressions of implicit guarantees were concentrated in 2011, with declines being especially pronounced in Greece, Ireland, Italy, Portugal, and Spain.

In another exercise, we constructed a data set consisting of the cases in which a bank from the above mentioned 20 countries experienced a change either in its financial strength rating or long-term issuer credit rating between end-2010 and mid-2012. During that period, Moody’s announced changes in either one of the two types of ratings for 229 banks. As a result of these changes, the rating “uplift” declined in the case of 134 banks, while it remained unchanged for another 82 banks (where changes in stand-alone and all-in credit rating were of the same magnitude and direction). Increases in uplifts were limited to 13 banks. The distribution of “uplifts” among the 229 banks has since changed and now peaks at a value of zero uplift. At the end-of 2010, that peak was at an uplift equal to around two notches. Judged by that criterion (and for this specific sample), the incidence of uplifts greater than one notch is now becoming more of an exception than a rule. See Figure 5 in the main text.

As a general rule, the compressions of “uplifts” were concentrated among the smaller banks within the sample. The figures in Appendix 2 illustrate this effect for a selection of countries, for which banks are ordered according to their size in terms of assets as of end-2010 (with data as of end-July 2012). The figures illustrate that the smallest banks in the sample in most countries do not benefit from any “uplift” as of mid-2012. This observation masks differences between countries. For example, in the United States, small banks had not benefited from any “uplift” even before 2010. By contrast, in Germany, not only large but also small banks are benefitting from a significant “uplift”, with the extent of the uplift not being very clearly related to the size of the bank. In Ireland and Portugal, where “uplift” have become limited to very few banks, these banks are not necessarily the largest banks. In most countries, rating changes were limited to reductions in “uplifts”. Increases however occurred in the case of altogether 13 banks in Belgium, Finland, France, Germany, Greece, Spain, Switzerland, and the United States.

## IV. Implicit guarantees and failure resolution

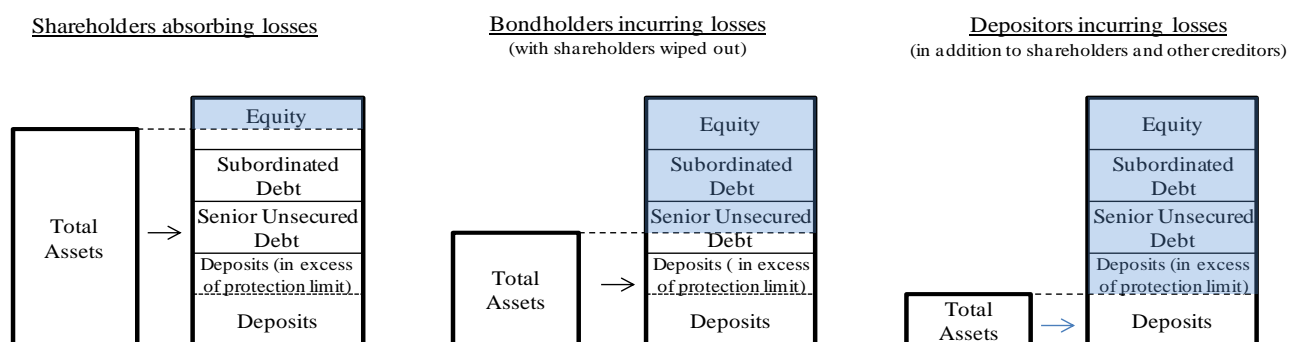
### 1. Some principles regarding loss sharing in bank failure resolution

In situations of bank failure resolution, one issue that arises is how to share losses among the investors in and creditors of a failed bank. Both general insolvency rules, as well as special resolution regimes,<sup>10</sup> describe an order of priority of claims, with the proceeds from sale of assets in the case of liquidation of a bank distributed according to the prescribed order of priority to depositors and preferred creditors, senior unsecured creditors, subordinated debt holders and shareholders.

Liquidation is not the most widely used resolution in practice. Purchase and assumption, whereby parts of assets and liabilities are transferred to third parties, is the most frequently used resolution technique. The basic principle of loss distribution according to a pre-specified priority ranking also guides the use of this technique in practice, however. A stylised representation is shown in Figure 6, which highlights that shareholders are expected to first suffer losses, then subordinated creditors, then senior unsecured creditors, and so forth. As will be discussed in the next section, this principle does not always seem to be reflected in practice, at least not to the full extent. Often, only shareholders suffer losses and sometimes not even them.

Bank creditors are exposed to the threat of losses in the case of bank failure, just as shareholders are. This situation should incentivise them to monitor the risk-taking of banks and to put pressures on them to manage risks effectively and avoid taking on excessive risks. Moreover, bank creditors do not benefit from the upside of large risk-taking to the same extent that shareholders do, and they should thus be expected to be especially motivated guards against bank excessive risk-taking. That said, the events of the last decade, which saw a dramatic increase in bank leverage and risk-taking and the financial crisis itself, seem to be contradicting the notion that bank debt plays a significant disciplining role.

**Figure 6: Stylized scenarios regarding loss sharing in cases of bank distress**



**Notes:** Shaded parts (in light blue) indicate amount of losses in liquidation in each scenario. The figure abstracts from segregable elements such as covered bonds. It also abstracts from what are super-senior claims such as e.g. swaps, the amount of which had increased very significantly over the past few years, especially on the balance sheets of systemically important banks.

**Source:** OECD Secretariat assessment based on Lilico (2010).

## 2. *Selected observations regarding recent resolution practices*

Implicit guarantees persist because despite all recent progress regarding the establishment of effective resolution regimes, bank debt holders rarely incur losses. While bank creditors incurred significant losses on several occasions in emerging markets, such as in the context of the systemic crises in Indonesia<sup>11</sup> and Argentina during the 1990s, creditors of banks in mature economies have historically rarely incurred losses (see e.g. BCBS, 2004), with the exception however of a few countries, including the United States.

The recent experience in this global financial crisis has not been a significant exception from that general observation. In fact, in many countries, while shareholders incurred significant losses in the context of bank failures, investors in unsecured senior typically and those in subordinated bank bond debt often did not. Appendix 3 provides a list of selected cases of bank distress during the recent global crisis. The selection is based on the criterion that at least one type of investor incurred losses as part of bank failure resolution, that is where either shareholders were diluted or wiped out as a result of nationalisation or creditors incurred losses as a result of haircuts being imposed during resolution. The list shows that shareholders were typically diluted or wiped out, while senior bondholders tended to remain whole.

Subordinated debt holders experienced losses in several cases, while losses on the part of senior unsecured creditors and depositors were rare. In fact, there are only four countries (Denmark, Iceland, the United Kingdom and the United States) out of the countries considered here, in which unsecured creditors experienced losses in more than one case.<sup>12</sup> Implicit guarantees for senior unsecured bank bonds declined in the case of all these four countries.<sup>13</sup>

In fact, as it turns out, so far, the experience during this crisis has added to the cumulated evidence suggesting that unsecured senior creditors tend to incur losses more rarely than one would expect. While shareholders have been diluted or even wiped out during bank failure resolution cases over the past few years, holders of unsecured bank debt other than subordinated bonds have typically been exempted from the loss-sharing. Figure 7 provides a stylised account of that situation from the perspective of investors in bank bonds.

The experience in Denmark is noteworthy. In that country, a new resolution regime (Bank Package III) was introduced in 2010, under which two bank failures occurred, with losses for subordinated and senior unsecured bondholders and even depositors with deposits in excess of the deposit insurance ceiling. Even though the banks were small, their failure resolution received very significant attention internationally, including from the financial press and credit rating agencies.

As a result of these developments, the perceived implicit guarantees came under pressure both in the case of small but also large banks, with the top credit rating of the Danish sovereign remaining unchanged at the highest level. For example, *Danske*, the largest bank in Denmark experienced an increase in its secondary market yield spreads over bonds from other banks from the region (Figure 8), even though the stand-alone credit ratings of *Danske* as well as those of the three reference banks remained unchanged (although *Danske*'s all-in rating was lowered as a result of the credit uplift compression). That said, *Danske* was also characterised by some important weaknesses, such as exposure to Ireland and a high asset impairment, and the removal of the general state guarantee for bank liabilities implied that market participants paid more attention to those weaknesses. After the two bank failures mentioned above, an alternative to the winding-up scheme was introduced as part of Bank Package IV.

**Figure 7: “Heat map” showing to what extent bank creditors are exposed to losses**

	2008		2009		2010		2011		2012
Austria			↑	↑		↑	↓	↓	↑
Australia									↑
Belgium		↑	↑		↓			↑	↓
Denmark			↑	↑			↓		↓
Finland			↓	↑			↑		
France		↑	↑	↑	↓	↑		↑	↑
Germany	↑	↑	↑	↑			↓	↓	↑
Greece				↑	↓		↓		↓
Iceland		↓							
Ireland		↑	↑	↓		↓	↓		↑
Italy	↑			↑			↓		↑
Luxembourg	↓	↑	↑		↓			↓	↓
Netherlands		↓			↑				↓
New Zealand						↑	↓		
Norway			↑	↑					
Portugal				↑		↓	↓	↓	↑
Spain			↑				↓	↓	↓
Sweden			↑	↑			↓		
Switzerland			↓	↑					↑
United Kingdom	↑		↑	↑				↓	↓
United States	↑	↑	↑	↓		↓		↓	↑

  Bank failures occurred involving losses on the part of unsecured creditors.

  Actual bank failures occurred where subordinated but not necessarily senior bondholders suffered losses.

  New resolution regimes in effect, facilitating creditor involvement in loss-sharing, even if no actual losses yet.

  None of the three situations described above apply.



Arrows indicate the change in value of implicit guarantees for the top 5 banks in each of the selected jurisdiction (top 4 banks for Belgium, Finland, New Zealand), if there was any change. In Iceland, rating refers to one bank, withdrawn in early 2009.

**Notes :** In New Zealand, a new resolution regime was proposed but has not yet been put in place. In United Kingdom, a temporary resolution regime had been introduced in February 2008 before a special resolution regime was enacted in February 2009. In the United States, creditors have continued to suffer losses as part of bank failure resolution.

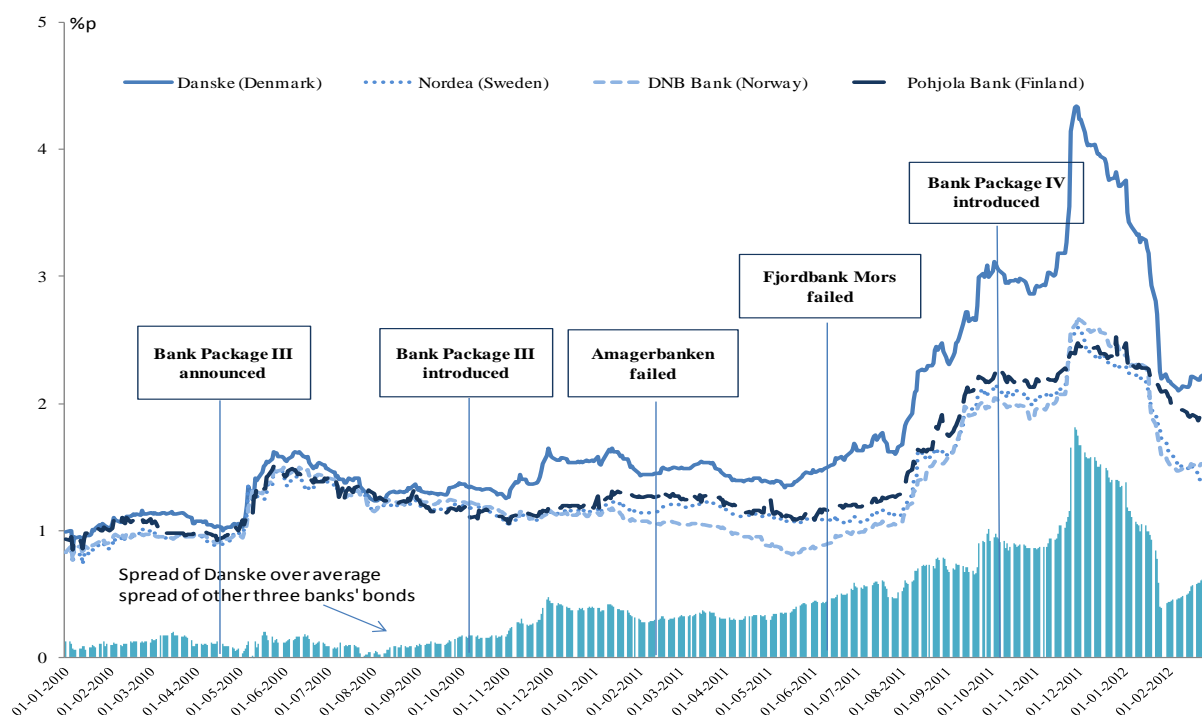
**Source :** OECD Secretariat estimates based on the information contained in Appendix 1 and 3.

For sure, implicit guarantees also declined in some other countries where senior bondholders did not incur any losses but where new resolution regimes were adopted. In fact, Moody's explicitly referred to a change in resolution policies as a rationale for reducing rating uplifts in some cases. For example, in the case of the rating changes for 12 German banks in November 2011, the agency noted that "future government (or systemic) support for German public-sector banks has become less certain, partly owing to the new bank resolution regime that enables the government to impose losses on creditors outside of liquidation". This type of rating agency commentary is consistent with the observation that, subsequent to the introduction of the bank restructuring law in early 2011, mark-to-market losses on bonds were higher than those on shares in the case of two large German banks.

More generally, however, evidence suggesting that current efforts to establish more effective resolution regimes are reflected in compressions of the value of implicit guarantees is mixed. For example, Van Roy and Vespro (2012) find that *none* of the recent changes in the assessment by FitchRatings of extraordinary external support for the debt of large European banks does seem "to already reflect a belief that financial reforms will have a highly positive impact on the resolvability of banks". For example, Moody's rating actions vis-à-vis German banks during the summer 2012 seemed to be closely related to the reassessment of the country's Aaa rating in July 2012 and an assumed reduced capacity (e.g. reflecting "pressure to provide support for the union's struggling members"),<sup>14</sup> as opposed to the effects of the availability of new resolution tools.

Taking the various pieces of evidence together, it is suggested here, improved resolution regime can be helpful in reducing the perception of implicit guarantees for bank debt. Having a resolution regime in place that is judged effective on paper may not be a sufficient condition, however, for reducing the value of implicit guarantees for unsecured senior bank. In fact, the value of such guarantees did not decline in all countries where new resolution regimes have been adopted (Table 1). They did always decline however whenever senior unsecured bank bond investors did incur losses during failure resolution.

**Figure 8: Yield spreads of selected Scandinavian bank bonds**



**Notes :** Spreads of comparable bank bond with 5-year maturity issued between May and June 2009 and maturing between May and June in 2014 as compared to German sovereign bond maturing in July 2014.

**Source :** OECD Secretariat estimates based on Thomson Financial Datastream.

**Table 1: Change in incidence of implicit bank debt guarantees and selected potential determinants**

Country (Number of banks having experienced a rating change)	Decrease in weighted average banking sector uplifts since 2011	Sovereign credit strength decline since 2011	Failure resolution regime refined between 2008 and 2012	Actual losses incurred by bank creditors between 2008 and 2012
Australia (12)				
Austria (6)	•		•	
Belgium (5)		•	•	
Denmark (9)	•		•	•
Finland (4)				
France (13)				
Germany (21)	•		•	
Greece (7)	•	•	•	•
Ireland (8)	•	•	•	•
Italy (36)	•	•		
Luxembourg (5)	•			
Netherlands (6)	•		•	
New Zealand (4)	•		(•)	
Norway (3)	•			
Portugal (7)	•	•	•	
Spain (16)	•	•	•	
Sweden (4)	•			
Switzerland (5)			•	
United Kingdom (25)	•		•	•
United States (34)	•		•	•

**Notes:** OECD Secretariat estimates. The sample consists of 229 banks that have experienced a change in either their stand-alone or all-in credit rating from the beginning of 2011 to July 2012. The numbers in parentheses refer to the number of banks in each country. Average change in uplifts per country are weighted average changes, with weights proportional to bank size as measured by total assets. In New Zealand, a new resolution regime has been proposed. In the case of Portugal and Netherlands, losses were incurred, although only in the case of one failure of a very small bank. In some countries, some types of resolution regimes had been in place prior to the period considered here; for more details see BCBS (2011).

## V. Involving bondholders in loss-sharing appears more difficult in practice than in theory

Involving unsecured senior bondholders in loss sharing in the context of bank failure resolutions appears to be relatively straightforward in theory, but has so far proved to be much less so in practice, despite numerous pronouncements by policymakers of their intent to involve bondholders in loss-sharing arrangements.

For example, subordinated debt holders experienced losses in the case of Ireland in late 2010, consistent with the explicit design of the EU-IMF support package, but unsecured senior bond holders were paid in full, even in the case of Anglo Irish Bank, which was widely assessed as being insolvent. In Spain, while a (draft) Memorandum of Understanding describing the conditions under which the EU would provide funds to recapitalise the Spanish banking sector identified as a key issue how the plan would treat creditors of insolvent banks, it stopped short of emphasising the role for bail-ins of unsecured senior creditors. Bail-in instruments and mandatory haircuts are foreseen by EU regulatory proposals, but entry into force of these instruments is likely in 2018 only. These various observations raise the question as to why it is so difficult to involve unsecured bondholders in burden-sharing in the case of bank failure resolution.

*One explanation is that new resolution measures developed over the past few years in many OECD countries that foresee the involvement of unsecured creditors in loss-sharing during failure resolution have not been fully rolled out.* In New Zealand, for example, banks as of mid-2012 had not completed the necessary information technology changes for the open bank resolution tools to function, so use of such tools was effectively not yet an option for public authorities. That said, the announcement that a framework for open bank resolution was being put in place seemed to have caused a removal of credit rating uplifts for subordinated bank debt in that case.

Even if resolution instruments are in principle available, the observation that they have not been tried and tested may make policymakers reluctant to have recourse to them. More fundamentally, as long as resolution regimes do not include effective automatic triggers, the well-known time-inconsistency issue arises and, ex post, it might turn out to be more attractive to be softer than announced ex ante. Some specific additional explanations have surfaced during the recent financial crisis.

*Concerns about contagion may explain the reluctance of authorities to let creditors of even small banks incur losses.* But contagion is not automatic. The risk of contagion reflects uncertainty on the part of market participants about the true situation of banks and the fear that the collapse of one bank could lead to the collapse of another bank with losses imposed on its creditors.<sup>15</sup> If authorities could reduce the uncertainty about other banks' futures with measures such as credible stress tests to help market participants distinguish between viable and unviable banks, they could let banks fail more easily without sacrificing stability in financial markets. That said, to allow large, complex and internationally active banks fail in an orderly manner requires a rich set of instruments many of which are still being developed.

Authorities might also feel inclined to *avoid imposing losses on bondholders at a time when unsecured bank funding is under pressure and might be completely closed off by concerns about diminished public support.* What happens, for example, when implicit guarantees are withdrawn and (assuming withdrawal is feasible) how fast can they or should they be withdrawn? Is there another type of funding that can replace the issuance of unsecured bonds? The proliferation of swaps, especially at systemically important banks, and the recent trend towards *de facto* priority given to some official creditors has the potential to exacerbate an already unfavourable environment for the issuance of unsecured bank bonds (see e.g. BaFin, 2012). In fact, covered bond issuance has succeeded in largely replacing issuance of unsecured bonds, but the supply of acceptable collateral may be nearing its limits. Moreover, collateralised debt instruments represent a call on bank assets the extent of which is not well-known. There is growing recognition that the extent of encumbrance of bank balance sheets might be growing, but the extent to which is not known with certainty, and this lack of transparency further complicates bank efforts to fund on a non-collateralised basis. What, if anything, policy should do to address these developments is an open question. Certainly, in any case, greater transparency about its extent is needed. These various considerations do not provide a convincing justification for subsidising one specific type of bank funding.

Discussions at the meeting of the CMF revealed that *a first-mover advantage from being tougher on creditors than other jurisdictions is perceived to be unavailable.* Such a course of action would most likely put domestic banks at a funding disadvantage compared to their international peers from jurisdictions where no such stance was adopted. This situation puts a premium on internationally coordinated efforts, such as those being pursued within the European Union to develop effective cross-border resolution regimes.<sup>16</sup>

Yet another explanation for the difficulty of imposing losses on bondholders is related to *concerns about depositor protection.* The fate of depositors, who for various reasons are typically afforded greater protection than other bank creditors, may become inextricably linked with those of bond investors, making authorities reluctant to impose losses on the latter. Such links are created, for example, through bond contracts that contain clauses that have the effect of ranking these claims *pari passu* with those of

depositors in the event of a wind-up of a bank. Such clauses are not uncommon and reportedly characterise a number of (senior) bonds issued by Spanish banks.<sup>17</sup> Absent explicit legal depositor preference, such clauses hamper the protection of depositors in the case of a court-ordered wind-up, although such types of failure resolution events are generally rare.

Fortunately, there exist various ways to provide extra protection for depositors. One of them is through explicit deposit insurance, which has now been adopted in almost all CMF participating jurisdictions. In principle, the protection provided could be reinforced by explicitly granting (insured) depositors priority claims on the assets of failed banks ahead of unsecured creditors, known as “depositor preference” (Box 2). Introducing legal depositor preference, where it does not exist yet, implies that other classes of creditors, such as existing and potential investors in unsecured banks bonds, will be subordinated in failure resolution. While this situation in turn would add to the above-described pressures on this type of funding, it would also imply an extra protection to depositors. Such protection is especially desirable to the extent that deposit insurance schemes are only pre-funded to a limited extent, which is typically the case, although an alternative is to complement existing deposit guarantee schemes with bank restructuring funds, such as those introduced in Sweden and Germany (see e.g. Schich and Kim, 2010 and Nieto and Garcia, 2012). The issue of “depositor preference” is in fact on the policy agenda in some CMF-participating jurisdictions, but the discussions at the CMF meeting did not yield a clear consensus regarding the question whether such legal priority should be introduced when it does not exist.

Additional protection for depositors could be achieved through a “ring-fence” of bank activities: Ring-fencing motivated by depositor protection concerns essentially prohibits banks that accept retail deposits from undertaking a range of activities that are not directly connected to providing payment services and making loans. Such an approach, to be implemented in the United Kingdom (HM Treasury, 2012), has the advantage that it provides extra protection for depositors by limiting risk-taking on the part of banks while at the same time facilitating the resolvability of banks. In addition to this measure, (insured) depositors in that country will be given legal preference in the event of bank insolvency.

The approach taken in the United Kingdom is somewhat similar to, although in some ways more restrictive than, the Volcker rule that is being implemented in the United States, whereby the ability of banks to undertake proprietary trading is constrained. The latter rule also seeks to separate the fate of depositors to some extent from non-traditional banking activities such as capital market investment banking (here in particular proprietary trading), even if the focus is put less squarely on the former. Somewhat similarly, the *High-Level Expert Group on reforming the structure of the EU banking sector* (“Liikanen Group”, 2012), established by the EU Commission to assess whether additional reforms directly targeted at the structure of individual banks would further reduce the likelihood and effect of bank failure, concluded that it is necessary to require legal separation of certain particularly risky financial activities, including trading activities, from deposit-taking within a banking group. Unlike the approach to be implemented in the United Kingdom, which puts a ring-fence around deposit-taking activities within a banking group (also requiring higher capital buffers for that part), the latter proposal foresees a ring-fence around risky trading activities within a banking group. These recently adopted or proposed approaches are also similar to the approach proposed by the OECD Secretariat from the outset of the crisis a few years ago, which is to impose the specific structure of a non-operating holding company on financial institutions to separate retail and investment banking (e.g. Blundell-Wignall *et al.*, 2008).

Investor protection concerns have come into the spotlight recently as an additional explanation for why it is so difficult to impose losses on unsecured senior and even junior creditors. In fact, under certain circumstances ***concerns may arise about the nature of investors exposed to potential losses and investor protection***, making it more difficult to implement the principles of effective resolution. Such concerns have arisen at various times, including most recently in the case of Spain, whereby banks sold subordinated debt obligations with equity-like characteristics to retail customers, including a large number of small

depositors. Such investments are arguably not appropriate for those retail customers that are seeking stable and reliable returns. In this context, some observers have argued that the bank failure resolution regime should be guided by, or at least take into account, the identity of investors and the circumstances of their original investment decisions. They argue that in cases where risky products have been mis-sold, retail investors should not incur losses from their investment choices. In the recent case of Spain, allegations that Spanish banks mis-sold subordinated obligations have received support in recent Spanish Court rulings.

But it is one thing to argue that investors should receive protection from misconduct on the part of financial service providers and quite another to argue that such concerns should affect the form of resolution, especially where doing so requires that the ranking order of financial claims is revisited *ex post* as a function of the identity of the holder of the claims. Sparing subordinated debt holders from losses in the winding down of a failed bank runs counter to the principles of effective resolution and would set a bad precedent for subsequent bank resolutions elsewhere.

Concerns for retail investor protection, though clearly valid, could in principle be separated from effective failure resolution. For example, Spanish authorities could make retail investors whole after the fact; that is, they could specify criteria for compensation claims to be submitted by retail investors. In fact, the draft MoU mentioned above calls for a reform of Spanish consumer protection laws, which provides an opportunity to address this issue.<sup>18</sup> A fundamental question remains whether and to what extent the category of investor should determine the legal quality of a debt instrument, either prior to or during insolvency proceedings.

#### Box 2: Depositor preference

**What is depositor preference?** Depositor preference refers to the ranking of claims in the case of insolvency of a bank. If the claims of other unsecured creditors of a bank are subordinated to those of depositors, the latter benefit from “depositor preference” in insolvency. Under those circumstances, depositors (or the deposit insurer when it is subrogated to the rights of depositors) have priority to proceeds from a failed bank over other senior unsecured creditors. In practice, there are different forms of depositor preference according to the scope of preference provided. For example, *general depositor preference* gives preference to all deposits of a bank, irrespective of their deposit insurance eligibility or the location where the deposits are booked or payable, while *insured depositor preference* covers only insured deposits. In the latter case, the uninsured amount of a deposit is treated as an unsecured senior creditor claims.

**What are the considerations regarding the introduction of depositor preference?** Depositor preference offers additional protection and presumably higher recoveries for depositors (or the deposit insurer), thus reducing their incentive to run on a failing bank. It can be expected to reduce the eventual costs of providing the function of deposit insurance, thus limiting the burden on the part of taxpayers to share in the costs of bank failure resolution. It tends to increase the incentive on the part of holders of non-preferred liabilities, such as unsecured bank bonds, to monitor the risk-taking by banks more closely. Depositor preference also facilitates the implementation of resolution options such as partial transfers of assets and liabilities, as a resolution authority could otherwise face additional legal challenges. In particular, if it transferred deposits to a good bank and left other liabilities in the failed old bank it could face legal actions under the statute requiring equal treatment of creditors.

Depositor preference could however have adverse effects on banks’ overall funding conditions. Non-deposit creditors might take actions to better protect themselves through collateralizing their claims and shortening the terms of maturity of them so as to be able to exit earlier. These creditors might also impose additional charges to compensate for the lower expected recovery in case of default (or simply avoid providing additional funds). Depositor preference could also impair the incentives of the “preferred” depositors to monitor risks of banks. Empirical evidence, although not conclusively, suggests that, overall, depositor preference enhances market discipline and lowers resolution costs to the deposit insurer, while it also tends to induce non-preferred creditors into protecting themselves through requiring more collateral.

**Where does depositor preference exist?** Depositor preference laws exist in a number of jurisdictions around the world, including Australia, Argentina, Chile, Hong Kong (Hong Kong, China), Iceland, Russia, Switzerland, and the United States. While Chile, Hong Kong and Switzerland limit preference to insured deposits, Australia and the United

States extend preference to all deposits. Some jurisdictions like Australia and Russia introduced deposit preference before explicit deposit insurance scheme was put in place (Turner, 2011). The Icelandic parliament, through emergency legislation in 2008, granted depositors priority over other claims on the estates of stressed Icelandic banks.

The FSB conducted a public consultation<sup>19</sup> in July 2011 on the issue of depositor preference, in particular, on the question whether greater convergence in the treatment of deposit claims should be pursued further at the international level. A majority of respondents saw greater convergence as a desirable objective, while most expressed concern about any preference based on nationality, residence or the jurisdiction. Against this background, the FSB's *Key Attributes* do not provide strong recommendations regarding the desirability of introducing depositor preference where it does not exist; the *Key Attributes* note "*National laws and regulations should not discriminate against creditors on the basis of their nationality, the location of their claim or the jurisdiction where it is payable. The treatment of creditors and ranking in insolvency should be transparent and properly disclosed to depositors, insurance policy holders and other creditors*"(7.4).

## VI. Concluding remarks

Implicit guarantees, as measured by credit rating agency assessments of expected support from public authorities, persist. While perceptions regarding such guarantees existed long before the global financial crisis, it is clear that beliefs to that extent intensified between 2007 and 2009, largely due to the policy response to the financial crisis (OECD, 2011). That response consisted in part of making available to banks the government-supported function of the lender of last resort in a more explicit form (Schich, 2009). This choice of policy response partly reflected the observation that sufficiently smoothly functioning failure resolution mechanisms either were not available in most jurisdictions or were not considered capable of handling very large complex institutions.

This particular shortcoming has been openly acknowledged and bank failure resolution regimes have been improved over the past few years in several countries, especially since 2010. The availability of more effective tools to achieve an orderly unwinding of banks is helpful and should help reduce the need for public authorities to provide support to banks in distress that are considered too big, too interconnected or too important otherwise to be allowed to fail. The progress made in this regard, especially since 2010, is indeed broadly consistent with the decline in implicit guarantees observed since their peak in 2009.

Nonetheless, perceptions that implicit guarantees are still on offer persist even where resolution regimes considered to be effective have been introduced. In fact, measured declines in the perceived value of implicit guarantees can in many cases be traced back primarily to the effects of declining credit strength of some of the associated sovereigns (Schich and Lindh, 2012).

This observation, it is suggested here, reflects the fact that despite recent progress regarding the establishment of effective resolution regimes, in actual practice bank debt holders rarely incur losses. The recent experience in this global financial crisis has not been a significant exception from that observation. In fact, in many countries, while shareholders incurred significant losses in the context of bank failures, investors in unsecured senior debt typically did not and even investors in subordinated bank bonds often did not. Such outcomes are consistent with the view that at least some types of bank debt continue to benefit from an implicit guarantee.

Where that is the case, creditors have more limited incentives to exercise market discipline. But in the absence of effective market discipline, the burden falls on regulation and supervision to ensure that banks limit their risk-taking (Huertas, 2011). Thus, the crisis is likely to provoke an increase in the restrictiveness of regulation. This, in turn, may imply that the balance of ensuring financial stability versus enhancing efficiency of financial intermediation is tilted towards the former.

In those rare cases in which the role of market discipline was strengthened and holders of unsecured senior bank debt did incur losses (typically in the context of the failures of rather small banks), there is

clear evidence of a decline in implicit bank debt guarantees in that country, especially but not exclusively in the case of smaller banks.

In fact, in countries where legal changes towards improved resolution regimes occurred *together* with subsequent actual failure resolution cases involving losses on the part of at least some bank debt holders, there were noticeable changes in the measured incidence of implicit guarantees. This observation suggests that changes in resolution regimes can have particularly powerful effects in terms of reigning in perceptions of implicit support when the new instruments are in fact applied.

To what extent the experience made in the context of small banks can be transferred to the case of large, complex, international banks is not so clear, at least not at this point in time. In fact, no recent experience exists regarding the effective and smooth resolution of what is considered a systemically important bank, as resolution and recovery instruments to deal with the failure of these entities are still being developed.

More remarkable observation is that even creditors of small banks typically do not incur losses. This situation implies that bank debt holders more generally do not have sufficiently strong incentives to exercise their monitoring function vis-à-vis the activities of banks and in particular their risk-taking. Events preceding the financial crisis contradicted the notion that bank debt is an effective disciplining device and, so far, the policy response has not been successful in re-establishing it.

In this context, size continues to matter. In fact, it may even matter more than it previously did. Where the value of implicit guarantees declined recently, it was mostly, although not exclusively, in the case of smaller banks, irrespective of the likely determinants (i.e. capacity of the sovereign to provide for the guarantees vis-à-vis perceived change in resolution practices). In any case, as a result of these developments, the relative funding advantage from implicit guarantees for large as opposed to small banks is likely to have even increased, thus tending to increase the competitive distortions between large and small banks.

There appears to be the perception that there is no first-mover advantage from being tougher on creditors than other jurisdictions, as such a course of action would put domestic banks at a funding disadvantage compared to international peers from jurisdictions where no such stance was adopted. This situation puts a premium on internationally coordinated efforts to reign in implicit guarantees, including those pursued within the European Union to develop an effective cross-border bank failure resolution framework. In fact, there was widespread support for the suggestion that bank resolution regimes must be harmonised internationally to be effective. In this context, even those European jurisdictions that had only recently introduced new national bank failure resolution regimes expressed their strong support for the introduction of a new harmonised EU bank resolution regime.

## APPENDIX 1: OVERVIEW OF RECENT CHANGES IN BANK RESOLUTION LEGISLATION IN SELECTED JURISDICTIONS

Countries	Legislation	Comments
Austria	Supervisory Guidelines, 2012	Consultative document released with proposals to strengthen resolution powers. Large internationally active banks obliged to submit group-wide recovery and resolution plans to the supervisory authority.
Belgium	Financial Crisis Law, 2010	New resolution tools such as transfer of part or all of the bank's rights and obligations introduced.
Denmark	Danish Financial Stability Act, 2008	A government-owned winding-up company established to acquire failed banks. Full guarantee to unsecured creditors and depositors.
	Amendment, 2010	Above-mentioned guarantee withdrawn. Separate fund called 'Winding Up Fund' established to fund resolution.
Germany	Bank Restructuring Act, 2010	Strengthened crisis management and resolution powers introduced in 2011. Assets and liabilities of a failed bank can be transferred to a bridge bank by the supervisor if voluntary restructuring and reorganization not expected to be successful. Introduction of a two-stage recovery and reorganisation procedure for banks. Bank Restructuring Fund established.
Greece	Amendment of the Banking Act, 2011	Comprehensive resolution tools such as bridge bank and purchase and assumption introduced. Resolution fund established within the Deposit and Insurance Guarantee Fund for funding resolution
Iceland	Emergency Act, 2008	The authority can assume the powers of a shareholders' meeting, thus taking control over operations of bank.
Ireland	Credit Institutions (Stabilization) Act, 2010	Various new resolution tools for Ministry of Finance with regard to banks receiving government support. Contract terms on subordinated bonds can be modified by Ministry of Finance.
	Central Bank and Credit Institutions (Resolution) Act, 2011	Resolution powers transferred from Ministry of Finance to the Central Bank. Credit institutions' resolution fund to be introduced.
Netherlands	Act on Special Measures for Financial Institutions, 2012	New resolution powers for the Dutch Central Bank and the Dutch Ministry of Finance. Power to carry out a sale of a problem institution to a private party or bridge institution by transfer of shares. Power to transfer assets and liabilities of a problem institution to a private party or bridge institution in whole or in part.
New Zealand	Open Bank Resolution (Proposal, 2011)	Tentative haircut on creditors of a failed bank is possible before final resolution is determined
Portugal	Amendments to the resolution regime for credit and financial institutions, 2012	Resolution mechanisms for the orderly winding-down of banks including early intervention and comprehensive tools introduced, including total or partial sale of business and the setting up of a bridge bank. Resolution fund within the Banco de Portugal established, to be funded by the industry.
Spain	Law on Bank Restructuring and Credit Institution Equity Reinforcement, 2009	Fund for Orderly Bank Restructuring (FROB) established to facilitate bank restructuring.
	Royal Decree-law 24/2012	Resolution powers including partial transfer of assets of failed banks to a bridge bank given to FROB. Includes powers to impose losses on subordinated but not senior unsecured liabilities ("limited bail-in"). Resolution tools include sale of assets or business lines of a failing bank and transfer to a bridge bank or asset management company.

Switzerland	Amendment of the Banking Act, 2011	Resolution regime strengthened as a result of legislative changes in 2008, 2011, and 2012. Comprehensive resolution tools and insolvency procedures for restructuring or winding up domestic financial institutions, including ring-fencing or transferring systemically important functions of systemically important banks.
United Kingdom	Banking Act, 2009	Special Resolution Regime introduced in 2009. Comprehensive resolution tools such as temporary public ownership, transfer to bridge bank, and insolvency procedure provided to the authorities. The Financial Services Act from 2010 asks banks to provide recovery and resolution plans.
United States	Dodd-Frank Act, 2010	Orderly Resolution Mechanism introduced which extends FDIC powers to systemically important non-deposit financial companies. Also requiring financial companies to maintain orderly resolution plans.

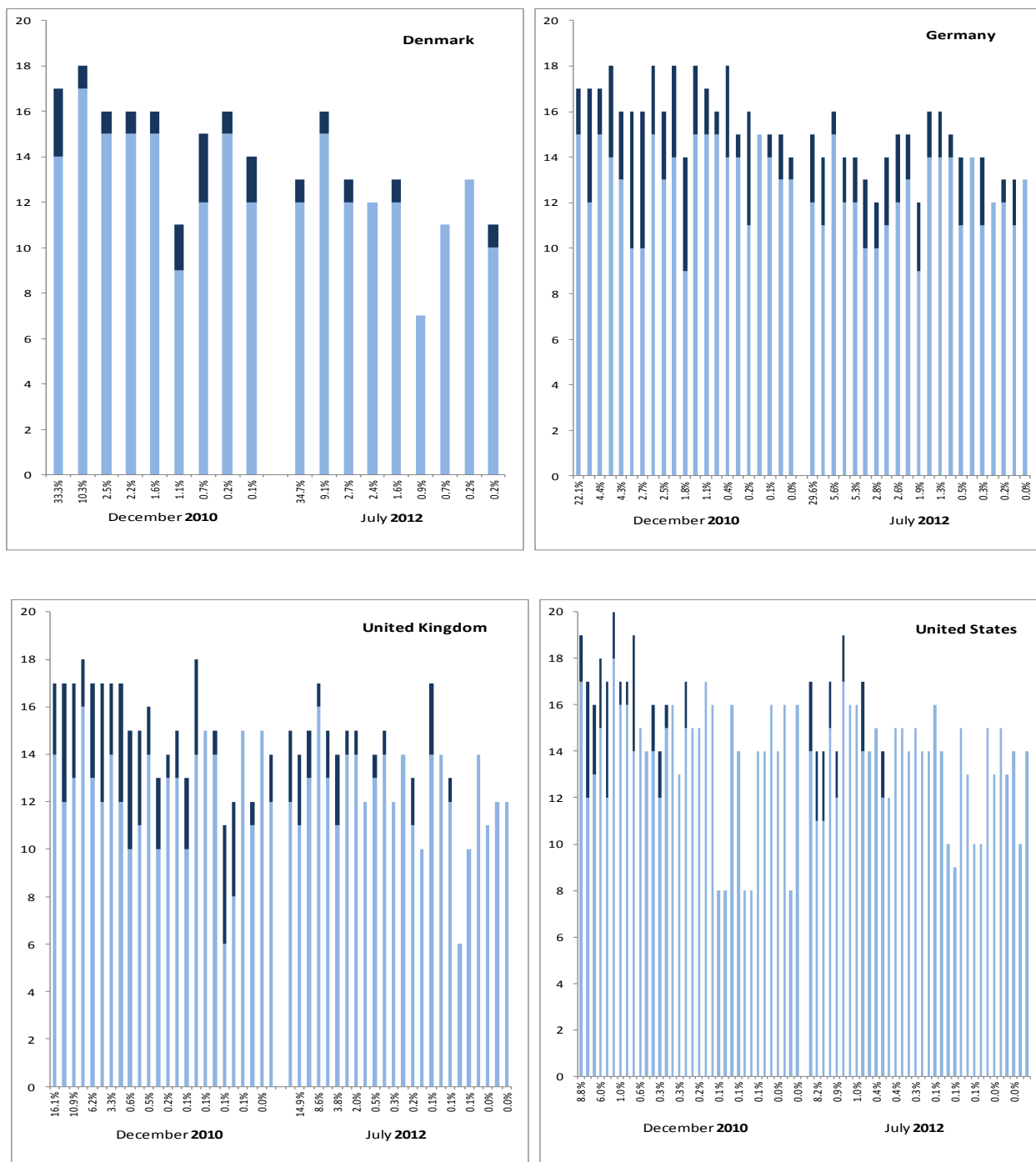
**Source:** OECD Secretariat assessments based on Veron (2011), FSB *Resolution of Systemically Important Financial Institutions – Progress Report* (November 2012), KGD Law Firm's Newsletter Banking & Finance (October 2011), "New law 4021/2011: Bridge bank and other preventive and resolution measures for Greek banks", public information from Treasury and central bank websites, and informal communications from CMF Delegates.

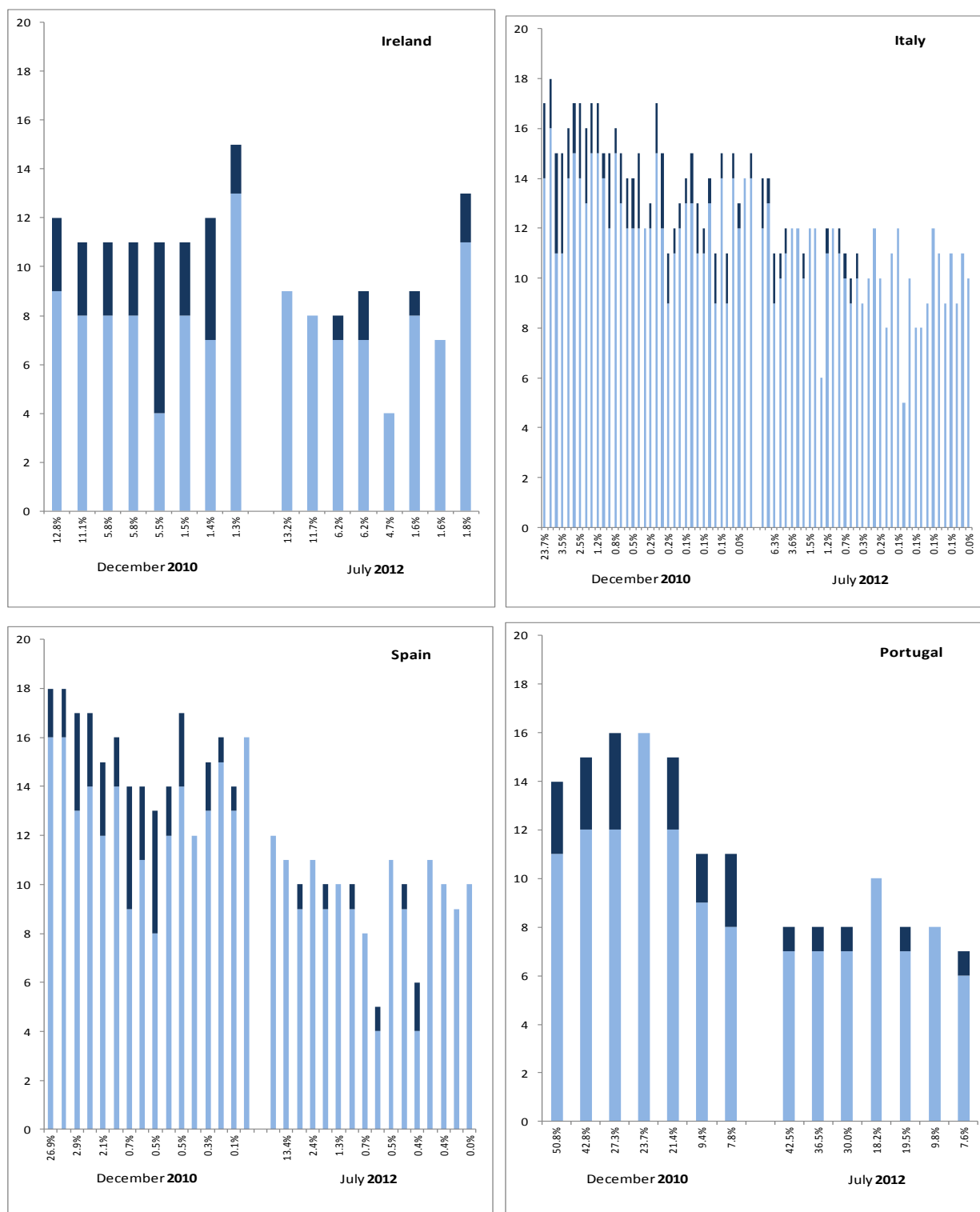
## APPENDIX 2: CHANGES FOR BANKS EXPERIENCING RATING ACTIONS SINCE 2011

### Stand-alone and all-in ratings of banks in selected countries

(banks for which either stand-alone or all-in ratings were changed since beginning of 2011)

Stand-alone rating (including parent support)      "Uplift" due to government support





**Notes :** Government support uplifts include regional government support and systemic support. The labels on the bars indicate relative size of each bank's asset as of total assets of banking industry in respective country at the end of 2010.

**Source :** OECD Secretariat estimates based on Moody's and Bankscope.

## APPENDIX 3: INCIDENCE OF LOSSES IN SELECTED CASES OF BANK DISTRESS

Country	Banks	Date of failure (or recapitalisation)	Size of bank (in % of total domestic sector)	Stakeholders' loss-bearing				
				Shareholders	Subordinated bondholders	Senior unsecured bondholders	Depositors	
							In excess of ceiling	Below maximum coverage ceiling
Austria	KommunalKredit	Nov 2008	2	●	O	O	O	O
	Hypo Alpe Adria	Dec 2009	0.7	●	O	O	O	O
	Oesterreichische Volksbanken	Feb 2012	4	◎	O	O	O	O
Belgium	Fortis Bank	Sep 2008	47	◎	O	O	O	O
	KBC Bank	Oct 2008	19	◎	O	O	O	O
	Dexia Belgium	Sep 2008 /Nov 2011	16	◎	O	O	O	O
Denmark	Roskilde Bank	Aug 2008	0.5	●	●	O	O	O
	EBH Bank	Nov 2008	0.1	●	●	O	O	O
	Løkken Sparebank	Mar 2009	0.02	●	●	O	O	O
	Gudme Raaschou Bank	Apr 2009	0.05	●	●	O	O	O
	Fionia Bank	May 2009	0.3	●	●	O	O	O
	Capinordic Bank	Feb 2010	0.02	●	●	O	O	O
	Eik Banki P/F and Eik Bank Denmark	Sep 2010	0.3	●	●	O	O	O
	Amagerbanken	Feb 2011	0.4	●	●	(●)	(●)	O
	Fjordbank Mors	Jun 2011	0.1	●	●	(●)	(●)	O
	Max Bank	Oct 2011	0.1	●	●	O	O	O
	Sparekassen østjylland	Apr 2012	0.07	●	●	O	O	O
	Spar Salling Sparekasse	Apr 2012	0.02	●	●	O	O	O
France	Dexia Crédit Local	Sep 2008 /Nov 2011	3	◎	O	O	O	O
Germany	Weser Bank	Apr 2008	0.001	●	n.a	n.a	O	O
	Hypo Real Estate	May 2009	5	●	O	O	O	O
	IKB	Jul 2009	0.6	◎	O	O	O	O
	Commerzbank	Nov 2008	7	◎	O	O	O	O
	BayernLB	May 2009	5	◎	O	O	O	O
	WestLB	Nov 2009 /Jun 2012	3	◎	O	O	O	O
	HSH Nordbank	Mar 2009	2	◎	O	O	O	O
Greece	Proton Bank	Oct 2011	0.9	●	●	n.a	O	O
	T Bank	Dec 2011	0.6	●	●	n.a	O	O
	Cooperative Bank of Lesvou-Limnou	Mar 2012	0.02	●	n.a	n.a	O	O

	Cooperative Bank of Lamia	Mar 2012	0.02	●	n.a	n.a	O	O
	Achaiki Cooperative Bank	Mar 2012	0.07	●	n.a	n.a	O	O
	Agricultural Bank of Greece	Jul 2012	6	●	●	n.a	O	O
Iceland	Landsbanki	Oct 2008	29	●	●	●	O	O
	Glitnir	Oct 2008	5	●	●	(●)	O	O
	Kaupthing	Oct 2008	50	●	●	(●)	O	O
Ireland	AIB	Dec 2010	12	◎	(●)	O	O	O
	Anglo Irish Bank	Jan 2009	6	●	(●)	O	O	O
	Bank of Ireland	Jun 2010	13	◎	(●)	O	O	O
	EBS Building Society	Dec 2009	1	n.a	(●)	O	O	O
	IL& P	Jul 2011	6	◎	(●)	O	O	O
	INBS	Dec 2009	0.8	n.a	(●)	O	O	O
Luxembourg	Fortis Banque Luxembourg	Dec 2008	8	◎	O	O	O	O
Netherlands	ABN AMRO	Dec 2008	7	◎	O	O	O	O
	DSB Bank	Oct 2009	0.3	●	●	(●)	(●)	O
Portugal	Banco Portugues de Negocios	Nov 2008	2	●	O	O	O	O
	Banco Privado Portugues	Apr 2010	0.3	●	●	(●)	(●)	O
Spain	Cajasur	May 2010	0.4	●	O	O	O	O
	Banco CAM	July 2011	0.03	●	O	O	O	O
	Nova Caixa Galicia	Sep 2011	2	◎	O	O	O	O
	Catalunya Caixa	Sep 2011	2	◎	O	O	O	O
	Unnim	Sep 2011	0.6	●	O	O	O	O
	Banco de Valencia	Nov 2011	0.5	◎	O	O	O	O
	BFA-Bankia	May 2012	7	◎	O	O	O	O
Sweden	Carnegie Investment Bank	Nov 2008	0.5	●	O	O	O	O
	HQ Bank	Aug 2010	0.1	◎	O	O	O	O
Switzerland	UBS	Oct 2008	51	◎	O	O	O	O
United Kingdom	Northern Rock	Feb 2008	1	●	(●)	O	O	O
	Bradford & Bingley	Sep 2008	0.7	●	(●)	O	O	O
	Heritable Bank	Oct 2008	0.02	●	●	(●)	O	O
	Kaupthing Singer & Friedlander	Oct 2008	0.07	●	●	(●)	O	O
	London Scottish Bank	Nov 2008	0.005	●	n.a	(●)	O	O
	Dunfermline Building Society	Mar 2009	0.04	●	(●)	O	O	O
	Southsea Mortgage Investment	Jun 2011	0.0001	●	n.a	(●)	(●)	O
	RBS	Oct 2008	14	◎	O	O	O	O
	Lloyd	Oct 2008	5	◎	O	O	O	O

United States	Washington Mutual Bank	Sep 2008	2	●	●	(●)	O	O
	IndyMac Bank	Jul 2008	0.2	●	●	●	(●)	O
	Colonial Bank	Aug 2009	0.1	●	●	●	O	O

●: full loss (either 100% haircut for bondholders or wiping-out of common shareholders).

(●): partial loss.

⊙: dilution or share price depreciation as a result of recapitalization by the government.

O : no loss.

n.a : not applicable.

**Notes:** The table provides a simple checklist approach to identifying cases where losses have been incurred by investors in different types of financial instruments. For simplicity, the table considers, in addition to “Tier 1 capital” also “Upper Tier 2” instruments under the column ‘shareholders’, while considering ‘plain vanilla’ subordinated debt under the column “subordinated bondholders” (see also discussion in Moody’s, 2009, especially table on page 5). No attempt is made to assess the relative quantitative role of different funding instruments. Size of bank as a percentage of the total banking sector in each country, with size being measured by asset as of year-end prior to date of failure or recapitalization (Bankscope). In the case of Iceland, foreign depositors are not considered in the assessment. In Spain, BFA-Bankia is Banco Financiero y Ahorros (BFA) Bankia, created by a merger in 2009 of seven savings banks (Caja Madrid, Bancaja, Caja Insular Canarias, Caixa Laietana, Caja Avila, Caja Segovia, Caja Rioja). Bankia, an incorporated subsidiary of Banca BFA, was listed in 2011 on the stock exchange, with assets most exposed to housing market risks kept outside Bankia, on the balance sheet of BFA. The equity holdings of BFA (that is the shareholders of the seven constituent savings banks of BFA) will likely be wiped out, whereas a diluted minority private stake of Bankia will remain. In Germany, in the case of WestLB, losses have arisen to holders of “Genusscheine”, which are part of “Upper Tier 2” as long as they are not perpetual, according to new Basel III rules. UBS accounted for 51 per cent of total banking sector assets as of end-2007, although the share is lower at closer to 40 per cent more recently. In the case of Sweden, HQ bank is included although there was no recapitalization by the government; in that case, Swedish authorities revoked the banks’ licence and the shares were sold to another bank. For Greece, the information shown is based on an informal contribution from the Greek CMF delegation. Note that cases where governments subscribed to preference shares issued by banks in distress are not included in the table since such intervention is considered here not as diluting the value of shares directly. Examples include the cases of BCP and Banco BPI in Portugal in 2012.

**Source:** OECD Secretariat assessment based on IMF (2012), OECD country survey, company annual reports and other public information.

## NOTES

1. That said, even if there are no direct explicit charges, there might be indirect and/or unspoken charges. For example, direct beneficiaries of implicit guarantees might feel a tacit or moral obligation to return “favours” in some form, e.g. banks might continue to invest in domestic sovereign debt when other investors shy away from such instruments. Such tacit arrangements reinforce undesirably close links between banking and sovereign debt values.
2. Financial Stability Board, “Key Attributes of Effective Resolution Regimes for Financial Institutions”, October 2011, available at [http://www.financialstabilityboard.org/publications/r\\_111104cc.pdf](http://www.financialstabilityboard.org/publications/r_111104cc.pdf), henceforth referred to as “key attributes”. The CMF has discussed the issue of bank resolution on several occasions and had also developed a list of lessons (Lumpkin, 2008).
3. A recent contrarian view is provided by Damar, Gropp and Mordel (2012). The authors argue, on the basis on an analysis of the assessments by the credit rating agency Dominion Bond Rating Service (DBRS) of selected banks’ unsecured bank debt credit ratings, that public guarantees may not result in higher risk-taking under all circumstances. This finding is consistent with the claim that the net effect of public guarantees on risk-taking is ambiguous and depends on the interaction of charter value (which is increased by implicit guarantees) and moral hazard effects.
4. See HM Treasury (2012), p.3. Similarly, an open letter from February 2012 from a dozen European leaders to the president of the EC says “*implicit guarantees to always rescue banks, which distort the single market, should be reduced. Banks, not taxpayers, should be responsible for bearing the costs of the risks they take*”.
5. See e.g. the results of the Symposium on Crisis Management and the Use of Government Guarantees, available at <http://www.oecd.org/finance/financialmarkets/financialcrisismanagementandtheuseofgovernmentguarantees.htm>.
6. We here rely on Moody’s, as this approach allows us to construct consistent historical time series of measures of intrinsic strength and all-in ratings. Standard & Poor’s does not publish the two types of ratings we are interested in on a regular basis. FitchRatings recently changed its approach and now considers two types of external support, “extraordinary support” and ordinary support, acknowledging that the distinction between the two can become blurred in times of stress. Combining data from two agencies is difficult as the approaches to measuring external and interpretation of support factors differ considerably. Van Roy and Vespro (2012) and Packer and Tarashev (2011) provide very helpful overviews of the difference in methodologies between the three major agencies.
7. Where the long-term debt issuer rating is not available, we use either the long-term deposit or senior unsecured debt rating for the issuer.
8. This evidence is consistent with the results of the CMF’s earlier discussions (e.g. Schich and Lindh, 2012) and conceptual considerations regarding the role of the strength of the sovereign guarantor for the value of the guarantee (see Estrella and Schich, 2011).
9. The five banks are National Bank of Greece, Eurobank Ergasias, Alpha Bank, Emporiki Bank of Greece. The first four banks are large and considered systemically important, the latter is smaller
10. For the rationale of special resolution regimes for banks see e.g. Davies and Dobler (2011) and Hüpkes (2005).
11. In Indonesia, subsequent to the imposition of losses on unsecured creditors in November 1997, a bank run occurred, in response to which a blanket guarantee for bank liabilities was extended in January 1998.
12. One bank failure occurred in Portugal and the Netherlands respectively, in which unsecured creditors suffered losses, although these experiences did not seem to have reflected a deliberate change in resolution policy.

13. In the case of Iceland, the observation refers to the year 2009, which is the last date for which bank credit rating data was available.
14. SNL Financial, “German banks not immune from rating cuts”, 15 August 2012.
15. Such links could also reflect the existence of very significant holdings by banks of each others’ debt obligations. To reduce the potential systemic repercussions of haircuts on senior unsecured bonds under those circumstances, Krahnen (2011) suggests that a certain amount of bank debt be mandated to be held outside of the banking sector.
16. Spain introduced a new resolution regime which allows bail-in of subordinated but not senior debt. Authorities expressed their intention to also include the latter as part of harmonized bank resolution regimes on a European level.
17. Such clauses existed, for example, in the case of some subordinated bank bonds in Norway, which experienced a banking crisis in the early 1990s. Subsequent regulatory changes effectively discouraged the use of such clauses so as to ensure that bank bonds are written down as needed even if the bank is not closed. Norwegian authorities were reluctant to close banks given that, at that time, they did not yet have resolution tools that would facilitate banks to keep their core functions running while creditors are written down. Norion Bank, a small commercial bank, was placed under public administration however, and unsecured bank creditors experienced a significant haircut, while shareholders were wiped out (and non-bank depositors fully compensated). See e.g. Sandal (2004).
18. Obviously, the question remains whether the Spanish fiscal situation would permit a significant compensation. Typically, such compensation efforts would be determined by a country’s domestic fiscal capacity. In the specific issue of Spain, additional complications arise as a result of the fact that international support will be made available with a view to ensuring financial stability to that country. Using such funds directly for compensation of investors is undesirable, as it would nourish concerns that elements of the new European financial stability architecture are being used to effect fiscal transfers between countries without accompanying political accountability to the taxpayers.
19. *Discussion note on creditor hierarchy, depositor preference and depositor protection in resolution* (Annex 7 to “Effective Resolution of Systemically Important Financial Institutions”, July 2011).

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